INTEGRATED CONTINGENCY PLAN

Volume 1

KINDER MORGAN
ENERGY PARTNERS, L.P.

Pacific Operations

Prepared for:

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ACKNOWLEDGMENT AND PLAN APPROVAL

The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan.

The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

CERTIFICATION OF QUALIFIED INDIVIDUAL AND ALTERNATE QUALIFIED INDIVIDUAL

Kinder Morgan Energy Partners, L.P. hereby certifies that the individuals identified as Qualified Individual and Alternate Qualified Individual in this Plan have the full authority in accordance with the applicable federal and state regulations and as detailed in this Plan to:

1. Activate and engage in contracting with oil spill removal organizations.

2. Act as a liaison with the pre-designated Federal On-Scene Coordinate (OSC), and

3. Obligate funds required to carry out response activities.

Plan Approved:

_____ Date:_____

Wayne G. Simmons
V.P. of Operations
Kinder Morgan Energy Partners, L.P.

REVISION RECORD

CHANGE DATE	REMOVE PAGE NUMBER(S)	INSERT PAGE NUMBER(S)	DESCRIPTION OF CHANGE(S)
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipe Line, Kinder Morgan Liquid Terminals' West Coast Terminals (formerly GATX) and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	General Plan update; revisions to address DOT RSPA review
January 2005	Pgs. FWD-iii, FWD-ix, FWD-x, 2-30 thru 2-36, 2-40, 2-41, 2-45, 2-46, 2-49, 2-55, 5-1, Cross Reference-4	Pgs. FWD-iii, FWD-ix, FWD-x, 2-30 thru 2-36, 2-40, 2-41, 2-45, 2-46, 2-49, 2-55, 5-1, Cross Reference-4	Miscellaneous revisions
June 2005	Pgs. FWD-iii thru FWD-vi, 1-14, Section 2, 3-31 thru 3-33, Cross Reference-17, Cross Reference-19 thru Cross Reference-21	Pgs. FWD-iii thru FWD-vi, FWD-vi, 1-14, Section 2, 3-31 thru 3-33, Cross Reference-17, Cross Reference-19 thru Cross Reference-21	Revisions to Notifications
July 2005	Pgs. FWD-iii, 2-4, 2-7, 3-10, 3-11, 3-28, 3-34, 4-15	Pgs. FWD-iii, 2-4, 2-7, 3-10, 3-11, 3-28, 3-34, 4-15	Miscellaneous revisions
August 2005	Pgs. FWD-iii, FWD-x	Pgs. FWD-iii, FWD-x	Miscellaneous revisions
December 2005	Entire FWD, Entire TOC, 1-3, 1-4, 2-1 thru 2-4, 2-19 thru 2-81, 3-37 Section 4, Section 5, Cross Reference-1, Cross Reference-5 thru Cross Reference-7, Cross Reference-33, Correspondence-1	Entire FWD, Entire TOC, 1-3, 1-4, 2-1 thru 2-4, 2-19 thru 2-81, 3-37 Section 4, Section 5, Cross Reference-1, Cross Reference-5 thru Cross Reference-7, Cross Reference-3, Correspondence-1 and attachments	Miscellaneous revisions
December 2006	FWD-iii thru FWD-x, TOC-iv, 1-3 thru 1-18, 2-1, 2-2, 2-4 thru 2-10, 2-19 & inserts, 2-20 & inserts, 2-21 & inserts, 2-28, 2-30 thru 2-41, 2-44 & inserts, 2-45, 2-47, 2-48, 2-49, 2-51, 2-53 thru 2-59, 2-64, 2-65, 2-80, 2-81, 3-3, 3-11, 3-13, 3-20, 3-27, 3-28, 3-49, 4-1, 4-49, 5-21, 5-23 thru 5-69, Cross Ref-2, Glossary/Acronyms-14	FWD-iii thru FWD-x, TOC-iv, 1-3 thru 1-18, 2-1, 2-2, 2-4 thru 2-10, 2-19 & inserts, 2-20 & inserts, 2-21 & inserts, 2-28, 2-30 thru 2-41, 2-44 & inserts, 2-45, 2-47, 2-48, 2-49, 2-51, 2-53 thru 2-59, 2-64, 2-65, 2-80, 2-81, 3-3, 3-11, 3-13, 3-20, 3-27, 3-28, 3-49, 4-1, 4-49, 5-21, 5-23 thru 5-69, Cross Ref-2, Glossary/Acronyms-14	Miscellaneous revisions
May 2007	FWD-iii, Cross Reference-29-33	FWD-iii, Cross Reference-29-31	WAC 173-182 revision

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December 2007	FWD-iv thru x, TOC-i 1-3, 1-4, 2-2, 2-7, 2-8, 2-9, 2-22, 2-23, 2-46, 2-47, 2-50, 3-26, 4-28, Cross Reference-1, Glossary / Acronyms-3, Glossary / Acronyms-11	FWD-iv thru xi, TOC-i 1-3, 1-4, 2-2, 2-7, 2-8, 2-9, 2-22, 2-23, 2-46, 2-47, 2-50, 3-26, 4-28, Cross Reference-1, Glossary / Acronyms-3, Glossary / Acronyms-11	Annual update
December 2008	FWD-iv thru vii, FWD-x, FWD-xi, 1-1 thru 1-4, 1-9 thru 1-14, 1-16, 2-19 and Northern Region lists, 2-20 and Southern Region lists, 2-21 and Crisis List – Products Pipeline (4 pages), 4-1, Cross Reference-1thru 3, Cross Reference-10 thru 16, Cross Reference 29 thru end	FWD-iv thru vii, FWD-x, FWD-xi, 1-1 thru 1-4, 1-9 thru 14, 1-16, 2-19 and Northern Region lists, 2-20 and Southern Region lists, 2-21 and Crisis List – Products Pipeline (5 pages), 4-1, Cross Reference-1thru Cross Reference-3, Cross Reference-10 thru 16	Annual Review and update
January 2009	FWD-iv, FWD-xi, 1-6, 1-14, 3-28, Correspondence-1 and CA OSPR Approval Letters dated December 22, 2005	FWD-iv, FWD-xi, 1-6, 1-14,3-28, Correspondence-1 and CA OSPR Approval Letter dated May 29, 2008	Distribution, Notification Drill Form, ACP/GRP location and Agency Correspondence updates.
August 2009	FWD-iv thru xi, 1-11 and System Map, 1-12 and Northern Region Flow Diagram, 2-20 and PNR Phone Lists, 2-21 and PSR Phone Lists, 2-21 and Crisis Support Team List, 2-33, 2-34, 2-37	FWD-iv thru xi, 1-11 and System Map, 1-12 and Northern Region Flow Diagram, 2-19 and PNR Phone Lists, 2-20 and PSR Phone Lists, 2-21 and Crisis Support Team List, 2-33, 2-34, 2-37	Distribution and Internal Notification updates.
October 2009	2-47	2-47	Distribution and notification updates.
April 2010	FWD-iv, 1-3	FWD-iv, 1-3	ODEQ Regulatory Review.

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July 2010	FWD-v thru xii, TOC-ii, 1-1, 1-9, 2-4, 2-19 through 2-81, 3-1, Cross Reference-3, Cross Reference-4, Cross Reference-8 through 14, Cross Reference-17, Cross Reference-19, Cross Reference-23 through 28, Correspondence-1	FWD-v thru xii, TOC-ii, 1-1, 1-9, 2-4, 2-19 through 2-75, 3-1, 3-51, Cross Reference-3, Cross Reference-4, Cross Reference-8 through 14, Cross Reference-17, Cross Reference-19, Cross Reference-22 through 32, Correspondence-1, Insert Willbridge Terminal USCG Approval, Willbridge and Linnton Ops Manual Acceptance Letters	ODEQ Regulatory Review, administrative changes.
January 2011	FWD-v, 2-2, 2-11, 2-16, 2-19 and Northern Region Notification Lists, 2-20 and Southern Region Notification Lists.	FWD-v, 2-2, 2-11, 2-16, 2-19 and Northern Region Notification Lists, 2-20 and Southern Region Notification Lists.	Notification information updates.
February 2011	FWD-v, Cross Reference-1, Cross Reference-11 through Cross Reference-32	FWD-v, Cross Reference-1, Cross Reference-11 through Cross Reference-33	USCG Regulatory Changes
March 2011	FWD-v, FWD-vii, FWD-viii, FWD-xii, 1-1, Figure 2.3a, Figure 2.3b, Cross Reference-2	FWD-v, FWD-vii, FWD-viii, FWD-xii, 1-1, Figure 2.3a, Figure 2.3b, Cross Reference-2	Northern Region – Bay reorganization. Update contact information.
April 2011	FWD-v, FWD-vii, FWD-x through FWD-xii, 2-1, Figure 2.3a, Figure 2.3b, 2-29, 2-31	FWD-v, FWD-vii, FWD-x through FWD-xii, 2-1, Figure 2.3a, Figure 2.3b, 2-29, 2-31	Northern Region-Northwest reorganization. Update contact information.
June 2011	FWD-v, 2-7, Figure 2.3a, Figure 2.3b, 2-24	FWD-v, 2-7, Figure 2.3a, Figure 2.3b, 2-24	Update contact information and Arizona notification requirements.
September 2011	FWD-v, FWD-vi, FWD-xi, FWD-xii, 2-7, Figure 2.3a, Figure 2.3b, Correspondence-1	FWD-v, FWD-vi, FWD-xi, FWD-xii, 2-7, Figure 2.3a, Figure 2.3b, Correspondence-1, PHMSA email, USCG Sector San Francisco Approval Letter, ODEQ Approval Letter	Update Northern Region Office address, contact information and Agency Correspondence
October 2011	FWD-v, Figure 2.3b, 2-37	FWD-v, Figure 2.3b, 2-37	Update Southern Region contact information. Add West Sacramento Fire contact information.
November 2011	FWD-v, FWD-xii, Figure 2.3a, Figure 2.3b	FWD-v, FWD-xii, Figure 2.3a, Figure 2.3b	Update internal contacts and distribution information
December 2011	FWD-v, Figure 2.3a, Figure 2.3b	FWD-v, Figure 2.3a, Figure 2.3b	Update internal contacts
January 2012	FWD-v, FWD-xi, FWD-xii, Figures 2.3a and 2.3b, 2-29	FWD-v, FWD-xi, FWD-xii, Figures 2.3a and 2.3b. 2-29	Update distribution and notifications

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	PAGE NUMBER(S)		
June 2012	FWD-vi thru FWD-xii, 1-3, 1-4, 2-4, 2-7, 2-11, 2-16, Figure 2.3a, Figure 2.3b, 2-28, 2-35, first page of California Field Notification Form (follows 2-38)	FWD-vi, 1-3, 1-4, 2-4, 2-7, 2-11, 2-16, Figure 2.3a, Figure 2.3b, 2-28, 2-35, first page of California Field Notification Form (follows 2-38)	Update RCP/ACP Effective Dates, Internal Notifications and state agency acronym.
July 2012	FWD-vi, Figure 2.3a (2-19), Figure 2.3b (2-20)	FWD-vi, Figure 2.3a (2-19), Figure 2.3b (2-20)	Update internal notification information.
August 2012	FWD-iv, Figure 2.3a (2-19), Figure 2.3b (2-20), 2-38 and first page of California Field Notification Form.	FWD-vi, Figure 2.3a (2-19), Figure 2.3b (2-20), 2-38 and first page of California Field Notification Form.	Update notification information.
March 2013	Title Page, FWD-ii, FWD-vi, FWD-vii, FWD-xii, FWD-xiii, 1-1, 1-3, 1-4, 1-11 and System Map, 1-12 and Flow Diagram – Northern Region, 1-13 and Flow Diagram – Southern Region, 1-14, 1-16,	Title Page, FWD-ii, FWD-vi, FWD-vii, FWD-xii, FWD-xiii, 1-1, 1-3, 1-4, 1-11 and System Map, 1-12 and Flow Diagram – Northern Region, 1-13 and Flow Diagram – Southern Region, 1-14, 1-16,	Update company and distribution information.
November 2013		Section 1.8	Addition of action items and responsibility for potential ICP changes identified during drills
February 2014		Volume 2 SR-East, Imperial Area, Section 3-20	Updated the Patriot work directive
May 2014		Per PHMSA Letter of correction changed Vol1 Section 1 and Volume 2 Section 6 of all Regiona	Update distribution and notifications

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1	Director, Compliance, Codes and Standards 1001 Louisiana Street, Suite 1000 Houston, TX 77002	Houston, TX
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9	Operations Manager (Northern Region – Bay)	
10	Operations Manager (Northern Region – California Nevada)	
11	Operations Manager (Northern Region –Central)	
106, 107	Technical Specialist (2)	
108	PL Maintenance Manager	
109	Corrosion Technician	
110	Corrosion Technician	
111	Office Copy	
3, 49	Director of Operations (2) 2319 S. Riverside Avenue Bloomington, CA 92316	Bloomington, CA
13	Operations Manager (Southern Region – Central)	
31	Area Manager – Vehicle Copy (Colton Area)	
174	Assistant Area Manager (Colton N.)	
56	Control Room (Colton S.)	
57	Control Room (Colton N.)	
67 – 70	Vehicle Copy (4)	
90, 172	Office Copy (Pipeline Maintenance) (2)	
91 – 96, 221 – 225	Vehicle Copy (Pipeline Maintenance) (11)	
102 – 104	Vehicle Copy (Corrosion) (3)	
173, 198	Colton Transmix 2359 S. Riverside Avenue Bloomington, CA 92316 Area Manager	Bloomington, CA
40-44	Orange Facilities 1100 Town & Country Road Orange, CA 92868	Orange, CA
45	Crisis Relocation Center (Mission Valley)	
46, 47	Orange Control Center (5)	
167, 168	Orange Remediation Groups (Environmental Specialist)	
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8	Operations Manager (Northern Region – Northwest) 5880 N.W. St. Helens Road Portland, OR 97210	
16 130 155 133 134 135	Area Manager (Linnton-Willbridge Area) Facility Copy (Linnton Terminal) Operations Supervisor (Willbridge Terminal) Utility Technician (Portland Station) Maintenance Technician (Portland Station) Lead Operator (Portland Station)	Portland, OR
12	Operations Manager (Southern Region – West) 2000 E. Sepulveda Boulevard Carson, CA 90810-1995	
26, 50 63, 64	Area Manager – Vehicle Copy and Control Room (Carson Area – Carson Terminal) (2) Vehicle Copy (2)	Carson, CA
14	Operations Manager (Southern Region – East) 49 North 53rd Avenue Phoenix, AZ 85043	Phoenix, AZ
15	Area Manager (Oregon Pipeline Area) 1765 Prairie Road Eugene, OR 97402	
128 129	Lead Operator (Eugene Terminal) Technician (Eugene Terminal)	Eugene, OR
18	Area Manager (Richmond Terminal) 1140 Canal Boulevard Richmond, CA 94804	
112 140	Remediation Facility Copy (Richmond Terminal)	Richmond, CA
4	Area Manager (Richmond/Brisbane Area) 950 Tunnel Ave Brisbane, CA 94005	
116 138 139	Lead Operator Line Rider (Richmond Station) Lead Operator (Richmond Station)	Brisbane, CA

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152	Lead Operator	
21	Area Manager (Concord Area) 1550 Solano Way Concord, CA 94520	Concord, CA
119	Line Rider (Concord Station)	
120	Technician (Concord Station)	
121	Assistant Manager (Concord Station)	
122	Operator (Concord Station)	
123, 124	Technician (Concord Station) (2)	
125	Pipeliner (Concord Yard)	
126	Senior Pipeline (Concord Yard)	
127	Pipeliner (Concord Yard)	
175	Assistant Area Manager (Concord Station)	
22	Area Manager (Sacramento Area – Bradshaw Terminal) 2901 Bradshaw Road Sacramento, CA 95827	Sacramento, CA
113	Line Rider (Bradshaw Terminal)	
114	Technician (Bradshaw Terminal)	
115	Lead Operator (Bradshaw Terminal)	
153	Line Rider (Stockton Terminal)	
154	Lead Operator (Stockton Terminal)	
193	(Bradshaw Station)	
	Rocklin Administration 6050B Pacific Street Rocklin, CA 95677	Rocklin, CA
141	Project Specialist (Rocklin Administration)	
142	Pipeliner (Rocklin Administration)	
143	Corrosion Specialist (Rocklin Administration)	
144	Pipeliner (Rocklin Administration)	
145	Welder (Rocklin Administration)	
146	Corrosion Technician (Rocklin Administration)	
147	Senior Pipeliner (Rocklin Administration)	
148	Compliance Specialist (Rocklin Administration)	
149	Technician (Rocklin Administration)	
24	Area Manager (Reno Area – Reno Terminal) 301 Nugget Avenue Sparks, NV 89431	Sparks, NV
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137	Lead Operator (Reno/Sparks Terminal)	

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131	Lead Operator	
132	Technician	
184, 189, 194	(Station) (3)	
27	Area Manager – Vehicle Copy (Carson Area – LA Harbor Terminal) 2000 E. Sepulveda Carson, CA 990810-1995	Carson, CA
51	Control Room (LA Harbor Terminal)	
28, 53	Area Manager – Vehicle Copy and Control Room (Watson Area) (2) 20410 S. Wilmington Avenue Long Beach, CA 90810	Long Beach, CA
176	Assistant Area Manager (Watson Station)	
65, 66	Vehicle Copy (2)	
29	Area Manager – Vehicle Copy (Mission Valley – Mission Valley Terminal) 9950 San Diego Mission Road San Diego, CA 92108	San Diego, CA
54	Control Room (Mission Valley)	
71, 72	Vehicle Copy (Mission Valley) (2)	
30	Area Manager (Watson Area – Orange Terminal) 1350 N. Main Street Orange, CA 92867	Orange, CA
55	Control Room (Orange)	
73, 74	Vehicle Copy (Orange) (2)	
58	Area Manager – Vehicle Copy and Control Room (Barstow Area) 34277 Daggett/Yermo Road Daggett, CA 92327	Daggett, CA
75, 76	Vehicle Copy (2)	
33, 59	Area Manager – Area Manager Office and Vehicle (Las Vegas Area) (2) 5049 N. Sloan Lane Las Vegas, NV 89115	Las Vegas, NV
77, 79	Line Rider (2)	
78	Control Room	

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35, 61	Area Manager – Vehicle Copy and Control Room (Phoenix Area) (2) 49 N. 53rd Avenue Phoenix, AZ 85043	Phoenix, AZ
80, 81 97-99 156 220	Vehicle Copy (2) Vehicle Copy (Pipeline Maintenance) (3) Vehicle Copy (Corrosion) Vehicle Copy (Line Rider)	
36, 62	Area Manager – Vehicle Copy and Control Room (Tucson Area) (2) 3841 E. Refinery Way Tucson, AZ 85713	Tucson, AZ
85, 86, 100, 101 170	Vehicle Copy (2) Vehicle Copy (Pipeline Maintenance) (2) Vehicle Copy (Corrosion)	
37	Area Manager (El Paso Area) 6850 Market Avenue El Paso, TX 79915	El Paso, TX
87 88-89	Control Room Vehicle Copy (2)	
177-179	Lordsburg Pipeline Maintenance POW Road Lordsburg, NM 88045 Vehicle Copy (3)	Lordsburg, NM
203, 204	Kinder Morgan V.P. of Operations Attn: Ron Morones 1100 Town & Country Road Orange, CA 92868	Orange, CA
199	Director of Products Movement 1100 Town & Country Road Orange, CA 92868	Orange, CA
5	Department of Environmental Quality – Portland Attn: Mr. Scott Smith 811 SW 6th Avenue Portland, OR 97204	Portland, OR

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INTEGRATED CONTINGENCY PLAN

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1.0 INTRODUCTION

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street, Suite 1000 Phone: (713) 369-9454
Houston, Texas 77002

Qualified Individual and Alternate Qualified Individual

The Area Managers, identified in Figures 2.3a and 2.3b, are designated as the Qualified Individuals. The Operations Managers, also identified in Figures 2.3a and 2.3b, are designated as the Alternate Qualified Individuals.

For the purposes of this Plan, the Kinder Morgan Energy Partners, L.P. Incident Commander serves as the Qualified Individual (QI). In the event where the ICP is activated, the Operations Manager may serve as the Qualified Individual.

1.2 OPERATING ASSETS COVERED BY THIS PLAN

This Integrated Contingency Plan (ICP) is intended to guide emergency response activities throughout the Kinder Morgan Energy Partner's, L.P. - Pacific Operations (Company). The pipeline and terminal operations covered by this Plan are located in the following seven (7) regions (each further defined in their respective Volume 2 documents). For the Department of Transportation (DOT) purposes, regions are also defined as response zones.

Region	State	County
Southern Region - West ● Carson Area ● Watson Area	California	Los Angeles, Orange, San Diego
Southern Region - Central ● Mission Valley - Orange Area ● Colton Area ● Barstow Area ● Las Vegas Area	California Nevada	Los Angeles, San Bernardino, Kern, Riverside Clark
Southern Region - East ● Imperial Area ● Phoenix Area ● Tucson Area ● El Paso Area	California Arizona New Mexico Texas	Imperial, Riverside Pima, Yuma, Cochise, Maricopa, Hidalgo, Grant, Luna, Dona Ana El Paso
Northern Region - Bay ● Richmond Terminal ● Richmond/Brisbane Area ● San Jose Area ● Concord Area	California	Contra Costa, Santa Clara, Alameda, San Mateo, Solano, San Joaquin,
Northern Region - California Nevada ● Sacramento Area ● Chico Rocklin Area ● Reno Area	California Nevada	Contra Costa, Sacramento, Butte, Placer, Yuba, Solano, Yolo, Nevada, Sierra, San Joaquin, Sutter, Storey, Churchill, Washoe, Lyon
Northern Region – Central ● Fresno Area	California	Merced, Madera, Fresno, Kings,
Northern Region - Northwest ● Oregon Pipelines Area ● Linnton-Willbridge Area	Oregon	Multnomah, Washington, Clackamas, Lane, Linn, Marion

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

Some of the facilities identified in this ICP were formerly owned or operated by the following:

- CalNev Pipeline
- GATX Terminals
- SFPP, L.P.

Some of the documents, drawings and other records referenced throughout the plan may still show the name of these previous entities. Various of the operations may also continue to utilize these organizational names.

1.3 SUBSTANTIAL THREAT OF A WCD

49 CFR 194.115(a) requires the operator to identify events that pose a substantial threat of a worst case discharge to mitigate the threat or prevent a worst case discharge. Such events and actions to identify and respond to a "substantial threat" are incorporated by reference in the Products Pipelines Liquids – Operations and Maintenance (L O&M) Manual.

1.4 PLAN PURPOSE/OBJECTIVES

The purpose of this ICP is to establish a predetermined mode of operation for response to any incident that could adversely impact the safe operation of KMEP facilities. Actions identified in this Plan include:

- Internal and external notification procedures
- Initial Response Actions
- Application of the Incident Command System (ICS) and Unified Command Structure (UCS)
- Description and availability of resources
- References to facility-specific emergency response information

KMEP's response strategies are based on the principles of the Incident Command System. Section 4.0 of this Plan addresses the Incident Command System and Unified Command that would be implemented by KMEP during emergency responses.

Specific objectives of the Plan are to:

- Effectively establish Response Organization to provide prompt action for any incident.

1.4 PLAN PURPOSE / OBJECTIVES (Cont'd)

- Define notification, activation and mobilization procedures to be followed when an incident occurs.
- Define organizational lines of responsibility to be adhered to during a response.
- Ensure compliance with applicable federal, state and local regulatory requirements.
- Ensure consistency with the National Contingency Plan (NCP) and any Area Contingency Plans (ACP's) for the areas involved.

1.5 SCOPE

The scope of this plan is to comply with federal, state and local contingency planning requirements including (where applicable):

- U.S. DOT –Transportation Related On-Shore Facility Response Planning Rule (49 CFR 194 and 195)
- U.S. EPA - Non-Transportation Related On-Shore Facility Response Planning Rule (40 CFR 112.20)
- U.S.C.G. – Marine Transportation Related Facility Response Planning Rule (33 CFR 154)
- California State Lands Commission (CCR Title 2, Division 3, Chapter 1, Article 5 § 2395)
- California Department of Fish and Wildlife/Office of Oil Spill Prevention and Response (CCR Title 14, Division 1)
- Oregon Department of Environmental Quality – Oil Spill Contingency Planning and Fees(Oregon Administrative Rules 340-141)
- California Codes Government Code Section 51010 – 51019.1

KMEP does hereby certify that this ICP is consistent with current drafts of the National Contingency Plan (NCP) and each applicable Area Contingency Plan (ACP). The ACP's which apply are:

Area Contingency Plans	Effective Date
Northwest Area (http://www.rrt10nwac.com/NWACP/Default.aspx)	January 2013
San Francisco (http://www.dfg.ca.gov/ospr/san_francisco_plan.aspx)	October 2011
Los Angeles / Long Beach (http://www.dfg.ca.gov/ospr/los_angeles_plan.aspx)	October 2011
San Diego (http://www.dfg.ca.gov/ospr/san_diego_plan.aspx)	October 2011

1.5 SCOPE (Cont'd)

EPA Region IX Inland (http://www.dfg.ca.gov/ospr/fed_region_9.aspx) October 2011

EPA Region X Inland (http://www.rrt10nwac.com/NWACP/Default.aspx) January 2013

EPA Region VI Inland (http://www.epaosc.org/site/doc_list.aspx?site_id=5087) May 2010

Lower Columbia River GRP November 2003
(http://www.ecy.wa.gov/programs/spills/preparedness/GRP/ColumbiaRiver/LowerColumbiaRiver.htm)

1.6 PLAN DISTRIBUTION PROCEDURES

The Manager – Emergency Response Programs shall have the responsibility for distribution of the Plan. Distribution will be handled in the following manner:

- Distribution of the Plan is controlled by the number on the binder cover. A Distribution List is provided in the Foreword to facilitate control.
- Company personnel who may be called upon to provide assistance during emergency response activities will have access to a copy of the plan for their use and training.
- It is the responsibility of any person holding a copy of the Plan to ensure that the copy is transferred to their replacement in the event of reassignment or change in responsibility.
- The most current plans are available on the Company intranet at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/pacific_icp.html
- Various regulatory agencies may also be distributed a copy of the Plan. The list of agencies is provided in the Distribution List.

1.7 PLAN REVIEW AND UPDATE PROCEDURES

Annual Review/Update

The Manager – Emergency Response Programs will coordinate the following plan review and update procedures with Facility Management.

- At least once each year review and make appropriate revisions as required by operational or organizational changes.
- At least once each year review and make appropriate revisions as required by changes in the names and telephone numbers detailed in Volumes 1 and 2.
- The Manager – Emergency Response Programs will coordinate the word processing, publication, and distribution efforts of completing the revisions and maintaining the Plan.
- Plan review opportunities may occur during response team tabletop exercises or actual emergency responses.

1.7 PLAN REVIEW AND UPDATE PROCEDURES (Cont'd)

Agency Review/Revision Requirements

AGENCY TIMING REQUIREMENTS	EPA	USCG		
Timing for Plan reviews.	Periodically but not to exceed five (5) years.	Within one (1) month of the anniversary of COTP approval letter. If NO CHANGES are required, the Facility should submit a letter to the USCG stating "NO CHANGES REQUIRED."	At least every five (5) years from the date of approval.	At least every five (5) years from the date of approval.
Timing for submission of significant Plan revisions as detailed in the following table.	60 days	30 days	30 days	24 hours
When submitting revisions to the applicable agencies always include the Facility identification number (see Figure 8.1 of Volume 2) with the revisions.				

The Company will revise and resubmit revised portions of the Plan to the applicable agency for each change that may materially affect the response to a Worst Case Discharge, including:

CONDITIONS REQUIRING CHANGES	EPA	USCG	DOT	CA. OSPR
Relocation or replacement of portions of the Facility (including the pipeline) which in any way substantially affect the information included in this Plan, such as a change to the Worst Case Discharge volume.	✓	✓	✓	✓
Emergency response procedures.		✓	✓	
A change in Qualified Individual.			✓	
A change in the NCP or ACP that has significant impact on the equipment appropriate for response activities.			✓	
A change in the listings of economically important or environmentally sensitive areas identified in the applicable ACP in effect six (6) months prior to the plan review.		✓	✓	
Change in the Facility's configuration that materially alters the information included in the Plan.	✓	✓	✓	
Change in the type of oil handled, stored, or transferred that materially alters the required response resources.	✓	✓	✓	
A change in the name of the Oil Spill Removal Organization (OSRO).	✓	✓	✓	
Material change in capabilities of the Oil Spill Removal Organization(s) (OSROs) that provide equipment and personnel.	✓	✓	✓	
Material change in the Facility's spill prevention and response procedures.	✓	✓		
Any other changes that materially affect the implementation of the Plan.	✓	✓		✓

NOTE: Any agency may require revisions to this Plan at any time if deficiencies are found under their applicable regulations or during an actual response.

1.7 PLAN REVIEW AND UPDATE PROCEDURES (Cont'd)

Incorporation of Plan Revisions

The **plan holder**, immediately upon receipt of any revisions, shall:

- Review and insert the revised pages into the Plan.
- Discard the obsolete pages.

1.8 TRAINING AND DRILL PROGRAMS

Drill and Exercise Program

The KMEP spill drill program is consistent with the National Preparedness for Response Exercise Program (NPREP) which is summarized below. The program is to be conducted for each Region (Response Zone) and Terminal. The drill program includes internal and external drills conducted at the specific frequencies over a three (3) year cycle. Procedures for maintaining drill documentation and ensuring the availability of drill records for agency review are in place.

TRIENNIAL CYCLE		
Total Number	**Frequency**	**Exercise Type/Description**
12	Quarterly	QI Notification Exercise**
6 (EPA/USCG) 3 (DOT)	Semi-Annual Annual	Equipment Deployment Exercise *(Facility-owned equipment)*
3	Annual	Response Team Tabletop Exercise
3	Annual	Equipment Deployment Exercise *(facilities with OSRO-owned equipment)*
3	Annual	Unannounced Exercise *(Emergency procedures, tabletop, or equipment deployment, not a separate exercise)* Actual response can be considered as an unannounced exercise. **For facilities without equipment to deploy, an unannounced exercise could be accomplished during the QI Notification by randomly asking the QI what he/she would initiate in response to a particular scenario and then document the scenario and response.
NOTE: All response plan components must be exercised at least once in the Cycle.		

Quarterly QI Notification Exercise

- **Scope:** Exercise communication between facility personnel and the QI(s) and/or designated alternate(s). At least once each year, one of the notification exercises should be conducted during non-business hours.
- **Objective:** Contact must be made with a QI or designated alternate, as identified in the Plan.
- **General:** Quarterly QI Notification Exercises will be documented on the Notification Drill Form in the Forms and Documents tab of this Plan. All personnel receiving notification shall respond to the notification and verify their receipt of the notification. Personnel who do not respond should be contacted to determine whether or not they received the notification.

1.8 TRAINING AND DRILL PROGRAMS (Cont'd)

***Quarterly QI Notification Exercise* (Cont'd)**

An ERL notification may be used in place of a notification exercise provided it is documented on the Notification Drill Form. In this case only notification of the QI and Alternate need to be documented.

Semi-Annual Equipment Deployment Exercise (for facilities with equipment)

- **Scope:** Deploy and operate facility response equipment identified in the response plan. The equipment to be deployed must include the following, at a minimum:
  - 1,000 feet of representative type of boom and one of each type of skimming system; or
  - the equipment necessary to respond to the facility's Small/Average Most Probable Discharge (AMPD); whichever is less.
- **Objective:** Demonstrate personnel's ability to deploy and operate response equipment. Ensure that the response equipment is in proper working order.
- **General:** The Facility may take credit for actual equipment deployment to a spill, or for training sessions, as long as the activities are properly documented.

***Annual Equipment Deployment Exercise* (OSRO-owned equipment)**

- **Review:** The Facility should verify that the OSRO(s) has completed the equipment deployment exercise requirements and has maintained the necessary documentation. The OSRO may deploy equipment at any location, so long as it occurs within an operating environment similar to the Facility's.
- **Scope:** OSRO must deploy and operate response equipment identified in the response plan. The equipment to be deployed must include the following, at a minimum:
  - 1,000 feet of representative type of boom.
  - One of each type of skimming system.
- **Objective:** OSRO must demonstrate the ability of the personnel (OSRO) to deploy and operate response equipment (OSRO). Ensure that the response equipment (OSRO) is in proper working order.

Annual Response Team Tabletop Exercise

- **Scope:** Exercise the response team's organization, communication, and decision- making in managing a spill response. Each team identified within the plan must conduct an annual Response Team Tabletop Exercise.
- **Objective:** Exercise the response team in a review of the following:
  - Knowledge of the Plan.
  - Proper notifications.
  - Communications system.
  - Ability to access an OSRO.
  - Coordination of internal spill response personnel.

1.8 TRAINING AND DRILL PROGRAMS (Cont'd)

Annual Response Team Tabletop Exercise (Cont'd)

- Review of the transition from a local team to a regional team.
- Ability to effectively coordinate response activity with the National Response System (NRS) Infrastructure.
- Ability to access information in the Area Contingency Plan (see Subsection 1.5).

- **General:** A minimum of one Response Team Tabletop Exercise in a triennial cycle will involve a Worst-Case Discharge scenario.

Government-Initiated Unannounced Exercise

- **Scope:** The Facility is required to participate in only one unannounced exercise every 36 months from the date of the last government-initiated unannounced exercise.

  - Exercises are limited to approximately four hours in duration.
  - Exercises would involve response to a Small/Average Most Probable Discharge scenario.
  - Exercise would involve equipment deployment to respond to a spill scenario.

- **Objective:** Conduct proper notifications to respond to unannounced scenario of a Small/Average Most Probable Discharge.

  - Demonstrate that the response is timely, conducted with an adequate amount of equipment for the scenario, and properly conducted.

- **General:** This exercise is only applicable to those facilities which are randomly chosen.

Area Exercises

- **Objective:** The purpose of the area exercise is to exercise the entire response community in a particular area. An area is defined as "that geographic area for which a separate and distinct Area Contingency Plan has been prepared, as described in OPA 90." The response community includes the federal, state, and local government and industry. The area exercises are designed to exercise the government and industry interface for spill response.

- **General:** The goal is to ensure that all areas of the country are exercised triennially. All of the area exercises will be developed by an exercise design team. The exercise design team is comprised of representatives from the federal, state, and local government and industry. A lead plan holder would lead each area exercise. The lead plan holder is the organization (government or industry) that holds the primary plan that is exercised in the area exercise. The lead plan holder would have the final word on designing the scope and scenario of the exercise.

1.8 TRAINING AND DRILL PROGRAMS (Cont'd)

Exercise Documentation

- All exercises should be documented in an After Action Report and maintained at the facility; documentation should specify:
  - The type of exercise
  - Date and time of the exercise
  - A description of the exercise
  - The objectives met in the exercise
  - The components of the response plan exercised
  - Lessons learned

- Exercise documentation should be kept on file for the required length of time depending on the regulating agency (three (3) years for CA OSPR, U.S. Coast Guard and PHMSA, and five (5) years for the U.S. Environmental Protection Agency).

- The Manager – Emergency Response Programs will coordinate drill and exercise notification, scheduling and reporting with federal, state and local agencies in accordance with the applicable regulations.

- The Manager Emergency Response Program is responsible for following up comments and recommendations (Lessons Learned) received during the Post Drill Debriefing and in the After Action Report. The Manager, Emergency Response Programs, Operations Manager, and EHS Representative will review the comments to determine the appropriate actions and timing. . Where revision to the ICP is warranted, The Manager Emergency Response Program will initiate the changes following the standard ICP MOC/ADC revision process. Deficiencies identified as training issues will be addressed by the local management and/or EHS Training Representatives appropriate. Recommendations regarding the drill itself will be taken under advisement and discussed with local Manager. The Manager Emergency Response Program should keep documentation to substantiate that the appropriate actions were taken

Training Program

The Regional Director is responsible for implementing the Plan and must ensure that managers provide necessary training to KMEP emergency response personnel. The managers must ensure that the emergency response personnel are trained to respond as instructed, that equipment and personnel are available and adequate, and reliable communications and documentation systems are established. The Area Manager must ensure that all personnel receive appropriate training so that

<u>All personnel will be trained on</u>:

- Their responsibilities under the plan
- Procedures for contacting the Orange Control Center on a 24 Hr. basis
- Name of, and procedures for contacting the Area Manager on a 24 Hr. basis

All reporting personnel will be trained on:

- The content of the operating assets covered by the Plan (see Volume 1; Section 1.2)
- The telephone number of the National Response Center **(800-424-8802)**
- The notification process

All response personnel will be trained on:

- Their responsibilities as outlined by this Plan.

1.8 TRAINING AND DRILL PROGRAMS (Cont'd)

Training Program (Cont'd)

HAZWOPER Training

Emergency Response Personnel are trained in Hazardous Waste Operations and Emergency Response (HAZWOPER) per requirements of 29 CFR 1910.120.

Emergency Response Personnel receive appropriate HAZWOPER training based on the expectation of their role in emergency response and receive the appropriate certification upon completion of the HAZWOPER Training. Annual refresher training must be done to maintain certification.

- Awareness Level
- Operations Awareness Level
- Technician Level
- Incident Commander Level

Training records are maintained for all Company employees. Records of instructors and training organizations are maintained by the Company. The Training or Safety Meeting Attendance form (L-OM100-20) is maintained in the L O&M. The Company has contractual agreements with Oil Spill Response Organizations that include meeting training requirements of 49 CFR 194.117(b) and OSHA 29 CFR 1910.120.

FIGURE 1.1

System Map

FIGURE 1.2

Flow Diagram – Northern Region

FIGURE 1.3

Flow Diagram – Southern Region

FIGURE 1.4

KINDER-MORGAN ENERGY PARTNERS, L.P.

NOTIFICATION DRILL

Purpose:

Periodic notification drills are required by federal and state regulations for designated members of the emergency response team to demonstrate the effectiveness of notification procedures in the ICP.

Drill Details:

Location: _____

Date/Time Started: _____

Person Conducting Drill: _____

Telephone Number: _____

Individual Contacted: _____

Time: _____ Contact Method Telephone

Individual Contacted: _____

Time: _____ Contact Method Telephone

Individual Contacted: _____

Time: _____ Contact Method Telephone

Individual Contacted: _____

Time: _____ Contact Method Telephone

Notes: _____

Distribution: Original - Originating Location
Copy - Manager - Emergency Response Programs

Submit

When complete, retain this form for five (5) years.

February 2009

A copy of this interactive document is maintained in the Forms and Documents tab at http://kmonline/operations/products/pacific_icp/pacific_icp.html

FIGURE 1.5

Spill Management Team Tabletop Exercise

Internal Exercise Documentation

1. Date(s) performed: _____

2. Exercise or actual response? _____Exercise _____Actual Response
   If an exercise, announced or unannounced? _____Announced _____Unannounced

3. Location of tabletop: _____

4. Time started: _____ Time completed: _____

5. Response plan scenario used (check one):

   _____ Average most probable discharge
   _____ Maximum most probable discharge
   _____ Worst case discharge

   Size of (simulated) spill _____

6. Describe how the following objectives were exercised:

   a) Spill Management Team's knowledge of oil-spill response plan:

   _____
   _____
   _____
   _____

   b) Proper notifications:

   _____
   _____
   _____
   _____

   c) Communications system:

   _____
   _____
   _____
   _____
   _____

   d) Spill Management Team's ability to access contracted oil spill removal organizations:

   _____
   _____
   _____
   _____

   e) Spill Management Team's ability to coordinate spill response with On-Scene Coordinator, state, and applicable agencies:

   _____
   _____

FIGURE 1.5

Spill Management Team Tabletop Exercise

Internal Exercise Documentation (Cont'd)

f) Spill Management Team's ability to access sensitive site and resource information in the Area Contingency Plan:

_____
_____
_____
_____

7. Identify which of the 15 core components of your response plan were exercised during this particular exercise.

Organization Design:

_____1. Notification
_____2. Staff Mobilization
_____3. Ability to operate within management system

Operational Response:

_____4. Discharge Control
_____5. Assessment
_____6. Containment
_____7. Recovery
_____8. Protection
_____9. Disposal

Response Support:

_____10. Communications
_____11. Transportation
_____12. Personnel Support
_____13. Equipment Maintenance and Support
_____14. Procurement
_____15. Documentation

8. Attach description of lesson(s) learned and person(s) responsible for follow up of corrective measures.

_____
Certifying Signature

Retain this form for a minimum of five (5) years.

FIGURE 1.6
Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

3. Deployment location(s):
   _____
   _____
   _____
   _____
   _____
   _____

4. Time started: _____
   Time completed: _____

5. Equipment deployed was:
   Facility - owned
   Oil spill removal organization - owned if so, which OSRO? _____
   Both

6. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:
   _____
   _____
   _____
   _____
   _____
   _____

7. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):
   _____
   _____
   _____
   _____
   _____

8. For deployment of facility-owned equipment, was the amount of equipment deployed <u>at least</u> the amount necessary to respond to your facility's average most probable spill?
   _____
   _____

   Was the equipment deployed in its intended operating environment?
   _____
   _____

FIGURE 1.6
Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

9. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

_____

_____

Was the equipment deployed in its intended operating environment?

_____

_____

10. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

_____

If so, describe the program: _____

_____

_____

_____

_____

_____

Date of last equipment inspection: _____

11. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

12. Was all deployed equipment operational? If not, why not?

_____

_____

_____

_____

_____

Response Equipment Inspection Log

Inspector	Date	Comments

2.0 NOTIFICATION PROCEDURES

The notification procedures detailed in this section are to be implemented immediately after becoming aware of an emergency situation or release. Awareness of an emergency can come in the form of a phone call from a third party or self-discovery. In either case, it is imperative to initiate the notification process. Effective 6/20/05, Internal and External notification procedures for California are different than for other states within the Pacific Region. Accordingly, please refer to the flowcharts in Section 2.1 which define internal and external reporting procedures for California differently than for neighboring states.

- Company phone numbers contained herein are considered confidential and are for internal use only.

2.0.1 DETECTION OF RELEASES

There are several means available to assist personnel to detect and recognize a release. In many cases, detection of a release will generally be by visual observation as most facilities are manned 24 hours, seven days per week. In addition, tanks are equipped with automatic high level alarms. In the event of an impending overfill situation, an initial high level alarm will sound. If unanswered, a second high-high level alarm will sound just prior to overfill. Some facilities are equipped with various kinds of detection and alarm equipment. In addition, many facilities are equipped with computerized control systems that monitor operations and can detect abnormal conditions which may result in an emergency situation. (b) (7)(F), (b) (3) [redacted]

2.0.2 ESTIMATING SPILL VOLUMES

Initial Estimations

Initial estimations of the amount of released product should be based on visual observation. Use visual observations and the appropriate method described in L O&M 159 Attachment 5 to compute an initial volume estimate. When reporting initial volume, use the word “approximately” when describing the volume, unless the exact volume is known.

Subsequent Estimation

Later in the response, the volume of released product may be determined by utilizing tank gauges and/or pumping rates. For pipeline incidents the volume of released product may be determined by considering the calculation of flow rates in the affected pipeline multiplied by the maximum time to detect the spill and shut off pumps plus an estimated line drain down volume. Company Policy provides that all estimates are reviewed and approved by management before being released.

2.1 NOTIFICATIONS

In the event of an emergency, in all non-California locations, the notification process begins when a KM employee or agent is notified of or becomes aware of a release or threatened release.

In the event of an emergency within California locations and locations monitoring or controlling California pipeline sections, the notification process begins when a KM employee or agent is notified of or becomes aware of a release or threatened release. In this event, notifications must be made in strict accordance with "California Only" flowcharts.

The following flowcharts have been provided to ensure essential internal and external notification procedures are implemented and all levels of management are notified of the situation, as appropriate. **With the exception of notification to 911 and/or local fire/police agencies, Environmental, Health and Safety (EHS-Remediation) and/or Compliance Codes and Standards (CCS) is responsible for making all regulatory required external notifications in all states other than in California. Field personnel have the responsibility for making all regulatory required external notifications in California.** The flowcharts are intended to simplify the process by designating what position of employee is required to make certain notifications. The flowcharts include notification processes for:

- ***KM Employee or Agent Notification Process - California Only (Figure 2.1a)***
- ***Operator Notification Process - Non-California (Figure 2.1b)***
- ***Company Employee Other Than Operator Notification Process - Non-California (Figure 2.1c)***
- ***Controller - Orange, CA Notification Process - California Only (Figure 2.1d-1)***
- ***Controller - Orange, CA Notification Process - Non-California (Figure 2.1d-2)***
- ***Controller - Houston, TX Notification Process (Figure 2.1e)***
- ***Managers Internal Notification Process (Figure 2.1f)***

When sufficient information has been gathered, the "Initial Reporting Details" form must be completed and faxed to the Orange Control Center and the appropriate regional office. Fax numbers are provided at the bottom of the form. ***The "Initial Reporting Details" form and instructions on its use are provided in Figure 2.2.***

For notifications **inside California,** all verbal external notifications must be made immediately according to the California flow chart. After verbal notifications have been made, the "Initial Reporting Details" form must be completed and faxed to Orange Control Center and regional office.

For notifications **outside California,** immediate verbal notification must be made to Orange Control Center according to the Non-California flow chart(s). After verbal notifications have been made, the "Initial Reporting Details" form must be completed and faxed to Orange Control Center and regional office.

2.1 NOTIFICATIONS (Cont'd)

FOR NOTIFICATIONS OF OSRO

For Notifications of KMEP Oil Spill Removal Organization the designated individual shall refer to the appropriate Volume 2, Figure 2.1 Regional Contractors Services.

Guidelines For Considerations When Initiating Notifications

The following are guidelines to be considered when initiating notifications:

- Do not report information that has not been verified or confirmed, usually by field personnel.
- Do not speculate as to the cause on an incident or make any statements about liability.
- Do not delay notifications because of incomplete information.
- When making notifications, document:
  - Agency notified, including telephone number
  - Date and time of notification
  - Person notified
  - Content of message
  - Incident number, if applicable

Periodic Follow-up Notification during Emergency Response

Periodic follow-up notification must be made within KMEP as well as to federal, state, and local agencies. Responsibility for periodic follow-up notifications remains with each individual as initially assigned within the notification process flowcharts provided in Figure 2.1, unless that responsibility has been transferred based on the magnitude of the response.

KMEP Company contact numbers are provided as follows:

- ***Northern Region Internal Notifications References (Figure 2.3a)***
- ***Southern Region Internal Notifications References (Figure 2.3b)***
- ***Crisis Support Team Internal Notifications References (Figure 2.3c)***

FIGURE 2.1a

KM EMPLOYEE OR AGENT NOTIFICATION PROCESS – CALIFORNIA ONLY

KM Employee or Agent
becomes aware of a release or threatened release

Document all notifications on the **California Field Notification Form**
(Refer to Figure 2.4 – California)

Call 911, as appropriate

Initiate Shutdown of source, if possible
- If shutdown takes longer than 5 minutes, make notifications first.

Area Manager/Qualified Individual (QI)*
- **Area Manager** must notify the OSRO (oil spill contractor), within the first 30 minutes, whenever CA F&G-OSPR jurisdiction is involved.

***If Area Manager is not immediately available contact Operations Manager, Director of Operations or VP of Operations**

Call CEMA (See Figure 2.4 - California)

Call NRC (See Figure 2.4 - Federal)

Call CUPAs (See Figure 2.4 - California)

Call Bureau of Reclamation (if reservoir impacted) (See Figure 2.4 - California)

Call Orange Control Center (ORCC) (714) 560-4839
- Initiate **ERL** or **ERL+** internal notifications as appropriate.

(**ERL** = Emergency Response Line)

Call Project Managers on project related issues

Call Local Agencies required by **Special Agreement** (See Figure 2.4 - California)

FIGURE 2.1b

OPERATOR NOTIFICATION PROCESS – NON - CALIFORNIA

This flowchart shows the appropriate notifications an Operator is required to make ***immediately*** in the event of an actual or suspected release. This process is to ensure all levels of management are notified of the situation, as appropriate.

Internal notification references are provided in Figure 2.3a, b, c.

Operator is notified by telephone or becomes aware of a release or threatened release.

↓

Notify 911 – Fire Department/Police as necessary.
NOTE: If emergency warrants, notify 911 first.

↓

If Operator is at an **input station**, shutdown the pipeline.
If Operator is at a **non-input station**, call Operator at input station to shutdown the pipeline.

↓

Call Orange Pipeline Control Center.
NOTE: Control Center initiates ERL or ERL+ notifications

↓

Notify Supervisor or Area Manager, if not available, proceed until first notification is made to:

- Operations Manager
- Director of Operations
- V.P. of Operations
- KM Project Manager

↓

Obtain information and complete Initial Reporting Details Form

*ERL = Emergency Response Line. Initiated per External Notification References (see Fig. 2.4).
*ERL+ = Emergency Response Line Plus – Notification for any major event associated with the Company, such as: major disruption or operations shutdown, death of employee(s) or contract employee(s), or any fatality or injury to member of public.

FIGURE 2.1c

COMPANY EMPLOYEE OTHER THAN OPERATOR - NON-CALIFORNIA NOTIFICATION PROCESS

This flowchart shows the appropriate notifications a company employee **other than an operator** is required to make ***immediately*** in the event of an actual or suspected release. This process is to ensure all levels of management are notified of the situation, as appropriate.

Internal notification references are provided in Figure 2.3a, b, c.

Company employee **other than an operator** is notified by telephone or becomes aware of a release or threatened release.

↓

Call Orange Pipeline Control Center.
NOTE: Control Center initiates ERL or ERL+ notifications

↓

Obtain information and complete Initial Reporting Details form
(See Figure 2.2)

↓

Notify 911 - Fire Department/Police as necessary.
NOTE: If emergency warrants, notify 911 first.

↓

Notify Area Manager. If Area Manager is not available, proceed until first notification is made to:

- Operations Manager
- Director of Operations
- V.P. of Operations

*ERL = Emergency Response Line. Initiated per External Notification References (see Fig. 2.4).
*ERL+ = Emergency Response Line Plus – Notification for any major event associated with the Company, such as: major disruption or operations shutdown, death of employee(s) or contract employee(s), or any fatality or injury to member of public.

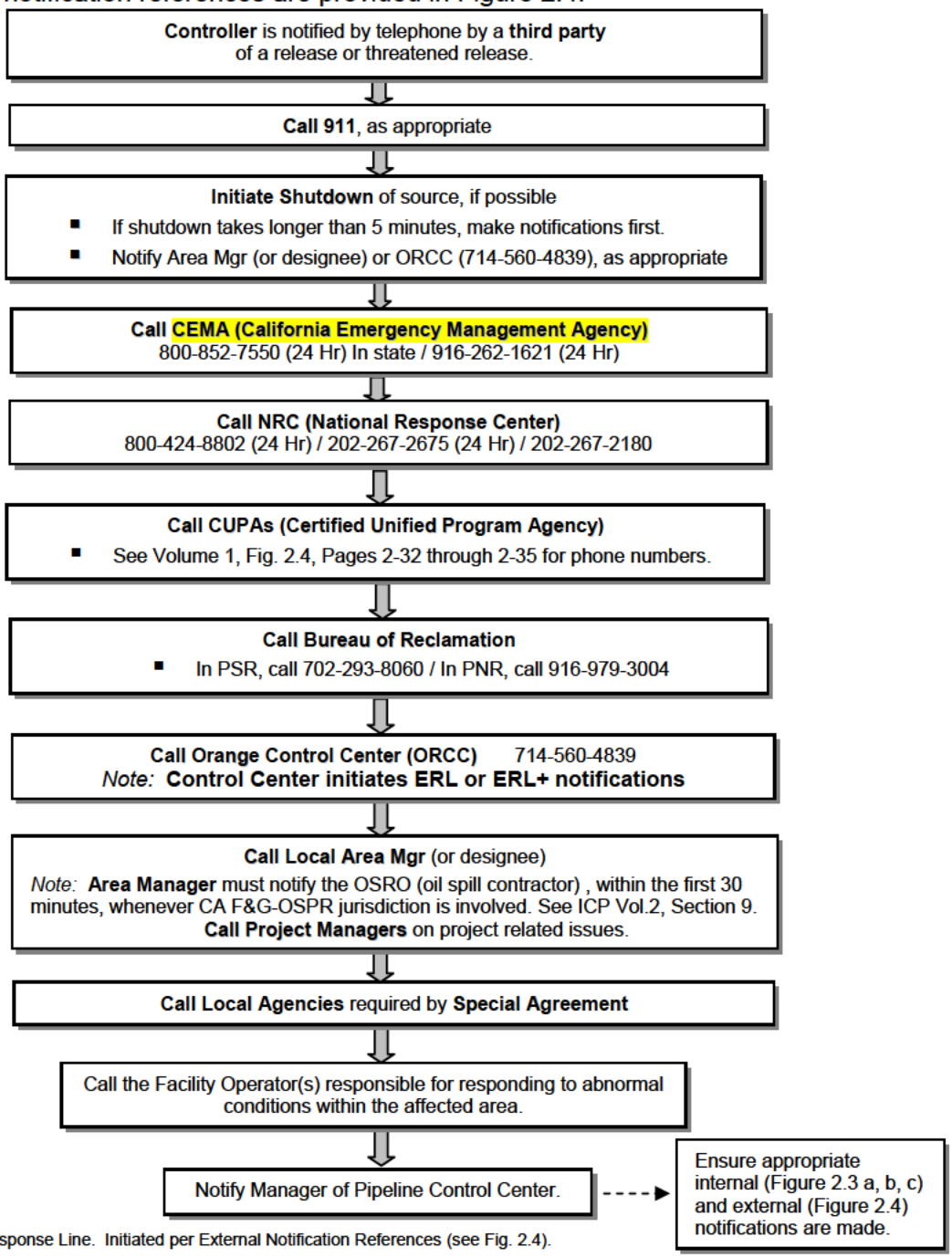
COMPANY EMPLOYEE OTHER THAN OPERATOR - NON-CALIFORNIA

FIGURE 2.1d-1

CONTROLLER - ORANGE, CA - CALIFORNIA ONLY NOTIFICATION PROCESS

This flowchart shows the appropriate notifications an Orange Controller is required to make ***immediately*** in the event of an actual or suspected release if he is first to be notified by a third party.

- Internal notification references are provided in Figure 2.3a, b, c.
- External notification references are provided in Figure 2.4.



*ERL = Emergency Response Line. Initiated per External Notification References (see Fig. 2.4).

*ERL+ = Emergency Response Line Plus — Notification for any major event associated with the Company, such as: major disruption or operations shutdown, death of employee(s) or contract employee(s), or any

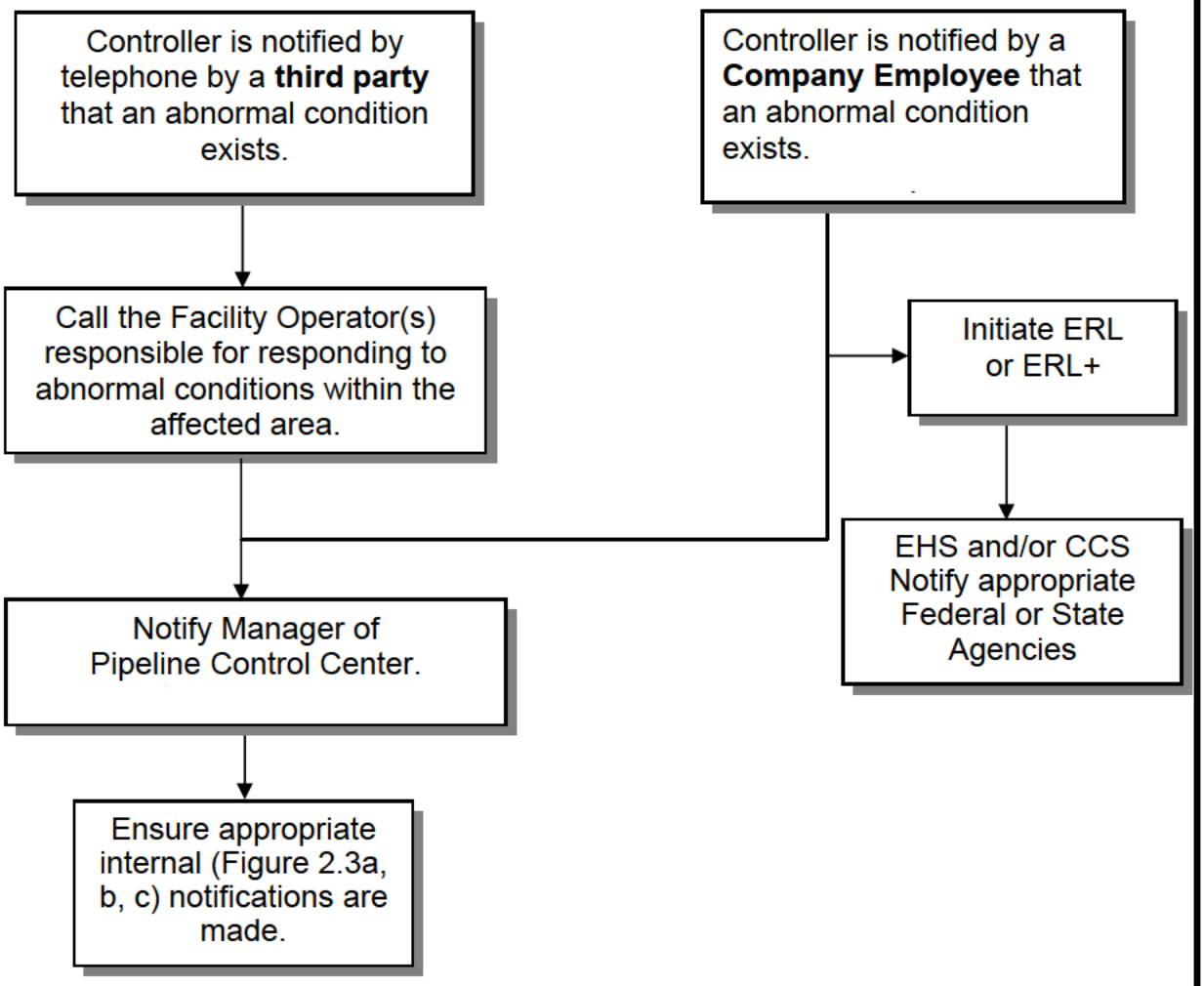
CONTROLLER-ORANGE, CA - CALIFORNIA ONLY

FIGURE 2.1d-2

CONTROLLER - ORANGE, CA - NON-CALIFORNIA NOTIFICATION PROCESS

This flowchart shows the appropriate notifications an Orange Controller is required to make ***immediately*** in the event of an actual or suspected release.

- Internal notification references are provided in Figure 2.3a, b, c.
- External notification references are provided in Figure 2.4.



*ERL = Emergency Response Line. Initiated per External Notification References (see Fig. 2.4).
*ERL+ = Emergency Response Line Plus – Notification for any major event associated with the Company, such as: major disruption or operations shutdown, death of employee(s) or contract employee(s), or any fatality or injury to member of public.

CONTROLLER-ORANGE, CA - NON-CALIFORNIA

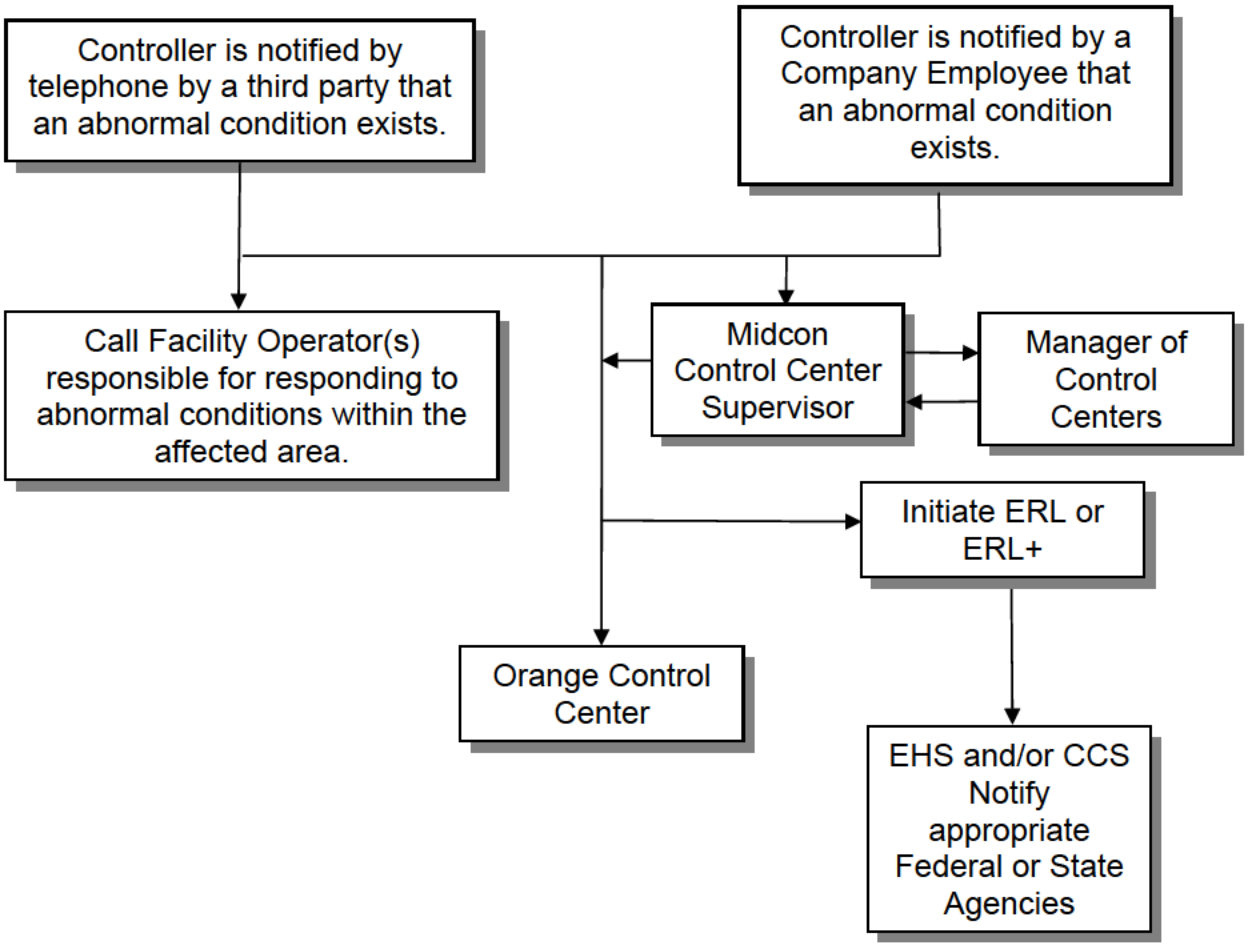
CONTROLLER - HOUSTON, TX

FIGURE 2.1e

CONTROLLER - HOUSTON, TX NOTIFICATION PROCESS

The Orange Control Center is the single point of contact for all "regulatory required" notifications for the Mid-Continent and the Pacific operations. This flowchart shows the appropriate notifications a Houston Controller is required to make ***immediately*** in the event of an actual or suspected release.

- Internal notification references are provided in Figure 2.3a, b, c.
- External notification references are provided in Figure 2.4.



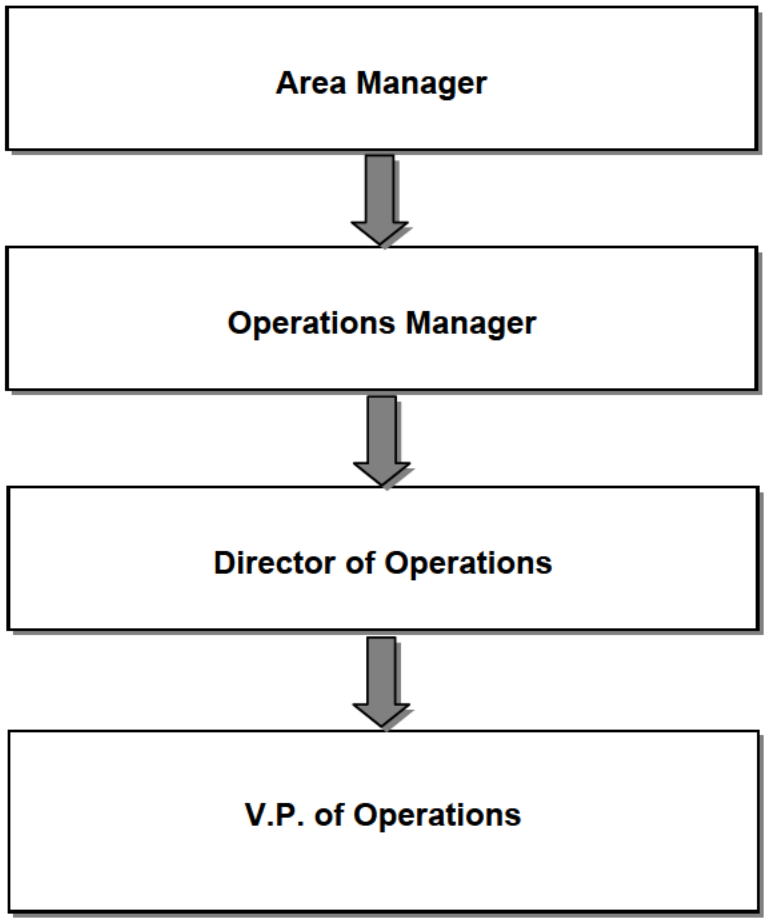
Note: It is deemed extremely unlikely that the Houston Controller would receive any initial notifications of abnormal conditions on California facilities and pipelines.
*ERL = Emergency Response Line. Initiated per External Notification References (see Fig. 2.4).
*ERL+ = Emergency Response Line Plus – Notification for any major event associated with the Company, such as: major disruption or operations shutdown, death of employee(s) or contract employee(s), or any fatality or injury to member of public.

FIGURE 2.1f

MANAGERS
INTERNAL NOTIFICATION PROCESS

This flowchart shows the appropriate notifications a Manager is required to make ***immediately*** in the event of an actual or suspected release. Notifications will generally come from an Operator, Company Employee, or a Controller.

- **If the person you are required to notify is not available, proceed until notification is made to the next management level**.
- Internal notification references are provided in Figure 2.3a, b, c.



MANAGERS

FIGURE 2.2

It is not necessary to wait for all information before calling the NRC.
National Response Center - 800-424-8802.

INITIAL REPORTING DETAILS

Incident Name:_____ **Data Base Record #**_____

Date Event Occurred:_____ Time Event Occurred: _____ Time Reported to ORCC: _____

Reported by: _____ Area of Responsibility: _____

Contact #'s: _____

Address where incident occurred: _____

_____ County: _____

Location of Event relative to railways, highways, roads, residents, etc. _____

Incident occurred at:

- ❑ Terminal Name: _____
- ❑ Breakout Facility (*) Name: _____
- ❑ Pump Station/Booster Name: _____
- ❑ Pipeline LS _____ PLMP _____ Line Size _____
- ❑ Other _____

Did the event cause any of the following?

- Fire or Explosion ❑ Yes ❑ No
- Death or injury ❑ Yes ❑ No # of employees _____ # of non-employees _____
- Product into the Water ❑ Yes ❑ No
- Damage Greater than $50,000 ❑ Yes ❑ No

If yes to any of the above, describe weather conditions: _____

Did the Incident occur during:

- ❑ Maintenance
- ❑ Operational Activity
- ❑ Failure of Equipment/Non-pipe component (valve, seals, gasket, piping, etc.)
- ❑ Terminal Loading ❑ Dome out (release to atmosphere) ❑ Dome out (contained in truck)

Additional Description

Size of Wet Area Type of Product

Description of Event:

Local Agencies Notified/Time: (Fire, Police, 911, etc.)

Reporting Requirements (To be determined by ORCC)

- ❑ Non-Reportable ❑ CEMA (Calif.)
- ❑ Railroad ❑ Other _____
- ❑ NRC ❑ State Agency _____
- ❑ Initiate Leak Wheel Call-out

(*) Breakout Facility Definition: Facility that uses tanks and equipment for input into a pipeline i.e., Concord, Watson, Rocklin (portions of Colton & Tucson

Prepared by: _____ Date: _____

ORCC Fax 714/541-3682 Northern Region Fax 707/424-6089 Southern Region Fax 909/877-9036

FIGURE 2.2 (Cont'd)

INITIAL REPORTING DETAILS

Incident Name:_____ **Data Base Record #**_____

Time Leak Stopped: _____ Time Product was Contained: _____

How was product contained: _____

_____

_____

_____

Type of Repairs Required: _____

- ❑ Replaced – Pipe or Component
- ❑ Sleeved – Type A, Type B, Clock Spring
- ❑ Torqued
- ❑ Other: Describe _____

Method of Clean-up:

- ❑ HQ Remediation
- ❑ Local Environment Contractor
- ❑ Local field Personnel

Describe Cleanup: _____

_____

_____

Terminal Dome-Out

KMEP Equipment:

- ❑ Scully System Failure
- ❑ Brodie Hung Open
- ❑ TMS Failure to Shutdown or Problem
- ❑ Other: Describe _____

Carriers Equipment

- ❑ Sensor set to high
- ❑ Other: Describe _____

Driver Error:

- ❑ Retain on truck
- ❑ Two Compartments Opened
- ❑ Hooked up to wrong compartment
- ❑ Incorrect Preset
- ❑ Other: Describe _____

ORCC Fax 714/541-3682 Northern Region Fax 707/424-6089 Southern Region Fax 909/877-9036

Rev: 10/1/02

NOTE: Completing this form does not satisfy the need to enter this information in the Leak Database.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS

The initial reporting detail form is used by the Control Center to document the necessary information for reporting to governmental agencies and the initial entry into the leak database. The initial responder and the Area Manger should use the form as a guideline to insure that the necessary information is available to the Control Center. However, reporting should not be delayed due to incomplete information. Some of this information will be collected as the emergency response continues or after repairs are completed. Area Managers, Maintenance Managers and the Manager of Control Centers are responsible for completing or coordinating the answers to this form. This form should be retained in the official leak file.

Instructions for completion of this form are as follows:

Incident Name — Document the name of the leak. It is typical for a given leak to be named. This name is used in subsequent discussion and documentation.

Database Number — This is the number automatically assigned in the leak database.

General Information Section

The Initial Responder is responsible for the answers to this section.

Date event occurred — This is the date of the month the incident is reported to the Control Center. This should be the date that there is evidence of a suspected leak. It may be different from the date the leak is confirmed or sufficient information is collected to indicate governmental reportability. However, if there are differences in the dates, the reason for differences should be documented.

Time event occurred — This is the time that evidence of a suspected leak is discovered. Time should be reported using the 2400 clock. The local time zone should be designated. It may be different from the time the leak is confirmed or determination that the incident is determined to be reportable to a government agency. However if the time is different, the reason for differences should be documented.

Time Reported to OCC — This is the time the event was reported to the Orange Control Center.

Reported by — This is the person who is reporting the suspected leak to the Orange Control Center.

Area of Responsibility — This is the name of the Area office where the suspected leak occurred.

Contact number — This is the telephone number that the control center (or others) will use to get further information, if needed.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Address where incident occurred	This is the actual address or closest cross street address where the event occurred. It will be used to locate the incident site on maps and to communicate to others where event occurred.
County	This is County where incident occurred.
Location of event relative to Railways, highways, roads, residents, etc.	Give detail relative to other significant assets. This may be used to determine other emergency response action.

Facility Type Section

The Initial Responder is responsible for the answers to this section. Check the appropriate facility type.

Terminal	Refers to Truck Loading facilities, truck racks and associated storage. Document the name of the facility.
Breakout Facility	Refers to storage, piping, and equipment associated with pipeline transportation. There are two types of Breakout Tanks. Storage – where product comes from pipeline and then is reinjected back into pipeline for further transportation. Breakout also includes tanks associated with pipeline overpressure protection. Document the name of the facility.
Pump Station/Booster	This refers to pump stations associated with pipeline transportation. Document the name of the facility.
Pipeline	This refers to line pipe in the pipeline right-of-way. Document the Line Section number (LS), pipeline mile post (PLMP), and line size.
Other	This refers to valve sites, measurements stations and other facilities, such as gravitometer sites, in the pipeline right of way that is not at a breakout facility, pump station or line pipe. Document the name of the facility.

Consequence Section

The Initial Responder is responsible for the answers to this section. Check the consequence of the event. This is used to determine whether the event is reportable to DOT.

Fire or Explosion	If possible, denote whether fire or explosion was a result of the event or caused the event.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Death or Injury	If possible, differentiate the number of employees and non-employees affected.
Product into the water	Denote if product resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines.
Damage greater than $50,000	This includes cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both. In many cases this may not be known in the early stages of the incident, however leaks involving breakout tanks should be considered as having met this requirement.
Describe weather conditions	Document temperature, rain, and wind conditions (direction and estimated speed) if the incident involved a fire, explosion, death, injury requiring hospitalization, water, or damage greater than $50,000.
Activity Section	
The Initial Responder is responsible for the answers to this section. Document the activity of the system at the time the evidence of the incident was discovered.	
Maintenance	Check if maintenance activities are involved.
Operation Activity	This applies to normal operations, such as start up and shut down of pump(s) or pipeline, filling or emptying tanks.
Failure of Equipment	Check if failure of equipment was involved. Examples of "failure of equipment" includes malfunction of control or leak equipment, failure of components, seal failures etc.
Terminal Loading	This pertains to the actual loading transports.
Dome out	Dome outs should be documented. Only Dome outs released to the atmosphere should be reported to the Control Center and documented on this form.
Additional Descriptions Section	
The Initial Responder is responsible for the answers to this section.	
Size of Wet Area	This is useful to assist in the estimation of released product and determine appropriate emergency response.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS

Type of Product	This pertains to the product that was released from the pipeline. Document the product that is in the pipeline at point of incident at the time of the incident.
Description of Event	Give narrative description of incident. This will help others understand the facts and circumstances surrounding the incidents.
Local Agencies Notified / Time	Document local agencies and emergency response organizations contacted and the time of notification.

External Reporting Section

The Control Center is responsible for determining the external notifications to be made. However, if the Incident Commander requests the Control Center to assist in making other notifications, they may do so. The Manager of Control Centers is responsible for determination of the "reportability" of an incident. If there are questions, or the Manager of Control Centers needs assistance in determining whether or not a given incident is reportable, the Director Pipeline Safety will be consulted.

Non- Reportable	Check if the incident was determined to be non-reportable to State or Federal Agencies.
Initiate Leak Wheel	Check if the pipeline wheel is notified. The pipeline wheel is a predetermined list of pipeline operators that operate in the area of Kinder Morgan's pipeline. Document the date, time, and person (s) receiving notification.
CEMA	Check if the California's Emergency Management Agency (CEMA) was notified. Document the date, time, and person receiving notification and the CEMA number.
Other	Check if other external notifications were made that are not included elsewhere in this section. Document the date, time, and person receiving notification.
State Agency	Check, if other state agencies are notified. Document the date, time, and person receiving notification and State ID number.
NRC	Check if the National Response Center (NRC) is notified. Document the date, time, and person receiving notification and NRC number.

Leak Control & Remediation

The Incident Commander is responsible for determining the answers to this section. However times may be coordinated with others.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Time Leak Stopped:	Document the time the leak was stopped. Use the 2400 hour clock.
Time Product was contained:	Document the time the leak was contained. Use the 2400 hour clock.
How was product contained:	Document the method that the product was contained.

Type of Repair Section

The Area Manager or Maintenance Manager is responsible for completing this section. Check the type of repair used.

Replaced	Replace means that the affected segment was cut out or the affected component removed and replaced.
Sleeve – Type A, Type B, Clock Spring	Sleeve means that the affected pipe was left in place and a pressure containing sleeve, non-pressure containing sleeve or a composite wrap was used as the repair method.
Torqued	Torque means to tighten the fitting or nut used as repair method to stop the leak. This typically refers to repairs on components.
Other: Describe	Check if a repair method other than the ones previously listed were used. Describe type of repair.

Method of Clean-up Section

The Area Manager or Maintenance Manager is responsible for completing this section. Check who was responsible for the clean up and the method used.

HQ Remediation	Check if the EHS Remediation Department was responsible for cleanup.
Local Environmental Contractor	Check if a local environmental contractor was responsible for cleanup.
Local Field Personnel	Check if local field personnel were responsible for cleanup.
Describe Cleanup:	Document the method of Cleanup.

Terminal Dome-out Section

The Area Manager is responsible for completing this section. If Equipment Failure was involved designate ownership of equipment or if it was Driver Error, check apparent cause of driver error.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
KMEP Equipment:	
Scully System Failure	Check if cause of event was due to failure of the Scully System. List the root cause of the failure.
Brodie Hung Open	Check if cause of event was due to failure of the Brodie Valve. List the root cause of the failure.
TMS Failure to Shutdown or Problem	Check if cause of event was due to failure of the TMS System. List the root cause of the failure.
Other	Check if cause of event was due to cause not otherwise listed. List the root cause of the failure.
Carrier Equipment:	
Sensors set too high	Check if cause of event was due to the failure of the Carriers sensors. List the root cause of the failure.
Other	Check if the cause of event was due to failure of the Carrier's equipment and not otherwise listed. List the root cause of the failure.
Driver Error:	
Retain on Truck	Check if cause of event was due to the driver was not aware of residual volumes on truck. List the root cause of the failure.
Two Compartments Opened	Check if cause of event was due to two compartments of the truck being opened. List the root cause of the failure.
Incorrect Preset	Check if cause of event was due to the incorrect volume being set by the Operator. List the root cause of the failure.
Other	Check if the cause of event was due to driver's error and not otherwise listed in this section. List the root cause of the failure.

FIGURE 2.3a

NORTHERN REGION INTERNAL NOTIFICATION REFERENCES

The following notification references are inserted in this Plan from other, consistently maintained, sources. The references will be updated when Plan updates are conducted. The most current references are frequently distributed and are available on the Company Intranet.

In all cases KMEP considers the Area Manager to be the Qualified Individual (QI).

ORANGE CONTROL CENTER
(714) 560-4839
(24-HR NUMBER)

PACIFIC NORTHERN REGION NOTIFICATION LIST

MANAGER	CELL	PAGER	DESK	HOME
Schminke, Doug Director of Operations, Pacific Northern Region	(b) (6)		707.438.2104	(b) (6)
Holbrook, Andrew Northwest Operations Manager, Portland, Eugene, Willbridge, Linnton and Harbor Island	(b) (6)		503.220.1257	
Murphy, Pete Bay Area Operations Manager, Concord, Richmond, San Jose, Brisbane and Stockton	(b) (6)	800.204.7357	510.412.8821	
Osborn, Steve Central Operations Manager, Bradshaw, Chico, Rocklin Station, Fresno, Reno	(b) (6)		916.624.2431x13	
Dexter, Matt Manager Pipeline Maintenance	(b) (6)		707.438.2109	
VACANT Corrosion Manager			707.438.2116	
Hibner, Jeff Area Manager-Wil bridge, Linnton, Portland	(b) (6)		503.220.1263	
Johnson, Kelly Area Manager – Eugene	(b) (6)		541.461.2517	
Kulaszewski, Gary Area Manager, Reno			775.358.6971	
Lilligh, Mike Asst. Area Manager – Concord and Stockton			925-682-3046	
McClellan, Grant Area Manager – Concord and Stockton	(b) (6)		925.682.0764	
McWhorter, Mike Area Manager – Fresno	(b) (6)		559.493.2975	
Metcalf, Ron Asst. Area Manager – Willbridge, Linnton			503.220.1247	
Parker, Curt Compliance Specialist	(b) (6)		707.438.2108	
Rowland, David Area Manager – Harbor Island			206.682.4706	
Stewart, Nicole Area Manager – Richmond Station, Brisbane			707.816.1907	
Sudheimer, Mike Area Manager – Richmond Terminal	(b) (6)	510.539.4982	510.412.8819	
Villalovos II, Frank Area Manager – Chico, Rocklin			530.342.6140	
Westlake, Clay Area Manager – San Jose			408.435.7399	
Yeo, Ken Area Manager – Bradshaw		916.522.9876	916.369.9772	

Last Updated 4/2/2014

PACIFIC REGION REMEDIATION PHONE LIST

	VERIZON	DESK	HOME
Defibaugh, Steve	949.283.4596	714.560.4802	(b) (6)
Dye, James	909.631.0231		
Hanak, Mike	303.903.0728	303.914.7818	
Jones, Marques	619.665.7313		
Loya, Patrick	909.231.0182	310.518.7784	
Martin, Scott	714.357.7502	714.560.4775	
Park, Rob	619.840.5841		
Ross, Darin	916.660.3641	916.624.2431x31	
Ryales, Hoyt	619.517.5593	619.285.5704	
Salcido, Paul	480.203.9968	602.353.4175	
Truedinger, Rob	510.672.1678	510.412.8813	

Northern Region Location & Employee List 5/14/2013

NORTHERN REGION ADMINISTRATION SFPP485 (16)

709 BECK AVENUE
FAIRFIELD, CA 94533
(707) 438-2100 Fax (707) 424-6089

Name	Title
Hosler, Larry	**Director of Operations**
Barnum, Mike	PL Maint Manager
Britton, Jessica	Corrosion Tech
Brandt, Cheryl	Ops. Assistant
Eggenberger, Jim	Corrosion Manager
VACANT	Corrosion Specialist
Dexter, Matt	Engineer
France, Kathy	Manager-EHS
Hausam, Barry G.	Project Manager
Hills, Ron	I.T.-Field Support Analyst
Homer, Donny	EHS Specialist
McCollum, Barbara	Ops. Assistant
McGinnis, John	Engineer
Parker, Curtis	Compliance Specialist
Pupp, Tom H.	Region Technician
Temple, Betty	Ops. Coordinator
Tribelli, Doug M.	Corrosion Tech

BRADSHAW TERMINAL SFPP485 (11)

2901 BRADSHAW ROAD **Mailing**: **PO Box 175**
SACRAMENTO, CA 95827 **Rancho Cordova, CA 95741**
(916) 363-1666 Fax (916) 369-0335

Name	Title
Yeo, Ken W.	**Area Manager – BR**
Barnhart, Greg	Operator 12
Dollar, Newman "Mike"	Operator 12
Frausto, Robert M.	Line Rider
Jackson, Ron	Line Rider
Kleiss, Adam	Operator 12
Madamba, Roy M.	Operator 8
Maier, Mike P.	Maintenance Technician
Ortiz, Antonio D.	Lead Operator 8
Pagnano, Ed V.	Operator 12
Powers, Kelley	Maintenance Technician

BRADSHAW PIPELINE MAINTENANCE SFPP485 (4)

3015 BRADSHAW ROAD, B
SACRAMENTO, CA 95827

Frizzell, Greg	Pipeliner
Gambill, Jason	Sr. Pipeliner
Narasky, Nick	Pipeliner
Owen, Anthony	Pipeliner

BRISBANE TERMINAL SFPP485 (7)

950 TUNNEL AVE
BRISBANE, CA 94005
(415) 467-8107 Fax (415) 467-6787

Name	Title
Stewart, Nicole	**Area Manager, BT/RMS**
Castillo, Jorge	Operator 8
Dodson, Tawaine	Operator 12
Domin, Tom F	Operator 12
Frausto, Conrad	Operator 12
Sebastian, Remil	Operator 12
Otto III, Frederick G.	Lead Operator 8

CHICO TERMINAL SFPP485 (9)

2570 HEGAN LANE
CHICO, CA. 95928
(530) 342-6140 Fax (530) 896-1834

Name	Title
Villalovos, Frank L. II	**Area Manager – CH, RO**
Davis, John	Operator 12
Fandrick, Mike R.	Operator 12
Fuston, Dave E.	Operator 12
Gambill, Gary	Project Manager
Hornsby, Bill	Maintenance Technician
Huffman, Robbie	Operator 8
Routon, Steve J.	Operator 12
Szego, Jim M.	Lead Operator 8

CONCORD STATION SFPP485 (27)

1550 SOLANO WAY
CONCORD, CA 94520
(925) 682-6850/51 Fax (925) 827-2971

Name	Title
McClellan, Grant	**Area Manager – CC, SN**
Lilligh, Mike H.	Assist. Manager
VACANT (internal)	Lead Operator 8
Baszak, John	Operator 12
Bladen, Bob	Operator 12
Carbone, Brandon	Line Rider
Craig, Carl L.	Lead Operator 12
DeVore, Jared	Line Rider
Dickens, Brett L.	Lead Operator 12
Esser, Bobby	Operator 8
Gieseke, Steven	Operator 8
Gomez, Juan J. "Joel"	Operator 12
Harrison, George	Line Rider
Harvey, Dennis	Operator 8
Holguin, Daniel	Operator 12
Landi, Chris	Line Rider
McCarthy, T.J.	Operator 8
Monroe, Steven	Operator 12
Monterrosa, Jose	Operator 12
VACANT	Operator 12
Mueller, Rich L.	Maintenance Technician
Niu, Kapiteni	Lead Operator 12
Rutter, Bill	Operator 12
Siino, Dominic	Maintenance Technician
Spain, Bryan J.	Lead Operator 12
Tibbetts, Jacob	Maintenance Technician
**Zimmerman, Rick W.	Field Scheduler

**Office in Stockton

CONCORD YARD SFPP485 (10)

5625 IMHOFF DRIVE
CONCORD, CA 94520
(925) 798-8587 Fax (925) 685-2709
Mailing:
1550 Solano Way
Concord, CA 94520

Name	Title
Akana, Kevin	Pipeliner
Bellini,Michael	Pipeliner
Biggs, Ralph "Mike"	Utility Tech
Chapman, Joe	ROW Inpsector
Landry, Anthony	Pipeliner
Maynard, Matthew	Pipeliner
Ocampo, Nathaniel	ROW Inspector
Payne, Jason	Senior Pipeliner
Robles, Gabriel	Pipeliner
Villalobos, Rafael	Senior Pipeliner

Northern Region Location & Employee List 5/14/2013

EUGENE TERMINAL SFPP485 (10)

1765 PRAIRIE ROAD
EUGENE, OR 97402
(541) 689-1545 Fax (541) 689-9861
Mailing:
PO Box 2533
Eugene, OR 97402

Name	Title
Johnson, Kelly	**Area Manager**
Caulboy, Richard	Operator 12
Fraga, Stephen G.	Operator 8
Gaston, John P.	Lead Operator 8
Morton, Jeff	Operator 12
Schock, Dondi	Operator 12
VACANT	Operator 12
Stinger, Craig	Line Rider
Tofell, Jason	Operator 12
Williams, Ferill	Maintenance Technician

FRESNO TERMINAL SFPP485 (14)

4149 SO. MAPLE AVE
FRESNO, CA 93725
(559) 237-4612 Fax (559) 264-5531

Name	Title
McWhorter, Mike G.	**Area Manager**
Aceves, Rudy	Operator 8
Bowles, Mark	Operator 8
Coe, Don	Operator 12
Coe, Keith W.	Line Rider
Condon, Pete J.	Lead Operator 8
Garcia, Patrick	Maintenance Technician
Hegwer, Todd R.	Line Rider
Jones, Nathan	Operator 12
Morgan, Bruce	Maintenance Technician
Rebensdorf, Ed	Operator 8
Sheldon, Don	Operator 12
Storey, Wayne	Operator 12
Watson, Bryan	Operator 8

HARBOR ISLAND TERMINAL LQT494 (13)

2720 13th AVENUE, S.W.
SEATTLE, WA 98134-1040
(206) 682-4706 Fax (206) 622-8003

Name	Title
Rowland, David	**Area Manager**
Carey, Lyle "Del"	Lead Operator 8
Failor, Matt	Operator 12
Getz, Stuart	Operator 12
Hegg, Wayne R.	Operator 12
Hodges, Reuben	Operator 12
Knobel, Kyle	Operator 12
Lambert, Jesse	Operator 12
Lynch, Renee	Assoc.PL/Marine Sch
Malinski, Charles	Operator 8
McKee, Evan	Operator 12
Severson, Jerry S.	Operator 12
Strand, Mat	Maint Tech

LINNTON TERMINAL LQT494 (4)

11400 NW ST. HELENS RD
PORTLAND, OR. 97231-1036
Mailing:
5880 NW ST. HELENS RD.
PORTLAND, OR 97210
(503) 286-1691 Fax (503) 286-0499

Name	Title
Heppner, Lee W.	OQ
Libby, Scott	Operator 12
Olson, Randy	Operator 12
Paolisso, Vincent	Operator 12

PORTLAND STATION SFPP485 (7)

6565 N.W. ST. HELENS ROAD
PORTLAND, OR 97210-3638
(503) 224-3390 Fax (503) 224-1448

Name	Title
Claxton, Michael J.	Operator 12
Fatjo, Mark R.	Operator 12
Hardy, Thomas L	Operator 12
Karabaic, Lane	Maintenance Technician
Rolph, Kevin Scott	Lead Operator 8
Wallace, Kevin	Line Rider
Wright, Timothy	Operator 12

RENO/SPARKS TERMINAL SFPP485 (10)

301 NUGGET AVENUE
SPARKS, NV 89431
(775) 358-6971 Fax (775) 358-7018

Name	Title
Kulaszewski, Gary	**Area Manager**
Damele, John	Operator 12
Gamboa, Pat	Operator 12
Hadley, Tim	Maintenance Technician
Hall, Donald	Operator 8
Jones, Jared	Line Rider
Mudd, Tony L.	Operator 12
Rayner, Steven	Operator 8
Roth, Lance A.	Operator 12
Stacy, Robert L.	Lead Operator 8

RICHMOND STATION SFPP485 (9)

520 CASTRO STREET
RICHMOND, CA. 94801
(510) 233-2027 Fax (510) 232-1729

Name	Title
Bonifacio, Mike	Operator 8
Harris, David	Maintenance Technician
Howden, Bill	Operator 12
Knoll, John	Lead Operator 8
Onorato, Dave J.	Line Rider
Phelps, Bill G.	Lead Operator 12
Shane, Darren M.	Operator 12
Snead, Brian	Line Rider
Wilson, Gary	Operator 8

Northern Region Location & Employee List 5/14/2013

RICHMOND TERMINAL LQT494 (20)

1140 CANAL BLVD.
RICHMOND, CA. 94804
(510) 412-8810 Fax (510) 232-9317

Name	Title
Pete Murphy	**Operations Mgr - Concord, Richmond Station, Richmond Terminal, San Jose, Brisbane, Stockton**
Sudheimer, Mike	**Area Manager**
Aguilar, Alfredo	Operations Coordinator
Coots, George	Operations Coordinator
Corona, Maria	Dispatcher
VACANT	Cust Srv Rep
Gill, Christine	Sr. Cust Srvc Rep
Knapp, Kenneth C.	Operations Coordinator
Martinez, Antonio D.	Lead Operations Coord.
VACANT	Cust Srvc Rep
Bargaining Unit	
Dorton, Clifford L.	Operator
Garcia, Lamberto A.	Working Foreman
Hoffman, Dan	Operator
Johnson, Lester	Operator
Marco, Christopher	Operator
Proctor, Robert T.	Maintenance
Reyes, Eric	Operator
VACANT	Operator
Schmollinger, Travis	Operator
Strickland, Nathan	Operator

ROCKLIN ADMINISTRATION SFPP485 (10)

6050 PACIFIC STREET, "B"
ROCKLIN, CA 95677
(916) 624-2431 + ext., Fax (916) 624-4372
Mailing:
PO Box 837
Rocklin, CA 95677

Name	Title
Osborn, Steve	**Operations Mgr. Bradshaw, Chico, Rocklin Station, Fresno and Reno**
Andrews, Dennis L.	Project Manager
Brothers, Jason O.	ROW Specialist
Cargill, Gerry	Region Technician
Landry, Tony N.	Corrosion Technician
McGregor, Mike E.	Corrosion Technician
Osborn, Steve J.	Remediation
Ross, Darin	Remediation Technician
Sauvageau, Larry	Corrosion Technician
Van der Walt, Jacob	Regional Maint. Tech

ROCKLIN STATION SFPP485 (9)

6050 PACIFIC STREET, "A"
ROCKLIN, CA 95677
(916) 624-2433 Fax (916) 624-0114
Mailing:
PO Box 1318
Rocklin, CA 95677

Name	Title
Bailey, Steve M.	Operator 12
Barrera, James C.	Operator 12
Beutell, Steve Q.	Maintenance Technician
Gambill, Bryan	Line Rider
Hubbard, Philip "Doug"	Line Rider
Huckins, Chris	Operator 8
Lowery, George H.	Operator 12
Noyes, Denny L.	Lead Operator 8
Ortiz, Dan	Operator 12

SAN JOSE SFPP485 (11)

2150 KRUSE DRIVE
SAN JOSE, CA 95131
(408) 435-7399 Fax (408) 434-0283

Name	Title
Westlake, Clay	**Area Manager – SJ**
Armer, Mike R.	Lead Operator
Campbell, Greg	Maintenance Technician
Diaz, Luis	Operator 12
Esquibel, Mark	ROW Specialist
Givens, Jeremiah	Line Rider
Gutierrez, Orlando	Operator 8
Iden, Scott	Operator 12
Lennan, Will F.	Operator 12
Sandhu, Narinder	Operator 12
Witten, Ken	Operator 8

STOCKTON TERMINAL SFPP485 (1)

2947 NAVY DRIVE
STOCKTON, CA 95206
(209) 465-7369 Fax (209) 465-7371

Name	Title
Ward-Williams, Brian	Operator 8 (w/ LR duties)

WILLBRIDGE TERMINAL LQT494 (25)

5880 NW ST. HELENS RD.
PORTLAND, OR 97210
(503) 220-1260 Fax (503) 220-1270
(503) 220-1240 Fax (503) 220-1249 Andrew &Barbara

Name	Title
Holbrook, Andrew	**Operations Mgr. Portland, Eugene, Willbridge, Linnton and Harbor Island**
Hibner, Jeff	**Area Manager – Will/Linn/Portland**
Metcalf, Ron	**Assistant Area Manager**
Anderson, Thomas	Operator 12
Annett, Samuel D.	Operator 12
Bennett, Bob	Operator 12
Denson, David G.	Marine/PL Scheduler
Gray, Sean F	Operator 8
Hanson, Steve	Operator 12
Hilsenhoff, Matthew	Operator 12
Jones, Paul	Operator 12
Laird, Michael	Operator 12
Lies, Gregg	Sr. Project Manager
McCollum, Willis	Operator 12
Millican, Donald S.	Sr. Maintenance Technician
Sherman, Steven	Operator 12
Spurlin, Patrick	Operator 12
Stonehouse, Darrell R.	Operator 8
Tungate, Steven C.	Field Scheduler
Vincenzo, Chris	Operator 12
Wallace, Richard M	Operator 12
Wilson, Monica	Customer Service Rep
Zimmerman, Mark	Operator 12
Clark, Barbara J.	Sr. Contract Admin-NW
Mathers, Robert H.	Director Bus Dev-NW

Northern Region Location & Employee List 5/14/2013

CONCORD LAB **SFPP485** **(3)**
1550 SOLANO WAY
CONCORD, CA 94520
(925) 825-7557 Fax (925) 676-4315

Name	Title
Choi, Karen P.	Chemist
Draper, Emily	Lab Technician
Raty, Shawn "Doug"	Chemist

OTHER:
Steve Marositz-DOT Compliance
Robert Granado-Interim Safety
Rob Truedinger-EHS/Remediation

UNMANNED FACILITIES*

AMORCO STATION
Inside Tesoro dock area
(925) 229-0730

ATWATER TERMINAL

BAKERSFIELD STATION
6000 Snow Rd.
Bakersfield, CA 93312
(661) 399-3871

BEALE AFB
6 & F Street
Marysville, CA 95903

BRENTWOOD BOOSTER STATION
Balfour and Old Hwy 4 (intersection)
(925) 634-5566

CISCO GROVE PUMP STATION
80 Cisco Rd.
Soda Springs, CA
(530) 426-3777

COLFAX BOOSTER
50 Carpenter Road
Colfax, CA
(530) 346-2219

DOUGHERTY BOOSTER
6433 Dougherty Rd
Dublin, CA 94568

ELMIRA
Leisure Town Rd
(707) 446-3857

ERLE JUNCTION (MANIFOLD)
2921 S. Beale Rd.
Wheatland, CA 95692
(530) 633-4134

FEATHER BOOSTER STATION
4225 Live Oak Blvd
Live Oak, CA 95953
(530) 671-7995

FRESNO MILITARY
2094 E. Malaga Ave.
Fresno, CA 93725
(559) 493-2976

LE MOORE NAS
Building 90, Naval Air Station
Lemoore, CA 93246
(559) 998-1329

MARTINEZ BOOSTER STATION
Marina Vista & Amoroco dock access road
(925) 228-6305

MATHER METER STATION

McCLELLAN METER STATION

OAKLAND AIRPORT (JUNCTION)
Neil Armstrong Way
(Behind Swiss Port Fuel Tanks on levy)
No Phone

OAKLAND JEFFERSON (JUNCTION)
50 Martin Luther King Way
(Formerly known as PG&E now known as Duke Energy) The tank is across the street from Duke Energy which is at Jefferson & Embarcadero.
No Phone

OAKLAND TERMINAL
Bay Street & 7th
(In the middle of the Union Pacific switching yard)
No Phone

ROSEVILLE SP DIESEL (on rail road property)

ROUGH & READY JUNCTION

SACRAMENTO AIRPORT JUNTION

SACRAMENTO STATION "WEST SAC"
1570 S. River Rd.
West Sacramento, CA
(916) 371-7666

SFO

STOCKTON JUNCTION

SUISUN JUNCTION

TRAVIS AFB
Across street from:
828 Ragsdale Ave
Fairfield, CA
(Inside Travis Air Force Base)
(707) 424-2219
Off Main Street
Suisun City, CA
No Phone

TRAVIS STATION BREAKOUT
151 Hanger Avenue
Travis AFB, CA 94535
(707) 439-0923

Northern Region Location & Employee List 5/14/2013

WEST CAPITOL METER STATION

*** Please note that these are unmanned facilities and even though they may have a phone number the phones most likely will not be answered.**

Northern Region Phone List

Name	Office	Cellular	Pager	Fax	Home
24 / 7 Orange Controllers/Schedulers 213-624-9461 & 213-624-9462					(b) (6)
Adelman Travel Center 303-763-3170 Toll Free# 800-801-3445 ext. 63170					
Akana, Kevin	925-798-8587	(b) (6)			
Andrews, Dennis L.	916-624-2431x16		877-439-2978		
Armer, Mike	408-435-7399				
Bakersfield Station	661-399-3871				
Barnum, Mike	707-438-2111			303-984-3897	
Barr Air Patrol, LLC	972-222-0229			972-222-0116	
Bellini, Mike	925-798-8587				
Beutell, Steve Q.	916-624-2431x24				
Biggs, Ralph "Mike"	925-798-8587				
Bradshaw	916-363-1666			916-369-0335	
Bradshaw 40hr					
Brandt, Cheryl	707-438-2106				
Brisbane	415-467-8107			415-467-6787	
Brisbane 40hr					
Britton, Jessica	707-438-2117				
Brothers, Jason	916-624-2431			303-984-3392	
Campbell, Greg	408-435-7399				
Carbone, Brandon	925-382-8218				
Carey, Lyle D. (Del)	206-682-4706				
Cargill, Gerry D.	916-624-2431x17		916-326-9926		
Chapman, Joe	925-798-8587				
Chico	530-342-6140			530-896-1834	
Clark, Barbara	503-220-1242			503-220-1249	
Coe, Keith	559-237-4612				
Concord Lab	925-825-7557			925-676-4315	
Concord Maint. Yard	925-798-8587			925-685-2709	
Concord Station	925-682-6850			925-827-2971	
Concord Station 2					
Condon, Pete J.	559-237-4612				
Damele, John D.	775-358-6971				
Denson, David G.	503-220-1250		503-243-0558		
DeVore, Jared	209-465-7369				
Dexter, Matt	707-438-2109			303-984-3708	
Defibaugh, Steve	714-560-4802			714-560-4601	
Dye, James				909-877-9036	
Eggenberger, Jim	707-438-2116				
Esquibel, Mark	408-435-7399			303-984-3051	
Corrosion Specialist	707-438-2105				
Eugene	541-689-1545			541-689-9861	
Eugene Terminal					
France, Kathleen	707-438-2114			707-424-6089	
Frausto, Robert "Conrad"	415-467-8107		877-524-9513		
Frausto, Robert M.	916-363-1666				
Fresno	559-237-4612			559-264-5531	
Fresno Relief Line Rider					
Frizzell, Greg	916-416-8618				
Gambill, Bryan	916-363-1666				
Gambill, Gary W.	707-580-5753				
Gambill, Jason	916-261-4432				
Gamboa, Pat	775-358-6971				
Garcia, Patrick	559-237-4612				
Gaston, John	541-689-1545				
Gieseke, Steve	925-682-6850				
Gill, Christine L.	510-412-8814				

Northern Region Phone List

Name	Office	Cellular	Pager	Fax	Home
Givens, Jeremiah	925-682-6850	(b) (6)			(b) (6)
Hadley, Tim	775-358-6971				
Hanak, Mike	303-914-7818			303-763-3115	
Harbor Island Terminal	206-682-4706			206-622-8003	
Harris, Dave	510-233-2027				
Harrison, George	925-682-6850				
Hausam, Barry G.	707-438-2118				
Hegg, Wayne					
Hegwer, Todd R.	209-465-7369				
Heppner, Lee	503-240-3358				
Hibner, Jeffrey	503-220-1263				
Hills, Ron	707-438-2112				
Hodges, Reuben	206-682-4706				
Holbrook, Andrew	503-220-1257				
Homer, Donny	707-438-2101				
Hornsby, Bill	530 342-6140				
Hosler, Larry G.	707-438-2104		877-689-6668		
Hubbard, Philip "Doug"	916-624-2433		877-387-7791		
Huckins, Chris	916-624-2433				
Jackson, Ron	916-416-3746				
Johnson, Kelly W.	541-461-2517				
Jones, Jared	775-358-6971				
Jones, Marques					
Karabaic, Lane	503-224-3390				
KCSI Aerial Patrol	661-834-6870				
Kinder Morgan Help Desk	877-563-33				
Knoll, John	510-233-2027				
Kulaszewski, Gary	775-358-7012				
Landi, Chris	925-682-6850				
Landry, Anthony	925-798-8587				
Landry, Tony N.	916-624-2431				
Libby, Scott	206-682-4706				
Lies, Gregg A.	503-220-1239			303-984-3057	
Lilligh, Mike H.	925-682-3046				
Linnton Dock	503-286-1691			503-286-0499	
Linnton Operator	503-286-1691			503-286-0499	
Loya, Patrick	310-518-7784			310-830-9188	
Lynch, Renee	206-682-4706			206-622-8003	
Madamba, Roy M.	916-361-2395				
Maier, Mike P.	916-369-9770				
Maynard, Matt	925-798-8587				
Martin, Scott	714-560-4775			714-560-6669	
Martinez, Antonio D.	510-412-8818		510-539-2258		
Mathers, Robert H.	503-220-1258				
McCarthy, Timothy (TJ)	925-682-6850				
McClellan, Grant W.	925-682-0764				
McCollum, Barbara	707-438-2115 707-438-2100			707-424-6089	
McGinnis, John	707-438-2119				
McGregor, Mike E.	916-624-2431x15				
McWhorter, Mike G.	559-493-2975				
Metcalf, Ronald R.	503-220-1247				
Millican, Donald S.	503-220-1256				
Morgan, Bruce	559-237-4612				
Morgan, Mike	206-682-4706				
Mudd, Tony	775-358-6971				

Northern Region Phone List

Name	Office	Cellular	Pager	Fax	Home
Mueller, Rich L.	925-682-6850	(b) (6)	925-946-8260		(b) (6)
Murphy, Peter G.	510-412-8821		800-204-7357	303-984-3823	
Narasky, Nick	916-624-2431				
Northern Region	707-438-2100			707-424-6089	
Noyes, Denny	916-624-2433				
Ocampo, Nathaniel	925-798-8587				
Onorato, Dave	925-682-6850/51				
Ortiz, Antonio D.	916-369-9774			916-369-9789	
Ortiz, Daniel					
Osborn, Steve J.	916-624-2431 x13			714-560-6612	
Otto, Fred J. (SN)	209-465-7369				
Otto, III Fred G. (BT)	415-467-8107		510-297-1999		
Owen, Anthony	916-624-2431				
Park, Rob					
Parker, Curtis	707-438-2108				
Payne, Jason	925-798-8587				
Portland Station	503-224-3390			503-224-1448	
Powers, Kelley	916-363-1666				
Proctor, Bob T.	510-412-8821				
Pupp, Tom H.	707-438-2113				
Rayner, Steven	775-358-6971				
Reno	775-358-6971			775-358-7018	
Richmond Scale	510-412-8816			510-232-9317	
Richmond Station 1	510-233-2027			510-232-1729	
Richmond Station 2					
Richmond Terminal	510-412-8810			510-232-9317	
Rocklin Maint. Office	916-624-2431			916-624-4372	
Rocklin Station	916-624-2433			916-624-0114	
Ross, Darin	916-624-2431 x31				
Roth, Lance	775-358-6971				
Rowland, Dave	206-682-4706			303-984-3441	
Ryales, Hoyt	619-285-5704			303-984-3348	
Salcido, Paul	602-353-4175			303-984-3687	
San Jose	408-435-7399			408-434-0283	
San Jose 40hr					
Satelite Phone #1					
Satelite Phone #2					
Satelite Phone #3					
Sauvageau, Larry	916-624-2431x12		888-371-5631		
Seattle Dock	206-682-4706			206-622-8003	
Severson, Jerry	206-682-4706				
Snead, Brian J.	510-412-8820		510-539-2227		
Stacey, Stephen	206-682-4706				
Stacy, Bob	775-358-6971				
Stewart, Nicole	707-816-1907			303-984-3898	
Stinger, Craig	541-689-1545				
Stockton Terminal	209-465-7369			209-465-7371	
Stonehouse, Darrell	503-220-1254				
Strand, Mat					
Sudheimer, Michael G.	510-412-8819		510-539-4982		
Szego, Jim	530-342-6140				
Temple, Betty L.	707-438-2103				
Tibbetts, Jacob	925-682-6850				
Tolfell, Jason	541-689-1545				
Travis Breakout Station	707-439-0923				

Northern Region Phone List

Name	Office	Cellular	Pager	Fax	Home
Tribelli, Doug M.	707-438-2107	(b) (6)			(b) (6)
Truedinger, Robert	510-412-8813			303-984-3759	
Tungate, Steven C.	503-220-1276		503-202-4049	503-220-1270	
Van Der Walt, Jacob	916-624-2433				
Villalobos, Rafael	925-798-8587				
Villalovos, Frank L. II	530-342-6140				
Wagner, Todd R.	510-233-2027				
Wallace, Kevin	503-224-3390				
Ward-Williams, Brian	209-465-7369				
Westlake, Clay	408-435-7399			303-984-3086	
Westling, Greg	503-286-1622				
Willbridge Dock	503-224-0319			503-220-1270	
Willbridge Office	503-220-1260			503-220-1270	
Willbridge Operator	503-220-1246			503-220-1270	
Williams Jr., Ferill	541-461-0759				
Wilson, Monica	503-220-1265				
Yeo, Ken W.	916-369-9772		916-522-9876		
Zimmerman, Rick W.	209-465-7369				

FIGURE 2.3b

SOUTHERN REGION INTERNAL NOTIFICATION REFERENCES

The following notification references are inserted in this Plan from other, consistently maintained, sources. The references will be updated when Plan updates are conducted. The most current references are frequently distributed and are available on the Company Intranet.

In all cases KMEP considers the Area Manager to be the Qualified Individual (QI).

ORANGE CONTROL CENTER
(714) 560-4839
(24-HR NUMBER)

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Desk	Fax	Home	Email Address
Vasquez, Phil	(b) (6)	909 873-5123	909 877-9036	(b) (6)	vasquezp@kindermorgan.com
Director of Operations - PSR					
Manley D.S. (Scott)	(b) (6)	602 272-8141	602 269-8518	(b) (6)	manleys@kindermorgan.com
Operations Manager – East (El Paso, Imperial, Niland, Phoenix, Tucson & Yuma) E-Fax # : 303 984-3003					
Thomasson, J. (Johnny)	(b) (6)	310 518-7777	310 549-5708	(b) (6)	johnny_thomasson@kindermorgan.com
Operations Manager – West (Carson, Gaffey Street, Los Angeles Harbor, Mission Valley, Orange, Watson) E-Fax #: 303-984-3721					
Toepfer, Bill	(b) (6)	909 873-5102	909 877-9036	(b) (6)	bill_toepfer@kindermorgan.com
Operations Manager -Central (Barstow, Colton-North, Colton South, Colton Transmix & Las Vegas)					
Bishop, Craig	(b) (6)	619 283-4813	619 285-5706	(b) (6)	bishopc@kindermorgan.com
Sr.Compliance Specialist					
Cole, Joe	(b) (6)	909 873-5164	909 877-9036	(b) (6)	joe_cole@kindermorgan.com
Manager- Pipeline Maintenance E- Fax #: 714 560-6650					
McCaffery, Jack	(b) (6)	909 873-5118	909 877-1562	(b) (6)	jack_mccaffery@kindermorgan.com
Manager – Corrosion E-Fax # 714 560-6682					
Pruett, Tim	(b) (6)	909 873-5114	909 873-9036	(b) (6)	pruettt@kindermorgan.com
Manager - Projects					
Brown, R. (Rob)	(b) (6)	760 254-5472	760 254-2446	(b) (6)	robert_brown@kindermorgan.com
Area Manager -Barstow					

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Desk	Fax	Home	Email Address
Congiardo, Gene	(b) (6)	909 873-5153	909 877-5549	(b) (6)	congiardog@kindermorgan.com
Area Manager – Colton North & Colton South					
Eiffert, Troy	(b) (6)	602 278-8565	602 269-8518	(b) (6)	eiffertt@kindermorgan.com
Area Manager – Phoenix					
Hosler, Tom	(b) (6)	310 518-7727	310 549-5708	(b) (6)	tom_hosler@kindermorgan.com
Area Manager – Carson					
Koehn, Gary	(b) (6)	760 312-9598	714 560-6556	(b) (6)	koehng@kindermorgan.com
Area Manager – (Imperial, Niland, Yuma)		E-Fax #: 714-560-6664			
Lacro, Vern	(b) (6)	702 643-1282	303 984-3031	(b) (6)	vern_lacro@kindermorgan.com
Area Manager – Las Vegas	E-Fax: 303-984-3031				
Larkin, Tom	(b) (6)	909 873-5162	909 877-4608	(b) (6)	larkint@kindermorgan.com
Sr. ROW Specialist – Central Division					
Luera, Frank	(b) (6)	619 281-4052	619 281-5427	(b) (6)	lueraf@kindermorgan.com
Area Manager- Mission Valley					
Neuner, Jordan	(b) (6)	310 518-7717	310 549-5708	(b) (6)	jordan_neuner@kindermorgan.com
ROW Specialist- West Division					

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Desk	Fax	Home	Email Address
Palacios, James	(b) (6)	915 822-7004	915 778-1111	(b) (6)	james_palacios@kindermorgan.com
Area Manager – El Paso					
Stewart, Jim	(b) (6)	909 874-1998	909 613-4201	(b) (6)	jim_stewart@kindermorgan.com
Area Manager – Colton Transmix					
Tilton, Mike	(b) (6)	310 518-7763	303 984-3816	(b) (6)	michael_tilton@kindermorgan.com
Area Manager - LAHT					
Townsend, J. (Heath)	(b) (6)	602 353-9134	602 353-4174	(b) (6)	jeremy_townsend@kindermorgan.com
Sr. ROW Specialist – East Division					
Vice, M.W. (Marty)	(b) (6)	310 635-1011	310 638-8129	(b) (6)	vicem@kindermorgan.com
Area Manager – Orange & Watson					
Wittenberg, Dan	(b) (6)	520 514-1065 Ext. 101	520 514-1074	(b) (6)	dan_wittenberg@kindermorgan.com
Area Manager – Tucson	E-Fax : 303-984-3368				

Southern Region Location & Employee List 5/14/13

*** = Manager of Location - Not Physically at Location**

SOUTHERN REGION ADMINISTRATION

2319 S. RIVERSIDE AVE.
BLOOMINGTON, CA 92316
(909) 877-2373 Fax (909) 877-9036

Name	Title
Vasquez, Phil	Director of Operations
Bishop, Craig	Sr. Compliance Specialist*
Chan, Domingo	IT-Specialist
Daly, John R.	Supervisor Projects
Houston, Richard D.	Maintenance Technician
Jones, Toni	Operations Assistant
Marositz, Steve	DOT Safety
Muniz, Sonia	Operations Assistant
Pruett, Timmy L.	Manager Projects
Risch, Walter	Utility Technician
Rose, Tina M.	Sr. Operations Coordinator
Schulz, Keith D.	Maintenance Technician
Sloan, Derrick G.	Maintenance Technician
Toepfer, Bill	Operations Manager
Thomas, Michael	Maintenance Technician
Vallejo, Arllyn	Operations Assistant

BAKER STATION

72 KELBAKER RD.
BAKER, CA 92309
(760) 733-4325

Name	Title
Brown, Rob	Area Manager*

BARSTOW TERMINAL

34277 DAGGETT/YERMO ROAD
Daggett, CA 92327
(760) 254-2616 Fax (760) 254-2446
Mailing:
P.O. Box 188
Daggett, CA 92327

Name	Title
Brown, Robert	Area Manager
Cooper, Richard (Joe)	Lead Operator 8
Melendez, Jose	Maintenance Technician
Moya, Vic	Operator 8
Nagle, Andrew	Operator 12
Smith, Brent	Operator 12
Soto, Andy	Operator 12
Thomson, Alex	Operator 12
Wells, Michael	Operator 8

CARSON TERMINAL

2000 EAST SEPULVEDA BLVD.
CARSON, CA 90810-1995
(310) 518-7700 Fax (310) 549-5708

Name	Title
Thomasson, Johnny	Operations Manager
Hosler, Tom	Area Manager
Giese, Al	Assistant Area Manager
Neuner, Jordan	ROW Specialist
Anderson, Catherine	Customer Service Rep.
Annett, David	Gauger
Balke, Brian	Line Rider
Barragan, Lawrence	Head Gauger
Barrera, Tony	Gauger
Boroff, Donald	Maintenance Technician
Calinaya, Leo	Line Rider
Coughlin, Karen	Customer Service Rep.
Dadivas, Thomas	Operations Coordinator
Evangelista, Virginia	Customer Service Rep.
Federis, Jimmy	Maintenance Technician
Geiger, Steve	Gauger
Gordon, Rita	Administrative Assistant
Goss, Steven	Sr. Scheduler
Greene, Roy	Maintenance Technician
Hartle, Randy	Maintenance Manager
Jimenez, Richard	Gauger
LaPeaux, Michael	Line Ride
Montgomery, Scott	Ops Coordinator
Moore, David	Gauger
Padilla, Robert	Operations Coordinator
Rascon, Robert	Head Gauger
Rubens, Joe	Ops Coordinator
Sanchez, Luis	Maintenance Technician
Schuetz, William	Technician
Schultz, Max	Gauger
Street, James	Relief Gauger
Taylor, Donald	Head Gauger
Teran, Frank	Ops Coordinator
Torrices, Janet	Sr. Analyst-Inventory Cntrl.
Yokota-Sholmire, Stacy	Gauger

CARSON CORROSION

2000 EAST SEPULVEDA BLVD.
CARSON, CA 90810-1995
(310) 518-7700 Fax (310) 549-5708

Name	Title
McCaffery, Jack	Corrosion Manager*
Hare, James	Corrosion Technician

COLTON CORROSION

2319 S. RIVERSIDE AVE.
BLOOMINGTON, CA 92316
(909) 873-5118 Fax (909) 877-1562

Name	Title
McCaffery, Jack	Corrosion Manager
Barton, Gary	CIS Specialist
Hitt, William	Supv-Corrosion
Reed, Lloyd (Slim)	Corrosion Technician
Shoemaker, Milton	Corrosion Technician

Southern Region Location & Employee List 5/14/13

*** = Manager of Location - Not Physically at Location**

COLTON PIPELINE MAINTENANCE

2359 S. RIVERSIDE AVE.
BLOOMINGTON, CA 92316
(909) 873-5116 Fax (909) 873-0449
Mailing:
2319 S. Riverside Ave.
Bloomington, CA 92316

Name	Title
Ball, Greg	Sr. Pipeliner
Bishop, Tom	Sr. Pipeliner
Hernandez, Robert	Pipeliner
Leitheim, Robert	Pipeliner
Ortega, Juan	Pipeliner
Smith, Zachary	**Pipeliner**

COLTON TERMINAL – NORTH - ADMIN

2051 E. SLOVER
BLOOMINGTON, CA 92316
(909) 877-2414 Fax (909) 877-4608

Name	Title
Cole, Joe	Manager-Pipeline Maintenance
Larkin, Thom	Sr. ROW Specialist
Lenk, Bob	Sr. Chemist

COLTON TERMINAL – NORTH

2051 E. SLOVER
BLOOMINGTON, CA 92316
(909) 877-2414 Fax (909) 877-4608
Mailing:
2319 S. Riverside Ave.
Bloomington, CA 92316

Name	Title
Congiardo, Gene	Area Manager
Nichols, Wayne	Assistant Area Manager
Castillo, Andrew	Line Rider
Clark, Erik	Operator 12
Fisher, Matthew	Operator 12
Ginter, Larry	Operator 12
Jensen, Timothy	Maintenance Technician
Parker, Kenneth	Operator 8
Poller, Gary	Maintenance Technician
Stark, Ralph	Operator 12
Wright, Matthew	Lead Operator 8

COLTON TERMINAL – SOUTH

2359 S. RIVERSIDE AVE.
BLOOMINGTON, CA 92316
(909) 877-2141 Fax (909) 877-5549

Name	Title
Congiardo, Gene	Area Manager
Nichols, Wayne	Assistant Area Manager
Adams, Russ	Lead Operator 8
Baxter, Tony	Line Rider
Bragstad, Rick	Operator 12
Dering, Richard	Lead Operator 12
Farias, Raul	Operator 12
Hernandez, Ronald	Line Rider
Hogue, Mike	Operator 8
Hornsby, Jacob	Operator 12
Kaleo, Adrian	Operator 12
Laliberte, Chris	Operator 12
LaFayette, James	Operator 12
McMorris, Brian	Operator 12
Mora, Luis	Operator 8
Moriaty, Mike	Maintenance Technician
Parker, Greg	Lead Operator 12
Prince, Jasper	Lead Operator 12
Pritchett, Christopher	Operator 12
Rodarte, Sergio	Lead Operator 12
Rodriquez, Rommel	Line Rider
Ruiz, Rudy	Maintenance Technician
Sample, Charles	Operator 8
Thurman, Denyse	Operator 8
Vazquez, Joe	Maintenance Technician

COLTON TRANSMIX

201 E. SANTA ANA
BLOOMINGTON, CA 92316
(909) 874-1998 Fax (909) 874-8242
Mailing:
2305 S. Riverside Ave.
Bloomington, CA 92316

Name	Title
James Stewart	Area Manager
Goodnight, Jim	Chemist
Goulet, Guy	Operator 12
Ramos, Eddie	Operator 12
Rodriguez, David	Operator 12
Vazquez, Joe	Technician*
Zamora, Joe	Lead Operator 8
Zaragoza, Carlos	Operator 12

EL PASO BREAKOUT STATION

11621 RAILROAD DRIVE
EL PASO, TX 79934
(915) 772-7400 Fax (915) 778-1111

Name	Title
Palacios, James	Area Manager
Velasquez, Javier	Asst. Area Manager
Acevedo, Ray	Operator 8
Apodaca, Carlos	Lead Operator 12
Boulanger, Lawrence	Maintenance Technician
Clark, Judy	Operator 12
Felsot, Codey	Lab Technician
Folk, James	Operator 12
Gonzales, Ruben	Operator 12
Hasan, Mehedi	Operator 12
Holguin, Marco	Operator 12
Lastra, Mike	Maintenance Technician
Martinez, Michael	Planner Scheduler
Olbrisch, James	Operator 12
Padilla, David	Operator 12

Southern Region Location & Employee List 5/14/13

*** = Manager of Location - Not Physically at Location**

Resendez, Jesus	Line Rider
Sandoval, Uvaldo	Lead Operator 12

EL PASO STATION
6850 MARKET AVE.
EL PASO, TX 79915
(915) 772-7400 Fax (915) 778-1111

Name	Title
Palacios, James	Area Manager
Townsend, Tom	Project Specialist

El PASO PIPELINE MAINTENANCE
6850 MARKET AVE.
EL PASO, TX 79915
(915) 843-4182 Fax (915) 843-4174

Name	Title
Perez, Fernando	Sr. Pipeliner
Rodriguez, Fernando	Pipeliner

IMPERIAL CORROSION
345 W. ATEN ROAD
IMPERIAL, CA 92251
(760) 352-0677 Fax (760) 352-4358

Name	Title
McCaffery, Jack	Corrosion Manager*
Medina Sr., Martin	Corrosion Technician

IMPERIAL STATION
345 W. ATEN ROAD
IMPERIAL, CA 92251
(760) 352-0677 Fax (760) 352-4358

Name	Title
Koehn, Gary	Area Manager
Garcia, Lupe	Operator 8
Medina Jr., Martin	Operator 12
Milan, Daniel	Lead Operator 8
Milan, David	Operator 12
Miller, Danny	Maintenance Technician
Padilla, Daniel	Operator 12
Parrott, Andrew	Operator 8
Provencio, Louis	Operator 8
Robinson Jr., Joseph	Operator 12
Widmann, Delbert	Maintenance Technician

INDUSTRY STATION
128 S. BREA CANYON ROAD
INDUSTRY, CA 91789
(909) 594-0410

Name	Title
Vice, Marty	Area Manager*

INDUSTRY STATION PIPELINE MAINT
128 S. BREA CANYON ROAD
INDUSTRY, CA 91789
(909) 594-0410 Fax (909) 595-5829
Mailing:
19745 E. Colima Rd. Suite # 1
Mailbox # 584
Rowland Heights, CA 91748

Name	Title
Flores, Aniceto	Sr. Pipeliner
Fikstad, Corbin Clayne	Pipeliner
Ciotti, Phillip	Pipeliner
Valdez, Eddie	Pipeliner
Williams, Adam	Pipeliner

LA HARBOR TERMINAL (LAHT)
1900 WILMINGTON – SAN PEDRO ROAD
SAN PEDRO, CA 90733
(310) 831-6566 Fax (310) 833-5809
Mailing:
2000 East Sepulveda Blvd.
Carson, CA 90810

Name	Title
Tilton, Mike	Area Manager
Burchett, Thomas	Gauger
Calandrino, Frank	Head Gauger
Hernandez, Daniel	Relief Gauger
Martinez, Bob	Gauger
Miller, Richard	Head Gauger
Odom, Thomas	Head Gauger
Price, Timothy	Head Gauger
Ruiz, Bryant	Gauger

LAS VEGAS TERMINAL
5049 N. SLOAN LANE
LAS VEGAS, NV 89115
(702) 644-3943 Fax (702) 644-2236

Name	Title
Lacro, Vern	Area Manager
Alonso, Jan	Operator 12
Bingman, James	Operator 12
Brown, David	**Loader/Offloader**
Busbee, Owen	Operator 8
Charles, Michael	Line Rider
Gentry, Connie	Customer Service Rep
Lammers, Terry	Line Rider
LaPorta, Michael	Maintenance Technician
Miller, Robert	Maintenance Technician
Owens, Brandon	Rail Car off Loader
Rumsey, Robert	Line Rider
Shenk, Jeremy	Operator 8
Tobiasson, Jimmy	Lead Operator 8
Vasso, Cliff	Operator 12
Vincent, Normie	Operator 12

Southern Region Location & Employee List 5/14/13

*** = Manager of Location - Not Physically at Location**

LAS VEGAS QUALITY CONTROL LABORATORY
5049 N. SLOAN LANE
LAS VEGAS, NV 89115
(702) 644-4052 Fax (702) 644-4691

Name	Title
Cooper, Allen	Chemist

LAS VEGAS CORROSION
5049 N. SLOAN LANE
LAS VEGAS, NV 89115
(702) 644-4052 Fax (702) 644-4691

Name	Title
McCaffery, Jack	Corrosions Manager*

LORDSBURG CORROSION
212 POW RD.
LORDSBURG, NM 88045
(575) 542-8550 Fax (575) 542-9556
Mailing:
P.O. Box 396
LORDSBURG, NM 88045

Name	Title
McCaffery, Jack	Corrosion Manager*

LORDSBURG MAINTENANCE
212 POW Road
LORDSBURG, NM 88045
(575) 542-8550 Fax (575) 542-9556
Mailing:
P.O. Box 396
LORDSBURG, NM 88045

Name	Title
Perez, Fernando	Sr. Pipeliner*
Strain, Barry Alan	Pipeliner

MIRAMAR STATION
5230 CONVOY STREET
SAND DIEGO, CA 92111
(858) 292-1432

Name	Title
Frank Luera	Area Manager*

MISSION VALLEY TERMINAL
9950 SAN DIEGO MISSION ROAD
SAN DIEGO, CA 92108
(619) 283-6511 Fax (619) 283-3120

Name	Title
Luera, Frank	Area Manager
Bakken, Mark	Operator 12
Bishop, Craig	Sr. Compliance Specialist
Carter, George	Line Rider
Clifford, Brad	Operator 12
Dunscomb, Jonathan	Lead Operator 12
Greening, Keith	Lead Operator 12
Minton, Michael	Lead Operator 12
Navarro, Rafael	Operator 8
Pacrem, David	Lead Operator 8
Prendergast, Brian	Lead Operator 12
Rodriguez, Adolfo	Operator 8
Rodriguez, Ronald	Operator 12
Tucker, Ed	Maintenance Technician
Tucker, Stephen	Operator 8
Villar, Jack	Operator 12
Zeleniak, Gregory	Maintenance Technician

NILAND TERMINAL
404 E. NOFFSINGER ROAD
NILAND, CA 92257
(760) 359-0641 Fax (760) 359-0668
Mailing:
345 W. Aten Road
Imperial, CA 92251

Name	Title
Koehn, Gary	Area Manager*

NORWALK STATION
15306 NORWALK BLVD.
NORWALK, CA 90650
(562) 921-5779 Fax (562) 921-5885
Mailing:
20410 S. Wilmington Blvd.
Long Beach, CA 90810

Name	Title
Vice, Marty	Area Manger*

ONTARIO STATION
1321 E. Airport Dr.
Ontario, CA 91761

Name	Title
Congiardo, Gene	Area Manager*

ORANGE TERMINAL
1350 N. MAIN STREET
ORANGE, CA 92867
(714) 538-5227 Fax (714) 538-0207

Name	Title
Vice, Marty	Area Manager*
Ramirez, Mario	Asst. Area Manager*
Cruz, Merlino	Operator 12
Elliott, David	Line Rider
Flores, Eric	Operator 8
Larkin, Shad	Operator 12
Lissy, Scott	Operator 12
Miranda, Mario	Lead Operator 8
Toepfer, Dylan	Operator 12
Wiginton, Paul	Operator 12
Yanez, Eddie	Maintenance Technician

Southern Region Location & Employee List 5/14/13

*** = Manager of Location - Not Physically at Location**

PHOENIX CORROSION
49 NORTH 53RD AVE.
PHOENIX, AZ 85043
(602) 278-8564 Fax (602) 269-8518

Name	Title
McCaffery, Jack	Corrosion Manager*
Otto, Kevin	Corrosion Supervisor
Aldrich, Steve	Corrosion Technician

PHOENIX PIPELINE MAINTENANCE
5160 W. MONROE
PHOENIX, AZ 85043
(602) 278-3323 Fax (602) 272-5925

Name	Title
Thompson, Ron	Sr. Pipeliner
Bilbrey-Nickless, Jeremiah	**ROW Inspector**
Coleman, Christopher	Pipeliner
Eickerman, Adam	Pipeliner

PHOENIX TERMINAL
49 NORTH 53RD AVE.
PHOENIX, AZ 85043
(602) 278-8564 Fax (602) 269-8518

Name	Title
Manley, Scott	Operations Manager
Eiffert, Troy	Area Manager
Townsend, J. (Heath)	Sr. ROW Specialist
Acup, Jeffery	Operator 12
Bevill, Andrew	Operator 8
Bowman, Paul	Operator 8
Burts, William	Lead Operator 12
Cappel, Carl A.	Operator 8
Corbin, Rod	Maintenance Technician
Curley, Charlie	Operator 12
Davis, Murry	Operator 8
Diaz, Marcello	Operator 12
Eulate, Matthew	Operator 12
Evans, Robert	Operator 8
Ferguson, Jeffrey	Operator 12
Garcia, Ervin	Operator 8
Harris, Travis	Maintenance Technician
Kalmus, Kurt	Operator 12
Kelley, Thomas	Line Rider
McCallum, David	Lead Operator 12
Pickinpaugh, Randall	Maintenance Technician
Roberts, Randy	Lead Operator 12
Smith, Antony	Loader/Offloader
Steere, Jeffrey	Operator 12
Tarango, Daniel	Line Rider
Verkuil, Kevin	Lead Operator 12

PHOENIX QUALITY CONTROL LABORATORY
5160 WEST MONROE STREET
PHOENIX, AZ 85043
(602) 272-7860 Fax (602) 272-5925

Name	Title
Nathan, David	Chemist
Harmond, Christopher	Contract Chemist

TUCSON ADMINISTRATION OFFICE
3735 S. Dodge Blvd.
TUCSON, AZ 85713
(520) 514-1065 Fax (520) 514-1074

Name	Title
Wittenberg, Dan	Area Manager
Francese, Milo	Line Rider
Gast, Rick	Maintenance Technician
Ross, Dale	Line Rider
Schilling, Justin	Maintenance Technician
Ward, Scott	Lead Operator 8

TUCSON CORROSION
3841 E. REFINERY WAY
TUCSON, AZ 85713

Name	Title
McCaffery, Jack	Corrosion Manager*
Lewis, Brad	Senior Corrosion Specialist

TUCSON PIPELINE MAINTENANCE
3755 REFINERY WAY
TUCSON, AZ 85713
(520) 514-1065 ext -118 Fax (520) 519-1119

Name	Title
Perez, Fernando	Sr. Pipeliner
Rodriguez, Jose (Sonny)	Pipeliner

TUCSON TERMINAL
3841 E. REFINERY WAY
TUCSON, AZ 85713
(520) 748-1087 Fax (520) 790-3396

Name	Title
Wittenberg, Dan	Area Manager
Bebee, Robbie	Operator 8
Fellows, Alan	Operator 12
Gast, Edward	Operator 8
McMullin, Jeremy	Operator 12
Parker, Charles	Operator 8
Parker, Mathew	Operator 12
Prado, Jessie	Operator 12
Reed, Glen	Operator 8
Romero, Antonio	Operator 12

Southern Region Location & Employee List 5/14/13

*** = Manager of Location - Not Physically at Location**

Wayne, Keith	Operator 8

WATSON STATION
20410 S. WILMINGTON BLVD.
LONG BEACH, CA 90810
(310) 635-8079 Fax (310) 763-1698

Name	Title
Vice, Marty	Area Manager
Ramirez, Mario	Asst. Area Manager
Ballard, Robert	Planner Scheduler
Burchard, Michael	Utility Person
Buziecki, Matthew	Utility Person
Duncan, Andrew	Operator 12
Harris, Rich	Operator 12
Kagawa, Mark	Utility Person
Lopez, Jerry	Lead Operator 12
Miller, Bill	Lead Operator 12
Orr, Jeffery	Operator 12
Patchett, Clayton	Operator 12
Peck, Jerry	Lead Operator 8
Quintana, Leonard	Utility Person
Sanchez, Adrian	Maintenance Technician
Serrano, Rich	Operator 8
Thompson, Ryan	Operator 12
Torres, Eduardo	Lead Operator 12
Wilson, Gary	Lead Operator 12

WATSON QUALITY CONTROL LABORATORY
20410 S. WILMINGTON BLVD.
LONG BEACH, CA 90810
(310) 639-4741 Fax (310) 639-0100

Name	Title
Adial, Jim	Chemist
Seibly, Steve	Chemist

YUMA STATION
6471 Ave 7-E
YUMA, AZ 85364
(928) 726-5222 Fax (928) 726-7270

Name	Title
Koehn, Gary	Area Manager*
Parrott, Andrew	Operator 8

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Fax	Satellite	Desk	Home
Acevedo, Ray	(b) (6)			915 822-7005	(b) (6)
Adams, Russ				909 873-5121	
Aldrich, Steve					
Anderson, Catherine				310 518-7704	
Baker Station				760 733-4325	
Balker, Brian		310 549-5708		310 518-7700	
Ball, Greg				909 595 5785	
Ballard, Bob				310 605-5137	
Barstow Terminal Control Room				760 254-2616	
Barton, Gary		909 877-1562/ E-FAX # 303 984-3974		909 873-5124	
Baxter, Tony				909 873-5165	
Bishop, Craig		619 285-5706		619 283-4813	
Bishop, Tom		909 873-0449		909 873-5116	
Boulanger, Lawrence		915 778-1111		915 822-7017	
Boroff, Donald		310 518-1711		310 518-7758	
Bracken Junction				702 736-0590	
Brown, Rob		760 254-2446		760 254-5472	
Burnett, Greg				909 873-5174	
Cajon Station				760 249-5749	
Calinaya, Leo				310 518-7720	
Carson Terminal Control Room				310 518-7716 / 310 834-2730	
Carter, George				619 283-6511	
Castillo, Andrew		909 877-5549		909 873-5137	
Chan, Domingo		909 877-9036		909 873-5104	
Charles, Mike				702 644-3943	
Ciotti, Phillip				909 595-5766	
CL Maintenance Gang				909 873-5117	
CLMG				909 873-5116	
CLMG				909 873-5134	
CLTX Control Room				909 873-5133	
Cole, Joe		909 877-9036/ 714 560-6650	(b) (6)	909 873-5164	
Coleman, Christopher				602 278-3323	
Colton North Control Room				909 877-2414	
Colton South Control Room				909 877-2141 or 909 873-5156/5157	
Congiardo, Gene		909 877-5549		909 873-5153	
Cooper, Allen				702 644-4052	
Cooper, Joe				760 254-1213	
Corbin, Rodney				602 278-8564	
Coughlin, Karen		303 984-3933		310 518-7754	

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Fax	Satellite	Desk	Home
Dadivas, Thomas	(b) (6)	310 763-1698		310 518-7767	(b) (6)
Daly, Jack		909 421-8016		909 873-5113	
Davis, Murry				602 415-5652	
Deming Booster		909 877-9036		505 546-7145	
DM-AFB				520 748-8755	
Dye, James					
Eickerman, Adam				602 278-3323	
Eiffert, Troy		602 269-8518		602 278-8565	
El Paso Breakout				915 772-7400	
El Paso Station				915 772-7400	
Elliott, Dave				714 709-2057	
Evangelista, Virginia				310 518-7706	
Federls, Jimmy				310 518-7744	
Ferguson, Jeffrey				702 644-3943	
Fikstad, Corbin		909 595-5892		909 264-0150	
Flores, Aniceto				909 595-5731	
Francese, Milo		520 514-1066	(b) (6)	520 514-1065 ext. 105	
Garcia, Lupe		303 984-360			
Gast, Rick				520 514-1065 Ext.109	
Gentry, Connie				702 644-5940	
Giese, Al		310 549-5708		310 518-7786	
Goodnight, Jim				909 874-2314	
Gordon, Rita		303 984-3705		310 518-7753	
Goss, Steve				310 518-7722	
Greene, Roy				310 547 9655	
Hare, James				310 518-7724	
Hartle, Randy				310 518-7725	
Heppner, Lee				503 240-3358	
Hernandez, Robert				909 873-5116	
Hernandez, Ron				909 873-5154	
Hilyar, Dusty		310 830-9188		310 518-7745	
Hitt, William		909 877-1562		909 873-5120	
Hogue, Mike		909 877-5549		909 877-2141	
Hosler, Tom		310 549-5708		310 518-7727	
Houston, Richard				909 873-5109	
Imperial Control Room				760 352-0677	
Industry Conference				909 595-5892	
Industry Station				909 594-0410	
Jensen, Tim				909 873-5173	
Jones, Toni				909 873-5185	
Kelley, Tom		602 353-4174		602 353-4176	

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Fax	Satellite	Desk	Home
Koehn, Gary	(b) (6)	714 560-6556		760 312-9598	(b) (6)
LA Harbor Terminal				310 831-6566	
Lacro, Vern		303 984-3031		702 643-1282	
Lammers, Terry				702 644-3943	
LaPeaux, Michael				310 518-7700	
LaPorta, Michael				702 644-3943	
Larkin, Thom		909 877-4608		909 873-5162	
Las Vegas Control Rm				702 644-7696	
Lastra, Miguel				915 822-7016	
Leitheim, Robert		909 873-0449		909 873-5138	
Lenk, Bob				909 873-5166	
Lewis, Brad		714 560-6592		520 514-1065 Ext. 117	
Lordsburg Booster				505 542-9555	
Loya, Patrick					
Luera, Frank		619 281-5427		619 281-4052	
Manley, Scott		303 984-3003	(b) (6)	602 272-8141	
Marositz, Steve		303 984-3620		909 873-5146	
MCAS Yuma, AZ				928 344-8255	
McCaffery, Jack		909 877-1562		909 873-5118	
McCarren				702 736-0691	
Medina, Sr., Martin				760 353-2744	
Melendez, Jose				760 254-5473	
Milan, Dan		303 984-3656		760 352-6370	
Miller, Ashley				714 560-4613	
Miller, Danny				760 352-0229	
Miller, Robert (LV)				702 644-3943	
Miramar Station				619 654 5561	
Miranda, Mario				714 538-5227	
Mission Valley Terminal Control Room				619 283-6511	
Mora, Luis				909 873-5156	
Moriarty, Mike				909 877-2141	
Moya, Vic				760 254-2616	
Muniz, Sonia		303 984-3854		909 873-5100	
Nathan, David		602 272-5925		602 272-7860	
Neuner, Jordan		310 549-5708		310 518-7717	
Nichols, Wayne		909 877-1705		909 873-5152	
Norwalk Station				562 921-5779	
Orange Control Rm. (East Console)				714 560-4850	
Orange Control Rm. (West Console)				714 560-4845	

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Fax	Satellite	Desk	Home
Orange Control Rm. (Calnev Console)	(b) (6)			714 560-4855	(b) (6)
Orange Control Room (Lead Console)				714 715-9284	
Orange Meet Me #1				714 265-6140	
Orange Meet Me #2				714 265-6141	
Orange Meet Me #3				714 265-6142	
Orange Meet Me #4				714 265-6144	
Orange Terminal				714 538-5227	
Ortega, Juan		909 873-0449		909 873-5138	
Otto, Kevin				602 272-8140	
Pacrem, Dave				619 283-6511	
Palacios, James		915 778-1111		915 822-7004	
Parker, Chuck				520 748-1087	
Parker, Ken		909 877-4608		909 873-5165	
Parrott, Andrew		303 984-3657		928 726-5222	
Peck, Jerry				310 635-8079	
Perez, Fernie				520 514-1065 Ext.118	
Phoenix Control Room				602 278-8564	
Pickinpaugh, Randall				602 278-5997	
Poller, Gary				909 873-5141	
Provencio, Louis				760 352-0677	
Pruett, Tim		909 873-5106		909 873-5114	
Ramirez, Mario		303 984-3919		310 635-0907	
Reed, Glen				520 514-1065 Ext. 102	
Reed, Slim		909 877-1562		909 873-5119	
Resendez, Jesus				915 822-7007	
Risch, Walter				909 873-5150	
Road Forks Takeoff		915 843-4174		505 542-3546	
Rodriguez, Fernando		915 843-4174		915 843-4182	
Rodriguez, Rommel				909 873-5148	
Rodriguez, Sonny				520 514-1065 Ext. 119	
Rose, Tina				909 873-5106	
Ross, Dale			(b) (6)	520 514-1065 Ext.108	
Ruiz, Rudy				909 873-5173	
Rumsey, Robert				702 644-3943	
Ryales, Hoyt				619 285-5704	
Salcido, Paul		602 353-4174		480 203-9968	
Sample, Charlie				909 873-5151	
Sanchez, Adrian				310 635-3106	
Sanchez, Luis		310 518-1711		310 518-7700	
Sandon, Mark		714 560-6601		909 873-5101	

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Fax	Satellite	Desk	Home
Schilling , Justin	(b) (6)		(b) (6)	520 748-1087	(b) (6)
Schuetz, Bill				310 518-7724	
Schulz, Keith				909 873-5132	
Sepulveda Junction				310 513-1674	
Serrano, Richard				323 636-4447	
Shoemaker, Milton		909 877-1562		909 873-5140	
Sloan, Derrick				909 873-5142	
Smith, Zachary				**909 873-5116**	
Stewart, Jim		909 613-4201		909 874-1998	
Strain, Alan				575 542-8550	
Tarango, Daniel		602 353-4174		602 278-2320	
Thomas, Michael				909 873-5147	
Thomasson, Johnny		303 984-3721		310 518-7777	
Thompson, Ron				602 278-3323	
Thurman, Denyse				909 873-5151	
Tilton, Mike		303 984-3816		310 518-7763	
Tobiasson, James				702 388-9229	
Toepfer, Bill		909 877-9036		909 873-5102	
Toltec Booster		714 560-6595		520 466-7177	
Torrices, Janet				310 518-7718	
Townsend, Heath		602 353-4174		602 353-9134	
Townsend, Tom				915 539-3966	
Tucker, Ed		619 281-5427		619 283-6511	
Tucson Terminal				520 748-1087	
Valdez, Eddie				909 595-5766	
Vallejo, Arllyn		909 877-9036 / 303 984-3981		909 873-5103	
Valley Wells				702 856-2219	
Vasquez, Phil		909 877-9036		909 873-5123	
Vazquez, Joe				909 873-5172	
Velasquez, Javier		915 778-1111		915 772-7400	
Vice, Marty		310638-8129		310 635-1011	
Villar, Jack				619 283-6511	
Ward, Scott		520 790-3396		520 514-1065 Ext.113	
Watson Terminal				310 635-8079	
Wayne, Keith				520 748-1087	
Widmann, Delbert				760 352-0229	
Williams, Adam				909-594-0410	
Wittenberg, Dan		520 514-1074		520 514-1065 ext. 101	
Wright, Mathew				909 873-5165	
Yanez, Eddie				714 538-5227	

PACIFIC SOUTHERN REGION PHONE LIST

Name	Mobile	Fax	Satellite	Desk	Home
Zeleniak, Greg	(b) (6)	619 281-5427		619 283-6511	

Pacific Southern Region Satellite Contact List

GlobaFone

Iridium satellite phone calling instructions

Satellites need to 'see' your phone to carry your calls; therefore the phones are best used outdoors. Keep in mind that anything that obstructs the satellites' view of your phone will impede your ability to make calls.

Simply turn on the phone, rotate the antenna and dial.

HOW TO MAKE CALLS TO AND FROM AN IRIDIUM SATELLITE PHONE			
CALLING FROM	**TO**	**DIAL**	**EXAMPLE**
LAND PHONES	IRIDIUM PHONES	011 then iridium number	011-8816-555-12345
CELL PHONES	IRIDIUM PHONES	011 then iridium number	011-8816-555-12345
LAND PHONES	IRIDIUM 2-STAGE	1-480-768-2500-wait for recording	then enter 12 digit iridium #
CELL PHONES	IRIDIUM 2-STAGE	619-285-5706	then enter 12 digit iridium #
IRIDIUM PHONES	U.S. LAND PHONES	+ or 00 then 1 then area code and number	+1-555-123-4567 or 00-1-555-123-4567
IRIDIUM PHONES	U.S. CELL PHONES	+ or 00 then 1 then area code and number	+1-555-123-4567 or 00-1-555-123-4567
IRIDIUM PHONES	IRIDIUM PHONES	00 or + then iridium number	+8816-555-12345 or 00-8816-555-12345
IRIDIUM PHONES	BGAN TERMINAL	760-254-2446	+8816-555-12345 or 00-8816-555-12345
IN CASE OF PERSONAL EMERGENCY IN THE US DIAL 911 FROM YOUR SATELLITE PHONE			

GlobaFone 24/7 Customer Service Number: 1-603-498-4366

Iridium Satellite Phone	Assigned to
(b) (6)	Maintenance Manager, Joe Cole
	Operations Manager West, Johnny Thomasson
	Operations Manager Central, Bill Toepfer
	Operations Manager East, Scott Manley
	PSR Director, Phil Vasquez

Pacific Region Remediation Phone List

Name	Office	KM Cellular	Fax	Home	623-692-8491
Defibaugh, Steve	714-560-4802	(b) (6)	714-560-4601	(b) (6)	--
Dye, James	--		909-877-9036		--
Hanak, Mike	303-914-7818		303-763-3115		--
Jones, Marques	--		--		--
Loya, Patrick	310-518-7784		310-830-9188		--
Martin, Scott	714-560-4775		714-560-6669		--
Park, Rob	--		--		--
Ross, Darin	--		--		916-993-0009
Ryales, Hoyt	619-285-5704		303-984-3348		--
Salcido, Paul	602-353-4175		303-984-3687		--
Truedinger, Rob	510-412-8813		303-984-3759		415-828-4961

Updated 5/14/2013

FIGURE 2.3c

CRISIS SUPPORT TEAM INTERNAL NOTIFICATION REFERENCES

The following notification references are inserted in this Plan from other, consistently maintained, sources. The references will be updated when Plan updates are conducted. The most current references are frequently distributed and are available on the Company Intranet at:

http://intranet/ehs/emergency/crisis_list.cfm?ListID=31

ORANGE CONTROL CENTER
(714) 560-4839
(24-HR NUMBER)

Find

Crisis List - Products Pipelines

PACIFIC

- indicates employee contact preference

ICS Designation Pacific

Secure Meet Me Line
303/763-3429 Password is 2899

Incident Commander

	Name	Work	Cell	Pager	Home
P	MCCLAIN, RON	713-369-9152	(b) (6)		(b) (6)
A	SIMMONS, WAYNE	713-420-6330			
A	MORONES, RON	714-560-4830			
A	HOLLAND, JAMES	713-369-9428			
A	OUTLAW, MIKE	713-369-9433			

Liaison

Coast Guard

	Name	Work	Cell	Pager	Home
P	MATHIS, CHUCK	713-369-8530	(b) (6)		(b) (6)
A	FANT, BUZZ	713-369-9454			

Pacific

DOT/Pipeline Safety

	Name	Work	Cell	Pager	Home
P	FANT, BUZZ	713-369-9454	(b) (6)		(b) (6)
A	HERNANDEZ, JAIME	713-369-9443			
A	ABRAHAM, YVETTE	713-369-9513			
A	FRAZIER, QUINTIN	770-751-4240			
A	MAROSITZ, STEVE	909-873-5146			

Pacific

	Name	Work	Cell	Pager	Home
P	FANT, BUZZ	713-369-9454	(b) (6)		(b) (6)
A	HERNANDEZ, JAIME	713-369-9443			
A	ABRAHAM, YVETTE	713-369-9513			

Legal

	Name	Work	Cell	Pager	Home
P	TOLL, JESSICA	303-914-7630	(b) (6)		(b) (6)
A	VAN BURGEL, NANCY	303-914-4634			

EPA/Environmental

Pacific

	Name	Work	Cell	Pager	Home
P	HANAK, MIKE	303-914-7818	(b) (6)		(b) (6)
A	GRANADO, ROBERT	714-560-4873			

OSHA/Employee Safety

Lakewood

Pacific

	Name	Work	Cell	Pager	Home
P	GRANADO, ROBERT	714-560-4873	(b) (6)		(b) (6)

Planning

Crisis Coordinator

	Name	Work	Cell	Pager	Home
P	AYCOCK, JERRY	770-751-4165 Ext:4165	(b) (6)		
A	DEMPSEY, GREG	770-751-4143 Ext:4143			(b) (6)

Human Resources

	Name	Work	Cell	Pager	Home
P	MOSBY, ROGER	713-369-9466	(b) (6)		(b) (6)
A	STREET, JIM	713-369-9464			

Pacific

	Name	Work	Cell	Pager	Home
P	CONRY, DEBBIE	714-560-4733	(b) (6)		(b) (6)

Engineering

	Name	Work	Cell	Pager	Home
P	Invalid entry - update list				
A	MORONES, RON	714-560-4830	(b) (6)		(b) (6)

Pacific

	Name	Work	Cell	Pager	Home
P	MORONES, RON	714-560-4830	(b) (6)		(b) (6)
A	COPPOLA, GREG	714-560-4966			

Public Information

Investor Relations

	Name	Work	Cell	Pager	Home
P	DANG, KIM	713-369-9470	(b) (6)		(b) (6)
A	MILLS THORNOCK, MINDY	713-369-9449			

Media Relations

Houston

	Name	Work	Cell	Pager	Home
P	MIR, EMILY	713-369-8060	(b) (6)		(b) (6)
A	PIERCE, LARRY	713-369-9407			

Orange

Webmaster

	Name	Work	Cell	Pager	Home
P	EDWARDS, MIKE	713-369-8012	(b) (6)		(b) (6)
A	HAQ, AZAD	713-369-9007			
A	THOMASON, KEN	713-369-9028			

Finance

Risk Management

Operations

Business Management/Products Movement

Pacific

	Name	Work	Cell	Pager	Home
P	HAHN, ED	714-560-4925	(b) (6)		(b) (6)
A	HOOKS, TOM	714-560-4841			

Control Center

Pacific

	Name	Work	Cell	Pager	Home
P	JENSEN, MARK	714-560-4862	(b) (6)		(b) (6)
A	CORONADO, JERRY	714-560-4809			

Logistics

Facilities

Houston

	Name	Work	Cell	Pager	Home
P	WARNER, LINDA	713-369-9229	(b) (6)		(b) (6)
A	MUNIVE JR, ORLANDO	713-369-9225			

Orange

	Name	Work	Cell	Pager	Home
P	VELASQUEZ, GUILLERMO	714-560-4697	(b) (6)		(b) (6)
A	RIVERA, GEO	714-560-4696			
A	WARNER, LINDA	713-369-9229			

Alpharetta

	Name	Work	Cell	Pager	Home
P	GUZIKOWSKI, TOM	770-751-4095	(b) (6)		(b) (6)
A	WILLIAMS, BRIAN	770-751-4248			
A	WARNER, LINDA	713-369-9229			

Lakewood

	Name	Work	Cell	Pager	Home
P	SCOTT, BOB	303-914-7609	(b) (6)		(b) (6)
A	MICHELSON, NANCY	303-763-3341			

IT

Houston

	Name	Work	Cell	Pager	Home
P	NEUMANN JR, HANK	713-369-9030	(b) (6)		(b) (6)
A	BROYLES, BRIAN	713-369-9012			

A DAVIS, PAUL	713-369-8946	(b) (6)		

Orange

Name	Work	Cell	Pager	Home
P SCHULZ, MATT	714-560-4816	(b) (6)		(b) (6)
A LONGO, BOB	714-560-4805			

Alpharetta

Name	Work	Cell	Pager	Home
P STEPHENS, JOHN	770-751-4100 Ext:4100	(b) (6)		(b) (6)
A KIRKLAND, TROY	770-751-4224			

Lakewood

Procurement

Name	Work	Cell	Pager	Home
P MONTGOMERY, JAY	713-369-8746	(b) (6)		(b) (6)
A SHORB, LISA	713-369-9677			
A BUTLER, GABRIELLE	713-369-9876			
A WARREN, CHARLIE	713-420-3603			
A TRAVEL DESK,	800-801-3445			

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

ARIZONA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS		
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY		
Waste Programs Division 1110 W. Washington St Phoenix, AZ 85007-2935	(602) 771-2330* (800) 234-5677	**REPORTING REQUIREMENTS** TYPE: All oil spills into state waters and on state land and any spill from a pipeline that is reportable to the NRC. (Note: State Waters include surface and ground waters). VERBAL: Immediately WRITTEN: As the agency may request depending on certain circumstances.
ARIZONA DEPARTMENT OF PUBLIC SAFETY		
P.O. Box 6638 Phoenix, AZ 85005-6638	(602) 223-2212*	**REPORTING REQUIREMENTS** TYPE: All oil spills into state waters and on state land and any spill from a pipeline that is reportable to the NRC. (Note: State Waters include surface and ground waters.) VERBAL: Immediately WRITTEN: Within 30 days following the date of the incident.

*24-Hour Number

ARIZONA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

ARIZONA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
ARIZONA CORPORATION COMMISSION		
2200 N. Central Ave Suite 300 Phoenix, AZ 85004	(602) 252-4449*	**REPORTING REQUIREMENTS – Intrastate pipelines only** TYPE: Pipeline System release that results in the following: 1. Death or personal injury requiring hospitalization. 2. An explosion or fire not intentionally set by the operator. 3. Property damage estimated in excess of $5,000. 4. Pollution of any land, stream, river, lake, reservoir, or other body of water that violates applicable environmental quality, water quality standards, causes a discoloration of the surface of the water or upon adjoining shorelines. 5. News media inquiry. 6. Release of 5 gallons or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels resulting from a pipeline maintenance activity if the release is: (i) not otherwise reportable under this Section; (ii) not one described in 49 CFR 195.52(a)(4) (1994 revision and no future revisions), incorporated by reference and on file with the Office of the Secretary of State and copies available from the Commission Office of Pipeline Safety, 1200 West Washington, Phoenix, Arizona 85007; (iii) confined to company property or pipeline right-of-way; and (iv) cleaned up promptly. 7. Any release of hazardous liquid or carbon dioxide that was significant in the judgment of the operator even though it did not meet the criteria of any other subsection of AZ ADMIN CODE R14-5-203. VERBAL: Immediate WRITTEN: Within 15 days.

*24-Hour Number

ARIZONA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

ARIZONA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Lower Colorado Region P.O. Box 61470 Boulder City, NV 89006-1470	(702) 293-8060 (702) 293-8614 Fax	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
LOCAL EMERGENCY PLANNING COMMITTEES (LEPC)		
COCHISE COUNTY LEPC 205 N. Judd Drive Bisbee, AZ 85603	(520) 432-9550 (520) 432-9504*	TYPE: All spills or releases that exceed the RQ. VERBAL: Immediately WRITTEN: Within 30 days following the date of the incident.
PIMA COUNTY LEPC 150 West Congress, Ste 237 Tucson, AZ 85701	(520) 798-3920 (520) 741-4900*	
PINAL COUNTY LEPC 508 E. Barrus Place Casa Grande, AZ 85222-1602	(520) 836-0270 (520) 866-5111*	
MARICOPA COUNTY LEPC 2035 N 52nd Street Phoenix, AZ 85008	(602) 273-1411*	
YUMA COUNTY LEPC One City Plaza P.O. Box 13013 Yuma, AZ 85366-3013	(928) 373-4861 (b) (6) [redacted] Cell	

* 24-hour number

ARIZONA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

ARIZONA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	TELEPHONE NUMBER
Rural Metro Fire Protection	Yuma, AZ	(928) 782-4757 (928) 783-4461*
City of Phoenix Fire Operations	Phoenix, AZ	(602) 495-5555
City of Tucson Fire Department	Tucson, AZ	(520) 791-4511
Rural Metro Fire Department	Tucson, AZ	(520) 297-3600
Bisbee Fire Department	Bisbee, AZ	(520) 432-4110
Maricopa Fire District	Maricopa, AZ	(520) 568-3333

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
CALIFORNIA EMERGENCY MANAGEMENT AGENCY		
Chemical Emergency Planning and Response Commission (CEPRC) / Attn: Section 304 Reports Hazardous Materials Unit 3650 Schriever Rancho Cordova, CA 95655	(800) 852-7550* in state (916) 845-8911*	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the CalEMA for the following: 1. Discharges or threatened discharges of oil in marine waters. 2. Any spill or other release of one barrel or more of petroleum products at a tank facility 3. Discharges of any hazardous substances or sewage, into or on any waters of the state. 4. Discharges that may threaten or impact water quality. 5. Discharges of oil or petroleum products, into or on any waters of the state. 6. Hazardous Liquid Pipeline releases and every rupture, explosion or fire involving a pipeline. VERBAL: Immediately. (Within 30 minutes). Notification to the CalEMA satisfies requirements to OSPR, CHP, LEPC, Caltrans, RWQCB, APCD, Dept. of Conservation, and State Lands Commission. WRITTEN: Within 30 days submit the Emergency Release Follow-up Notice Reporting Form (304, attached) for extremely hazardous substances (EHS) or of chemicals that require release reporting under CERCLA. For Hazardous Liquid Pipeline releases, submit written report to State Fire Marshal within 30 days.

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
SPECIAL AGENCIES (PER AGREEMENT)		
SAN BERNARDINO COUNTY COMMUNICATIONS CENTER 620 South E Street San Bernardino, CA 92415	(909) 386-8430 (Day time 7 am - 3 pm) (909) 386-8425 (After hours 3 pm - 7 am)	**REPORTING REQUIREMENTS** TYPE: Report ALL releases or threatened releases of hazardous materials. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances
SAN DIEGO COUNTY REGIONAL WATER QUALITY CONTROL BOARD 9174 Sky Park Court, Suite 100 San Diego, CA 92123	(858) 467-2980* (Kelly Dorsey)	
CONTRA COSTA COUNTY HEALTH SERVICES DEPT. 4333 Pacheco Blvd. Martinez, CA 94553-2295	(925) 335-3200 (925) 335-3232* (925) 646-2073 Fax	
SOLANO COUNTY DEPT. OF RESOURCE MANAGEMENT 675 Texas Street, Suite 5500 Fairfield, CA 94533	(707) 784-6765 (707) 421-7090 (after hours – Solano County Sheriff Dispatch)	
US BUREAU OF RECLAMATION		
US DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION – MID PACIFIC REGION Federal Office Building 2800 Cottage Way Sacramento CA 95825-1898	(916) 979-3004 (916) 978-5005 Fax	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs in Northern California (contact Sacramento office) and Southern California (contact Boulder City office). VERBAL: Immediately WRITTEN: As requested by agency.
US DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION – LOWER COLORADO REGION P.O. Box 61470 Boulder City, NV 89006-1470	(702) 293-8060 (702) 293-8146 Fax	

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
CERTIFIED UNIFIED PROGRAM AGENCY		
SAN BERNARDINO COUNTY FIRE DEPT., HAZMAT DIVISION (CUPA) 620 South E Street San Bernardino, CA 92415	(909) 386-8401 (909) 386-8460 Fax	**REPORTING REQUIREMENTS** TYPE: Report ALL releases or threatened releases of hazardous materials. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances
SAN DIEGO COUNTY DEPT. OF ENVIRONMENTAL HEALTH 1255 Imperial Avenue, 3rd Floor San Diego, CA 92101	(619) 338-2284 M-F (858) 565-5255 Evenings & Weekends	
LOS ANGELES COUNTY FIRE (CUPA) 5825 Rickenbacker Road Montebello, CA 90040	(323) 890-4045 (323) 890-4046 Fax (323) 881-2455 (Dispatch, after hours)	
ORANGE COUNTY DEPT. OF ENVIRONMENTAL HEALTH 2009 E Edinger Avenue Santa Ana, CA 92705	(714) 628-7008	
ALAMEDA COUNTY ENVIRONMENTAL HEALTH DEPT. (CUPA) 1131 Harbor Bay Parkway #240 Alameda, CA 94502-6577	(510) 567-6862 (510) 337-9335 Fax	
RIVERSIDE COUNTY ENVIRONMENTAL HEALTH (CUPA) 4065 County Circle Drive Riverside, CA 92503	(951) 358-5005 (951) 350-5017 Fax	

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
CERTIFIED UNIFIED PROGRAM AGENCY (Cont'd)		
ANAHEIM FIRE DEPARTMENT (CUPA) 201 South Anaheim Blvd. #300 Anaheim, CA 92805	(714) 765-4051 (714) 765-4608 Fax	**REPORTING REQUIREMENTS** TYPE: Report ALL releases or threatened releases of hazardous materials. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances
BUTTE COUNTY ENVIRONMENTAL HEALTH (CUPA-AA) 18 B County Center Drive Oroville, CA 95965	(530) 538-7282 (530) 538-2165 Fax	
CONTRA COSTA COUNTY HEALTH SERVICES DEPT. (CUPA) 4333 Pacheco Boulevard Martinez, CA 94553-2295	(925) 335-3200 (925) 335-3232* (925) 646-2073 Fax	
FRESNO COUNTY ENVIRONMENTAL HEALTH (CUPA) P.O. Box 11867 Fresno, CA 93775	(559) 445-3271 (559) 488-3111 After hours, sheriff's office (559) 445-3299 Fax	
IMPERIAL COUNTY ENVIRONMENTAL HEALTH DEPARTMENT 940 Main Street El Centro, CA 92243	(760) 482-4203	
IMPERIAL COUNTY DEPARTMENT OF TOXIC SUBSTANCES CONTROL (CUPA) 301 Heber Avenue Calexico, CA 92231	(865) 357-3990* (760) 457-7363 (760) 768-7107 Fax (If CUPA cannot be reached call Imperial County Fire Department: (760) 355-1191*)	
SIERRA COUNTY ENVIRONMENTAL HEALTH (CUPA) 202 Front Street Loyalton, CA 96118	(530) 993-6700 (530) 993-6790 Fax	

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
CERTIFIED UNIFIED PROGRAM AGENCY (Cont'd)		
NEVADA COUNTY ENVIRONMENTAL HEALTH (CUPA) 950 Maidu Avenue Nevada City, CA 95959	(530) 265-1449 (530) 265-9853 Fax	**REPORTING REQUIREMENTS** TYPE: Report ALL releases or threatened releases of hazardous materials. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances
KERN COUNTY ENVIRONMENTAL HEALTH DEPT. (CUPA) 2700 M Street, Suite 300 Bakersfield, CA 93301	(661) 862-8700 (661) 862-8701 Fax	
KINGS COUNTY ENVIRONMENTAL HEALTH (CUPA) 330 Campus Drive Hanford, CA 03230	(559) 584-1411 (559) 584-6040 Fax	
MADERA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT (CUPA) 216 West 6th Street Madera, CA 93637	(559) 675-7823 (559) 675-7919 Fax	
MERCED COUNTY ENVIRONMENTAL DEPARTMENT (CUPA) 777 West 22nd Street Merced, CA 95340	(209) 381-1087 (209) 384-1593 Fax	
TULARE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT (CUPA) 5957 South Mooney Blvd. Visalia, CA 93277	(559) 733-6441 (559) 733-6932 Fax	

* 24-hour number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
CERTIFIED UNIFIED PROGRAM AGENCY (Cont'd)		
PLACER COUNTY ENVIRONMENTAL HEALTH DEPARTMENT (CUPA) 11454 B Avenue Auburn, CA 95340	(530) 886-5300 (530) 886-5343 Fax	**REPORTING REQUIREMENTS** TYPE: Report ALL releases or threatened releases of hazardous materials VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances
YOLO COUNTY ENVIRONMENTAL HEALTH SERVICES (CUPA) 10 Cottonwood Street Woodland, CA 95695	(530) 666-8646 (530) 666-8664 Fax	
SACRAMENTO COUNTY ENVIRONMENTAL MANAGEMENT DEPARTMENT (CUPA) 8475 Jackson Road #230 Sacramento, CA 95826	(916) 875-6900 (916) 875-8513 Fax	
SAN MATEO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT (CUPA) 455 County Center 4th Floor Redwood City, CA 94063	(650) 363-4366 (650) 363-7882 Fax	
YUBA COUNTY OFFICE OF EMERGENCY SERVICES (DA) 215-5th Street Marysville CA 95901	(530) 749-7520 (530) 749-7524 Fax	
SANTA CLARA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT (CUPA) 2220 Moorpark Avenue, Room 204 San Jose, CA 95128	(408) 280-6479 Fax	

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
CERTIFIED UNIFIED PROGRAM AGENCY (Cont'd)		
SANTA CLARA COUNTY FIRE DEPARTMENT (CUPA-AA) 14700 Winchester Boulevard Los Gatos, CA 95032-1818	(408) 378-4010 (408) 378-9342 Fax	**REPORTING REQUIREMENTS** TYPE: Report ALL releases or threatened releases of hazardous materials VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances.
SAN JOAQUIN COUNTY ENVIRONMENTAL HEALTH (CUPA) 304 E. Weber Avenue, Stockton, CA 95202	(209) 468-3420 (209) 468-3433 Fax	
STANISLAUS COUNTY ENVIRONMENTAL RESOURCES (CUPA) 3800 Cornucopia Way, Suite C Modesto, CA 95358	(209) 525-6700 (209) 525-6773 Fax	
SUTTER COUNTY COMMUNITY SERVICES DEPT. (CUPA-AA) 1130 Civic Center Blvd., Suite E Yuba City, CA 95993	(530) 822-7400 (530) 822-7109 Fax	
REGIONAL WATER QUALITY CONTROL BOARD		
VICTORVILLE BRANCH OFFICE 14700 Winchester Boulevard Los Gatos, CA 95032-1818	(760) 241-6583	**REPORTING REQUIREMENTS** TYPE: Report ALL releases or threatened releases that are <u>not</u> an immediate threat to public health or the environment. VERBAL: As soon as possible. WRITTEN: Submit a report on the form "Unauthorized Release (Leak)/contamination Report" found at: http://www.waterboards.ca.gov/rwqcb6/files/Unauthorized_Release_Form.pdf
SOUTH LAKE TAHOE OFFICE 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150	(530) 542-5400	

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
OFFICE OF THE FIRE MARSHAL		
Lakewood Office-Pipeline Safety 3950 Paramount Blvd #210 Lakewood, CA 90712	(562) 497-9100 (562) 497-9104 Fax	**REPORTING REQUIREMENTS** TYPE: Every rupture, explosion, or fire involving a pipeline, including a pipeline system otherwise exempted by subdivision (a) of Section 51010.5, and including a pipeline undergoing testing, shall be immediately reported by the pipeline operator to the fire department and to CalEMA. VERBAL: Notification to the Office of the Fire Marshal. WRITTEN: Submit a report on form PHMSA 7000-1 to the Office of the Fire Marshal within 30 days of incident.

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	TELEPHONE NUMBER
Alameda County Fire Department	San Leandro, CA	(510) 618-3490
Benicia Fire Department	Benicia, CA	(707) 746-4275
Brisbane City Fire Department	Brisbane, CA	(415) 657-4300
Butte County Fire Department	Oroville, CA	(530) 538-7111
Capay Valley Fire District	Woodland, CA	(530) 666-8515
Chico Fire Department	Chico, CA	(530) 895-4999
Colfax Fire Department	Colfax, CA	(530) 346-2323
Contra Costa County Fire Department	Pleasant Hill, CA	(925) 930-5500

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
FIRE DEPARTMENT (Cont'd)		
AGENCY	**LOCATION**	**TELEPHONE NUMBER**
Dixon Fire Department	Dixon, CA	(707) 678-7060
Downieville Fire Department	Downieville, CA	(530) 289-3333
Fresno City Fire Department	Fresno, CA	(559) 621-4314
Fresno County Fire Department	Fresno, CA	(559) 485-7500
Galt Fire Department	Galt, CA	(209) 745-1001
Highgrove Volunteer Fire Department	Riverside, CA	(951) 784-9117
Imperial County Fire Department	Imperial, CA	(760) 355-1191
Kern County Fire Department	Bakersfield, CA	(661) 324-4542
Kings County Fire Department	Hanford, CA	(559) 582-3211
Lincoln Fire Department	Lincoln, CA	(916) 645-4040
Live Oak Fire Department	Live Oak, CA	(530) 695-3522
Livingston Fire Department	Livingston, CA	(209) 394-7919
Lodi Fire Department	Lodi, CA	(209) 333-6735
Los Angeles County Fire Department HAZMAT Division	Montebello, CA	(323) 890-4045
Manteca Fire Department	Manteca, CA	(209) 239-8435
Madera County Fire Department	Madera, CA	(209) 966-3621
Marysville Fire Department	Marysville, CA	(530) 741-6622
Merced County Sherriff	Merced, CA	(209) 383-7482
Orange City Fire Department	Orange, CA	(714) 288-2541
Orange County Fire Department - Orange Terminal	Orange, CA	(714) 573-6000
Richmond City Fire Department	Richmond, CA	(510) 233-5223
Ripon Fire Department	Ripon, CA	(209) 599-4209
Riverside City Fire Department	Riverside, CA	(951) 826-5338
Rocklin Fire Department	Rocklin, CA	(916) 625-5300
Roseville Fire Department	Roseville, CA	(916) 774-5800

* 24-hour number

CALIFORNIA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CALIFORNIA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
FIRE DEPARTMENT (Cont'd)		
AGENCY	**LOCATION**	**TELEPHONE NUMBER**
Sacramento City Fire Department	Sacramento, CA	(916) 566-4000
Sacramento Fire Department	Sacramento, CA	(916) 228-3000
San Bernardino County Fire Department	San Bernardino, CA	(909) 384-5286
San Diego City Fire Department	San Diego, CA	(619) 553-4418
San Diego City Fire Department-Mission Valley Terminal	San Diego, CA	(619) 533-4300
San Jose City Fire Department	San Jose, CA	(408) 277-8991
Stanislaus Consolidated Fire Department	Modesto, CA	(209) 552-3701
Stockton City Fire Department-(San Joaquin County)	Stockton, CA	(209) 937-8801
Suisun City Fire Department	Suisun City, CA	(707) 429-1297
Sutter County Fire Department	Sutter, CA	(530) 755-0266
Tracy Fire Department	Tracy, CA	(209) 831-4700
Truckee Fire Department	Truckee, CA	(530) 582-7850
Victorville Fire Department	Victorville, CA	(760) 955-5229 (760) 955-1098
West Sacramento Fire Department	West Sacramento, CA	(916) 617-4600
Wheatland Fire Department	Wheatland, CA	(530) 633-0861

* 24-hour number

CALIFORNIA

California Field Notification Form

KINDER MORGAN ENERGY PARTNERS, L.P.

Revised August 2012

California Field Notification Form

Date of Incident: _____
Time of Incident: _____

Name of Person(s) Making Notifications:
_____

1. ☐ 911 ☐ N/A
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____

2. ☐ Initiate Shutdown
Method Used: _____
_____
KM Contact, if any: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____

3. ☐ Area Manager/QI (or designee)
AM Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date:_____
Note: **Area Manager** or Qualified Individual [QI] must notify the OSRO (oil spill contractor) whenever OSPR jurisdiction is involved. See ICP Vol.2, Section 9.
OSRO Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____
☐ Project Manager ☐ N/A
Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____

4. ☐ CalEMA 800-852-7550
CalEMA Control #:_____
CalEMA Contact:_____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____

5. ☐ NRC 800-424-8802
NRC Control #: _____
NRC Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____

LM = Left Message – a message MUST be left for any agency if a person does not pick up and there is voice mail.

NR = No response – Indicate "NR" if no one at the agency answered the call and there is no voice mail available to leave a message.

*** Record Follow-up Call information in the last box on Page 2 of this form**

6. ☐ CUPA(s) See CUPA list
County Notified: _____
CUPA Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____
County Notified: _____
CUPA Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____
County Notified: _____
CUPA Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____
County Notified: _____
CUPA Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____

7. Bureau of Reclamation (if reservoir impacted)
☐ Southern Region 702-293-8060
☐ Northern Region 916-979-3004 (or 3003, or 3002)
BOR Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____

8. ☐ ORCC 714-560-4839
ORCC Contact: _____
Call start time: _____ end time: _____
Follow-up call* - Time: _____ Date: _____
Contact: _____

9. Local Special Agreement Agencies
- **San Bernardino Cnty Communications Center** 800-338-6942
  Contact _____ Time_____
- **San Diego County RWQCB** 858-467-2980
  Contact _____ Time_____
- **Contra Costa Cnty Hlth Services** 925-335-3200 or 3232
  Contact _____ Time_____
- **Solano Cnty Dept of Resource Mgmt** 707-784-6765
  Contact _____ Time_____

Follow-up call* - Time: _____ Date: _____
Contact: _____

Fax copies to ORCC and appropriate Regional Office. Area Manager retains original copy for files.
• ORCC fax# 714-541-3682 • Southern Region fax # 909-877-9036 • Northern Region fax# 707-424-6089

KINDER MORGAN ENERGY PARTNERS, L.P.

Revised March 2010

California Field Notification Form

- Below are variations of the questions you will be asked when making notifications.
- **Have this information readily available during the notifications.**
- To ensure KM reports uniform information when calling multiple agencies, write down the information and report it consistently.

Name and phone number of KM caller:
Name and phone number of designated KM employee for follow-up calls (Area Manager or Designee):
Company Name and Mailing Address: *Mailing address for reports: Kinder Morgan Energy Partners L.P. 1100 Town & Country Rd. Orange, CA 92868*
Date and Time of Incident:
Product Type:
Location of Release or Threatened Release (see facility address list as needed): ☐ Terminal _____ ☐ Breakout Facility _____ ☐ Pump Station/ Booster _____ ☐ Pipeline: LS _____ / PLMP _____ Line size _____ Cross Street / Landmark _____
County:
Weather Conditions:
Description of what happened:
Amount Released (area dimensions not quantity); estimate size of release area (i.e. 5ft by 5ft): **Approximately = by**
Water Affected or Threatened, if any:
Measures taken or plans to abate, contain and cleanup the spill:
Death or Injuries, if any:
Other Agencies Notified, if any:
Information provided in follow-up calls:

If the answer to any question is unknown, tell the agency the information is "unknown at this time"; then document the response to the agencies was "unknown at this time".

Fax copies to ORCC and appropriate Regional Office. Area Manager retains original copy for files.
• ORCC fax# 714-541-3682 • Southern Region fax # 909-877-9036 • Northern Region fax# 707-424-6089

FEDERAL

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES

REQUIRED NOTIFICATIONS (FOR ALL FACILITIES)		
NATIONAL RESPONSE CENTER		
National Response Center c/o United States Coast Guard (CG-3RPF-2) 2100 2nd Street Southwest Room 2111-B Washington, D.C. 20593-0001	(800) 424-8802* (202) 267-2675* (202) 267-1322 (Fax)	**REPORTING REQUIREMENTS** TYPE: For all spills that impact or threaten to impact navigable water or for any failure in a pipeline system that: 1. Caused a death or a personal injury requiring hospitalization 2. Resulted in either a fire or explosion not intentionally set by the carrier. 3. Caused estimated damage to the property of the carrier or others, or both, of a total of $50,000 or more. 4. Resulted in the pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water or adjoining shoreline, causing a discoloration or emulsion beneath the surface of the water or upon adjoining shorelines. 5. In the judgment of the carrier, was significant even though it did not meet the criteria of any other subparagraph of this paragraph **(cleared through the V.P. of Operations).** NOTE: A call to the NRC must also be made for spills or releases of hazardous substances that meet or exceed their RQ. VERBAL: Immediate notification required. WRITTEN: Not required

*24-Hour Number

FEDERAL

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS (FOR DOT JURISDICTIONAL FACILITIES)		
DEPARTMENT OF TRANSPORTATION		
US Dept. of Transportation Information Resources Manager Office of Pipeline Safety Pipeline & Hazardous Materials Safety Administration 1200 New Jersey Avenue SE-E-22-321 Washington, DC 20590 Fax Filing: (202) 366-4566	(800) 424-8802* (202) 267-2675*	**REPORTING REQUIREMENTS** TYPE: In addition to the reporting of accidents to the NRC, a written accident report (DOT Form PHMSA F 7000-1) must be submitted for releases resulting in any of the following: 1. Explosion or fire not intentionally set by the operator. 2. Release of 5 gallons or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels resulting from a pipeline maintenance activity if the release is: a. Not one described under the NRC's reporting conditions. b. Confined to Company property or pipeline right-of-way; and c. Cleaned up promptly. 3. Death of any person. 4. Personal injury necessitating hospitalization. 5. Estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000. VERBAL: Call to the NRC meets the required verbal notification under DOT reporting requirement. WRITTEN: As soon as practicable, an accident meeting any of the above criteria must be reported on DOT Form PHMSA F 7000-1. The report must be sent to DOT no later than 30 days after the release. A supplemental report must filed within 30 days for changes or additions to the original report.

*24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEW MEXICO

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
NEW MEXICO ENVIRONMENT DEPARTMENT (SERC)		
New Mexico Environment Department Chief of the Groundwater Quality Bureau Harold Runnels Bldg. Room N2250 1190 St. Francis Drive P.O. Box 26110 Santa Fe, NM 87502	(505) 827-9329* (505) 428-2500 (505) 827-2918 (866) 428-6535* (non-emergency, voice-mail)	**REPORTING REQUIREMENTS** TYPE: Any discharge of any material in such quantity as may with reasonable probability injure or be detrimental to human health, animal, plant life, property or may reasonably interfere with the public welfare. VERBAL: Immediately, no later than 24 hours. WRITTEN: Within one week after the discharges has learned of the discharge, the facility owner and/or operator shall send written notification verifying the prior oral notification as to each of the items listed below and providing any appropriate additions or corrections. a) The name, address, and telephone number of the person or persons in charge of the facility, as well as of the facility owner and/or operator. b) The name and address of the facility c) The date, time, location, and duration of the discharge. d) The source and cause of the discharge. e) A description of the discharge, including its chemical composition. f) The estimated volume of the discharge. g) Any actions taken to mitigate immediate damage from the discharge. No later than 15 days after discharge, send correct action report to the Bureau.

* 24-hour number

NEW MEXICO

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEW MEXICO

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
NEW MEXICO ENVIRONMENT DEPARTMENT (SERC) (Cont'd)		
New Mexico Environment Department Petroleum Storage Tank Bureau 2044 Galisteo Street Santa Fe, NM 87504	(505) 827-9329* (505) 984-1741 (8 am – 5 pm)	**REPORTING REQUIREMENTS** TYPE: Any evidence of a release of a regulated substance in soils, groundwater drinking water, or surface water or any visible leaks or seeps from the storage tank system. Any spill or overfill of petroleum product that exceeds 25 gallons, causes a sheen on nearby surface water, creates a vapor hazard, or equals or exceeds RQ. VERBAL: Immediately, no later than 24 hours. WRITTEN: Within 14 days using the attached Petroleum Storage Tank Bureau – Initial Incident Report.
Air Pollution Control Bureau 2048 Galisteo Street Santa Fe, NM 87505	(505) 827-1494	**REPORTING REQUIREMENTS** TYPE: Any spill that violates air quality standards. VERBAL: Within 24 hours, no later than next working day. WRITTEN: Within 10 days provide written notification including: 1. Name of the firm experiencing the excess emissions, and the name and title of the person reporting the incident. 2. Location of the facility. 3. Identification of the equipment involved and the emission point from which the excess emissions occurred. 4. Approximate period of the excess emissions. 5. Identification of the air containment and magnitude of excess emissions. 6. Cause and nature of the excess emissions and reasons for the problem. 7. Efforts taken to minimize the emissions and steps taken to bring the facility back into compliance.

* 24-hour number

NEW MEXICO

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEW MEXICO

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Upper Colorado Region 125 South State Street, Room 6107 Salt Lake City, UT 84138-1102	(801) 524-3600 (801) 524-3855 Fax	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
LOCAL EMERGENCY PLANNING COMMITTEES (LEPC)		
DONA ANA COUNTY EMERGENCY MANAGEMENT AGENCY (LEPC) 1170 Solano, Suite O Las Cruces, NM 88001	(505) 647-7900	TYPE: Any spill reportable to the NRC. VERBAL: Immediately, no later than 24 hours. WRITTEN: As the agency may request depending on circumstances
GRANT COUNTY EMERGENCY MANAGEMENT AGENCY (LEPC) P.O. Box 535 Silver City, NM 88062	(505) 338-9587 (505) 388-8840 (Dispatch) (505) 574-0000 (Gilbert Halton)	
HIDALGO COUNTY EMERGENCY MANAGEMENT AGENCY (LEPC) 300 S Shakespeare St Lordsburg, NM 88045	(505) 542-9291 (b) (6) Cell	
LUNA COUNTY EMERGENCY MANAGEMENT AGENCY (LEPC) 700 South Silver Avenue Deming, NM 88030-4173	(505) 546-0494	

* 24-hour number

NEW MEXICO

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEW MEXICO

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	OFFICE/ ALTERNATE
Silver City Fire Dept.	Silver City, NM	(505) 538-2591
Deming City Fire Dept.	Deming, NM	(505) 546-2701*
Las Cruces Fire Dept.	Las Cruces, NM	(505) 528-3473
Lordsburg Fire Dept.	Lordsburg, NM	(505) 542-8827*

* 24-hour number

Petroleum Storage Tank Bureau – Initial Incident Report

Facility ID _____
Release ID _____
AI ID _____
Owner ID _____

Contact Information County _____ District _____

Caller's Name _____ Phone _____

Facility Name _____

Facility Physical Address _____ City, zip _____

Owner Information

Responsible Tank Owner _____ Phone _____

Address _____ City, State, Zip _____

Contact Person _____ Phone _____

Release Information

Leaking tank type UST _____ AST _____ Both _____ Unknown _____

Release Confirmed _____ Suspected _____ Cause of release or reason for suspecting release _____

_____

_____

Date, time of release _____ Duration _____ Volume released _____

Product lost Unleaded gas ___ Leaded gas ____ Diesel ____ Waste Oil ____ Avgas ___ Jet fuel _____

TCE _____ Kerosene _____ Unknown _____ Other, describe _____

Has further release been prevented? _____ Describe _____

_____

Fire authorities notified? _____ Name _____ Phone _____

Has P/I Inspector informed responsible party of its immediate responsibilities? _____

Containment saturated soils present? _____ Describe any removal _____

Hydrogeological Information

Depth to groundwater _____ Direction of GW flow ____ Surface waters endangered? _____

Actual / Possible Impacts

Well locations, depths, types _____

Utility orridors _____

Vapors in buildings _____

Comments

_____

_____

Assignment Information

Report received by _____ Date _____ Phone _____

Assigned to _____ Date _____ Phone _____

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEVADA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Mid Pacific Region Federal Office Building 2800 Cottage Way Sacramento CA 95825-1898	(916) 979-3002 (916) 978-5005 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
US Department of the Interior, Bureau of Reclamation – Lower Colorado Region P.O. Box 61470 Boulder City, NV 89006-1470	(702) 293-8060 (702) 293-8614 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.

*24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEVADA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES		
Division of Environmental Protection 901 S. Stewart Street Suite 4001 Carson City, NV 89701	(775) 687-4670 (888) 331-6337* in state (775) 687-9485* outside Nevada	**REPORTING REQUIREMENTS** TYPE: Discharges of oil into water (surface water and ground water) environment of the state and releases of a petroleum product to the soil or other surfaces of land in a quantity >25 gallons or discovered on or in the ground water or in at least 3 cubic yards of excavated soil, and spill from a pipeline that is reportable to the NRC. VERBAL: Immediately WRITTEN: Written follow-up emergency notice using the attached Complaint/Spill Report Form.

* 24-hour number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEVADA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
NEVADA DEPARTMENT OF PUBLIC SAFETY		
NEVADA DIVISION OF EMERGENCY MANAGEMENT 2478 Fairview Drive Carson City, NV 89701	(775) 687-0300 (Business hours) (775) 687-0400 (After hours – NHP Dispatch) (775) 687-0322 FAX	**REPORTING REQUIREMENTS** TYPE: Discharges of oil into water (surface water and ground water) environment of the state and releases of a petroleum product to the soil or other surfaces of land in a quantity >25 gallons and spill from a pipeline that is reportable to the NRC. VERBAL: Immediately WRITTEN: Written follow-up emergency notice.

NEVADA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEVADA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
LOCAL EMERGENCY PLANNING COMMITTEES (LEPC)		
CHURCHILL COUNTY OFFICE OF EMERGENCY MANAGEMENT (LEPC) 155 West Taylor Street Room 177 Fallon, NV 89406	(775) 432-4188 (775) 432-5677 FAX	TYPE: Any spill reportable to the NRC. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances.
CLARK COUNTY OFFICE OF EMERGENCY MANAGEMENT (LEPC) 500 S. Grand Central Parkway P.O. Box 551713 Las Vegas, NV 89155-1713	(702) 455-5710 (775) 455-5718 FAX	
STOREY COUNTY OFFICE OF EMERGENCY MANAGEMENT (LEPC) P.O. Box 976 Virginia City, NV 89440	(775) 847-0954 (775) 847-0987 FAX	
WASHOE COUNTY DIVISION OF EMERGENCY MANAGEMENT (LEPC) 5195 Spectrum Boulevard Reno, NV 89520-0027	(775) 337-5898 (775) 337-5897 FAX	
LYON COUNTY OFFICE OF EMERGENCY MANAGEMENT (LEPC) 18 Highway 95A North Yerington, NV 89447	(775) 463-6551, ext. 10 (775) 463-6555 FAX	

*24-Hour Number

NEVADA

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NEVADA

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	TELEPHONE NUMBER
Churchill County Fire Department	Fallon, NV	(775) 423-3116
Lyon County Fire Dept.	Fernley, NV	(775) 575-3310
Reno Fire Dept.	Reno, NV	(775) 334-2300
Sparks City Fire Department	Sparks, NV	(775) 353-2231
Storey County Fire Department	Virginia City, NV	(775) 847-0954

*24-Hour Number

NDEP # _____

Report Date: _____ Report Time: _____

Incident Date: _____ Incident Time: _____

Do You Want to Remain Anonymous? ☐

Nevada Division of Environmental Protection — NDEP

Complaint/Spill Report Form
State of Nevada
Telephone: (888) 331-6337
Fax: (775) 687-8335

Reporting Person/Agency: _____

Address: _____ Phone: _____

City: _____ State: _____ Zip: _____

Discharger/Owner/Operator of Facility: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Person: _____ Phone: _____

Location of Complaint/Spill:

City: _____ State: _____ County: _____

Township: _____ Range: _____ Section: _____ Q,Q2: _____ Mile Marker: _____

Type of Material Discovered: _____

Concentration (%, ppm, ppb): _____

Quantity Found: _____ Media Affected: _____

Cause of Complaint/Spill:

Remedial Action Taken:

Oversight/Enforcement: _____

(FYI Only) cc: _____

cc: _____

Comments:

Report Taken By: _____

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
OREGON EMERGENCY RESPONSE SYSTEM (OERS)		
Oregon Department of State Police Emergency Management Division 595 Cottage Street NE Salem, OR 97301 or SERC/LEPC c/o OERS P.O. Box 14370 Salem, OR 97309-5062	(800) 452-0311* (503) 378-6377 (24 hr in Salem area only)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land and any pipeline spill that is reportable to the NRC. VERBAL: Immediately; also state that you are making a SERC/LEPC notification. WRITTEN: Within 7 days, submit a written report to the DEQ (see below)
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY		
NORTHWEST REGION-MULTNOMAH AND WASHINGTON COUNTY 2020 SW 4th Avenue, Suite 400 Portland, OR 97204	(503) 229-5263 (503) 229-5696 (503) 229-5630 (503) 229-5359 (Air Quality Division)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land; any spills that violate air quality standards report to ORDEQ Air Quality Division. VERBAL: Immediately WRITTEN: Within 7 days, submit a written report.
WESTERN REGION-YAMHILL, POLK, BENTON, AND LANE COUNTY 1102 Lincoln St., Suite 210 Eugene, OR 97401	(541) 686-7838 (800) 844-8467 (In state only)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land VERBAL: Immediately WRITTEN: Within 7 days, submit a written report using the attached Spill/Release Report.

*24-Hour Number

OREGON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	OFFICE/ ALTERNATE
Eugene & Springfield Fire Dept.	Eugene, OR	(541) 682-5111
City of Portland Bureau of Environmental Services – Spill Response Team	Portland, OR	(503) 823-7180* (Leave message if after hours)
Portland Fire Dept. Station 6 - *Willbridge Area*	Portland, OR	(503) 823-3834
Portland Fire Dept. Station 22 - *Linnton Area*	Portland, OR	(503) 823-3849
Portland Fire and Rescue Bureau	Portland, OR	(503) 823-3700
Salem Fire Dept.	Salem, OR	(503) 588-6245

* 24-hour number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Pacific Northwest Region 1150 North Curtis Road, Suite 100 Boise, Idaho 83706-1234	(208) 378-5012 (208) 378-5019 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
US Department of the Interior, Bureau of Reclamation – Mid Pacific Region Federal Office Building 2800 Cottage Way Sacramento CA 95825-1898	(916) 979-3004 (3003 or 3002) (916) 978-5005 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
WASHINGTON EMERGENCY MANAGEMENT DIVISION		
Building 20, M/S: TA-20 Camp Murray, WA 98430-5122	(800) 258-5990*	**REPORTING REQUIREMENTS** TYPE: Report all significant releases or threatened releases of hazardous materials that may threaten the state of Washington. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances

*24-Hour Number

OREGON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
WASHINGTON DEPARTMENT OF ECOLOGY		
300 Desmond Dr Olympia, WA 98503	(360) 407-6300	**REPORTING REQUIREMENTS** TYPE: Report all significant releases or threatened releases of hazardous materials that may threaten the state of Washington or the Columbia River. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances

*24-Hour Number

SPILL/RELEASE REPORT

DEQ
State of Oregon Department of Environmental Quality

1 - GENERAL INFORMATION **OERS No. _____**

a. Company/Individual Name: _____

b. Address: _____

_____

c. Company Contact Person: _____

d. Phone Number(s): _____

e. Specific on-site location of the release (and address if different from above):

_____

_____

_____

Please provide a map of the site showing area(s) where the release occurred, any sample collection locations, location of roads/ditches/surface water bodies, etc.

2 - RELEASE INFORMATION

a. Date/Time Release started:_____ Date/Time stopped:_____

b. Release was reported to (specify Date/Time/Name of Person contacted where applicable):

ODEQ _____

OERS _____

NRC _____

Other (describe):_____

c. Person(s) reporting release:_____

d. Name, quantity and physical state (gas, liquid, solid or semi-solid) of material(s) released:

_____

_____

Please attach copies of material safety data sheets (MSDS) for released material(s).

e. The release affected: ____Air ____Groundwater ____Surface Water ____Soil ____Sediment

f. Name and distance to nearest surface water body(s), even if unaffected (include locations of creeks, streams, rivers and ditches that discharge to surface water on maps):

_____

Has the release reached the surface water identified above?: ____Yes ____No

Could the release potentially reach the surface water identified above? ____Yes ____No

Explain:_____

_____

g. Depth to nearest aquifer/groundwater:_____

Is nearest aquifer/groundwater potable (drinkable)? ____Yes ____No

Has the release reached the nearest aquifer/groundwater? ____Yes ____No

Explain:_____

_____

h. Release or potential release to the air occurred? ____Yes ____No
Explain:_____

_____

i. Was there a threat to public safety? ____Yes ____No
j. Is there potential for future releases? ____Yes ____No
Explain:_____

_____

k. Describe other effects/impacts from release (emergency evacuation, fish kills, etc.):

_____

_____

_____

l. Describe how the release occurred. Include details such as the release source, cause, contributing weather factors, activities occurring prior to or during the release, dates and times of various activities, first responders involved in containment activities, etc.:

_____

_____

_____

_____

_____

_____

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_____

_____

3 - SITE INFORMATION

a. Adjacent land uses include (check all that apply and depict on site maps):
____Residential ____Commercial ____Light Industrial ____Heavy Industrial
____Agricultural ____Other (describe):_____
b. What is the population density surrounding the site:_____
c. Is the site and/or release area secured by fencing or other means? ____Yes ____No
d. Soil types (check all that apply): ____alluvial ____ bedrock ____ clay ____sandy
____silt ____ silty loam ____artificial surface (cement/asphalt/etc.)
e. Describe site topography:_____

_____

_____

4 - CLEANUP INFORMATION

a. Was site cleanup performed? ____Yes ____No

If No, explain:_____

_____

b. Who performed the site cleanup?

Company Name:_____

Address: _____

_____

Cleanup Supervisor:_____

Phone Number(s): _____

c. Has all contamination been removed from the site? ____Yes ____No

If No, explain:_____

_____

d. Estimated volume of contaminated soil removed:_____

e. Estimated volume of contaminated soil left in place:_____

f. Was a hazardous waste determination made for cleanup materials? ____Yes ____No

g. Based on the determination, are the cleanup materials hazardous wastes?

____Yes ____No If Yes, list all waste codes:_____

h. Was contaminated soil or water disposed of at an off-site location? ____Yes ____No

If yes, attach copies of receipts/manifests/etc., and provide the following information:

Facility Name: _____

Address: _____

_____

Facility Contact: _____

Phone Number(s): _____

i. Is contaminated soil or water being stored and/or treated on-site? ____Yes ____No
If yes, please describe the material(s), storage and/or treatment area, and methods utilized (attach additional sheets if necessary):

_____

_____

_____

_____

j. Describe cleanup activities including what actions were taken, dates and times actions were initiated and completed, volumes of contaminated materials that were removed, etc. (attach additional sheets or contractor reports if necessary or more convenient):

_____

_____

_____

_____

5 - SAMPLING INFORMATION

Attach copies of all sample data and indicate locations of sample collection on maps.

a. Were samples of contaminated soil collected? ____Yes ____No ____N/A
b. Were samples of contaminated water collected? ____Yes ____No ____N/A
c. Were samples collected to show that all contamination had been removed? ____Yes ____No ____N/A
d. Describe sampling activities, results and discuss rationale for sampling methods:

_____

_____

_____

_____

_____

_____

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_____

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_____

_____

_____

_____

_____

_____

_____

6 - SPILL REPORT CHECKLIST

To ensure that you have gathered all the information requested by the Department in this Spill/Release Report, please complete the following checklist:

____ Map(s) of the site showing buildings, roads, surface water bodies, ditches, waterways, point of the release, extent of contamination, areas of excavation and sample collection locations attached.

____ Material Safety Data Sheet (MSDS) for released material(s) attached.

____ Sampling data/analytical results attached.

____ Receipts/manifests (if any) for disposal of cleanup materials attached.

____ Contractor reports (if any) attached.

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

TEXAS

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
TEXAS EMERGENCY RESPONSE CENTER (TERC)		
Austin, TX (Hotline answered by the Texas Department if Public Safety which will notify TGLO, TCEQ, TRRC as applicable; follow-up calls to all applicable agencies is advisable.)	(800) 832-8224*	**REPORTING REQUIREMENTS** TYPE: All spills of petroleum products into water and/or discharges onto land that meet or exceed 25 gallons. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances.
TEXAS RAILROAD COMMISSION (TRRC)		
Oil and Gas Division District 8 The Petroleum Building 214 W. Texas, Suite 600 Midland, TX 79710 Pipeline Safety Section 214 West Texas, Suite 803 Midland, TX 79701 For Written Reports: Oil and Gas Division 1701 N. Congress P.O. Box 12967 Capital Station Austin, TX 78711-2967	(512) 463-7288 (512) 463-6788* (emergency)	**REPORTING REQUIREMENTS – Intrastate pipelines only (LS-49)** TYPE: In the case of a fire, leak, spill, or break causing loss of over five (5) barrels. For pipeline incidents reportable to the NRC, notify the TRRC Pipeline Safety Section. District Office by telephone. VERBAL: Immediate notification to the District Office WRITTEN: File Form H-8 (attached) in duplicate when appropriate measures have been taken, within 30 days following the date of the incident.

* 24-Hour Number

TEXAS

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

TEXAS

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)		
Responsible Party Remediation Section MC 137 P.O. Box 13087 Austin, TX 78711-3087	(512) 239-2120 (512) 606-9197 (Pager) (512) 239-2216 (Fax)	**REPORTING REQUIREMENTS** TYPE: All petroleum aboveground storage tank releases. VERBAL: Immediately WRITTEN: Incident Report within 24 hours. Release Determination Report within 20 to 60 days base on action levels using the attached Incident Report Form.
401 E. Franklin Ave, Suite 560 El Paso, TX 79901-1206	(915) 834-4949	**REPORTING REQUIREMENTS** TYPE: Any spills that violates air quality standards. VERBAL: As soon as possible WRITTEN: As the agency may request depending on circumstances
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Upper Colorado Region 125 South State Street, Room 6107 Salt Lake City, UT 84138-1102	(801)524-3600	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
EL PASO COUNTY EMERGENCY MANAGEMENT (LEPC)		
8600 Montana Avenue El Paso, TX 79925	(915) 771-1010	**REPORTING REQUIREMENTS** TYPE: Any spill or discharge that requires notification to the NRC. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances.

* 24-hour number

TEXAS

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

TEXAS

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	OFFICE/ ALTERNATE
El Paso Fire Dept.	El Paso, TX	(915) 771-1000

FORM INSTRUCTIONS: Use this form to report suspected/confirmed PST releases to the Texas Commission on Environmental Quality (TCEQ) PST - Responsible Party Remediation Section - 512/239-2200 (phone), 512/239-2216 (fax), pstrpr@tceq.state.tx.us (e-mail). All suspected/confirmed releases **must be reported w/in 24 hours** of discovery. For emergencies only, call 512/239-2120 or after regular business hours, page 512/606-9197.

TEXAS PETROLEUM STORAGE TANK PROGRAM - INCIDENT REPORT (IR) FORM

Facility Information

Facility Name: _____
Address: _____
City: _____ County: _____
Facility ID: _____ ☐ 'ghost' tank Pre-existing LPST ID: _____ ☐N/A ☐Unk

Responsible Party (RP) Information

Contact Person: _____ Phone: _____
Company: _____ Fax: _____
Address: _____
City: _____ State/Zip: _____

Release reported by: (if different from above)

Contact Person: _____ Phone: _____
Company: _____
Address: _____
City: _____ State/Zip: _____

The RP is the: ☐ tank owner ☐ tank operator ☐ land owner ☐ other (specify):

Release Information Release is: ☐ Confirmed ☐ Suspected Date of discovery: _____

Check all that apply:

Discovery
- ☐ Routine tank closure or site assessment
- ☐ Laboratory analytical results
- ☐ Free product or sheen
- ☐ Odors
- ☐ Automatic tank gauge
- ☐ Probe or sensor
- ☐ Inventory records
- ☐ 1-mo. SIR failure or 'inconclusive'
- ☐ 2-mo. inventory control discrepancy
- ☐ Tank tightness test failure
- ☐ Line tightness test failure
- ☐ Groundwater monitoring well
- ☐ Vapor detector (auto or manual)
- ☐ Water supply contamination

Substance
- ☐ Gasoline (Leaded/Non-leaded/Unknown)
- ☐ Diesel/Fuel oil
- ☐ Waste oil
- ☐ Hydraulic/transmission/mineral oil
- ☐ Jet fuel/kerosene
- ☐ Petroleum - unknown type
- ☐ Hazardous substance: _____
- ☐ Unknown
- ☐ Other (describe): _____

Impact
- ☐ Groundwater
- ☐ Surface water
- ☐ Soil
- ☐ Air

Cause
- ☐ Spill
- ☐ Overfill
- ☐ Human error
- ☐ Faulty installation
- ☐ Corrosion
- ☐ Unknown
- ☐ Other (describe):

Location
- ☐ Tankhold
- ☐ Dispenser area
- ☐ Pipe chase
- ☐ Remote fill port
- ☐ Other (describe):

Tank system has/had: ☐ pressurized piping ☐ suction piping ☐ unknown ☐ N/A

Other parties notified (Fire, police, etc. - list):

Free product present? ☐ Yes ☐ No Describe steps taken to control and abate release (system repairs, free product removal, etc.), and/or actions taken to mitigate any fire, explosion, or vapor hazard:

Additional comments (add pages as needed):

<<< TCEQ USE ONLY >>> **PM** - complete this form when a report of a suspected/confirmed release from a regulated storage tank is received & provide to Admin staff. Information received by ☐ phone ☐ fax ☐ e-mail (print out & attach) ☐ other (explain on additional pages or on back).
Date release was reported to TCEQ: _____. Initial here if new LPST ID No. should be assigned: _____**PM** _____**TL**.
New LPST ID# _____ **Admin** - fax completed form to RP & enter into appropriate databases. Info entered in ☐ RDR Db ☐ SMAPS on _____(date) by _____(initials). Faxed to RP on _____(date).

TCEQ-20097 (December 2003)

Texas Commission on Environmental Quality

PETROLEUM STORAGE TANK PROGRAM
RELEASE DETERMINATION REPORT FORM

FORM INSTRUCTIONS: Use this form to report the results of investigating a suspected or confirmed release or to report the results of permanent removal from service of a UST. The form should also be used to report the results of routine removal of an AST from service and/or for any routine environmental site assessment (ESA) at PST sites where a 'no further action' letter from TCEQ is desired (routine AST removals and routine ESAs are not specifically regulated by TCEQ). Please note that leaking PST sites reported to the agency on or after September 1, 2003 are potentially subject to 30 TAC 350 ("TRRP") as well as to 30 TAC 334. Refer to *Investigating and Reporting Releases from Petroleum Storage Tanks* (RG-411) for more information. Please also note that initial (w/in 24 hours) reporting of all suspected or confirmed releases should be made using the ***PST Program Incident Report (IR) form*** **(TCEQ-20097)**. Submit completed forms to the PST-RPR, TCEQ, MC 137, P.O. Box 13087, Austin, Texas 78711-3087. **DO NOT MODIFY THIS FORM IN ANY WAY. Complete all applicable blanks.** Incomplete forms, including forms missing relevant attachments, will be returned without review.

RDR FORM CHECKLIST

PLEASE NOTE: The following documents are required to be attached to this form upon submittal. Complete the checklist and attach each listed document to the back of the form, or provide a written statement explaining why a particular item on the checklist is not applicable/not available:

☐ Copy of original Construction Notification form filed with the TCEQ regional office for the field construction activity

☐ Scaled site diagram(s) showing location & layout of tank system(s) including pipe chases, dispensers, and any remote fill ports; all sampling points, North arrow, scale, nearest intersection of main roads. Previously removed tank systems should also be indicated.

☐ Written description of tank removal activities, including removal of substances from tanks, tank cleaning/purging/inerting activities, and tank condition (corrosion holes, tears, rust, etc.). Include description of piping and dispenser equipment condition.

☐ Written description of site sampling activities, including sample equipment used, decontamination procedures, sample collection and handling methods, sampling locations and summary of overall sampling rationale.

☐ Copies of signed laboratory reports, complete chain-of-custody and laboratory check-in sheet documentation including sample receipt temperature, sample preservation methods, date and time of sample collection, laboratory QA/QC etc.

☐ Waste disposal, treatment, recycling or reuse documentation, including waste manifests signed and dated by all relevant parties. Manifests should have all required signatures and dates, and show waste type, quantities and units.

☐ Photographs (originals or high resolution color copies) of the site showing all parts of tank system (tanks, dispensers, piping, etc.), all excavated areas including excavation bottoms, stockpiles, etc. See Eco Checklist comments below.

☐ Tank destruction documentation (no. of tanks, size(s), former contents, tank composition [e.g., steel, fiberglass, etc.]) including date of disposal and facility name, address and contact information.

☐ Copy of amended *UST* or *AST Registration and Self-Certification form* (TCEQ-0724 or TCEQ-0659, respectively)as applicable. Originals should be sent to the PST Registration Team (MC-138), TCEQ, P.O. Box 13087, Austin, TX 78711-3087.

☐ Boring logs and well completion diagrams/well reports, as applicable. Logs should include field screening.

☐ Completed TRRP Tier 1 Ecological Exclusion Checklist (available at www.tnrcc.state.tx.us/permitting/forms/eco.pdf_____)
NOTE: The Eco Checklist is mandatory for all sites which (a) report a PST release to TCEQ on or after September 1, 2003, (b) have chemicals of concern (COCs) present above the method quantitation limits (MQLs), and (c) desire to not be subject to TRRP assessment/remediation requirements. Persons planning on going directly into TRRP with their sites may submit the Eco Checklist later, as part of the APAR form (TCEQ-10325). See *Investigating and Reporting Releases from PSTs* (RG-411) for more information. Please note that the Eco Checklist itself also has required attachments - Part I, Item 1 requires one of the following to be attached "...to depict the affected property and surrounding area": USGS topographic map, aerial photographs, or "other affected property photographs". If photographs other than aerial are used, ensure that the entire photographic package submitted with this form depicts the tank systems & excavation bottoms as well as all site features pertinent to ecological evaluation.

☐ RCAS/CAPM and/or LOSS signatures are required on page 7 of this form.

TCEQ-0621 (revised 12/10/2003) - previous versions obsolete **Page 1 of 8**

SUMMARY
Based on the information obtained during this release determination and by comparing the contaminant levels to the laboratory method quantitation limits (MQLs) and to the PST Program action levels, check all that apply: ☐ No contaminants were detected above the greater of MQLs or background. ☐ Contaminants were detected above MQLs/background, but below action levels. ☐ Contaminant levels were above action levels. ☐ Tank pit water was present. If present, sampled? ☐ Yes ☐No ☐ A groundwater sample representative of the first water-bearing zone was collected and analyzed (i.e., monitoring well installed). ☐ A representative groundwater sample was collected and analyzed and one or more COCs exceeded action levels. ☐ The site does not pass the TRRP Tier 1 Ecological Exclusion Checklist. ☐ This site is a new LPST site (reported to the agency on or after September 1, 2003), and therefore is subject to 30 TAC 350. ☐ This site will enter TRRP and an Affected Property Assessment Report form (TCEQ-10325) is the next submittal. ☐ This site was initially reported to _____ (name, TCEQ office) on _____ (date prior to September 1, 2003) and therefore is subject to 30 TAC 334 only. ☐ This site is an existing LPST case, there is no new release, and this Release Determination Report is being submitted as the tank removal-from-service documentation.
Is the responsible party financially able to complete the next appropriate step? ☐ **YES** ☐ **NO** If no, and an LPST number is assigned to this case, you may contact the PST-RPR Section at 512/239-2200 to request information on the State-Lead option. Pursuit of this option requires submittal of detailed financial information including recent tax returns and other IRS documentation. Please note that pursuit of this option is only possible once an LPST number has been assigned.
Answer the following question if this is an LPST case subject to 30 TAC 334 only (i.e., originally reported to agency prior to September 1, 2003, and no new release occurred after that date). Is this case eligible for reimbursement of necessary corrective actions? ☐ **YES** ☐ **NO** If not, appropriate corrective action in accordance with applicable rules and guidance may continue without specific direction or approval from the PST-RPR Section, however, coordination with PST-RPR is recommended. If the site is eligible for reimbursement, all corrective action activities, with the exception of initial NAPL recovery and emergency abatement activities, must be preapproved prior to initiation.

TCEQ-0621 (revised 12/10/2003) - previous versions obsolete **Page 2 of 8**

A. GENERAL INFORMATION

Pre-existing LPST ID No.? ☐ NO ☐ YES :_____ (LPST no[s].) TCEQ Region:_____

Facility ID No.:_____ Required unless one of the following applies:

☐ Check here if tank registration is not required for this site (per 30 TAC §334.7), **and** check one of the following as applicable:

- ☐ the tank(s) are partially excluded or exempted from jurisdiction under 30 TAC Chapter 334. Specify type or usage of tank(s):_____
- ☐ the tank(s) were permanently removed from the ground before May 8, 1986 (provide date of removal_____);
- ☐ the tank(s) remained in the ground but were emptied, cleaned, and filled with inert substance before January 1, 1974 (provide date of activities:_____);
- ☐ the tank(s) were out of operation, their existence was unknown (i.e., "ghost tank"), and they were permanently removed from service within 60 days of their discovery (provide date of discovery:_____. Describe method of discovery:_____)

Tank Owner:_____

Tank Owner Mailing Address:_____

Tank Owner City:_____ State:_____ Zip:_____

Tank Owner Contact Person:_____ Phone:_____ Fax no.:_____

Tank Operator (if different from tank owner):_____

Tank Operator Mailing Address:_____

Tank Operator City:_____ State:_____ Zip:_____

Tank Operator Contact Person:_____ Phone:_____ Fax no.:_____

Land Owner (if different from tank owner and operator):_____

Land Owner Mailing Address:_____

Land Owner City:_____ State:_____ Zip:_____

Land Owner Contact Person:_____ Phone:_____ Fax no.:_____

If this site is a pre-existing LPST site with no new release or is a new LPST site which will be subject to TRRP (30 TAC 350), which of these parties will oversee the corrective actions at this site?

☐ **Tank Owner** ☐ **Tank Operator** ☐ **Land Owner**

☐ **Other (not the contractor or consultant):** Name:_____

Address:_____

City:_____ State:_____ Zip:_____ Contact person:_____

Phone:_____ Fax:_____

Please note that no matter which party conducts corrective action, the tank owner and the tank operator are jointly responsible for the necessary corrective actions.

Facility Name:_____

Facility Physical Address:_____

Facility City:_____ County:_____ County Code (see p. 8):_____

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A. GENERAL INFORMATION (continued)

Indicate ALL tanks **currently and formerly** located at this site (attach pages as necessary):

	Type (UST/AST)	Product Type	Size (approx. gal)	Date Removed from Service
Current:				
Former:				

B. SUSPECTED RELEASE INFORMATION

Complete only this section and sections E through G as appropriate when the situation of a suspected release has occurred and it was documented that a release had not occurred.

Date suspected release discovered:_____ Reason release suspected:_____

Date suspected release reported to TCEQ: _____ Reported to:_____

Possible source(s) of release: (check all that apply) Tanks: ☐ USTs ☐ ASTs ☐ Piping ☐ Overfills/spills ☐ Unknown
☐ Other:_____

Type of substance(s) suspected released: (check all that apply) ☐ Gasoline ☐ Diesel ☐ Used Oil ☐ Aviation Gasoline
☐ Jet Fuel (type:_____) ☐ Alcohol-blended fuel (Type and percentage of alcohol:_____)
☐ Other: (be specific)_____

Were UST/AST system tank and/or line tightness tests performed? ☐ **YES** or ☐ **NO** (check one) If yes, attach test data and results.
Did the tests indicate that all tanks and piping were tight? ☐ **YES** or ☐ **NO** (check one) If No, specify the portion of the tank system(s) that were found not to be tight:_____

Were any repairs conducted on the tank system(s)? ☐ **YES** or ☐ **NO** (check one) If yes, describe type(s) and location of repairs:
_____

Were tightness tests performed after repairs were conducted? ☐ **YES** or ☐ **NO** (check one) If yes, attach test data and results.
Did the tests indicate that the repaired items were tight? ☐ **YES** or ☐ **NO** If No, specify the portion of the tank system(s) that were found not to be tight:_____

Were any soil confirmation samples collected? ☐ **YES** or ☐ **NO** (check one) If yes, were all potential source areas investigated?
☐ **YES** or ☐ **NO** If samples were collected, attach descriptions of sample locations, collection methods, and laboratory results.

Were any groundwater confirmation samples collected? ☐ **YES** or ☐ **NO** (check one) If yes, were all potential source areas investigated? ☐ **YES** or ☐ **NO** If samples were collected, attach descriptions of sample locations, collection methods, aquifer name, and laboratory results. (Groundwater sampling is not required at this point unless there is reasonable suspicion of impact.)

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C. CONFIRMED RELEASE INFORMATION

Complete this section only if a release was confirmed; i.e., contaminant levels exceeded MQLs

Date release confirmed:_____ Date release reported to TCEQ:_____ Reported to:_____

Is this the first release from a UST or AST discovered at this site? ☐ **YES** ☐ **NO**

Is there any other contamination or potential impacts to human health from any source other than the tank systems at this site?
☐ **YES** ☐ **NO** If yes, indicate type and location of contamination:_____

Reported to TCEQ by:_____ Representing:_____

Method of release discovery:

- ☐ Samples collected during tank removal-from-service activities
- ☐ Samples collected during other tank system construction activities
- ☐ Samples collected during release determination investigation
- ☐ Other:_____
- ☐ Impact to utility line
- ☐ Impact to surface water
- ☐ Impact to water well

Method of release confirmation: (check all that apply)
☐ Soil samples ☐ Groundwater samples ☐ Surface water samples ☐ Documentation of presence of NAPL

Source(s) of release: (check all that apply) Tanks: ☐ USTs ☐ ASTs ☐ Piping ☐ Overfills/spills ☐ Unknown
☐ Other:_____

Substance(s) released: (check all that apply) ☐ Gasoline ☐ Diesel ☐ Used Oil ☐ Aviation Gasoline
☐ Alcohol-blended fuel (Type and percentage of alcohol:_____)
☐ Jet Fuel (type:_____) ☐ Other: (be specific)_____
Amount of product released:_____ Chemical Abstract Service registry #:_____ (for hazardous substances)

Were any soil samples collected? ☐ **YES** or ☐ **NO** (check one) If yes, attach descriptions of sample locations, collection methods and laboratory results.

Type of native soil: (check one) ☐ Clay or silt ☐ Sand, gravel or rock

Were any groundwater confirmation samples collected? ☐ **YES** or ☐ **NO** (check one) If yes, attach descriptions of sample locations, collection methods, aquifer name, and laboratory results.

Known Impact(s): (check all that apply) ☐ Soil ☐ GW ☐ Surface Water ☐ Subsurface Utilities - type:_____
☐ Buildings ☐ Water wells ☐ Other sensitive receptors:_____

Was the land owner (if different from the tank owner) notified of the contamination? ☐ **YES** or ☐ **NO** (check one) If Yes, attach copy of the letter which provided the notification. If No, documentation that notification was provided must be submitted within 30 days from the date the impact is discovered.

Possibly Threatened: (check all that apply) ☐ GW ☐ Surface Water ☐ Subsurface Utilities - type:_____
☐ Buildings ☐ Water wells ☐ Other sensitive receptors:_____

Was NAPL detected (greater than 0.01 feet)? ☐ **YES** or ☐ **NO** (check one) If yes, describe how and where it was detected, the thickness detected, and the recovery actions taken: _____

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D. ABATEMENT MEASURES

Were abatement measures initiated to stop the release or to recover the released substance? ☐ YES or ☐ NO (check one) If yes, describe the abatement and/or recovery measures taken and the dates and duration of the activities: _____

Were UST/AST system tank and/or line tightness tests performed? ☐ YES or ☐ NO (check one) If yes, attach test results.
Did the tests indicate that all tanks and piping were tight? ☐ YES or ☐ NO If No, specify the portion(s) of the tank system(s) that were found not to be tight: _____

Were any repairs conducted on the tank system(s)? ☐ YES or ☐ NO (check one) If yes, describe type(s) and location of repairs: _____

Were tightness tests performed after repairs were conducted? ☐ YES or ☐ NO (check one) If yes, attach test results.
Did the tests indicate that the repaired items were tight? ☐ YES or ☐ NO If No, specify the portion of the tank system(s) that were found not to be tight: _____

E. FIRE/TCEQ/OTHER OFFICIALS NOTIFIED

Were any other officials notified? ☐ YES ☐ NO (check one) If Yes, indicate:

Name	Representing	Phone number	Date(s) Notified

Were any directives issued by the fire or other officials? ☐ YES ☐ NO If Yes, describe directives and actions taken in response to the directive: _____

F. WASTE DISPOSITION

Indicate the status of all wastes and other materials generated:

Type of waste (soil, water, product)	Quantity and Units	Method and location of disposal or treatment

G. REPORT PREPARATION

A Licensed On-Site Supervisor may complete and sign this form when the supervisor is acting in an approved capacity for tank removal-from-service or tank system repair activities.

Licensed On-Site Supervisor:_____ ILP Reg. No.:_____ Exp. Date:_____

Company:_____

Telephone No.:_____ FAX No.:_____

Based on the results of the site investigation and the additional information presented herein, I certify that the site investigation activities performed either by me, or under my direct supervision, including subcontracted work, were conducted in accordance with accepted industry standards/practices and further, that all such tasks were conducted in compliance with applicable TCEQ published rules, guidelines and the laws of the State of Texas. I have reviewed the information included within this report, and consider it to be complete, accurate and representative of the conditions discovered during the site investigation. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report, I may be subject to administrative, civil, and/or criminal penalties.

Signature:_____ Date:_____

OR

Project Manager:_____ PM Reg. No.:_____ Exp. Date:_____

Company:_____

Telephone No.:_____ FAX No.:_____

Based on the results of the site investigation and the additional information presented herein, I certify that the site investigation activities performed either by me, or under my direct supervision, including subcontracted work, were conducted in accordance with accepted industry standards/practices and further, that all such tasks were conducted in compliance with applicable TCEQ published rules, guidelines and the laws of the State of Texas. I have reviewed the information included within this report, and consider it to be complete, accurate and representative of the conditions discovered during the site investigation. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report, I may be subject to administrative, civil, and/or criminal penalties.

PM Signature:_____ Date:_____

AND

CAS Representative:_____ CAS Reg No.:_____ Exp. Date:_____

Company:_____

Telephone No.:_____ FAX No.:_____

By my signature affixed below, I certify that I am the duly authorized representative of the Correction Action Specialist named and that I have personally reviewed the site investigation results and other relevant information presented herein and considered them to be in accordance with accepted standards/practices and in compliance with the applicable TCEQ published rules, guidelines and the laws of the State of Texas. Further, that the information presented herein is considered complete, accurate and representative of the conditions discovered during the site investigation. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report, I may be subject to administrative, civil, and/or criminal penalties.

Signature of CAS Representative:_____ Date:_____

Name of Tank Owner or Operator, or property owner contact:_____

Telephone No.:_____ FAX No.:_____

By my signature affixed below, I certify that I have reviewed this report for accuracy and completeness of information regarding points of contact and the facility and storage tank system history and status. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report related to the contact information, and the facility and storage tank system history and status information, I may be subject to administrative, civil, and/or criminal penalties. I attest that I have reviewed this report for accuracy and completeness. I understand that I am responsible for addressing this matter.

Signature:_____ Date:_____

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COUNTY CODE LIST													
1	Anderson	38	Childress	75	Fayette	112	Hopkins	149	Live Oak	186	Pecos	223	Terry
2	Andrews	39	Clay	76	Fisher	113	Houston	150	Llamb	187	Polk	224	Throckmorton
3	Angelina	40	Cochran	77	Floyd	114	Howard	151	Loving	188	Potter	225	Titus
4	Aransas	41	Coke	78	Foard	115	Hudspeth	152	Lubbock	189	Presidio	226	Tom Green
5	Archer	42	Coleman	79	Fort Bend	116	Hunt	153	Lynn	190	Rains	227	Travis
6	Armstrong	43	Collin	80	Franklin	117	Hutchinson	154	McCulloch	191	Randall	228	Trinity
7	Atascosa	44	Collingsworth	81	Freestone	118	Irion	155	McLennan	192	Reagan	229	Tyler
8	Austin	45	Colorado	82	Frio	119	Jack	156	McMullen	193	Real	230	Upshur
9	Bailey	46	Comal	83	Gaines	120	Jackson	157	Madison	194	Red River	231	Upton
10	Bandera	47	Comanche	84	Galveston	121	Jasper	158	Marion	195	Reeves	232	Uvalde
11	Bastrop	48	Concho	85	Garza	122	Jeff Davis	159	Martin	196	Refugio	233	Val Verde
12	Baylor	49	Cooke	86	Gillespie	123	Jefferson	160	Mason	197	Roberts	234	Van Zandt
13	Bee	50	Coryell	87	Glasscock	124	Jim Hogg	161	Matagorda	198	Robertson	235	Victoria
14	Bell	51	Cottle	88	Goliad	125	Jim Wells	162	Maverick	199	Rockwell	236	Walker
15	Bexar	52	Crane	89	Gonzales	126	Johnson	163	Medina	200	Runnels	237	Waller
16	Blanco	53	Crockett	90	Gray	127	Jones	164	Menard	201	Rusk	238	Ward
17	Borden	54	Crosby	91	Grayson	128	Karnes	165	Midland	202	Sabine	239	Washington
18	Bosque	55	Culberson	92	Gregg	129	Kaufman	166	Milan	203	San	240	Webb
19	Bowie	56	Dallam	93	Grimes	130	Kendall	167	Mills	204	San Jacinto	241	Wharton
20	Brazoria	57	Dallas	94	Guadalupe	131	Kenedy	168	Mitchell	205	San	242	Wheeler
21	Brazos	58	Dawson	95	Hale	132	Kent	169	Montague	206	San Saba	243	Wichita
22	Brewster	59	Deaf Smith	96	Hall	133	Kerr	170	Montgomery	207	Schleicher	244	Wilbarger
23	Briscoe	60	Delta	97	Hamilton	134	Kimble	171	Moore	208	Scurry	245	Willacy
24	Brooks	61	Denton	98	Hansford	135	King	172	Morris	209	Shackelford	246	Williamson
25	Brown	62	DeWitt	99	Hardeman	136	Kinney	173	Motley	210	Shelby	247	Wilson
26	Burleson	63	Dickens	100	Hardin	137	Kleberg	174	Nacogdoches	211	Sherman	248	Winkler
27	Burnet	64	Dimmit	101	Harris	138	Knox	175	Navarro	212	Smith	249	Wise
28	Caldwell	65	Donley	102	Harrison	139	Lamar	176	Newton	213	Somerville	250	Wood
29	Calhoun	66	Duval	103	Hartley	140	Lamb	177	Nolan	214	Starr	251	Yoakum
30	Callahan	67	Eastland	104	Haskell	141	Lampasas	178	Nueces	215	Stephens	252	Young
31	Cameron	68	Ector	105	Hays	142	La Salle	179	Ochiltree	216	Sterling	253	Zapata
32	Camp	69	Edwards	106	Hemphill	143	Lavaca	180	Oldham	217	Stonewall	254	Zavala
33	Carson	70	Ellis	107	Henderson	144	Lee	181	Orange	218	Sutton		
34	Cass	71	El Paso	108	Hidalgo	145	Leon	182	Palo Pinto	219	Swisher		
35	Castro	72	Erath	109	Hill	146	Liberty	183	Panola	220	Tarrant		
36	Chambers	73	Falls	110	Hockley	147	Limestone	184	Parker	221	Taylor		
37	Cherokee	74	Fannin	111	Hood	148	Lipscomb	185	Parmer	222	Terrell		

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Form H-8
(Eff. 6/4/70)

CRUDE OIL, GAS WELL LIQUIDS, OR ASSOCIATED PRODUCTS LOSS REPORT

1. Field Name (as per current proration schedule, including reservoir, if applicable)		2. RRC District
3. Company	Check appropriate block(s): ☐ Producer ☐ Transporter ☐ Other _____	4. County
5. Lease Name(s) and RCC Lease Number(s) (if applicable)		
6. Location where Liquid Hydrocarbon (crude oil, gas well liquids, or associated products) Loss occurred (Section, Block, & Survey)		
7. Description of Facility from which Liquid Hydrocarbon Loss Occurred		
8. Name of Landowner where Liquid Hydrocarbon Loss Occurred	9. Type of Liquid Hydrocarbon Loss ☐ Crude Oil ☐ Gas Well Liquid ☐ Other _____	
10. Date Liquid Hydrocarbon Loss Occurred	11. Date Liquid Hydrocarbon Loss Reported to RRC District Office by Telephone or Telegraph	
12. Total Barrels of Liquid Hydrocarbon Lost in Lost in Leak or Spill	13. Total Barrels of Liquid Hydrocarbon Recovered	14. Barrels of Liquid Hydrocarbon Unrecovered (Net Loss)
15. Did Liquid Hydrocarbon Loss Affect Inland or Coastal Water? (If yes, explain.)		
16. Cause of Liquid Hydrocarbon Loss (Explain.) (If additional space is required, attach page(s).)		
17. Remedial Measures Taken and How Successful (Explain.)		
18. Remarks		

I declare under penalties prescribed in Article 6036c, R. C. S., that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Date _____ Signature _____

Company _____ Name of Person (type or Print) _____

Street Address or P.O. Box _____ Title of Person _____

City, State _____ Zip Code _____ Telephone _____ Area Code _____ Number _____

(COMPANY MUST COMPLY WITH THE INSTRUCTIONS ON THE REVERSE SIDE HEREOF.) (OVER)

-INSTRUCTIONS-

1. File the *original* and *one copy* of this form in the Railroad Commission District Office.

2. *Immediate notification* shall be given first by *telephone* or *telegraph* to the Commission District Office of a fire, leak, spill, or break in facilities causing a loss of more than five (5) barrels of crude oil, gas well liquids, or associated products and then followed by the filing of this form when appropriate measures have been taken.

3. This form complies with *Statewide Rules 20 and 71* which require notification to the Commission of all fires, leaks, spills, or breaks of facilities which cause a loss of more than five (5) barrels of crude oil, gas well liquids, or associated products.

4. This form is for the *emergency written notification* of all fires, leaks, spills, or breaks in facilities causing a loss of more than five (5) barrels and is not a substitute for the monthly loss report required of common carrier pipelines by Statewide Rule 71.

5. The use of *liquid hydrocarbon* in this form refers to crude oil, gas well liquids, or associated products.

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

WASHINGTON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
STATE OF WASHINGTON DEPTARTMENT OF ECOLOGY (WDOE)- NORTHWEST OFFICE		
3190 160th Avenue Bellevue, WA 98008-5452	(425) 649-7000*	**REPORTING REQUIREMENTS** TYPE: All oil spills into state waters and on state land. Note: State waters include surface and ground waters. Any spills that violate air quality standards, report to WDOE Air Programs Division. VERBAL: Immediately (within 1 hour) and shall include a) Names of reporting party and company b) Contact phone(s) number(s) c) Material, quantity, concentration, and location of spill d) Cleanup status e) Responsible party, if known WRITTEN: As agency may request, a full written report may be submitted and shall include the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.
Puget Sound Clean Air Agency 1904 Third Ave., Suite 105 Seattle, WA 98101	(206) 343-8800	

* 24-hour number

WASHINGTON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

WASHINGTON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
STATE OF WASHINGTON EMERGENCY MANAGEMENT DIVISION (EMD)		
Building 20, M/S: TA-20 Camp Murray, WA 98430-5122	(800) 258-5990*	**REPORTING REQUIREMENTS** TYPE: All oil spills into state waters and on state land. Note: State waters include surface and ground waters. VERBAL: Immediately (within 1 hour) and shall include: a) Names of reporting party and company b) Contact phone(s) number(s) c) Material, quantity, concentration, and location of spill d) Cleanup status e) Responsible party, if known WRITTEN: As agency may request, a full written report may be submitted and shall include the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

*24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

WASHINGTON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Pacific Northwest Region 1150 North Curtis Road, Suite 100 Boise, Idaho 83706-1234	(208) 378-5012	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
LOCAL EMERGENCY PLANNING COMMITTEES (LEPC)		
KING COUNTY OFFICE OF EMERGENCY MANAGEMENT (LEPC) 7300 Perimeter Rd South Rm 128 Seattle, WA 98108-3848	(206) 296-3830*	**REPORTING REQUIREMENTS** TYPE: Any spill reportable to the NRC. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances

* 24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

WASHINGTON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
FIRE DEPARTMENT		
TYPE: Any fire or unauthorized release of a flammable or hazardous material on property. **VERBAL: Immediately** **WRITTEN: As requested by agency.** **NOTE: The Fire Department notifications will be handled by the Local Area Operations.**		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
Seattle Fire Dept., Station 36	Seattle, WA	(206) 386-1436

SECTION 3.0 RESPONSE ACTIONS

This section addresses initial response actions at an incident site. These initial response actions will transition response efforts from initial "Notifications" as required in Section 2 to the Incident Command System that is addressed in Section 4. This section is divided into the following sub-sections:

Section

- Recognizing An Emergency 3.1
- Initial Protective Measures 3.2
- Assessing The Site 3.3
- Initial Response Actions 3.4
  - General Response Actions
  - Incident Specific Response Actions (Figures 3.1a - d)
  - First Employee On Site (Figure 3.2a)
  - Pipeline Controller (Figure 3.2b)
- Mobilization Of Resources 3.5
  - Area Manager (Figure 3.3a)
  - Operations Manager (Figure 3.3b)
  - Director of Operations (Figure 3.3c)
  - V. P. of Operations (Figure 3.3d)
- Local Response Team 3.6
- Crisis Support Team 3.7
  - Kinder Morgan Crisis Support Team (Figure 3.4)
- Response Levels 3.8
- Response Strategies 3.9
  - Response Level Chart (Figure 3.5)
- On Water Spill Containment and Recovery 3.10
  - On Water Response Flowchart (Figure 3.6)
- Shoreline Spill Containment and Recovery 3.11
- Other Emergency Equipment and Contractor Resources 3.12
- Site Specific Health & Safety Plan 3.13
  - Site Specific Health & Safety Plan (Figure 3.7)
- Material Safety Data Sheets 3.14
- Post Incident Review/Investigation 3.15

3.1 RECOGNIZING AN EMERGENCY

Definition of an Emergency

An emergency is defined as any uncontrolled release, occurrence, or incident which requires the response of persons outside of the immediate area, including KMEP employees or response agencies. These may include leaks, spills, fires or explosions; or natural disasters or terror threats which could result in any of these situations.

3.1 RECOGNIZING AN EMERGENCY (Cont'd)

Product Release

KMEP handles crude oil and refined petroleum products, vegetable/tropical oils, chemicals, and other petroleum additives.

Refined petroleum fuels comprise a majority of the products KMEP handles and transports. A refined petroleum product release is recognized by any visual signs of liquid hydrocarbons the ground or water. Other signs may include:

- Staining of soil
- Dead or discolored vegetation near pipeline or right-of-way areas
- Product sheen on water
- Distinct odors of petroleum or hydrocarbons
- (b) (7)(F), (b) (3)

3.1.1 Fire/Explosion

Any unplanned fire is considered an emergency and requires some level of response action. If the fire is small enough and personnel are trained they may attempt to extinguish the fire prior to notifications. See KMEP Safety Manual, for more detail. Larger fires should be reported immediately and this ICP should be implemented.

3.1.2 Natural Disasters

Natural disasters may include the following:

- Earthquakes
- Floods
- Severe storms
- Tornados

Natural disasters may not necessarily constitute an emergency response. However, if the natural disaster results in a release or fire, as described above, implementation of this plan may be required.

3.1.3 Bomb or Terrorist Threats

(b) (7)(F), (b) (3)

3.2 INITIAL PROTECTIVE MEASURES

Recognizing an emergency allows an initial responder to effectively determine protective measures. Protective measures are necessary to ensure the safety of personnel, environment and property. These measures may include:

- Evacuation of persons exposed to immediate hazards. Move personnel in an up-wind or cross-wind direction.

NEVER ALLOW PERSONS TO ENTER THE VAPOR AREA DURING AN EMERGENCY

- Restrict access of the immediate area
- Eliminate and controlling ignition sources
- Shut down system to control release

Once these initial, protective measures are taken, the first employee on site should perform a site Risk Assessment.

3.3 ASSESSING THE SITE

Assessing the site involves the determination of risk (safety) associated with the incident. This is necessary in order to begin the preparation of a larger response effort. The key component in conducting an organized site assessment is the use of the "Site Specific Health and Safety Plan" (Section 3.13). This plan will help guide the "first person" through the process effectively performing a site assessment.

Initial risk assessment elements should determine the following:

- Wind direction
- Preliminary hazard zones
- Product involved
- Proximity to sensitive receptors (residences, businesses, schools, water ways, etc.)
- Chemical, physical and health hazards

Current forecasts and other weather information is available through the NWS Interactive Weather Information Network at: http://iwin.nws.noaa.gov/iwin/main.html.

All of the weather data gathered for the U.S. can be found through NOAA's National Climatic Data Center in Asheville, NC ((828) 271-4800).

Note: These initial site assessment elements will be described in more detail in the Section 3.13 - Site Specific Health & Safety Plan.

3.4 INITIAL RESPONSE ACTIONS

3.4.1 General Response Actions

For the purposes of this plan, this Initial Response Action section includes the actions taken by the First Employee On-site (Figure 3.2a) and the Pipeline Controller (Figure 3.2b). The First Employee On-site must be able to recognize an emergency, implement protective measures, assess the site and perform internal notifications. The Pipeline Controller is responsible for initial response actions associated with pipeline shutdown procedures and external notifications.

3.4.2 Incident Specific Response Actions

The following information provides guidelines when responding to varying types of incidents. These include:

- ***Product Release (Figure 3.1a)***
- ***Fire / Explosion (Figure 3.1b)***
- ***Natural Disasters (Figure 3.1c)***
- ***Bomb/Terror Threats (Figure 3.1d)***

The first employee functions as the IC until relieved of that responsibility.

NOTE: The following tables (Figure 3.1) provides general guidelines only for responding to various incidents. More detailed procedures may be available in other Company documents such as abnormal operating procedures.

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE

Incident Type	Mitigation Actions
Flange, Valve, or Hose Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off flow to line ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Initiate spill containment (if outside containment area) ❑ Block and purge affected equipment ❑ Initiate recovery/clean-up action as required.

Incident Type	Mitigation Actions
Tank Truck or Rack Valve Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop transfer operation ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Offload the leaking compartment ❑ Flush area into containment drains or other containment ❑ Initiate other cleanup action as required

Incident Type	Mitigation Actions
Pipeline Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut down system to control release ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ If possible, place containment under the leak ❑ Initiate spill containment (if outside containment area) ❑ Initiate other recovery/cleanup action as required

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE (Cont'd)

Incident Type	Mitigation Actions
Tank Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop flow into the tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Organize temporary tank patch and begin repair ❑ Initiate other response actions as required

Incident Type	Mitigation Actions
Tank Overfill	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off transfer or flow to tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Initiate other response actions as required

FIGURE 3.1b

INCIDENT SPECIFIC RESPONSE ACTIONS
FIRE/EXPLOSION

Incident Type	Initial Response Actions
Fire/Explosion	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Alert personnel ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Activate alarm as required ❑ Notify local fire department ❑ Evacuate non-essential individuals ❑ Identify cause/source/materials involved ❑ Contain fire/spill material released ❑ Consider potential for escalation ❑ Protect exposures

FIGURE 3.1c

INCIDENT SPECIFIC RESPONSE ACTIONS
NATURAL DISASTERS

Incident Type	Response Action
Earthquake	Earthquakes may damage pipeline and terminal equipment. Damage may result in an emergency situation. The following are response actions that should be taken only when it is deemed safe to do so: During Earthquake ❑ If indoors, stay inside and take refuge ❑ Stay away from windows, glass, bookcases, heavy objects etc. ❑ If outdoors, move to open area ❑ If driving a vehicle, pull over and remain in car ❑ Avoid parking near power lines or other overhead hazards After Earthquake ❑ Identify immediate hazards ❑ Evacuation building if impending collapse ❑ Check for product releases ❑ Check for injuries ❑ Notify local authorities as appropriate ❑ Be prepared for after-shocks ❑ Use portable radios for news reports

FIGURE 3.1c

INCIDENT SPECIFIC RESPONSE ACTIONS
NATURAL DISASTERS (Cont'd)

Incident Type	Mitigation Actions
Severe Storm	Severe storms can hit west coast locations. Historically, severe storms have been documented on numerous occasions. They can involve high winds and tides, severe rainstorms and lightning and flooding. ❑ Listen to local and national news of impending storm ❑ Verify adequate emergency supplies ❑ Shut down non-essential operations ❑ Review evacuation plan ❑ Provide alerting information to employees, contractors and others ❑ Conduct planning meetings with appropriate personnel ❑ Assess available emergency equipment: ❑ Back-up generators ❑ Portable water pumps ❑ Earth moving equipment ❑ Water, food provisions ❑ Relocate important records ❑ Safe guard hazardous materials ❑ Prior to evacuation, turn off gas, water and electrical ❑ Prepare to account for employees ❑ Prepare for expected media coverage ❑ Contact fire departments as necessary ❑ Prepare vehicles for possible evacuation ❑ Open tank roof drains ❑ Verify that tank dikes are closed

FIGURE 3.1d

INCIDENT SPECIFIC RESPONSE ACTIONS
BOMB/TERROR THREATS

(b) (7)(F), (b) (3)

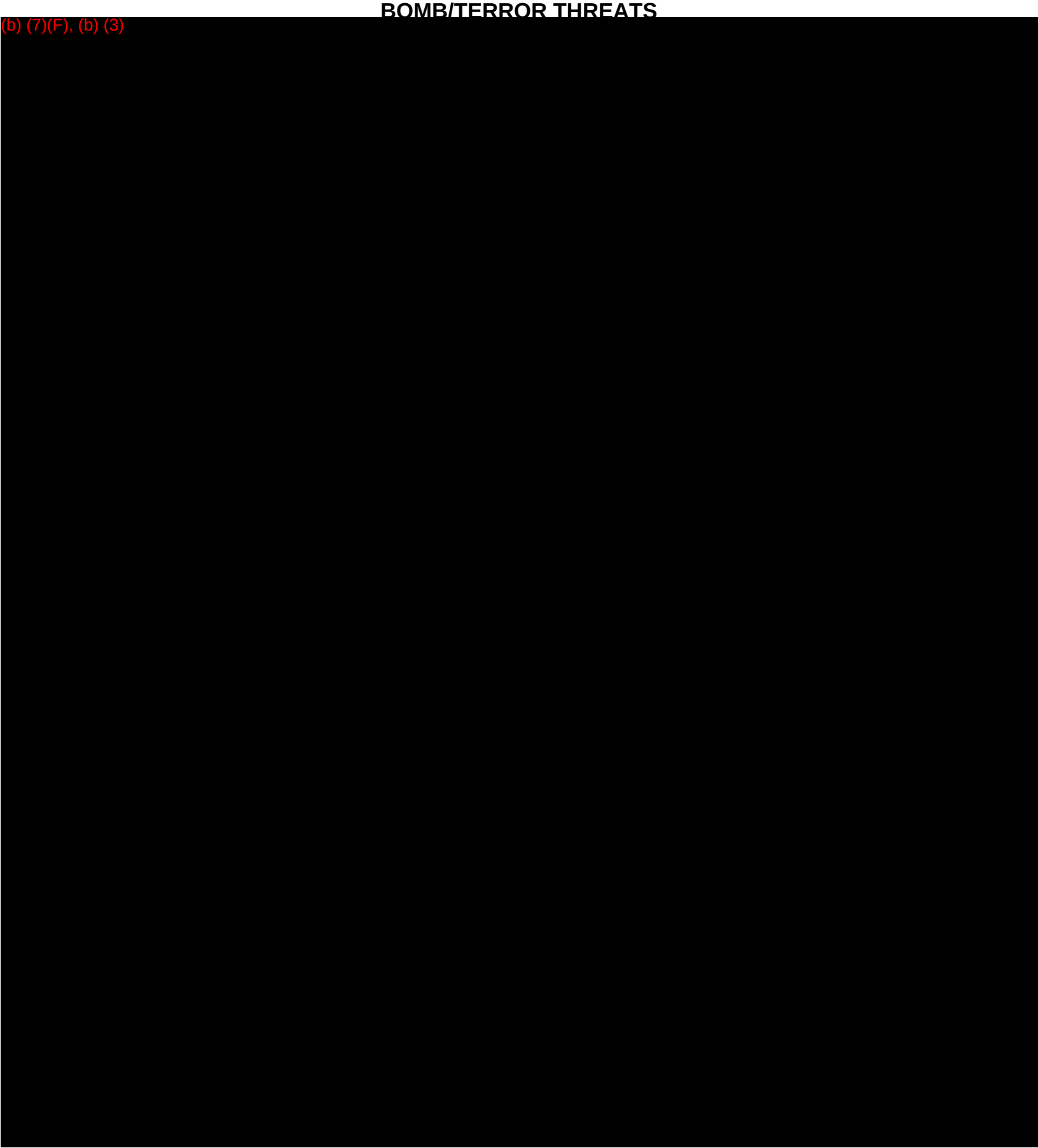


FIGURE 3.2a

INITIAL RESPONSE ACTIONS

First Employee On Site

First employee on site is the KMEP Incident Commander until relieved by a more senior Company employee. The Incident Commander has the authority to make decisions and to take steps necessary to control the emergency. The following list will aid this person in establishing safe initial response actions in preparation of a larger response effort.

- ❑ Evacuate yourself and all persons exposed to immediate hazards. Move personnel in an up-wind or cross-wind direction.

  NEVER ALLOW PERSONS TO ENTER
  THE VAPOR AREA DURING AN EMERGENCY

- ❑ Perform initial notifications (Section 2.1)
  - ❍ Pipeline Control Center
  - ❍ 911
  - ❍ Manager
  - ❍ Verify external notifications (via Pipeline Control Center)
- ❑ Shut down system to control release, as appropriate
- ❑ Restrict access to the immediate area of the emergency
- ❑ Eliminate and control ignition sources
- ❑ Initiate Incident Command System (ICS)
- ❑ Establish Central Command Post
- ❑ Use Site Health and Safety Plan to conduct site assessment (Figure 3.7)
- ❑ Meet with arriving response authorities (fire department, police, etc.).
  - ❍ Introduce yourself as the KMEP Incident Commander.
  - ❍ Communicate critical incident information
    - Type of incident (fire, spill, release)
    - Product involved
    - Equipment involved
    - Location of personnel in immediate area
    - Known hazards
    - Wind direction
- ❑ Advise the federal, state and local authorities (Unified Command) of a safe place to locate the Command Post (See Volume 1, Section 4, IC Tab for Tab “Guidelines for Establishing an Incident Command Post”).
- ❑ Initial Reporting Details Form (Figure 2.2)

FIGURE 3.2a

INITIAL RESPONSE ACTIONS (Cont'd)

First Employee On Site (Cont'd)

- ❑ Designate additional IC positions as the situation dictates and/or the availability of additional personnel: _____
- ❑ Note number of injuries if any: _____
- ❑ Ambulance/emergency medical service needed: _____
- ❑ Consider need for road closures: _____
- ❑ Consider hazards to trains: _____
- ❑ Call Control Center to contact RR dispatcher - Time called: _____
- ❑ Consider extent of release (estimate area impacted, i.e. 50'x100'): _____
- ❑ Consider if product is in water, sewers, canals etc.: _____
- ❑ Consider if structures are in danger: _____
- ❑ Product still flowing: _____
- ❑ All appropriate valves closed? Valves closed: _____
- ❑ Agencies on site (note who, when): _____
- ❑ News media on-site: _____

FIGURE 3.2b

INITIAL RESPONSE ACTIONS

Pipeline Controller (Control Center)

(b) (7)(F), (b) (3) [redacted]

- ❑ Coordinate with appropriate field operations personnel to develop a valve closing plan
- ❑ Plan should be reviewed by Manager of Pipeline Control
- ❑ Implement valve closing plan with field operations
- ❑ Document the times of the following actions and notifications

	Time
❍ Line Shutdown	
❍ Notification of Scheduler	
❍ Notification of Manager of Logistics	
❍ Pipeline Wheel notification	
❍ Notification of Railroad Dispatcher	

❍ Valve Closures / Re-opening

Valve	Time Closed	Time Re-Opened

	Time
❍ Leak Located	
❍ Turned over to field operations for repair	
❍ Repairs completed	
❍ All valves re-opened	
❍ Pressure tests	
- Started:	
- Completed:	
❍ Line re-start:	

- ❑ Coordinate with Manager of Pipeline Control to ensure appropriate external notifications have been made (see Section 2.1).

3.5 MOBILIZATION OF RESOURCES

This section describes how response resources are mobilized to the emergency scene. Resources may include:

- Company ICS (includes local/regional personnel and Crisis Support Team as needed)
- Appropriate agencies (fire departments, law enforcements, etc.)
- Contractors to support emergency response efforts
- Response equipment (containment of product and equipment repair)

To assess the need for adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in 6 hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

Once initial notifications are made, mobilization of resources is usually coordinated by management (Area Managers, Operations Managers, Pipeline Maintenance Manager, etc.).

These General Mobilization Actions should serve as general guidelines only. Additional actions may be required as the situation dictates. General Mobilization Actions for the various managers are detailed in the following checklists:

- ***Area Manager (Figure 3.3a)***
- ***Operations Manager (Figure 3.3b)***
- ***Director of Operations (Figure 3.3c)***
- ***V. P. of Operations (Figure 3.3d)***

FIGURE 3.3a

MOBILIZATION OF RESOURCES

Area Manager

The Area Manager will usually, but not always, be the first person called by the First Employee on-site. After receipt of the initial call, the Area Manager will evaluate the information and initiate appropriate mobilization of resources. In addition, the Area Manager will verify the level of the response and the appropriate response resources.

- ❑ Evaluate incident information
- ❑ Verify the level of the response (Level 1, 2 or 3; see Section 3.8)
- ❑ Notification of the following:
  - ❍ Local/regional response personnel
  - ❍ Operations Manager
- ❑ Verify that the following personnel have been notified
  - ❍ Pipeline Control Center (usually called by First Employee On-site)
  - ❍ Pipeline Maintenance Manager (usually called by Operations Manager)
  - ❍ Director of Operations (usually called by Operations Manager)
- ❑ Verify that external notifications have been made (usually completed by Pipeline Controller)
- ❑ Consider notifying the following response support groups, as appropriate
  - ❍ Crisis Support Team (See Section 2.1 and Figure 2.3c - KMEP Contact Numbers.)
  - ❍ On-water response contractors (See Section 3.10 of this Volume 1 and Section 2 of the applicable Volume 2.)
  - ❍ On land response contractors (See Section 2 of the applicable Volume 2.)
  - ❍ Pipeline repair contractors (See Section 2 of the applicable Volume 2.)

FIGURE 3.3b

MOBILIZATION OF RESOURCES

Operations Manager

The Operations Manager will usually be contacted by the Area Manager. After communicating with the Area Manager, the Operations Manager will evaluate the information and assist with appropriate mobilization of resources. In addition, the Operations Manager will assist with determining the level of the response and the appropriate response resources.

- ❑ Evaluate incident information
- ❑ Work with the Area Manager to determine the level of the response (Level 1, 2 or 3; see Section 3.8)
- ❑ Consider notification to Corporate Communications
- ❑ Notification of the following:
  - ❍ Director of Operations
  - ❍ Pipeline Maintenance Manager, as needed
- ❑ Verify that the following personnel have been notified
  - ❍ Pipeline Control Center (usually called by First Employee On-site)
  - ❍ Local/regional response personnel (usually called by Area Manager)
  - ❍ V. P. of Operations
- ❑ Verify with Area Manager that external notifications have been made (usually completed by Pipeline Controller)
- ❑ Coordinate with Area Manager to ensure the following response support groups have been notified, as appropriate:
  - ❍ Crisis Support Team (See Section 2.1 and Figure 2.3c - KMEP Contact Numbers.)
  - ❍ On-water response contractors (See Section 3.10 of this Volume 1 and Section 2 of the applicable Volume 2.)
  - ❍ On land response contractors (See Section 2 of the applicable Volume 2.)
  - ❍ Pipeline repair contractors (See Section 2 of the applicable Volume 2.)

FIGURE 3.3c

MOBILIZATION OF RESOURCES

Director of Operations

The Director of Operations will usually be contacted by the Operations Manager. After communicating with the Operations Manager, the Director of Operations will evaluate the information and assist with appropriate mobilization of resources. In addition, the Director of Operations will assist with determining the level of the response and the appropriate response resources.

- ❑ Evaluate incident information
- ❑ Evaluates whether the appropriate level of response (Level 1, 2 or 3; see Section 3.8) has been declared
- ❑ Notification of the following:
  - ❍ V. P. of Operations
  - ❍ Consider notification to Corporate Communications
- ❑ Verify that the following personnel have been notified
  - ❍ Pipeline Control Center (usually called by First Employee On-site)
  - ❍ Pipeline Maintenance Manager, as needed (usually called by Operations Manager)
- ❑ Verify with Operations Manager that external notifications have been made (usually completed by Pipeline Controller)
- ❑ Coordinate with Operations Manager that the following response support groups have been notified as appropriate:
  - ❍ Crisis Support Team (See Section 2.1 and Figure 2.3c - KMEP Contact Numbers.)
  - ❍ On-water response contractors (See Section 3.10 of this Volume 1 and Section 2 of the applicable Volume 2.)
  - ❍ On land response contractors (See Section 2 of the applicable Volume 2.)
  - ❍ Pipeline repair contractors (See Section 2 of the applicable Volume 2.)

FIGURE 3.3d

MOBILIZATION OF RESOURCES

V. P. of Operations

The V. P. of Operations will usually be contacted by the Director of Operations. After communicating with the Director of Operations, the VP of Operations will evaluate the information and notify personnel at the corporate level, as appropriate.

- ❑ Evaluate incident information
- ❑ Evaluate whether the appropriate level of response (Level 1, 2 or 3; see Section 3.8) has been declared
- ❑ Notification of the following:
  - ❍ Corporate level management, as appropriate
  - ❍ Consider notification to Corporate Communications
- ❑ Verify with Director of Operations that external notifications have been made (usually completed by Pipeline Controller)
- ❑ Coordinate with Director of Operations to determine if Crisis Support Team should be initiated
- ❑ If Crisis Support Team is deemed necessary:
  - ❍ Mobilize appropriate members of the Crisis Support Team
  - ❍ Establish corporate Emergency Operations Centers "EOC" as necessary
  - ❍ Coordinate with local city, county, state EOC, as appropriate

3.6 LOCAL RESPONSE TEAM

The first Company person on scene will function as the Incident Commander and person-in-charge until relieved by an authorized supervisor who will then assume the position of Incident Commander (IC). Transfer of command will take place as more senior management respond to the incident. For response operations within the control of the Local Response Team (LRT), the role of IC will typically be assumed and retained by Area Management. The various KMEP operating areas can work together to supplement their LRT capabilities.

The number of positions/personnel required to staff the Local Response Team will depend on the size and complexity of the incident. The duties of each position may be performed by the IC directly or delegated as the situation demands. The IC is always responsible for directing the response activities and will assume the duties of all the primary positions until the duties can be delegated to other qualified personnel.

A complete functional ICS organization is provided in Section 4. The LRT should try to fill the necessary positions and request additional support from the Crisis Support Team to fill/back up all the positions as the incident may dictate. Detailed job description checklists for primary response team positions are provided in Section 4.

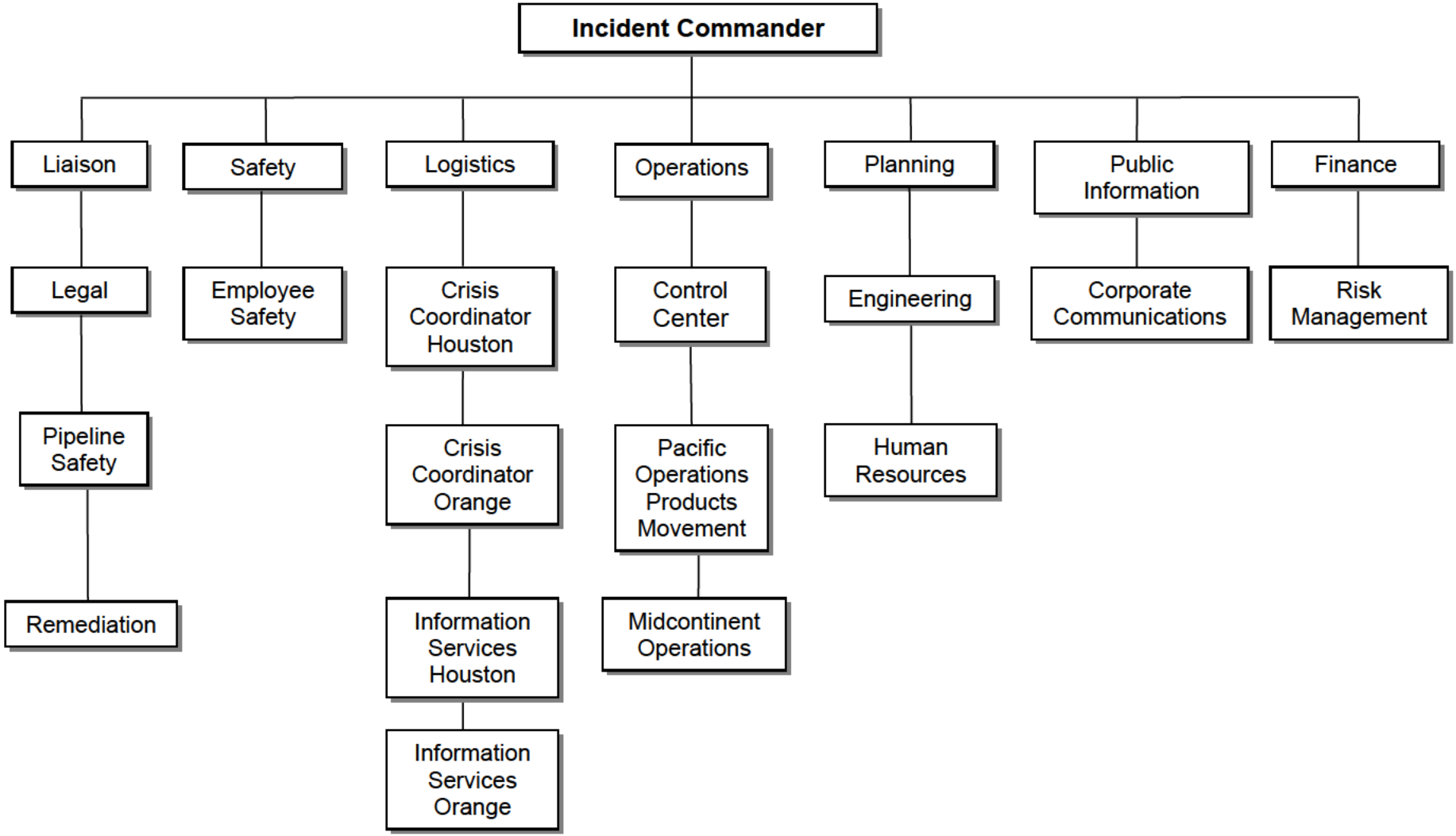
3.7 CRISIS SUPPORT TEAM

KMEP is prepared to implement a Crisis Support Plan when needed. The Crisis Support Plan designates members of the Crisis Support Team (see Figure 3.4: Crisis Support Team organization). The intent of the Crisis Support Team is to support local responders in the implementation of this Plan. Support can include additional resources, equipment, and crisis response planning at the KMEP management level in Orange, CA and/or Houston, TX offices.

The Crisis Support Team does not assume the local responders' responsibilities during an incident. In most cases, incidents will be managed by local responders with little direct involvement from Crisis Support Team members. However in the event of a major incident, the Company may activate all or a portion of the Crisis Support Plan, as needed.

FIGURE 3.4

KINDER MORGAN CRISIS SUPPORT TEAM



3.8 RESPONSE LEVELS

The following Response Levels and corresponding chart (see Figure 3.5 Response Level Chart) have been adopted from the Crisis Support Plan to assist local responders in determining if the Crisis Support Team should be activated. Every incident will be classified in one of three categories based on the specific nature and seriousness of the event.

3.8.1 Level 1 Response

A Level 1 response is an event that:

- Requires immediate response by the local field team but does not result in any injuries
- Involves little or no property damage
- Has little or no environmental impact
- Attracts no media attention
- Requires only routine or no reporting to regulatory agencies
- Is easily handled by the regional team and control center

A Level 1 response however, could develop into a Level 2 or Level 3 response if not immediately controlled (see Figure 3.5: Response Level Chart).

3.8.2 Level 2 Response

A Level 2 response is a more significant event that may:

- Involve injuries to an employee, contractor or the general public
- Result in significant property damage
- Involve a fire, explosion or significant environmental impact
- Involve local media attention
- Likely be reportable to some federal, state or local agencies

For the most part, Level 2 responses are within the capability of Operations, but may require certain Crisis Support Team resources to help mitigate the problem or conduct subsequent investigations. A "DOT Reportable Accident" is in a Level 2 response. A Level 2 response can quickly escalate to a Level 3 response if not mitigated (see Figure 3.5: Response Level Chart).

3.8.3 Level 3 Response

A Level 3 response is a major event that may include:

- Fatalities or serious injuries to employees or the public
- Extensive property damage or environmental impact
- Regional or national media attention
- Involvement of federal regulatory agencies.

Response to a Level 3 response requires significant additional resources/support beyond what may be locally available. A Level 3 will in most cases result in activation of the KMEP Crisis Support Center and mobilization of the Crisis Support Response Team (see Figure 3.5: Response Level Chart).

3.9 RESPONSE STRATEGIES

General Response Strategies

The general procedure for Company response is summarized as follows:

3.9.1 Response Action Plan:

Section 4.0 of this Plan includes specific duties for all personnel involved in a spill incident and utilizes the Incident Command System for Company personnel as well as the Unified Command System for the entire response structure including governmental and other agency representatives.

3.9.2 Notifications:

In the event of a spill, employees are trained to shut down the pipeline and then make notifications as shown in Section 2.0 of this Plan for regulatory required notifications and Section 2.0 of the appropriate Volume 2 plan for assistance/advisory notifications. The initial report would be from the Operator to the Area Manager and the local emergency responders (police and fire) and the Orange Control Center.

3.9.3 Actions:

Company response personnel would take actions to locate the spill, such as closing remotely operated block valves and monitoring the pressure, arranging for aerial and/or ground inspection of the pipeline, etc. If spill location is known, response personnel will be dispatched to the site, block valves will be closed as appropriate, and notification of company maintenance crews and response contractors will begin. The first person at the leak site will take the immediate actions detailed in this Section 3.0.

To assess the need for adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in 6 hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

FIGURE 3.5

RESPONSE LEVEL CHART

CLASSIFICATION	Level 1	Level 2	Level 3
BODILY INJURY			
No bodily injury	●		
KMEP Employee or contractor employee injured; no hospitalization		●	
KMEP Employee or contractor employee injured; hospital admittance required		●	
General public; hospital admittance required		●	
General public, three or more injured			●
Fatality (any)			●
PROPERTY DAMAGE			
Insignificant	●		
Significant damage to property		●	
Extensive			●
ENVIRONMENTAL INCIDENTS			
Insignificant on site and no off-site impact	●		
Minor, but significant on-site or any off-site impact		●	
Extensive on-site and/or off-site impact			●
NEWS MEDIA COVERAGE			
No immediate attention	●		
Local attention only		●	
Regional or national attention			●
REGULATORY REPORTING			
No notification or routine or local level only (local emergency planning committee)	●		
State or Federal level		●	
OTHER (as example, strikes, riots, demonstrations, bomb threats, etc.)			
Incidents handled and corrected by local management only	●		
Complaints or actions by individuals or groups which could damage the Company's reputation but not threaten employees, property, or operations		●	
Actions taken by individuals or groups which threaten Company, employees, property, or operations			●
ECONOMIC IMPACT			
Insignificant	●		
Significant		●	
Extensive			●
REPORT ALL INSURANCE CLAIMS IN ACCORDANCE WITH ESTABLISHED PROCEDURES. CRISIS NOTIFICATION DOES NOT REPLACE INSURANCE CLAIMS REPORTING REQUIREMENTS AND REGULATORY REPORTING REQUIREMENTS.			

FOOTNOTE: Property damage and economic impact levels will be defined by Business Unit Management.

3.9 RESPONSE STRATEGIES (Cont'd)

General Response Strategies (Cont'd)

SAFETY of all people, including the public as well as the responders, is the single most important item to keep before all people during all activities of the response and clean-up of a spill.

The Incident Commander (IC) is the Qualified Individual (QI) in the Kinder Morgan plan for emergency response. Typically the IC position would progress from the first person on site to the Area Manager to the Director of Operations. All responders in the company have the authority to commit necessary resources to deal with the emergency situation.

As more company personnel arrive at the site, the Incident Command System would go into action. The Incident Commander (IC) would appoint various persons to fill roles such as Safety, Operations, Logistics, Information Officer, Liaison, and Planning, Section 4.0 contains more information on both the Incident and Unified Command Systems (ICS and UCS).

3.9.4 Procedures To Stop The Discharge:

The IC would have a reconnaissance of the area done with appropriate safety precautions taken including personal protective equipment (PPE), if required, and would formulate a plan of action with the ICs of agencies on site. Stopping the flow of product by closing valves, starting downstream pumps if appropriate, etc. and containing the product by constructing dikes, berms, pits, etc. would take place.

3.9.5 Managing The Leak Site:

The Kinder Morgan IC acting with agency ICs would secure the area using local police and fire departments to keep all but required people out of the area and to take fire prevention actions as necessary. After recon, Kinder Morgan IC meeting with Operations, Planning, and Federal and State ICs would agree on a plan of action to build dikes, deploy booms, vacuum trucks, and other equipment to contain and pick up the product.

All notifications would have been made by this time and agencies would continue to arrive at the site. Examples: U. S. Coast Guard, State Fire Marshal, Dept. of Fish and Game, Office of Oil Spill Prevention and Response, local water resources agency, etc. Periodic internal and external follow-up status reports will be made during the emergency response. The process will be repeated periodically.

Response contractors and Kinder Morgan maintenance personnel working under the direction of the Operations Section Chief would be working to contain the spill and clean it up. Staging and De-contamination areas would be set up. The planning section would be working to develop incident strategies, plan required resources for the next 12 hour period, as well as longer (several days or weeks) periods.

3.9 RESPONSE STRATEGIES (Cont'd)

General Response Strategies (Cont'd)

Safety would be monitoring all actions to assure that nothing was being done that might endanger the health or safety of any persons in the area. Other support areas acting under the Incident Command System would be set up including the Information Officer, Logistics section, and the Liaison section.

In addition, the Kinder Morgan Crisis Support Team may be activated to provide assistance, such as engineering information, drawings, calculations, drafting news releases, assisting in financial/accounting paperwork, insurance contacts, logistics assistance etc.

3.9.6 Extended Response Activities:

In all scenarios the extended response activities would be similar. After the initial situation has been stabilized and there is no threat of fire or significant health and safety problems, the Incident Command System would be fully in place and operational. The planning function would propose appropriate human and equipment resources to staff the continuing clean up and remediation efforts as appropriate. This would all be discussed and approved by the Unified Command System representatives. In the case of Company personnel, personnel would be brought in from other operating regions and/or HQ and would be supplemented by contract and/or consulting personnel.

Contractor personnel would be arranged for by the contractor under the direction of the Company IC acting in concert with the Unified ICs.

The following strategies explain more specifically the likely plans for the five strategies that might be encountered in the Company's total response area.

The following are representative of possible response strategies which may be utilized throughout the Pacific Region.

- **Strategy No. 1: Pipeline Failure in Wetlands Area**
- **Strategy No. 2: Pipeline Failure in Small Creek**
- **Strategy No. 3: Pipeline Failure in Desert Area near Seasonal River**
- **Strategy No. 4: Pipeline Failure in River**
- **Strategy No. 5: Tank Failures**
- **Strategy No. 6: Geographic Specific Response Activities**

3.9 RESPONSE STRATEGIES (Cont'd)

General Response Strategies (Cont'd)

Strategy No 1: Pipeline Failure in Wetlands Area

A key response strategy in a wetlands area is to contain the product in as small an area as possible while minimizing damage to sensitive plants and animals. Depending on the amount spilled, it may be possible to make small containment dikes/berms by hand using available soil (or sandbags) or by using small equipment. If the wetland area is affected by tidal water movements, containing the area on three sides and installing absorbent booms and pads on the outflow side should be considered. Realizing that movement of machinery and people tends to silt up the water as well as destroy the plant life, care should be taken as much as possible to minimize human and machine movements in the affected area.

Some wetlands areas border on larger bays or major bodies of water which have Oil Spill Response Organizations (OSROs) that should be called for assistance.

Often wetlands areas are populated with birds of various types who would normally fly into and/or nest in the contaminated area. Wildlife hazing actions, such as loud noises, may be necessary to prevent wildlife from landing and becoming contaminated. Spills in wetlands are usually attended by governmental agencies such as Fish and Game, who will assist in administrating such wildlife hazing.

Some wetlands areas are specifically mentioned in the Area Contingency Plans, and should be checked for special situations.

Strategy No 2: Pipeline Failure in Small Creek

Product entering a flowing creek will move with the velocity of the surface of the water with some of the product "hanging up" on the creek banks and any vegetation that might be present. The basic strategy is to go downstream a head of the product and install one or more dams, depending on the volume of the spill and the volume and velocity of the creek. Dams could be from native soil or by sandbags. Usually underflow pipes are installed to approximate the flow volume of the creek thus containing the water with the product floating on it while allowing the uncontaminated water to flow through the underflow pipes. Product may then be picked up by vacuum truck, and/or absorbent pads and booms. In some cases siphon hoses or pipes can be installed to assist in regulating the flow around/over the dam.

Depending on the flow and configuration of the creek, the same holding and skimming operation may be accomplished by using several short sections of containment boom.

As previously noted, the downstream area must be surveyed to determine if any drinking water or industrial water intakes exist. If so, notifications must be made.

Product/water mixture that is picked up by vacuum truck can then be taken to the water treatment system at a company terminal, or otherwise disposed of at a properly licensed disposal facility.

3.9 RESPONSE STRATEGIES (Cont'd)

General Response Strategies (Cont'd)

Strategy No. 3: Pipeline Failure in Desert Area near Seasonal River

The response strategy in a desert area is to contain the product by building containment berms or dikes ahead of the direction of flow and along the leading perimeters of the flow. Usually the native soil in the area is suited for such berms; however, in hard rocky areas soil from another area may be required to be brought in. Often seasonal rivers in the desert have sandy or silty bottoms and are good places to obtain soil to contain the flow or to fill sandbags.

If the river is flowing and product gets into the river, the strategy would be as in Scenario No. 4. Soil conditions will largely determine if the product flows or primarily soaks into the ground. Picking up as much free product as possible with vacuum trucks, in the shortest amount of time possible, will help minimize the impact.

Strategy No. 4: Pipeline Failure in River

If product is spilled into a river several strategies may be pursued depending on the size and flow and gradient of the river and the amount of product spilled. In slow moving rivers that are not wide, floating booms may be installed at an angle to the flow of the river thus "directing" the floating product primarily to one side of the river for skimming and pick-up. This method will work for river flow velocities up to approximately 1.2 meters/sec. If flow exceeds this velocity, the boom becomes unmanageable. Usually two or three booms would be installed in order to form a primary and a back up system, with a redundant boom in case an upstream boom becomes ineffective.

The product can then be picked up using various available types of skimmers and or absorbent booms and pads.

In a river spill it is important to look well downstream and identify any critical water supply inlets such as inlets for municipal water districts or industrial or agricultural water inlets (additional information is provided in Volume 2). These should be immediately notified and where possible, install a boom barrier around the inlet of the supply to divert any floating product away from the inlet.

In some cases rivers with a steep gradient or rapid flow may be impossible to boom. Aerial reconnaissance of the river should then be made to determine if there are any areas where the river widens or where slower flows exist, or natural currents might form a holding area where product might be picked up.

There might be areas where because of inaccessibility and/or steep gradients additional portable pumps might be required to pump the skimmed product from the water to the vacuum truck or other holding tank.

3.9 RESPONSE STRATEGIES (Cont'd)

General Response Strategies (Cont'd)

Strategy No. 5: Tank Failures

The strategy for a tank failure is the same as all other failures, i.e. to concentrate on safety first and containment. Facility tank farms operate with valves from the tank diked areas closed. Thus product would be contained in the diked area, unless specifically released because of unique circumstances (Example: to drain into a more secure separator system or holding pond, etc.). After eliminating all sources of ignition and securing the area, the local IC with the fire department responders would determine if a foam blanket was to be applied. If possible, transferring of remaining product in the tank to another tank should be started. Picking up of the product in the tank dike area would begin with vacuum trucks, or portable pumps into the facility oily water system or sump system as appropriate. Once all free product has been removed, the remediation plans for removal and/or treatment of contaminated soil can begin. Disposal must be in accordance with all relevant regulations.

Strategy No. 6: Geographic Specific Response Activities

To identify specific spill response and protection strategies for the applicable region/area, Area Contingency Plan (ACP) and Geographic Response Plan information can be found at*:*
http://kmonline.kindermorgan.com/operations/products/pacific_icp/rmaplan.html .
Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-Company plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1 or in a separate folder in electronic copies.

3.10 ON WATER SPILL CONTAINMENT AND RECOVERY

Any product spill on water will be immediately subject to a number of natural processes that will alter the product's physical and chemical properties. Depending on the type of product, the magnitude of the spill, and the nature of the environment, these physical and chemical changes will effect how to best approach containment and recovery operations. Every spill situation is different, and throughout a spill, the conditions affecting the selection of a response mode are constantly changing.

The flow chart in Figure 3.6 provides some basic guidelines when responding to on water releases.

On Water Spill Clean up Techniques

The following section provides a general overview of on water spill cleanup techniques and types of equipment:

- **Booms for Containment and Protection**

  Spill containment booms may be used to contain the spill and they may also be deployed between the spill and environmentally sensitive areas. Booms may also be used in area of strong currents to deflect or guide the spill to locations where it can more effectively be cleaned up using skimmers, vacuum trucks, or sorbent material.

3.10 ON WATER SPILL CONTAINMENT AND RECOVERY (Cont'd)

On Water Spill Clean up Techniques (Cont'd)

A boom is a device that may be used to contain or deflect product that may float upon the surface of water. While there are a great many different kinds of boom, almost all share the following four components:

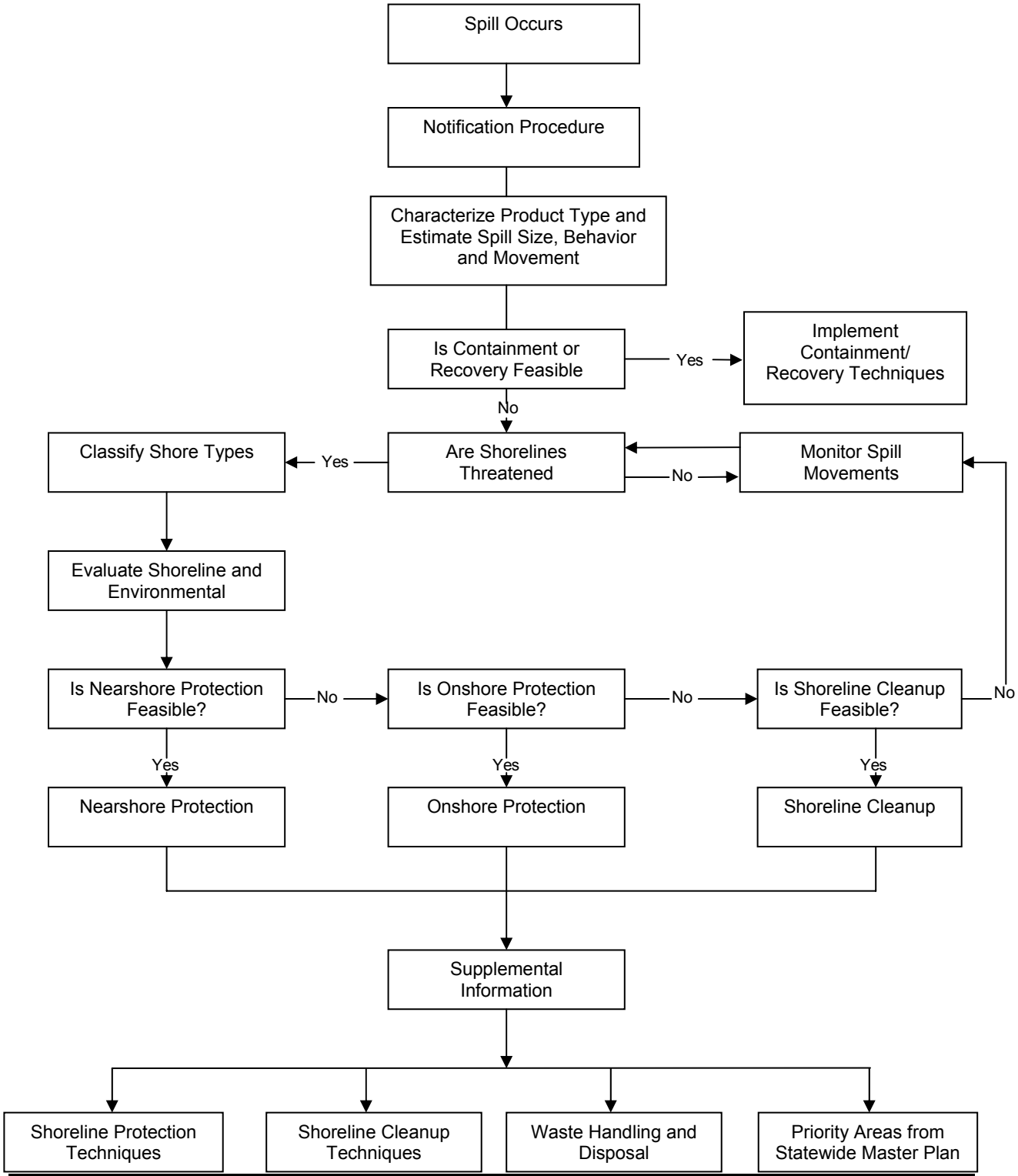
1. A flotation unit or freeboard designed to contain or divert the product as well as to resist product splashing over the top.
2. A skirt or curtain to prevent product from being carried beneath the boom.
3. A longitudinal strength member (usually cable, chain, or high tensile strength fabric) that serves to join boom sections and provide anchoring points.
4. A ballast unit or weight designed to hold the skirt perpendicular to the current flow.

Boom Types/Classifications

Traditionally, booms have been classified either according to their physical appearance (round, fence, or inflatable) or according to size with respect to the location of application (inland, harbor, and open sea).

FIGURE 3.6

ON WATER RESPONSE FLOWCHART



3.10 ON WATER SPILL CONTAINMENT AND RECOVERY (Cont'd)

Boom Deployment

Most authorities recognize three modes of boom deployment for:

1. Containment booming is an action designed to encircle or otherwise entrap floating product so that it might be accumulated and recovered.
2. Deflection booming is performed to intercept, deflect, or shunt a slick towards a more desirable recovery site. Deflection booming is a desirable option when swift currents render containment booming ineffective.
3. Exclusion booming is largely a protective measure. It is used to protect sensitive areas such as marshlands, water intakes, and shorelines by keeping product out of the area.

- **Skimming Devices**

Once a product slick has been contained, the next logical response tactic is to remove the spilled product. A commercial product skimmer, if properly selected and operated, provides one of the best means of product recovery available. Most skimmers are designed to recover product floating on the surface of water without altering the floating product's chemical or physical properties. Skimmers come in a variety of designs and sizes. Small skimming units can be used successfully on spills ranging from minor in-plant spills to major offshore disasters. Large self-propelled skimming vessels are much more expensive to purchase and maintain. Such large units are often purchased by spill cooperatives or leased from contractors.

While there are many different manufacturers' brands of skimmers, most fall into one of four basic categories:

1. Suction Heads are usually connected by quick couplers to suction hoses from vacuum trucks or intake lines from pumps. The floating suction head recovers a mixture of both product and water through its intake ports.
2. Floating Weirs operate at the product/water interface skimming the floating product selectively off the top of the water. As product is skimmed off the top of the water, it accumulates in a collection well or tank.
3. Oleophilic Surface Units include skimmers that employ oleophilic ropes, discs, plates, and belts. The unit relies on adsorbent material (e.g. a rotating drum, disc or rope) that passes through the slick and selectively sorbs the product onto its surface. The oleophilic plate or rope is then scraped or squeezed clean of the product it carries and is rotated through the slick again to adsorb more product.
4. Hydrodynamic Devices (includes vortex and inclined plane units). These rely upon a vortex or centrifuge effect, a dynamic inclined plane principle, or a water jet system. These units function more as product collectors than actual skimmers.

3.10 ON WATER SPILL CONTAINMENT AND RECOVERY (Cont'd)

- **Transfer Pumps**

  During a spill clean-up operation, pumps may be needed to transfer product from: 1) a recovery device to a storage container, and 2) the storage container to a treatment or disposal center. Pumps are also needed to handle water for flushing product off contaminated shorelines.

  The following three types of pumps may be used:

  1. Centrifugal Pumps have open impellers that enable them to handle fluids containing small debris and solids. They are also useful for herding product to locations where it can be easily recovered.
  2. Diaphragm Pumps are positive displacement pumps that use pushing action to force fluids through pipes or hoses. They are ideally suited for transferring fluids recovered by weir or rope mop skimmers.
  3 Screw Pumping Systems can handle viscous or weathered product and product/water emulsions. These pumps can be totally submerged in the fluid that must be transferred.

- **Dispersants**

  There are no pre-approved response options for inland spills within the United States. Any plans to use dispersants or in situ burn by the Company will be submitted to the Federal On-Scene Coordinator for Regional Response Team approval prior to such action being taken.

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3.11 SHORELINE SPILL CONTAINMENT AND RECOVERY

The ACP lists natural resources for each segment of shoreline. Environmental sensitivity rankings are often presented on the maps to help prioritize response efforts.

Product penetration depends primarily on the permeability of the sediment and the viscosity of the product. Gravel beaches, for example, have high permeability and are easily penetrated by light to heavy weight products. On the other hand, fine sandy beaches and mud flats are not easily penetrated by many products. This is especially true if these beaches are wet prior to contact with product.

Product retention is governed by the rate at which environmental factors remove product from a given shoreline. These factors include wave energy, natural erosion, tidal action, evaporation, and biodegradation. Areas which experience high wave energy or high natural erosion should be given a lower priority for response because these processes will eventually force the product into the water column where it will undergo biodegradation. By comparison, product retention will be high in calm shoreline areas that do not experience high wave energy.

- **Shoreline Clean-Up Techniques**

  In sensitive shoreline areas where the clean-up operation will do more damage to the environment than the product, it may be prudent to take limited or no action. However, this decision should be based on input from government agencies, the landowner, and the local government that has jurisdiction over the area.

3.11 SHORELINE SPILL CONTAINMENT AND RECOVERY (Cont'd)

- **Shoreline Clean-Up Techniques (Cont'd)**

  Sand, gravel, or marsh areas can be flooded with water to allow product to float to the surface. Afterwards, the product can be recovered with portable product skimmers and sorbents. If properly implemented, this technique should allow efficient recovery with minimal impact to the environment.

  For marshes and shorelines with heavy vegetation, a low-pressure water spray from a hand-held hose can be used to herd product to a convenient location where it can be contained and recovered with portable skimmers and sorbents. High-pressure water spray can be used to remove product from the hulls of vessels, rocky shorelines, or man-made structures. High or low pressure flushing is an efficient means for onshore spill cleanup. However, this technique must be used with a skimmer or sorbent material to recover the product.

  Heavy equipment is recommended for cleaning sandy beaches. Motorized graders can be used to scrape up thin layers of affected sand. Front-end loaders can be used to pick up affected material that has been pushed together by motorized graders. They can also scrape affected beach sediment when the product penetration is too deep to be removed by motorized graders. Bulldozers are effective for cleaning shorelines that are not firm enough to support graders or front-end loaders.

3.12 OTHER EMERGENCY EQUIPMENT AND CONTRACTOR RESOURCES

Each Volume 2 (one for each of seven (7) regions) contains additional detail on the contract resources, as well as proprietary KMEP resources, available for response. Contracted OSROs operating in each region shall have determined the appropriate and suitable equipment for use in those areas taking into account the local environmental conditions.

3.13 SITE SPECIFIC HEALTH AND SAFETY PLAN

Health and Safety

It is the Company's policy that the health and safety of all personnel will be given the absolute highest priority. To insure this, all response decisions/actions should be based on the following three Incident Commander priorities:

- Safety of Company personnel
- Safety of surrounding community
- Safety/protection of environment

The Kinder Morgan Site Specific Health and Safety Plan (H&S Plan) was created to address these priorities. The H&S Plan is intended to guide company personnel through an assessment of the risk(s) associated with the emergency. Development of the H&S Plan, particularly the first six boxes, should take precedence during the initial stages of an emergency.

Examples of safety issues addressed in the H&S Plan include:

- Chemical Involved
- Specific and general hazards
- PPE
- Evacuation
- Hospital locations
- Air monitoring
- Hazard zones
- MSDS

3.13 SITE SPECIFIC HEALTH & SAFETY PLAN (Cont'd)

Site Specific Health & Safety Plan

The Site Specific Health & Safety Plan (H&S Plan) is an integral part of the KMEP emergency response effort. The H&S Plan is required, prior to and during all emergency response operations. Completion of the H&S Plan should occur within the first hour of a response. The first six boxes, at a minimum, should be completed as soon as possible. The information in these boxes will guide KMEP responders through an initial site assessment.

The H&S Plan serves several purposes:

- Assist in performing an initial risk assessment
- Gather critical incident information into an easy-to-read document (e.g. incident details, product involved, hazards, etc.)
- Establishes hazard zones
- Designates which responders are allowed to go where (e.g. KMEP vs. FD)
- Prompts responders to initiate the Incident Command System
- Once completed, the H&S Plan will be utilized to:
- Brief KMEP response personnel
- Coordinate initial response efforts with Fire Department and law enforcement
- Provide regulatory agency representatives and/or visitors with a concise and consistent overview of the incident
- Ensure that anyone that arrives onsite will receive a site-specific health & safety briefing before entering the emergency site
- Demonstrate KMEP's ability to respond to an emergency in a safe and organized manner

The Health and Safety Plan is a dynamic and ever-changing plan that requires continuous updating.

It is important to communicate significant changes to the H&S plan to the appropriate responders.

This is best accomplished by scheduling regular safety meetings.

FIGURE 3.7

Complete Boxes 1 - 6 First

KINDER MORGAN ENERGY PARTNERS, L.P.

EMERGENCY RESPONSE SITE SPECIFIC HEALTH & SAFETY PLAN

Date / Time:_____/_____

1. *Incident Information:*

Incident Type:

- ❑ **Fire / Explosion**
- ❑ **Spill / Release**
- ❑ **Rescue**
- ❑ **Injury**

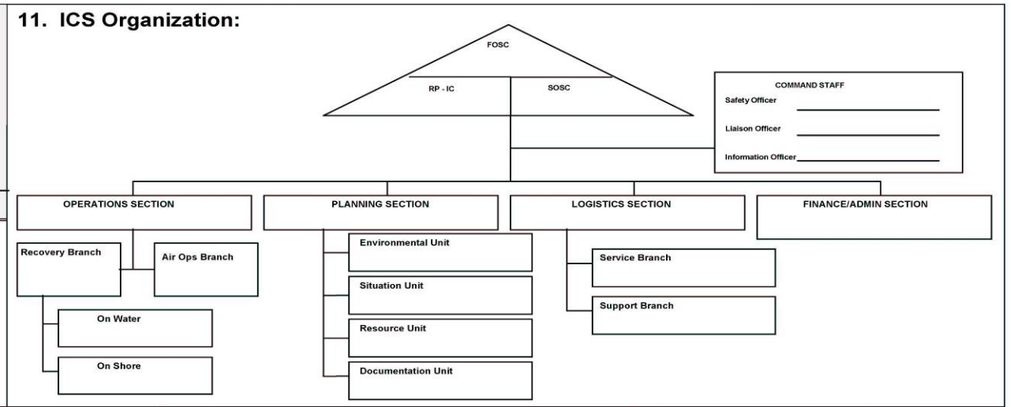
Date: _____
Location: _____
_____
Time of Incident: _____
Incident Name: _____
_____

2. *Products / Chemical Involved:*

❑ Gasoline ❑ Diesel ❑ Jet Fuel ❑ Methanol ❑ DRA
❑ Fuel Additive ❑ Ethanol ❑ Ethane ❑ Butane
❑ Natural Gas ❑ Isobutane ❑ MCC Lubricity
❑ Crude Oil ❑ Propane ❑ Ethyl Mercaptan
❑ Other _____
(see Table 1 on back for chemical & physical properties)

MSDS available and reviewed: ❑ Yes

11. ICS Organization:



3. *Primary Hazards:*
❑ Fire ❑ Vapor ❑ Respiratory ❑ Skin

4. *Personal Protective Equipment:*
Cold Zone / Staging - ❑ Hardhat ❑ Safety Boots ❑ Traffic Vest
Warm Zone / Decon - Level ❑ A ❑ B ❑ C ❑ D
Hot Zone - Level ❑ A ❑ B ❑ C ❑ D
(see Table 2 on back for description of PPE by Level)

Incident Priority Checklist:

- ❑ 1. Evacuate self and others
- ❑ 2. Secure area/restrict access
- ❑ 3. Notification: Internal/External
- ❑ 4. Eliminate ignition sources
- ❑ 5. Initiate ICS
- ❑ 6. Conduct Site Assessment (H&S Plan)
- ❑ 7. Meet with arriving authorities
- ❑ 8. Mobilize response resources

5. *Hot Zone Authorized Entrants:*
❑ Fire Dept. ❑ KM
❑ Agency Reps. ❑ Contractors

6. Site Map:

Wind Direction (out of the ___)

❑ Weather Conditions: _____ ❑ Wind Direction ❑ Hazard Zones ❑ Staging
❑ Command Post ❑ Decon ❑ Cross streets ❑ Sensitive receptors (drainage, roadways, environmental sensitivity)

7. *Secondary Hazards:*
❑ Fire ❑ Heavy Equipment
❑ Excavations ❑ Noise
❑ Confined Spaces ❑ Heat Stress
❑ Cold Stress ❑ Rain/Lightning
❑ General (slip, trip, fall, established smoking area)
❑ Other: _____
(see Table 3 on back for secondary hazard precautions)

8. Evacuation Plan:
Evacuation signal : _____
Primary Evac. Area: _____
Secondary Evac. Area: _____

9. Nearest Hospital: Notified: ❑ Yes ❑ No
Address: _____
_____
Phone #: _____
Directions: _____
_____

10. PROP 65 Notices: (California only)
❑ Incident is within Terminal or Station; notice(s) are posted at facility entrance(s).
❑ Incident of outside KM property; notice(s) are posted along incident site boundaries.

12. Enforcement / Regulatory Agencies (On Site):

Agency (Fed/State/Local)	Name	Contact Number	Time of Arrival

13. Contractors (On Site):
❑ Environ. _____ ❑ Clean up _____
❑ Repair _____ ❑ Consultant _____

14. Hot Zone Entry Objectives:
Objectives:
Why are people entering the Hot Zone? What is their objective?
_____
_____
_____

15. Decon Checklist:

- ❑ Establish and communicate location
- ❑ Plastic tarps and trash bags provided
- ❑ Supervision of decon provided
- ❑ Entrant log maintained
- ❑ Container of absorbent material provided
- ❑ Boot brush provided
- ❑ Folding chairs provided
- ❑ Lighting provided (if needed)

16. Atmospheric Monitoring:
Completed by - ❑ KM ❑ Fire Dept. ❑ Contractor ❑ Other: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____

17. Authorization Signatures: Incident Commander: Safety Officer:

INCIDENT COMMANDER PRIORITIES - SAFETY of ❑ KMEP PERSONNEL ❑ SURROUNDING COMMUNITY ❑ ENVIRONMENT

Table 1. Chemical & Physical Properties

Chemical Hazards	Flammability Range		Toxicity	Chemical / Physical Properties				NFPA 704 Health/Flammable/Reactive
	LEL	UEL	PEL[a]/TLV[b]	Flash Pt.	Vapor Pressure	Vapor Density	Specific Gravity	
❑ Gasoline	1.3%	7.6%	300 ppm[a]	-45°F	~300 mmHg	5	0.74	1 / 3 / 0
❑ Diesel	0.9%	7.0%	NA	~150°F	~1 mmHg	>5	0.86	1 / 2 / 0
❑ Jet Fuel	~0.8%	~6.0%	500 ppm[a]	~110°F	5	>5	0.81	1 / 2 / 0
❑ Ethanol	3.3%	19.0%	1,000 ppm[b]	48°F	44 mmHg	>1	0.79	0 / 3 / 0
❑ Fuel Additive*								
❑ Drag Reducing Agent (DRA)*								2 / 2 / 0
❑ MCC Lubricity	Not Available	Not Available		>140°F	1.37 mmHg	>1	.93 - .94	2 / 2 / 0
❑ Natural Gasoline	1.4%	7.6%	--	-50°F	12-26 psi	2.7	0.66-0.75	1 / 3 / 0
❑ Butane	1.6%	8.4%	800 ppm[a]	-101°F	43 psi	2.05	.58	1 / 4 / 0
❑ Ethane	2.9%	13.0%	not established	-275°F	800 psi	1.1	0.36	
❑ Isobutane	1.8%	8.4%	800 ppm[a]	-126°F	62 psi	2.0	0.563	1 / 4 / 0
❑ Propane	2.1%	9.5%	1000 ppm[a]	-156°F	288 psi	1.53	0.51	1 / 4 / 0
❑ Crude Oil								
❑ Methanol	6.0%	36%	200 ppm	52°F	96 mm HG	1.1	.792	1 / 3 / 0
❑ Ethyl Mercaptan	2.8%	18%	10 ppm[a]/ .5 ppm[b]	-55°F	16.2 psi	2.1	.845	2 / 4 / 0
❑ Other*								

* Describe:

1 atm = 760 mmHg = 14.7 psi

Table 2. PPE Levels

LEVEL A	LEVEL B	LEVEL C	LEVEL D
Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Totally encapsulating, gas tight chemical resistant suit ❑ Inner chemical resistant gloves ❑ Chemical resistant safety boots Optional Equipment ❑ Hearing protection ❑ Hard Hat ❑ Disposable glove & boot covers	Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Non-encapsulating chemical resistant suit (Tyvek/Nomex) ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ Full / Half Face respirator w/: ❑ cartridge (gas/vapor): _____ ❑ filter (particulate): _____ Required Equipment ❑ Non-encapsulating chemical resistant suit ❑ Tyvek ❑ Nomex ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ None Required Equipment ❑ Coveralls ❑ Safety Boots ❑ Safety Glasses ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Gloves ❑ Face shield/safety glasses

Table 3. Secondary Hazards

Hazards	Recommended Precaution(s)
❑ Fire (potential)	• Remain safe distance away • Eliminate ignition sources • Keep upwind of vapor/smoke • Provide vapor suppression (if safe) • Do not impede Fire Dept. efforts
❑ Heavy Equipment	• Qualified operators only • Hardhats and safety boots needed around heavy equip. • Minimum 10ft. clearance from power lines • Make "one call" if excavating • Proper machine guarding in place
❑ Excavations	• Trenches/excavations equal to or greater than 5ft. deep must meet OSHA requirements • No one allowed to enter excavation > 5ft. unless shored, sloped or protected • Excavations < 5ft. and judged by competent person as cave-in hazard must also follow OSHA requirements
❑ Noise	• Portable generators & heavy equip. can generate potentially high noise levels • Hearing protection available to workers • Hearing protection must be worn in area with noise levels above 85dBA.
❑ Confined Spaces	• Site Safety Officer will determine whether confined space will be entered • All confined space entries must meet OSHA requirements (permits, atmospheric monitoring, attendants, etc.)
❑ Heat Stress	• Potential hazard when temp >80°F • Workers should take more breaks and drink plenty of appropriate liquids • More PPE = higher risk • Be aware of heat cramps (stomach cramps), heat exhaustion (excessive sweating, flushed/clammy skin) – treat with rest and liquids. Heat stroke (dry, hot, pale skin; no sweating) can be deadly – get medical help immediately, reduce core body temp by applying cold water to body & fanning.
❑ Cold Stress	• Skin takes on gray-glossy look • Appendages become non-responsive • Blisters or sores may appear • Do not rub • Submerse affected areas in warm water or wrap in warm cloth.
❑ Rain / Lightning	• Stop excavation activities during excessive rainfall • Avoid shock hazards by stopping work during thunderstorm or lightening • Prevent & control erosion & transport of soils out of incident area.
❑ General	• Slip, trip & fall hazards • Keep work area clear of debris • Smoking not permitted in work areas • Use hand tools safely
❑ Other:	

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS

KMEP employees who have received HAZWOPER training are familiar with how to complete and implement the H&S Plan. The following instructions are provided for those persons who have not received the same level of training.

The first 6 boxes of the H&S Plan are priority for filling out during the initial stages of an emergency.

BOX #1: Incident Information

This section is intended to provide general information about the incident.

Location can be a KMEP facility name, pipeline section, address with cross streets, etc.

Note the **date** (including year) and **approximate time** the incident occurred.

The "**Incident Name**" can be left blank until an appropriate name has been determined. Generally the name refers to the piece of equipment involved, location along the pipeline or some other way which will allow for easy recognition in the future. Fire Department responders may refer to the incident as the "Kinder Morgan Incident". However, avoid using this as the incident name because it is too generic and will not provide KMEP with adequate detail for future reference.

A description of **weather conditions** should be provided. Use simple and straightforward language (e.g. light rain, strong winds, sunny, etc.)

Check the appropriate "Incident Type" based on what has occurred. Some emergencies may involve one or more incident types. Check all that apply.

BOX #2: Chemical Hazards Involved

Most emergencies will involve the release of product. This section is intended to communicate what product involved in the particular incident. Most of the products KMEP handles or transports are listed. Place a check next to the products involved. Check "Other" if additional, unlisted chemicals are involved. In general, refined products pose a very low health risk. The first concern should be physical hazards (flash/fire/explosions).

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

There is a note referring to Table 1: Chemical & Physical Properties provided on the backside of the H&S Plan. This table lists the chemical and physical properties for several of KMEP products. Properties for some chemicals, such as fuel additive or DRA, are not provided because the products vary significantly in composition. In these cases, refer to the products Material Safety Data Sheet (MSDS).

Material Safety Data Sheet

A Material Safety Data Sheet (MSDS) is required for each chemical involved in the incident. Ensure that a copy of the MSDS is readily available. Later in the response effort, the MSDS can be attached to the H&S Plan. Check "Yes" once a MSDS has been made available.

Note: Table 1: Chemical & Physical Properties is intended as a reference but does not replace the need for a Material Safety Data Sheet (MSDS).

BOX #3: Physical / Health Hazards

The section is intended to inform responders or visitors of the **primary** physical or health hazards posed by the emergency situation. In general, refined products pose a very low health risk. The first concern should be physical hazards (flash/fire/explosions). Secondary hazards will be address in another part of the H&S Plan.

Physical Hazards	
Fire -	Check if the incident actually entails a fully involved fire.
Vapor -	Check if incident involves or has the likely potential to involve a vapor release and potential fire flashback.

Health Hazards	
Respiratory -	Check if incident involves a vapor release or if chemical involved poses specific inhalation hazard.
Skin -	Check if incident involves a splash hazard or if chemical involved poses specific skin hazard.

BOX #4: Personal Protective Equipment

The section is intended to designate what personal protective equipment (PPE) or what levels of PPE will be required within the various defined areas ("hazard zones") of the emergency site. It is important that the hazards zones are communicated to all responders so they understand the PPE requirements.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

There is a note referring to Table 2: PPE Classes provided on the backside of the H&S Plan. This table describes the various levels of PPE. It should be used as a guideline when choosing PPE for personnel based on where they will be responding. KMEP's policy is that company employees may only respond in Level C or Level D. Mutual aid responders or emergency response contractors are permitted to don Level B or higher, according to their own SOP's.

All contractors shall wear the level of PPE required by the H&S Plan. It is the responsibility of the contractor to supply their personnel with the required PPE and ensure they are knowledgeable and skilled in its use. KMEP has the right to request proof of training, if deemed necessary.

The Table 2: PPE Classes is based on Appendix "B" of the HAZWOPER Standard. Therefore, it should be used as a guideline. All the pieces of PPE listed under a particular level may not be required (e.g. inner chemical resistant gloves, chemical resistant safety boots, etc.). However, the proper choice of respiratory protection is essential and should be used as a deciding factor when choosing between the different levels of PPE.

The following discussion will describe the different levels of PPE in greater detail:

Level A

KMEP personnel do not respond in Level A.

Level A is intended to provide the highest level of skin, eye and respiratory protection. It requires the use of a totally encapsulating chemical suit and SCBA. The product KMEP transports do not warrant the use of Level A. Should an incident involve such chemicals (e.g. train derailment), KMEP personnel are to remove themselves from the immediate area and assist in a defensive mode only.

Level B

KMEP personnel do not respond in Level B.

Level B is intended to provide the highest level of respiratory protection but a lower level of skin and eye protection than Level A. Respiratory protection can include an SCBA or airline. Skin protection will normally include fire resistant (Nomex) or Tyvex (splash resistant) coveralls. Nomex should be worn if the potential for ignition is greater than the potential for splashes. Tyvex, or equivalent, should be worn if the potential for splashes is greater than the potential for ignition. It is not recommended to wear both Nomex and Tyvex coveralls together.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

Level B may also include the following PPE, as needed:

- Inner gloves and outer, chemical resistant (nitrile) gloves
- Safety boots (possibly chemical resistant)
- Hard hat
- Face shield / safety glasses
- Hearing Protection

Level C

Level C is the highest level of PPE KMEP personnel are permitted to wear.

Level C is a significant reduction in respiratory protection. Full- or half-face respirators should be selected when the type and concentration of the chemical(s) involved are known. Air monitoring is required to determine the amount of airborne chemical responders may be exposed to.

Once air monitoring is conducted, the appropriate respirator must be chosen. If the chemical hazard is in a gas/vapor form, the proper respirator cartridge must be identified. If the chemical poses a particulate/dust hazard, then a high efficiency particulate air (HEPA) filter is recommended. Cartridges and filters are universally color-coded:

Chemical Hazard	Universal Color Code
Organic vapors (petroleum products)	Black
Acid gases	Yellow
Particulate / dust (HEPA rated)	Bright Pink

If fitted properly, most full- and half-face respirators will provide protection up to 10 times (10x) the permissible exposure limit (PEL).

No person shall be required to wear a respirator or other PPE without proper training in its use and limitations. In the case of respiratory equipment, personnel must have:

Completed an annual, qualitative fit test (e.g. with irritant smoke)

Been trained on how to properly put on a respirator (e.g. field fit check)

Complete a medical evaluation form

Access to a new or properly cleaned and inspected respirator.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

Level C skin protection may include fire resistant (Nomex) or Tyvex (splash resistant) coveralls. Do not enter Flash Area

Level C may also include the following PPE, as needed:

- Inner gloves and outer, chemical resistant (nitrile) gloves
- Safety boots (possibly chemical resistant)
- Hard hat
- Face shield / safety glasses
- Hearing Protection

BOX #5: Hot Zone Authorized Entrants

The intent of this section is to determine who is permitted to enter the Hot Zone. All other responders are not allowed to enter the Hot Zone without express permission from the Incident Commander. Place a check next to the responders permitted to enter the Hot Zone.

BOX #6: Site Map

The Site Map plays a key role in communicating essential incident information set forth in the H&S Plan. The open space in the center of the H&S Plan is intended for a hand-drawn version of the incident area. In the event the emergency occurs at a facility, a pre-printed facility plot plan can be used.

At a minimum, a Site Map should include:

Wind direction – Draw an arrow indicating wind direction. Include the actual bearing of the wind (N, S, E or W) and speed, if available

Hazard Zones

Hazard zones include the hot, warm and cold zones. These zones are utilized during an emergency to:

Outline the location of the greatest hazards, as well as, areas considered safe.

Communicate areas where certain personnel are (and are not) permitted to respond.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- Communicate areas where visitors are (and are not) permitted to access.
- Provide a means to control the "flow" of response personnel into and out of the hot zone.
- Contain the released product within the smallest area possible.

In the initial stages of an emergency, the hazard zones may only be established through the use of landmarks (e.g. trees, fences, roads, etc.). However, this process is important because it creates a visual "foot print" of the hazardous areas, which can be communicated to responding agencies or personnel.

Hot Zone

Only personnel with proper HAZWOPER training are allowed to enter the hot zone. The Hot zone is an established area that encircles the released product or primary hazard of emergency. The size of the hot zone will depend on product involved, wind direction, terrain, etc. During early stages of an emergency, the hot zone will be an estimate. When doing so, estimate a much larger are to include a margin of safety. You can always move closer, but it is difficult to pull responders back. Upon arrival at the scene, Fire Departments will often consider an entire facility as the hot zone. This is to ensure all personnel are evacuated and site reconnaissance can begin.

Warm Zone

Only personnel who have been HAZWOPER train are allowed to enter the warm zone. The warm zone is the area between the hot and cold zones. Like the hot zone, the size on the area depends on product involved, wind direction, terrain, etc. The warm zone should completely surround the hot zone. It acts as a buffer and transition area from the cold zone into the hot zone and visa versa. Whenever possible, the warm zone should be delineated with tape or barrier.

Cold Zone

The cold zone is a non-hazardous area where emergency management and support services are stationed. It is located beyond the Warm zone and does necessarily need to be delineated with tape or signs. The cold zone generally contains the Staging area and the Command Post. If the emergency warrants, the cold zone will also support a liaison area and a media area.

- **Staging** - The Staging Area is located within the cold zone and will serve as the first control point into the emergency. Although the Staging Area may not be established in the initial phase of the response, it is important for it to be included on the Site Map once it is established. Indicate the location of the Staging Area on the Site Map.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- **Command Post** - The Command Post is also located within the cold zone. It will serve as the main communication and action planning post for the duration of the emergency. Although the Command Post may not be established in the initial phase of the response, it is important for it to be included on the Site Map once it is established. More details regarding the Command Post and its role in the Incident Command System are provided. Indicate the location of the Command Post on the Site Map.

- **Decon** - A decontamination corridor ("decon area") is established at the edge of the hot zones and extends into the warm zone. Whenever possible, the decon area should be located upwind of the incident. Decontamination will be discussed further.

- **Cross Streets** - Identification of cross streets will provide a point of reference, particularly if the incident occurs along the pipeline.

- **Sensitive Receptors** - Sensitive receptors include creeks, storm channels, schools or any vulnerable conditions that could be impacted by the incident. Include the location of any sensitive receptors on the Site Map.

BOX #7: Secondary Hazards

This section is intended to communicate possible hazards that are secondary to the hazards directly posed by the incident. There is a note referring to Table 3: Secondary Hazards provided on the backside of the H&S Plan. This table lists possible secondary hazards that may deserve additional attention by the KMEP Safety Officer and provides some recommended precautions. Put a check next to all the secondary hazards that apply. Take the necessary precautions as they apply to each hazard. Use the "Other" box to describe additional secondary hazards, as necessary.

BOX #8: Evacuation Plan

This section is intended to clearly communicate where responders and/or visitors are to assemble in the event of an unexpected emergency or evacuation occurred during the response. The evacuation signal may be an existing facility alarm, three blasts of an air horn or any other easily identifiable and audible signal.

If the incident occurred at a facility and the existing evacuation areas are safe and appropriate (based on the established hazard zones), indicate these primary and secondary evacuation areas on the H&S Plan.

If the incident occurred outside a facility or along the pipeline, designate primary and secondary evacuation areas on the H&S Plan. These areas may be a simple as the Staging area or the corner of an intersection.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

BOX #9: Nearest Hospital

Provide the address, phone number and driving directions for the hospital nearest to the incident area. It is advisable to contact the hospital and ask if they have an emergency room.

BOX #10: PROP 65 Notices

This section applies to incident occurring in California only. PROP 65 notices are required to warn people of potential toxicological effects of released products. At a minimum, PROP 65 notices are to be posted at the entrance to the incident (e.g. facility entrance or Staging area). PROP 65 notices do not need to be posted if they are already posted at facility entrances. Efforts also should be made to post them along the incident perimeter.

Check to appropriate box according to the incident location and posting needs.

BOX #11: KMEP ICS Organization

Fill-in and update the KMEP organization chart as responders arrive at the scene and assume ICS positions. See Section 4.0 for more details on ICS.

BOX #12: Enforcement / Regulatory Agencies (On-Site)

This section is intended to communicate what enforcement / regulatory agencies are on the scene. Include type of agency, representative's name and time of arrival. The KMEP Safety Officer may wish to coordinate with the KMEP Liaison Officer to complete and update this section.

BOX #13: Contractors (On Site)

This section is intended to keep track of the various contractors on site. The KMEP Safety Officer may wish to coordinate with the KMEP Operations and/or Logistics Officer(s) to complete and update this section. Check the type of contractor and fill-in the company name.

BOX #14: Hot Zone Entry Objectives

This section is intended to answer the following questions:

Why are "Hot Zone Authorized Entrants" (Box # 5) entering the Hot Zone?

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- What are they planning to do?
- Are the benefits of accomplishing objectives worth the risk of entering the Hot Zone?

Write the answer to the questions in the space provided. Use simple, straightforward language.

BOX #15: Decon Procedures

This section is to be used to develop decontamination procedures. Procedures need to be appropriate for the hazard involved.

During a response to a release, personnel and equipment may come into contact with the product. The purpose of decontamination is to minimize the spread of product. In order to accomplish this, it is important to practice effective decontamination that is appropriate to the hazards of the product. Decontamination includes the removal or neutralization of product from personnel and response equipment. The following are consideration for establishing an in-the-field decon system:

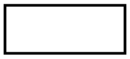
- Decon systems should be located up-wind of the Hot Zone. The decon system should extend from the edge of the Hot Zone into the Warm Zone.
- The decon system should be considered the entrance and exit (control point for personnel) into the Hot Zone.
- A secondary decon system should be considered for response equipment such as backhoes, vacuum trucks etc. Likewise, the "equipment" decon system should be used as the control point for response equipment.
- Design decon systems appropriate for the hazards involved. Refined petroleum products present a low health hazard. The approved Company decon system for refined petroleum products consists of the following components:

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

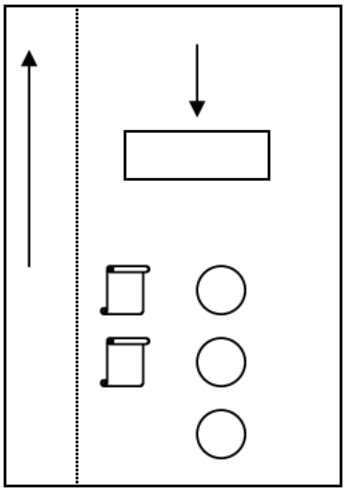
- Plastic tarp floor to contain product
- Tub of kitty litter absorbent
- Boot brush
- Folding chairs
- Large plastic trash bags
- Entrant log and supervision

A sample decon system includes:



= Container with 4" of absorbent material (i.e. kitty litter) and a boot brush.

= Several folding chairs lined up with trash bags in front.



BOX #16: Atmospheric Monitoring

Air monitoring should be conducted to ensure that appropriate hazard zone areas have been designed. KMEP, fire department or contractor personnel may perform air monitoring to establish levels where appropriate. These times include:

- Ensure warm/cold zones free of vapor
- Need for respiratory protection
- Determine safe levels for confined space entry and hot work

Air monitoring to establish the hot zone perimeter should be delegated to the lead agencies (Fire Dept., HazMat teams, etc).

BOX # 17: Authorization Signatures

Once completed, have the KMEP Incident Commander and Safety Officer sign the H&S Plan.

3.14 MATERIAL SAFETY DATA SHEETS

Product Specific Response Considerations for the major products are provided in Figure 3.8. Each Facility maintains a more detailed and all-inclusive list of MSDS. MSDSs for all products handled are available at:

http://www.actiocms.com/msdsvaultx_language/alphasort_clientside.cfm?sectionname=MAIN

FIGURE 3.8

FLAMMABLE LIQUIDS (Polar/Water-Miscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Ethanol and Ethanol Solutions**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 127

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.8 (Cont'd)

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Diesel Fuel** **Gasoline** **Fuel Oils (#1- #6)** **Jet Fuel**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 128

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

3.15 POST INCIDENT REVIEW/INVESTIGATION

Post incident reviews/investigations will be conducted in accordance with Liquids O & M Procedure 159 by either local management or an assigned investigation team. Input will be sought from Federal, State, Local and Tribal On-Scene Coordinators; other responding agencies and contractors as well as KM employees. Revisions to this ICP as well as operations manuals, procedures and response actions will be made as necessary. A summary of lessons learned and revisions will be provided to various agencies as required by applicable regulations.

4.0 RESPONSE TEAMS

4.1 INTRODUCTION

This section describes organizational features and duties of the Local Response Team and the broader Company Incident Management Team.

The key to an effective emergency response is a rapid, coordinated, tiered response by the affected facility and the Incident Management Team, consistent with the magnitude of the incident.

First response to an incident at the Facility will be provided by the Local Response Team (LRT). The Incident Management Team will respond, to the degree necessary, to incidents exceeding local capability. If a response exceeds the Local Response Team's capabilities, the Local Incident Commander will activate the Incident Management Team.

These response teams will use the NIMS Incident Command System (ICS) to manage the emergency response activities. Because ICS is a management tool that is readily adaptable to incidents of varying magnitude, it will typically be used for all emergency incidents. Staffing levels will be adjusted to meet specific response team needs based on incident size, severity, and type of emergency.

An explanation of ICS and the roles and responsibilities for primary members of the response teams are provided in Section 4.9. The USCG Incident Management Handbook (IMH) can be referenced for an in-depth description of all ICS positions, ICS development, response objectives and strategies, command responsibilities, ICS specific glossary/acronyms, resource typing, the IAP process, and meetings (http://www.uscg.mil/hq/nsfweb/docs/FinalIMH18AUG2006.pdf).

Another important aspect of the ICS system is that individuals working on specific response tasks complete standard ICS forms. Accurate and complete documentation of a response activity using these standard forms is vital to the communication of information during any transition phase of responsibilities as well as post-incident assessments and follow-up. Standard ICS forms are included in Section 5.

4.2 QUALIFIED INDIVIDUAL

It is the responsibility of the Qualified Individual (QI) or his/her designee to coordinate with the Federal On-Scene Coordinator (FOSC) and State On-Scene Coordinator (SOSC) throughout the response.

Vital duties of the Qualified Individual (QI) include:

- Activate internal alarms and hazard communication systems to notify all Facility personnel.
- Notify all response personnel, as needed.
- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification.

4.2 QUALIFIED INDIVIDUAL (Cont'd)

- Notify and provide necessary information to the appropriate Federal, State, and Local authorities with designated response roles, including the National Response Center (NRC), State Emergency Response Commission (SERC), and local response agencies.

- Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify response personnel at the scene of that assessment.

- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion).

- Assess and implement prompt removal actions to contain and remove the substance released.

- Coordinate rescue and response actions as previously arranged with all response personnel.

- Activate and engage in contracting with oil spill removal organizations.

- Use authority to immediately access company funding to initiate cleanup activities.

- Direct cleanup activities until properly relieved of this responsibility.

- Arrangements will be made to ensure that the Qualified Individual (QI) or the Alternate Qualified Individual (AQI) is available on a 24-hour basis and is able to arrive at the Facility in a reasonable time.

- The AQI shall replace the QI in the event of his/her absence and have the same responsibilities and authority.

4.3 LOCAL RESPONSE TEAM

The first Company person on scene will function as the Incident Commander (IC) and person-in-charge until relieved by an authorized supervisor who will then assume the position of Incident Commander. Transfer of command will take place as more senior management respond to the incident. For response operations within the control of the Local Response Team, the role of IC will typically be assumed and retained by Terminal Management.

The number of positions/personnel required to staff the Local Response Team will depend on the size and complexity of the incident. The duties of each position may be performed by the IC directly or delegated as the situation demands. The IC is always responsible for directing the response activities and will assume the duties of all the primary positions until the duties can be delegated to other qualified personnel.

4.3 LOCAL RESPONSE TEAM (Cont'd)

A complete functional ICS organization is shown in Figure 4.1. The LRT should try to fill the necessary positions and request additional support from the Incident Management Team to fill/back up the positions necessitated by the incident may dictate. Detailed job descriptions of the primary response team positions are provided in Section 4.9.

4.4 INCIDENT MANAGEMENT TEAM

For spill response operations outside the capabilities of the Local Response Team (LRT), the QI/AQI or IC will determine the need for mobilization of the Incident Management Team (IMT). The members of the LRT will typically become members of the IMT.

The Incident Management Team (IMT), once fully staffed, is designed to cover all aspects of a comprehensive and prolonged incident response. The number of positions/ personnel required to staff the IMT will depend on the size and complexity of the incident. During a prolonged response, additional personnel may be cascaded in, and more than one level within the Team may be involved to sustain 24-hour operations.

The IMT is basically organized according to the NIMS Incident Command System principles (Figure 4.2). Led by the Incident Commander, the team is composed of the following principal components:

- Command
- Planning
- Finance/Administration
- Operations
- Logistics

The Incident Management Team is staffed by specially trained personnel from various facility/corporate locations, and by various contract resources as the situation requires (IMT organization chart is provided in Figure 4.2; telephone reference is provided in Figure 2.2.). Command and Unit Leader responsibilities are described in Section 4.9.

4.5 KM CRISIS SUPPORT TEAM (CST)

Kinder Morgan (KM) has established a Crisis Support Plan (CSP) to assist local field groups in responding to crises in their areas. In addition to typical emergencies such as releases, fires, and explosions, the plan may be used to address the response to less obvious crises such as negative media, national security threats and natural disasters that affect the overall well being of KM.

During most emergencies and crises, the local facility response plan provides the appropriate immediate response. If the situation warrants, the Crisis Support Plan would be implemented to supplement local response activities by using personnel (called the Crisis Support Team (CST)) in the Houston, Texas; Orange, California; Lakewood, Colorado; and/or Alpharetta, Georgia offices – all of which can operate 24 hours per day when activated.

The focus of the KM Crisis Support Team (CST) is to augment the company's various existing emergency response plans and capabilities with additional resources, equipment, and crisis response planning, at the KM management level. The CSP provides the mechanism for activating the KM CST and affiliated Crisis Support Center.

4.6 INCIDENT COMMAND SYSTEM

The Incident Command System is intended to be used as an emergency management tool to aid in mitigating all types of emergency incidents. This system is readily adaptable to very small emergency incidents as well as more significant or complex emergencies. The Incident Command System utilizes the following criteria as key operational factors:

- Assigns overall authority to one individual
- Provides structured authority, roles and responsibilities during emergencies
- The system is simple and familiar, and is used routinely at all incidents
- Communications are structured
- The system for response and assignment of resources is structured
- The system provides for expansion, escalation, and transfer/transition of roles and responsibilities
- The system allows for "Unified Command" where agency involvement at the command level is required

Effective establishment and utilization of the Incident Command System during response to all types of emergencies can:

- Provide for increased safety
- Shorten emergency mitigation time by providing more effective and organized mitigation
- Cause increased confidence and support from local, state, and federal public sector emergency response personnel
- Provide a solid cornerstone for emergency planning efforts

Section 4.9 provides a comprehensive list of every response team member's duty assignment.

4.7 UNIFIED COMMAND

As a component of an ICS, the Unified Command (UC) is a structure that brings together the Incident Commanders of all major organizations involved in the incident to coordinate an effective response while still meeting their own responsibilities. The UC links the organizations responding to the incident and provides a forum for the Responsible Party and responding agencies to make consensus decisions. Under the UC, the various jurisdictions and/or agencies and responders may blend together throughout the organization to create an integrated response team. The ICS process requires the UC to set clear objectives to guide the on-scene response resources.

4.7 UNIFIED COMMAND (Cont'd)

Multiple jurisdictions may be involved in a response effort utilizing Unified Command. These jurisdictions could be represented by any combination of:

- Geographic boundaries
- Government levels
- Functional responsibilities
- Statutory responsibilities

The participants of Unified Command for a specific incident will be determined taking into account the specifics of the incident and existing response plans and/or decisions reached during the initial meeting of the UC. The UC may change as an incident progresses, in order to account for changes in the situation.

The UC is responsible for overall management of an incident. The UC directs incident activities and approves and releases resources. The UC structure is a vehicle for coordination, cooperation and communication which is essential to an effective response.

UC representatives must be able to:

- Agree on common incident objectives and priorities
- Have the capability to sustain a 24-hour-7-day-per-week commitment to the incident
- Have the authority to commit agency or company resources to the incident
- Have the authority to spend agency or company funds
- Agree on an incident response organization
- Agree on the appropriate Command and General Staff assignments
- Commit to speak with "one voice" through the Information Officer or Joint Information Center
- Agree on logistical support procedures
- Agree on cost-sharing procedures

4.8 DISCHARGE/INCIDENT CLASSIFICATION

The severity of a discharge/incident will have a bearing on the level of management involvement necessary and the extent of resource mobilization. The following definitions provide guidance in the early classification of discharges:

TIER I EVENT
Incident Command will normally be assumed by Terminal Management. Regional and Head Office support will be utilized on an as needed basis.
Exposure
The potential public and environmental exposure is moderate. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderate impact on the public and/or the environment.
Degree of Control
The incident can be controlled in a short period of time through implementation of the local resources available to the Facility (including contract resources).
Governmental Involvement
Government involvement will be moderate and generally restricted to State and local levels.
Media Involvement
Media interest will be moderate and generally restricted to State and Local levels.

4.8 DISCHARGE/INCIDENT CLASSIFICATION (Cont'd)

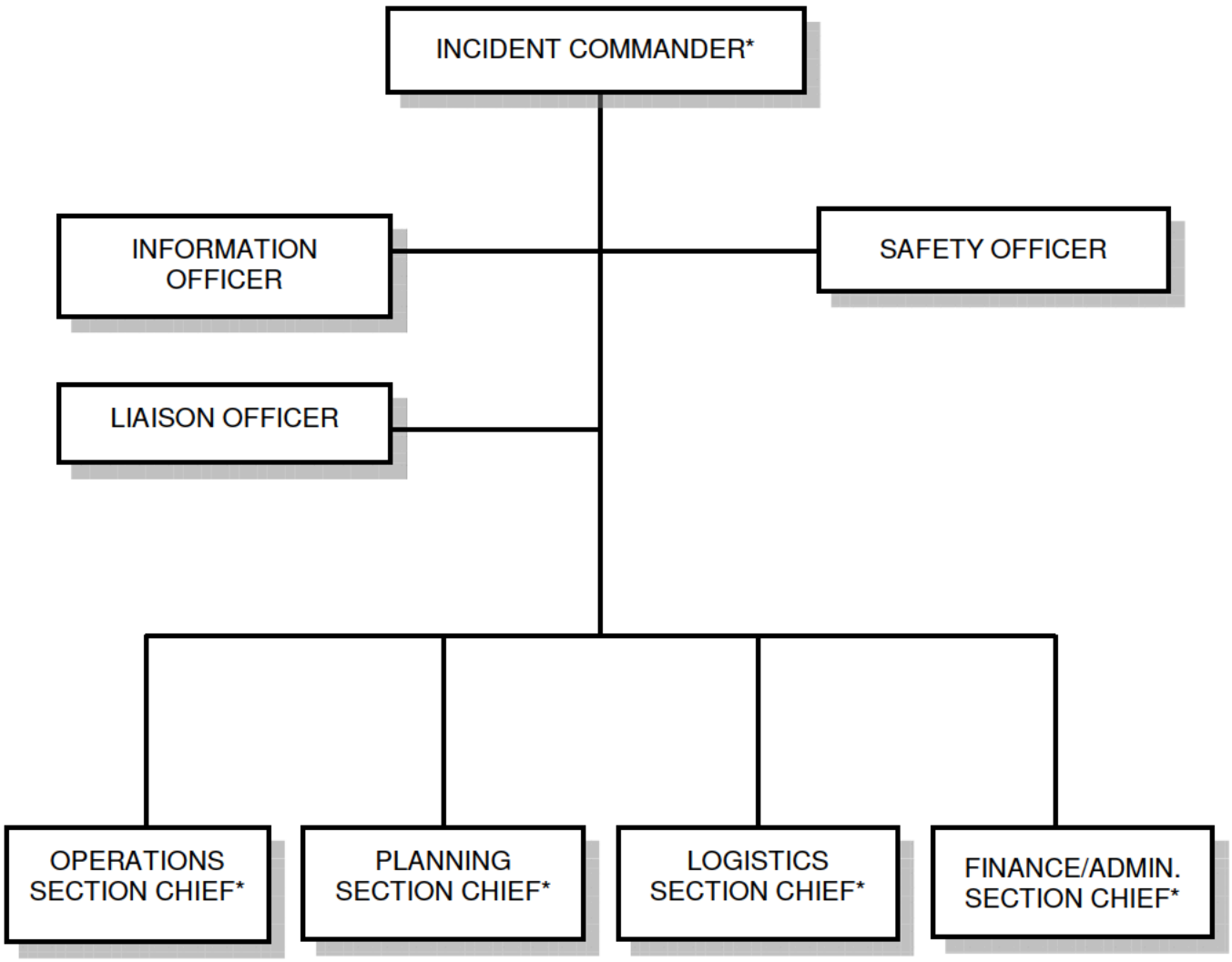
TIER II EVENT
Local Company resources may have to be supplemented with Head Office and external resources to manage the spill incident.
Exposure
The potential public and environmental exposure is moderately high. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderately high impact on the public and/or the environment.
Degree of Control
The incident can be brought under control in a moderate period of time through implementation of local resources available to the Facility (including contract resources) with possible implementation of regional resources.
Governmental Involvement
Government involvement will be moderately high and generally restricted to Regional levels.
Media Involvement
Media interest will be moderately high and generally restricted to Regional levels.

TIER III EVENT
Maximum Company and external resources must be implemented to respond to the spill incident. Activation of the Crisis Management Team would be anticipated during a Tier III incident.
Exposure
The potential public and environmental exposure is significant. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have significant impact on the public and/or the environment.
Degree of Control
Maximum Company and third party resources must be implemented in order to gain control of the incident.
Governmental Involvement
Government involvement will be high.
Media Involvement
Media interest will be high.

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

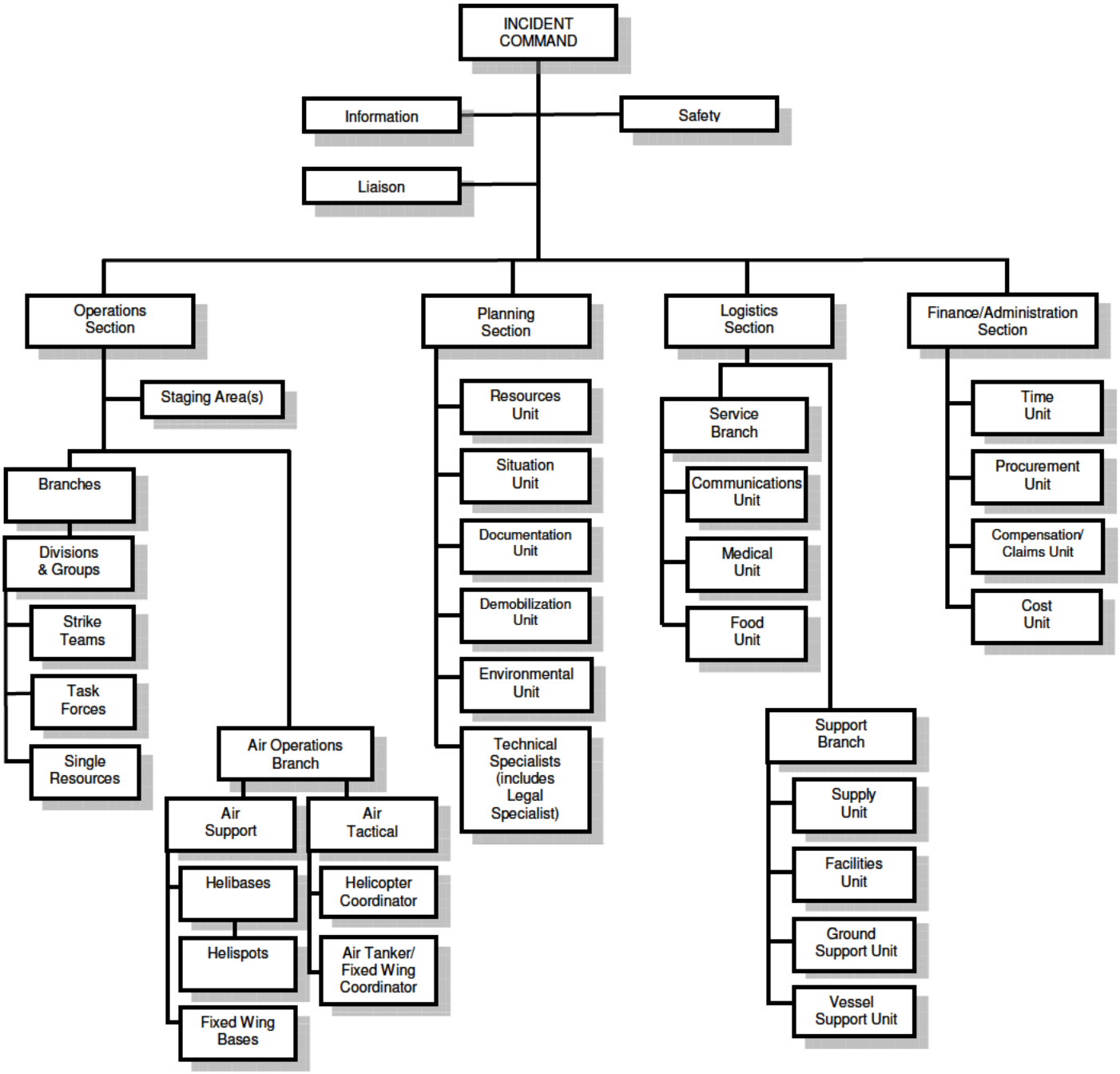


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

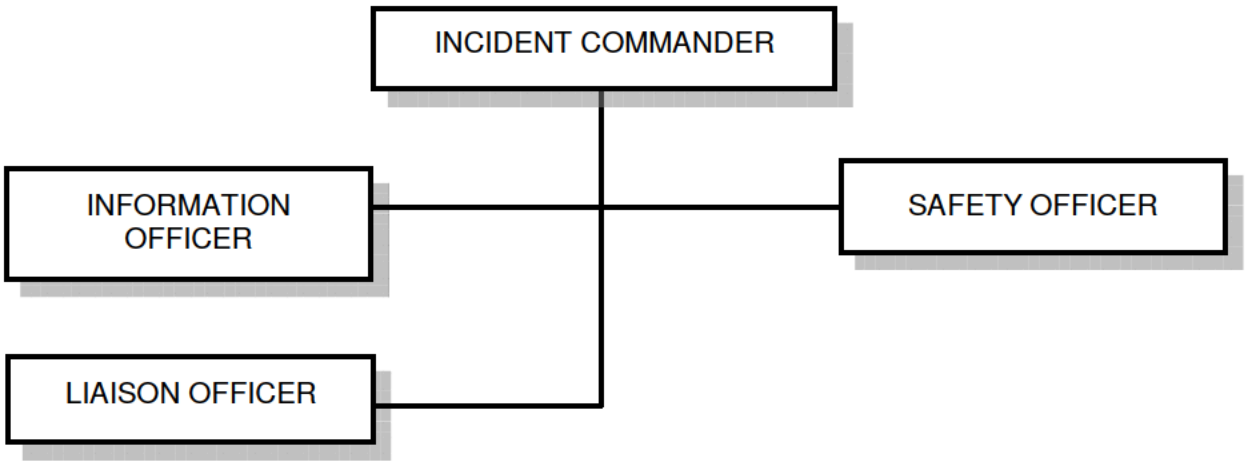
COMMAND

Incident Commander 4-12

Safety Officer 4-15

Liaison Officer 4-17

Information Officer 4-18



INCIDENT COMMANDER

The Incident Commander (IC) has responsibility for overall management of the incident. The KM IC has the authority to approve the use of a contractor even if no "open-end" contract exists, as well as the authority to commit monies to initiate response and clean-up activities. The first employee on-site will assume the responsibilities of IC until properly relieved. Generally, the most senior employee on-site will assume the IC position. The IC also has overall responsibility for the health and safety of responders.

KM Initial IC Responsibilities (During the first few hours):

- Make internal Company notifications
- Conduct initial site assessment
- Initiate Incident Command System (assign ICS roles & complete org. chart)
- Ensure Site Specific Health & Safety plan is being developed within the first hour
- Maintain site control (establish hazard zones and appropriate corridors)
- Request Unified Command with lead agencies as appropriate
- Establish immediate priorities (i.e. control the discharge, initiate containment, ensure safety, etc.)

Overall IC Responsibilities:

- Assess the situation and/or obtain a briefing from the prior IC.
- Determine Incident Objectives and strategy.
  Objectives and strategies should be documented on ICS form 201or 202 and used to communicate Unified Command's expectations for the next operational period
- Establish the immediate priorities.
- Establish an Incident Command Post.
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
  The organization should be documented on ICS forms 201, 203 or 207, depending on the level of response.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an IAP.
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
  This is usually accomplished through the approval of the Incident Action Plan.
- Keep corporate offices and agency administrator(s) informed of incident status.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Ensure incident Status Summary (ICS Form 209) is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.

INCIDENT COMMANDER (Cont'd)

OIL SPILL

The IC for oil discharges will, whenever possible and practical, be organized under the Unified Command (UC) Structure that includes, but is not limited to:

- The pre-designated Federal On-Scene Incident Commander (FOSC)
- The pre-designated State On-Scene Incident Commander (SOSC)
- The representative of the Responsible Party (RP) IC

The UC is responsible for the overall management of the incident. The UC directs incident activities including the development and implementation of strategic decisions and approves the ordering and releasing of resources. The UC may assign a Deputy IC to assist in carrying out IC responsibilities. IC tasks specific to oil spill events are:

- Be cognizant of the primary objectives for oil spill response activities.
  - Ensure the safety of citizens and response personnel.
  - Control the source of the spill.
  - Manage a coordinated response effort.
  - Maximize protection of environmentally sensitive areas.
  - Contain and recover spilled material.
  - Recover and rehabilitate injured wildlife.
  - Remove oil from impacted areas.
  - Minimize economic impacts.
  - Keep stakeholders informed of response activities.
  - Keep the public informed of response activities.
  - Ensure that the source of a discharge is designated and that procedures by which claims may be presented are advertised.
  - All removal and damage claims must be handled appropriately.

HAZARDOUS SUBSTANCE RELEASE

Incident Commander and Safety Officer - The IC and SO for a hazardous substance incident will use the following guidance when preparing the Site Safety Plan:

- Assign site safety responsibility.
- Establish perimeter and restrict access.
- Characterize site hazards:
  - Identity pollutant
  - Obtain Material Safety Data Sheets
  - Conduct air monitoring
  - Identify physical and biological hazards i.e., slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants and biological waste
- Establish control zones:
  - Exclusion zone
  - Contamination reduction zone
  - Support zone

INCIDENT COMMANDER (Cont'd)

***HAZARDOUS SUBSTANCE RELEASE** (Cont'd)*

- Assess training requirements:
  - Check HAZWOPER cards
  - Insure safety briefings
- Select personal protective equipment (PPE) Level A, B, C, or D.
- Establish decontamination stations.
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.

TERRORISM INCIDENT

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SAFETY OFFICER

The Safety Officer's (SO) function is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. Only one SO will be assigned for each incident; however, there may be assistants.

Overall SO Responsibilities:

- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the IAP for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
  Ensure information is relayed to the Situation Unit Leader in order to update incident status information (ICS form 209) on the display board.
- Review and approve the medical plan (ICS form 206).
- Develop the Site Safety Plan and publish Site Safety Plan summary (ICS Form 208) as required.
  This plan may be more detailed than the KM Site Specific Health and Safety Plan.

Additional KM Required SO Responsibilities:

- Ensure all initial response personnel are located in a safe location
- Complete the KM Site Specific Health and Safety Plan (**within the first hour**)
- Conduct initial briefing of the KM Site Specific Health and Safety Plan
- Establish regularly scheduled safety meetings
  - Ensure that an "attendance roster" is maintained during these meetings
  - Work with Staging Officer to conduct H&S Plan briefings with arriving response personnel
- Assess need for atmospheric monitoring – coordinate as needed
  - Ensure air monitoring results are accurately documented; use map of area to record results if necessary
- Coordinate with appropriate agencies to assess need for triage; suggest possible locations
- Establish smoking areas; communicate clearly
- Post "Proposition 65" signs (California only)
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.
- Control access to an offsite incident site by working within the Unified Command Structure to effect the necessary control measures for air, (FAA), marine(USCG) and ground (local law enforcement) traffic.
- In the event of a need to control traffic before the arrival of local, state, or federal authorities, the following methods of traffic control may be considered:
  - Vehicular and/or pedestrian access to an offsite incident should be controlled to the extent possible prior to the arrival of local law enforcement or other agency personnel trained to handle traffic control.
  - Until agencies respond to the scene and take control of access and traffic, vehicles can be used to block traffic flow on streets leading to the spill site, if it is safe to do so. Do not operate vehicles at the scene of a gasoline or other light hydrocarbon spill where a flammable vapor cloud may be present.
  - For an on water spill, control of marine traffic may be attempted prior to the arrival of the US Coast Guard response vessel by alerting vessel operators of the spill hazard by radio where possible.
  - Control of air traffic may be necessary due to operations aircraft. The local Federal Aviation Administration (FAA) office can be contacted by the Incident Commander, or coordinated with local authorities, to establish safe operations.

SAFETY OFFICER (Cont'd)

HAZARDOUS SUBSTANCE RELEASE

Incident Commander and Safety Officer - The IC and SO for a hazardous substance incident will use the following guidance when preparing the Site Safety Plan:

- Assign site safety responsibility.
- Establish perimeter and restrict access.
- Characterize site hazards:
  - Identity pollutant
  - Obtain Material Safety Data Sheets
  - Conduct air monitoring
  - Identify physical and biological hazards i.e., slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants and biological waste
- Establish control zones:
  - Exclusion zone
  - Contamination reduction zone
  - Support zone
- Assess training requirements:
  - Check HAZWOPER cards
  - Insure safety briefings
- Select personal protective equipment (PPE) Level A, B, C, or D.
- Establish decontamination stations.
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.

LIAISON OFFICER

The Liaison Officer (LO) serves as a "go-between" linking the IC to various agencies. These are agencies that do not have a direct tactical assignment within the Unified Command however, have an interest in the response activities or wish to offer assistance.

The Liaison Officer intercepts, greets and briefs agency representatives as they arrive on scene. It is the responsibility of the Liaison Officer to notify the IC before escorting anyone to the Command Post. A separate Liaison Area may need to be established to accommodate agency representatives not directly involved in the Unified Command.

Overall LO Responsibilities:

- Be a contact point for Agency Representatives.
  Agency Representatives are agency personnel who do not have direct tactical assignment but are present to assist in response efforts and have authority to make decision on matters affecting that agency's participation.

- Maintain a list of assisting and cooperating agencies and Agency Representatives.
  Obtain business cards or any other means of collecting contact information.

- Monitor check-in sheets daily to ensure that all Agency Representatives are identified.

- Assist in establishing and coordinating interagency contacts.
  Determine if there are any agencies that could assist in the response effort. Locate the contact information and make contact with the agencies.

- Keep agencies supporting the incident aware of incident status.

- Monitor incident operations to identify current or potential inter-organizational problems.
  Report any problems/conflicts to the IC.

- Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.

- Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the OPS during oil and HAZMAT responses.
  This generally involves working with agencies to evaluate the impact the incident had on the environment and wildlife.

- Coordinate response resource needs for incident investigation activities with the OPS.

- Ensure that all required agency forms, reports and documents are completed prior to demobilization.

- Coordinate activities of visiting dignitaries.

- Have a debriefing session with the IC prior to departure.

INFORMATION OFFICER

The Information Officer (IO) is responsible for developing and releasing information about the incident to the news media, incident personnel, and other appropriate agencies and organizations.

Only one IO will be assigned for each incident. The IO may have assistants as necessary. The assistants may represent assisting agencies, companies, or jurisdictions. The IO and assistants will establish a Joint Information Center to assist with developing information releases.

Overall IO Responsibilities:

- Determine from the IC if there are any limits on information release.
- Develop material for use in media briefings.
- Obtain IC approval of media releases.
- Inform media and conduct media briefings.
- Arrange for tours and other interviews or briefings that may be required.
- Obtain media information that may be useful to incident planning.
- Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

Additional KM Required IO Responsibilities:

- Receive briefing of incident
- Anticipate need for and establish a Media Area
- Coordinate with the KMEP Corporate Communications Office for development and release of appropriate media information
- Maintain a log of agency IOs, news media, news releases, etc.

TERRORISM INCIDENT

(b) (7)(F), (b) (3)

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INFORMATION OFFICER (Cont'd)

(b) (7)(F), (b) (3)

OPERATIONS

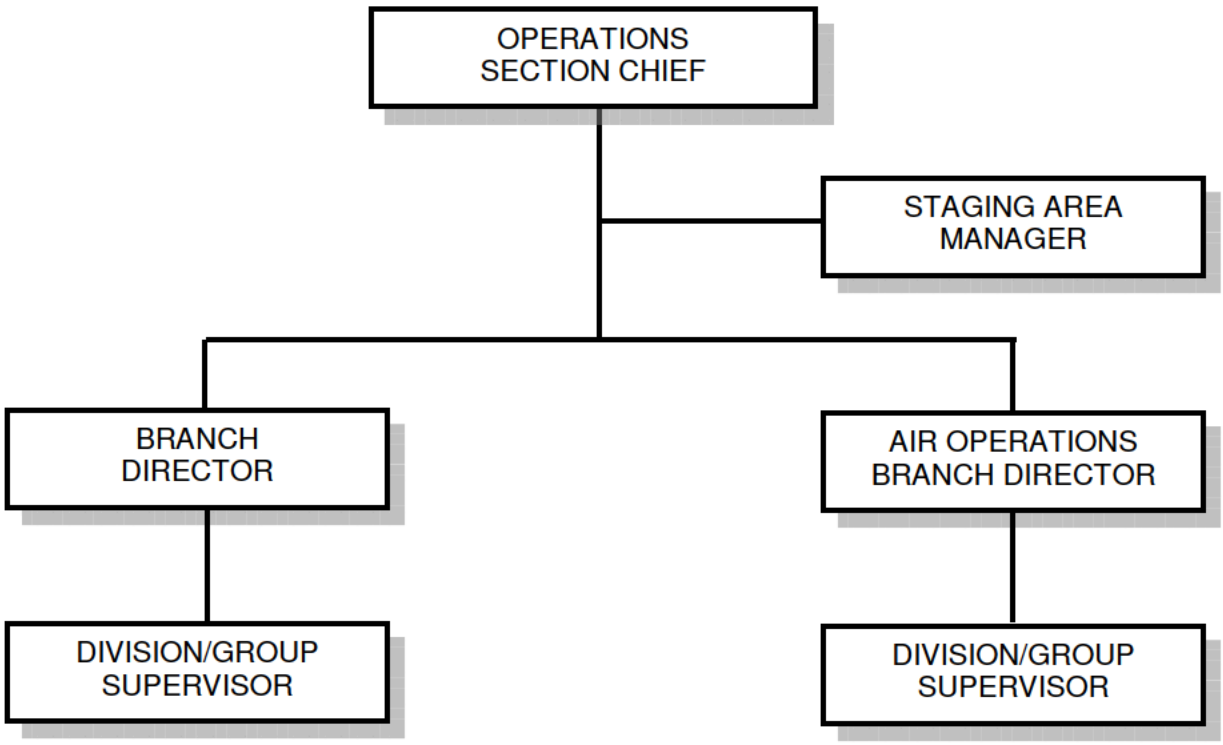
Operations Section Chief 4-21

Air Operations Branch Director 4-21

Staging Area Manager 4-25

Branch Director 4-25

Division/Group Supervisor 4-29



OPERATIONS SECTION CHIEF

The Operations Section Chief (OPS) is responsible for the management of all operations directly applicable to the primary mission (i.e. clean-up, recovery etc.). The OPS activates and supervises tactical response elements in accordance with the Incident Action Plan (IAP) and directs its execution. The OPS also requests or releases resources, makes expedient changes to the IAP, as necessary; and reports these actions to the IC.

Overall OPS Responsibilities

- Develop operations portion of IAP.
  This generally includes the designation of branches, divisions and groups, as well as input on required resources.
- Brief and assign Operations Section personnel in accordance with the IAP.
- Supervise Operations Section.
- Determine need and request additional resources.
- Review suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble strike teams assigned to the Operations Section.
- Report information about special activities, events, and occurrences to the IC.
- Respond to resource requests in support of NRDAR activities.

Additional KM Required OPS Responsibilities

- Directs KM personnel and emergency response contractors performing operations activities
- Review and ensure communication of the Site Specific H&S Plan to KM personnel and emergency response contractors performing operations activities
- Supervise the decontamination system
  - Ensure decontamination system is set-up and functional prior to Hot Zone entry
  - Request input from the Safety Officer, as necessary

AIR OPERATIONS BRANCH DIRECTOR

The Air Operations Branch Director (AIROPS), who is ground-based, is primarily responsible for preparing the air operations portion of the IAP. The plan will reflect agency restrictions that have an impact on the operational capability or utilization of resources (e.g., night flying, hours per pilot). After the plan is approved, the AIROPS is responsible for implementing its strategic aspects, which are those that relate to the overall incident strategy as opposed to those that pertain to tactical operations (specific target selection). Additionally, the AIROPS is responsible for providing logistical support to helicopters operating on the incident. The Air Tactical Group Supervisor, working in conjunction with ground and air resources, normally performs specific tactical activities, such as target selection and suggested modifications to specific tactical actions in the IAP.

Overall AIROPS Responsibilities:

- Organize preliminary air operations.
- Request declaration (or cancellation) of restricted air space
- Participate in preparation of the IAP through the OPS. Insure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
- Perform operational planning for air operations.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

Overall AIROPS Responsibilities (Cont'd):

- Prepare and provide Air Operations Summary Worksheet (ICS Form 220) to the Air Support Group and Fixed-Wing Bases.
- Determine coordination procedures for use by air organization with ground Branches, Divisions, or Groups.
- Coordinate with appropriate Operations Section personnel.
- Supervise all air operations activities associated with the incident.
- Evaluate helibase locations.
- Establish procedures for emergency reassignment of aircraft.
- Schedule approved flights of non-incident aircraft in the restricted air space area.
- Coordinate with the Operations Coordination Center (OCC) through normal channels on incident air operations activities.
- Inform the Air Tactical Group Supervisor of the air traffic situation external to the incident.
- Consider requests for non-tactical use of incident aircraft.
- Resolve conflicts concerning non-incident aircraft.
- Coordinate with FAA.
- Update air operations plans.
- Report to the OPS on air operations activities.
- Report special incidents/accidents.
- Arrange for an accident investigation team when warranted.

Air Tactical Group Supervisor - The Air Tactical Group Supervisor is primarily responsible for the coordination of aircraft operations when fixed and/or rotary-wing aircraft are operating on an incident. These coordination activities are performed by the Air Tactical Group Supervisor while airborne. The Air Tactical Group Supervisor reports to the AIROPS.

Overall Air Tactical Group Supervisor Responsibilities:

- Determine what aircraft (air tankers and helicopters) are operating within the area of assignment.
- Manage air tactical activities based upon the IAP.
- Establish and maintain communications and Air Traffic Control, with pilots, Air Operations, Helicopter Coordinator, Air Tanker/Fixed Wing Coordinator, Air Support Group (usually Helibase Manager), and fixed-wing Support Bases.
- Coordinate approved flights of non-incident aircraft or non-tactical flights in restricted air space area.
- Obtain information about air traffic external to the incident.
- Receive reports of non-incident aircraft violating restricted air space area (OPS, Branch Director, or Division/Group Supervisor).
- Make tactical recommendations to approved ground contact.
- Inform AIROPS of tactical recommendations affecting the air operations portion of the IAP.
- Report on air operations activities to the AIROPS. Advise air operations immediately if aircraft mission assignments are causing conflicts in the Air Traffic Control System.
- Report on incidents/accidents.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

Air Support Group Supervisor - The Air Support Group Supervisor is primarily responsible for supporting and managing helibase and helispot operations and maintaining liaison with fixed-wing air bases. This includes providing: 1) fuel and other supplies; 2) maintenance and repair of helicopters; 3) retardant mixing and loading; 4) keeping records of helicopter activity, and 5) providing enforcement of safety regulations. These major functions are performed at helibases and helispots. Helicopters during landing and take-off and while on the ground are under the control of the Air Support Groups Helibase or Helispot Managers. The Air Support Group Supervisor reports to the AIROPS.

Overall Air Support Group Supervisor Responsibilities:

- Obtain a copy of the IAP from the AIROPS including Air Operations Summary Worksheet (ICS Form 220).
- Participate in AIROPS planning activities.
- Inform AIROPS of group activities.
- Identify resources/supplies dispatched for the Air Support Group.
- Request special air support items from appropriate sources through Logistics Section.
- Identify helibase and helispot locations (from IAP) or from AIROPS.
- Determine need for assignment of personnel and equipment at each helibase and helispot.
- Coordinate special requests for air logistics.
- Maintain coordination with airbases supporting the incident.
- Coordinate activities with AIROPS.
- Obtain assigned ground-to-air frequency for helibase operations from the Communications Unit Leader (CUL) or Incident Radio Communications Plan (ICS Form 205).
- Inform AIROPS of capability to provide night flying service.
- Ensure compliance with each agency's operations checklist for day and night operations.
- Ensure dust abatement procedures are implemented at helibases and helispots.
- Provide crash-rescue service for helibases and helispots.
- Ensure that Air Traffic Control procedures are established between helibases and helispots and the Air Tactical Group Supervisor, the Helicopter Coordinator or the Air Tanker/Fixed-Wing Coordinator.

OIL SPILL

Air Tactical Group Supervisor - The coordination and scheduling of aircraft operations intended to locate, observe, track, surveil, support dispersant applications, or to be used for other deliverable response application techniques, or report on the incident situation when fixed and/or rotary-wing aircraft are airborne at an incident. These coordination activities are normally performed by the Air Tactical Group Supervisor while airborne.

Overall Air Tactical Group Supervisor Responsibilities:

- Obtain a briefing from the Air Operations Branch Director or the OPS.
- Coordinate dispersant, in-situ burning, and bioremediation application through the Air Operations Branch Director.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

OIL SPILL (Cont'd)

- Coordinate air surveillance mission scheduling and observer assignments with the SUL.
- Identify remote sensing technology that may enhance surveillance capabilities.
- Coordinate air surveillance observations and provide reports by the most direct methods available.
- Report on air surveillance and operations activities to the Air Operations Branch Director.
- Coordinate application-monitoring requirements with the Helicopter and Fixed-Wing Coordinators and the Situation Unit.
- Report on air application activities to the Air Operation Branch Director.

STAGING AREA MANAGER

The Staging Area Manager works for the Operations Section Chief and is responsible for managing all activities within a Staging Area or areas. Since there may be more than one Staging Area for an incident, all personnel and equipment should check-in at one of these Staging Areas (sometimes referred to as a "base camp").

Overall Staging Area Manager Responsibilities:

- Proceed to Staging Area.
- Establish Staging Area layout.
- Consider assigning Assistant Staging Managers at each area.
- Determine any support needs for equipment, feeding, sanitation and security.
- Establish check-in function as appropriate.
- Post areas for identification and traffic control.
- Request maintenance service for equipment at Staging Area as appropriate.
- Respond to request for resource assignments.
  (Utilize ICS Forms 211, 211p, 211e)
- Obtain and issue receipts for radio equipment and other supplies distributed and received at Staging Area.
- Track resources distributed from the Staging Area(s) and resources received at the Staging Area(s).
- Determine required resource levels from the OPS.
- Advise the OPS when reserve levels reach minimums.
- Maintain and provide status to Resource Unit of all resources in Staging Area.
- Demobilize Staging Area in accordance with the Incident Demobilization Plan.

Additional KM Required Staging Area Manager Responsibilities:

- Determine whether multiple Staging Areas will be required
- Consider assigning Assistant Staging Managers at each area
- Ensure Staging Area(s) are maintained in orderly condition.
- Work with KM Safety Officer to conduct H&S Plan briefings with arriving response personnel.

BRANCH DIRECTOR

The Branch Directors when activated, are under the direction of the OPS, and are responsible for the implementation of the portion of the IAP appropriate to the Branches.

Overall Branch Director Responsibilities:

- Develop with subordinates alternatives for Branch control operations.
- Attend planning meetings at the request of the OPS.
- Review Division/Group Assignment Lists (ICS Form 204) for Divisions/Groups within the Branch. Modify lists based on effectiveness of current operations.
- Assign specific work tasks to Division/Group Supervisors.
- Supervise Branch operations.
- Resolve logistic problems reported by subordinates.

BRANCH DIRECTOR (Cont'd)

Overall Branch Director Responsibilities (Cont'd):

- Report to OPS when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- Approve accident and medial reports originating within the Branch.

OIL SPILL

Recovery and Protection Branch Director - The Recovery and Protection Branch Director is responsible for overseeing and implementing the protection, containment and cleanup activities established in the IAP.

Emergency Response Branch Director - The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation.

Wildlife Branch Director - The Wildlife Branch Director is responsible for minimizing wildlife injuries during spill responses; coordinating early aerial and ground reconnaissance of the wildlife at the spill site and reporting results to the SUL; advising on wildlife protection strategies, including diversionary booming placements, in-situ burning, and chemical countermeasures; removing of oiled carcasses, employing wildlife hazing measures as authorized in the IAP; and recovering and rehabilitating impacted wildlife. A central Wildlife Processing Center should be identified and maintained for, evidence tagging, transportation, veterinary services, treatment and rehabilitation storage, and other support needs. The activities of private wildlife care groups, including those employed by the RP, will be overseen and coordinated by the Wildlife Branch Director.

Overall Wildlife Branch Director Responsibilities:

- Review Branch Director Responsibilities.
- Develop the Wildlife Branch portion of the IAP.
- Supervise Wildlife Branch operations.
- Determine resource needs.
- Review the suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble teams/task forces assigned to the Wildlife Branch.
- Report information about special activities, events, and occurrences to the OPS.
- Assist the Volunteer Coordinator in determining training needs of wildlife recovery volunteers.

TERRORISM INCIDENT

(b) (7)(F), (b) (3)

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BRANCH DIRECTOR (Cont'd)

(b) (7)(F), (b) (3)

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MULTI-CASUALTY

Multi-Casualty Branch Director - The Multi-Casualty Branch Director is responsible for the implementation of the IAP within the Branch. This includes the direction and execution of branch planning for the assignment of resources within the Branch.

Overall Multi-Casualty Branch Director Responsibilities:

- Review Group/Division Assignments for effectiveness of current operations and modify as needed.
- Provide input to OPS for the IAP.
- Supervise Branch Activities.

Family Assistance Branch – The Family assistance Branch provides services to the victims' family members; coordinates activities, lodging, food, spiritual and emotional needs, and transportation to special events (press conferences, memorial services to the scene of the incident when authorized, etc.), and any special needs that arise during the incident that may assist the victims' family members.

NOTE: The National Transportation Safety Board (NTSB) provides this assistance for aircraft disasters.

BRANCH DIRECTOR (Cont'd)

Overall Family Assistance Branch Responsibilities:

- Coordinate with local and state authorities, to include the medical examiner, local law enforcement, emergency management, hospitals, and other emergency support personnel.
- Conduct daily coordination meetings with the local and Federal government representatives to review daily activities, resolve problem areas, and synchronize future family support operations and activities.
- Coordinate and provide briefings to families at the site and those who decide not to be at the site.

Overall Family Assistance Branch Responsibilities:

- Ensure adequate number of Family Assistance Team members present at all times to allow for rest, exercise and proper rotation.
- Establish and maintain working relationship with the CERT and CISM teams to cross-reference needs of the victims' families.
- Attend all staff briefings and planning meetings as required.
- Request necessary equipment and supplies through LSC.
- Ensure adequate lodging and/or sleeping arrangements.
- Ensure that security needs for the victims' family members are addressed.
- Ensure that all communications are centrally coordinated.
- Ensure that all transportation scheduling is centrally coordinated.
- The following agencies provide similar assistance during emergencies and may be of assistance:
  - American Red Cross (ARC)
  - Department of Health and Human Services (DHHS)
  - Federal Emergency Management Agency (FEMA)
  - NTSB
- Maintain Unit/Activity Log (ICS Form 214).

DIVISION/GROUP SUPERVISOR

The Division/Group Supervisor reports to the OPS (or Branch Director when activated). The Supervisor is responsible for the implementation of the assigned portion of the IAP, assignment of resources within the Division/Group, and reporting on the progress of control operations and status of resources within the Division/Group.

Overall Division/Group Supervisor Responsibilities:

- Implement IAP for Division/Group.
- Provide the IAP to Strike Team Leaders, when available.
- Identify increments assigned to the Division/Group.
- Review Division/Group assignments and incident activities with subordinates and assign tasks.
- Ensure that the IC and/or Resources Unit is advised of all changes in the status of resources assigned to the Division/Group.
- Coordinate activities with adjacent Division/Group.
- Determine need for assistance on assigned tasks.
- Submit situation and resources status information to the Branch Director or the OPS.
- Report hazardous situations, special occurrences, or significant events (e.g., accidents, sickness, discovery of unanticipated sensitive resources) to the immediate supervisor.
- Ensure that assigned personnel and equipment get to and from assignments in a timely and orderly manner.
- Resolve logistics problems within the Division/Group.
- Participate in the development of Branch plans for the next operational period.

OIL SPILL

Protection Group Supervisor - Group Supervisor is responsible for the deployment of containment, diversion, and adsorbent/absorbent materials in designated locations. Depending on the size of the incident, the Protection Group may be further divided into Teams, Task Forces and Single Resources.

Overall Protection Group Supervisor Responsibilities:

- Implement Protection Strategies in the IAP
- Direct, coordinate, and assess the effectiveness of protective actions.
- Modify protective actions, as needed.

On-water Recovery Group Supervisor - The On Water Recovery Group Supervisor is responsible for managing on water recovery operations in compliance with the IAP. The Group may be further divided into Teams, Task Forces and Single Resources.

Overall On-water Recovery Group Supervisor Responsibilities:

- Implement Recovery Strategies in the IAP.
- Direct, coordinate, and assess the effectiveness of on water recovery actions.
- Modify recovery actions as needed.

DIVISION/GROUP SUPERVISOR (Cont'd)

OIL SPILL (Cont'd)

Dispersant Operations Group Supervisor - The Dispersants Operations Group Supervisor is responsible for coordinating all aspects of a dispersant operation. For aerial applications, the Group works closely with the Air Tactical Group Supervisor.

Overall Dispersant Operations Group Supervisor Responsibilities:

- Determine resource needs.
- Assist the Planning Section in the development of dispersant operations and monitoring plans.
- Implement approved dispersant operations and monitoring plans.
- Manage dedicated dispersant resources and coordinate required monitoring.
- Coordinate required monitoring.

In-situ Burn Operations Group Supervisor - The In-Situ Burn Operations Group Supervisor is responsible for coordinating all aspects of an in-situ burn operation. For aerial ignition, the Group works closely with the Air Tactical Group Supervisor.

Overall In-situ Burn Operations Group Supervisors Responsibilities:

- Determine resource needs.
- Assist the Planning Section in the development of in-situ burn operations and monitoring plans.
- Implement approved in-situ burn operations and monitoring plans.

- Manage dedicated in-situ burning resources.
- Coordinate required monitoring.

Shoreside Recovery Group Supervisor - The Shoreside Recovery Group Supervisor is responsible for managing shoreside cleanup operations in compliance with the IAP. The Group may be further divided into Strike Teams, Task Forces, and Single Resources.

Overall Shoreside Recovery Group Supervisor Responsibilities:

- Implement Recovery Strategies in the IAP.
- Direct, coordinate, and assess effectiveness of shoreside recovery actions.
- Modify protective actions, as needed.

DIVISION/GROUP SUPERVISOR (Cont'd)

OIL SPILL (Cont'd)

Disposal Group Supervisor - The Disposal Group Supervisor is responsible for coordinating the on-site activities of personnel engaged in collecting, storing, transporting, and disposing of waste materials. Depending on the size and location of the spill, the Disposal Group may be further divided into Teams, Task Forces, and Single Resources.

Overall Disposal Group Supervisor Responsibilities:

- Implement the Disposal Portion of the IAP.
- Ensure compliance with all hazardous waste laws and regulations.
- Maintain accurate records of recovered material.

Decontamination Group Supervisor – The Decontamination Group Supervisor is responsible for decontamination of personnel and response equipment in compliance with approved statutes.

Overall Decontamination Group Supervisor Responsibilities:

- Implement Decontamination Plan.
- Determine resource needs.
- Direct and coordinate decontamination activities.
- Brief Site SO on conditions.

Salvage/Source Control Group Supervisor - Under the direction of the Emergency Response Branch Director, the Salvage/Source Control Group Supervisor is responsible for coordinating and directing all salvage/source control activities related to the incident.

Overall Salvage/Source Control Group Supervisor Responsibilities:

- Coordinate the development of Salvage/Source Control Plan.
- Determine Salvage/Source Control resource needs.
- Direct and coordinate implementation of the Salvage/Source Control Plan.
- Manage dedicated salvage/Source Control resources.

Wildlife Recovery Group Supervisor – The Wildlife Recovery Group Supervisor is responsible for coordinating the search for collection and field tagging of dead and live impacted wildlife and transporting them to the processing center(s). This group should coordinate with the Planning Situation Unit in conducting aerial and group surveys of wildlife population in the vicinity of the spill. They should also deploy acoustic and visual wildlife hazing equipment, as needed.

Overall Wildlife Recovery Group Supervisor Responsibilities:

- Determine resource needs.
- Establish and implement protocols for collection and logging of impacted wildlife.
- Coordinate transportation of wildlife to processing stations(s).

DIVISION/GROUP SUPERVISOR (Cont'd)

HAZARDOUS SUBSTANCE RELEASE

Decontamination Group Supervisor – The Decontamination Group Supervisor is responsible for the operations of the decontamination element and for providing decontamination, as required by the ICP.

Overall Decontamination Group Supervisor Responsibilities:

- Establish the Contamination Reduction Corridor(s).
- Identify contaminated people and equipment.
- Supervise the operations of the decontamination element in the process of decontaminating people and equipment.
- Maintain control of movement of people and equipment within the Contamination Reduction Zone.
- Maintain communications and coordinate operations with the Entry Leader.
- Maintain communications and coordinate operations with the Site Access Control Leader and the Safe Refuge Area Manager (if activated).
- Coordinate the transfer of contaminated patients requiring medical attention (after decontamination) to the Medical Group.
- Coordinate handling, storage, and transfer of contaminants within the Contamination Reduction Zone.

DIVISION/GROUP SUPERVISOR (Cont'd)

HAZARDOUS SUBSTANCE RELEASE (Cont'd)

Sampling Group Supervisor - The Sampling Group is assigned to the Operations Section because of the immediate communication and coordination they must have with the other field groups. The Field Sampling Group will normally include an Air Monitoring Team, Water Sampling Team, and a Soil Sampling Team. They will normally be responsible for perimeter monitoring and sampling, and will either coordinate sampling within the hot zone and warm zones with the Entry Group, or if properly trained and outfitted with PPE, they may take samples within the hot/warm zones themselves.

Overall Sampling Group Supervisor Responsibilities:

- Conducting all sampling required for immediate operation activity and communicating sampling data, such as results of routine air monitoring to on-site operational and safety personnel.
- Conducting air, water, and soil sampling as directed by the regulatory agencies and other interested parties through the Sampling Protocol Team.
- Ensuring that all samples are obtained following appropriate sample protocol and other special instructions they may obtain.
- Ensuring that all samples taken are properly documented and following the chain of custody procedures.
- Ensuring that the samples are properly transferred to the Sample Documentation and Tracking Teams for proper documentation, analysis, and final dissemination.

Technical Specialist Group Supervisor - There are a number of specialist positions that will be required for hazardous substance response operations. Because of their field locations and requirement for close coordination with the Operations Section Field Personnel, they are assigned to the Technical Group. The Technical Specialist Group Supervisor is responsible for coordinating the activities of these various specialists and ensuring that their services and information are made available to the appropriate field and command post activities.

Overall Technical Specialist Group Supervisor Responsibilities:

- Will oversee the activities of the following identified specialists.
  - Hazardous Substance/Materials Reference
  - Toxicologist
  - Industrial Hygienist
  - Chemical Engineer
  - Product Specialist
  - Marine Chemist

DIVISION/GROUP SUPERVISOR (Cont'd)

TERRORISM INCIDENT

(b) (7)(F), (b) (3)

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DIVISION/GROUP SUPERVISOR (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

MULTI-CASUALTY

Medical Group/Division Supervisor – The Medical Group/Division Supervisor supervises the Triage Team Leader, Treatment Team Leader and Medical Supply Coordinator. The Medical Group/Division Supervisor establishes command and controls the activities within a Medical Group/Division, in order to assure the best possible emergency medical care to patients during a multi-casualty incident.

Overall Medical Group/Division Supervisor Responsibilities:

- Participate in Multi-Casualty Branch/Operations Section Planning Activities.
- Establish Medical Group/Division with assigned personnel. Request additional personnel and resources sufficient to handle the magnitude of the incident.
- Designate Treatment Team Leaders and treatment area locations as appropriate.
- Isolate Morgue and Minor Treatment Area from Immediate and Delayed Treatment Areas.
- Request law enforcement/coroner involvement as needed.
- Determine amount and types of additional medical resources and supplies needed to handle the magnitude of the incident (medical caches, backboards, litters, cots).
- Establish communications and coordination with the Patient Transportation Group Supervisor.
- Ensure activation of hospital alert system, local EMS/health agencies.
- Direct and/or supervise on-scene personnel from agencies such as Coroner's Office, Red Cross, law enforcement, ambulance companies, county health agencies, and hospital volunteers.
- Ensure proper security, traffic control, and access for the Medical Group/Division area.
- Direct medically trained personnel to the appropriate team leader.

DIVISION/GROUP SUPERVISOR (Cont'd)

MULTI-CASUALTY (Cont'd)

Patient Transportation Group Supervisor - The Patient Transportation Group Supervisor supervises the Medical Communications Coordinator and the Air and Ground Ambulance Coordinators. The Patient Transportation Group Supervisor is responsible for the coordination of patient transportation and maintenance of records relating to patient identification, injuries, mode of off-incident transportation and destination.

Overall Patient Transportation Group Supervisor Responsibilities:

- Establish communications with hospital(s).
- Designate ambulance staging area(s).
- Direct the transportation of patients as determined by Treatment Team Leaders.
- Assure that patient information and destination is recorded.
- Establish communications with Ambulance Coordinator(s).
- Request additional ambulances, as required.
- Notify Ambulance Coordinator(s) of ambulance requests.
- Coordinate requests for air ambulance transportation through the Air Operations Director.
- Establish Air Ambulance Helispot with the Multi- Casualty Branch Director and Air Operation Director.

PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

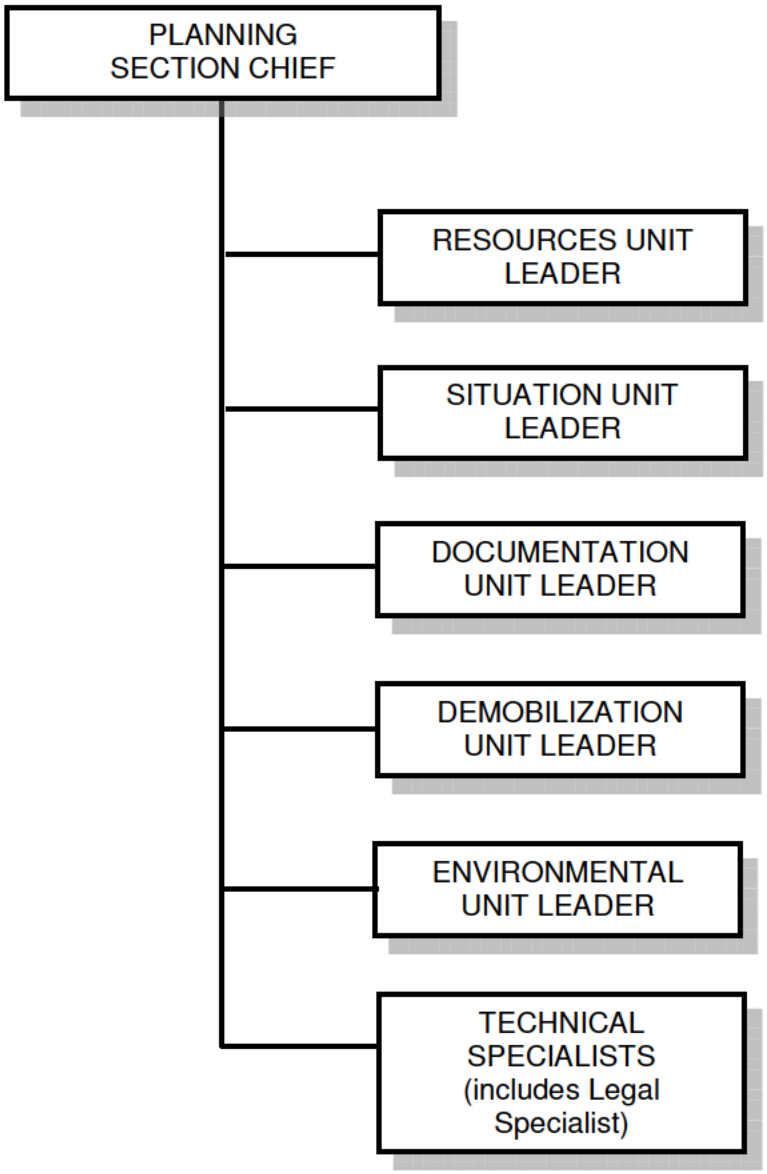
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



PLANNING SECTION CHIEF

The Planning Section Chief (PSC) is responsible for the collection, evaluation, dissemination and use of information; particularly with regard to the development of the incident and the status resources. This information is needed to: 1) understand the current situation, 2) predict the probable course of incident events; and 3) prepare alternative strategies for the incident.

Overall PSC Responsibilities:

- Collect and process situation information about the incident.
- Supervise preparation of the IAP.
- Provide input to the IC and the OPS in preparing the IAP.
- Chair planning meetings and participate in other meetings as required.
- Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.
- Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation Units).
- Determine the need for any specialized resources in support of the incident.
- If requested, assemble and disassemble Strike Teams and Task Forces not assigned to Operations.
- Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report any significant changes in incident status.
- Compile and display incident status information.
- Oversee preparation and implementation of the Incident Demobilization Plan.
- Incorporate plans (e.g., Traffic, Medical, Communications, Site Safety) into the IAP.

RESOURCES UNIT LEADER

The Resource Unit Leader (RUL) works within the Planning Section and is responsible for maintaining the status of all assigned resources (primary and support) at an incident. This is achieved by overseeing the check in/out of all resources, maintaining a status-keeping system indicating current location and status of all resources, and maintenance of a master list of all resources (e.g. key supervisory personnel, primary and support resources, etc.).

Overall RUL Responsibilities:

- Establish the check-in function at incident locations.
  The Staging Area Manager may already be tracking this on ICS Form 211-p and 211-e. However, the RUL should verify that tracking is being conducted and is accurate. Additionally, the RUL should determine how to gather this resource information from Staging Areas.
- Prepare Organization Assignment List (ICS Form 203) and Organization Chart (ICS Form 207).
- Prepare appropriate parts of Division Assignment Lists (ICS Form 204).
- Prepare and maintain the ICP display (to include organization chart and resource allocation and deployment).

RESOURCES UNIT LEADER (Cont'd)

Overall RUL Responsibilities (Cont'd):

- Maintain and post the current status and location of all resources.
  The RUL is responsible for developing a system to best track the resource status. Ensure information is relayed to the Situation Unit Leader in order to update incident status information on the display board (ICS Form 209)
- Maintain master roster of all resources checked in at the incident.
- Assign an additional person to fill the "Check-in/status Recorder" position to assist with the accounting of all resources assigned to the incident.
  If a Check-in/status Recorder is not assigned, the RUL is responsible for all functions.

SITUATION UNIT LEADER

The Situation Unit Leader (SUL) works within the Planning Section and is responsible for collecting, processing and organizing all incident information. The SUL may prepare future projections of incident growth and maps.

Overall SUL Responsibilities:

- Begin collection and analysis of incident data as soon as possible.
- Prepare, post, or disseminate resource and situation status information as required, including special requests.
  Establish location for situation status boards and displays. This is where maps, charts, and other incident information will be posted for responders to view.
- Prepare periodic predictions or as requested by the PSC.
- Prepare the Incident Status Summary Form (ICS Form 209).
  Acquire the information from various Command and General ICS Staff.
- Provide photographic services and maps if required.

The SUL may have a Display Processor and Field Observer reporting to him/her. However, if not assigned, the SUL will be responsible for their functions

Display Processor - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Display Processor Responsibilities:

- Determine:
  - Location of work assignment
  - Numbers, types and locations of displays required
  - Priorities
  - Map requirements for the IAP
  - Time limits for completion
  - Field Observer assignments and communications means
- Obtain necessary equipment and supplies.
- Obtain a copy of the IAP for each operational period.
- Assist SUL in analyzing and evaluating field reports.
- Develop required displays in accordance with time limits for completion.

SITUATION UNIT LEADER (Cont'd)

Field Observer - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Field Observer Responsibilities:

- Determine:
  - Location of assignment
  - Type of information required
  - Priorities
  - Time limits for completion
  - Method of communication.
  - Method of transportation.
- Obtain a copy of the IAP for the Operational Period.
- Obtain necessary equipment and supplies.
- Perform Field Observer responsibilities to include but not limited to the following:
  - Perimeters of incident
  - Locations of hot spots
  - Unburned islands
  - Rates of spread
  - Weather conditions
  - Hazards including escape routes and safe areas
  - Progress of operations resources
- Be prepared to identify all facility locations (e.g., Helispots, Division and Branch boundaries).
- Report information to the SUL by established procedure.
- Report immediately any condition observed that may cause danger and a safety hazard to personnel.
- Gather intelligence that will lead to accurate predictions.

DOCUMENTATION UNIT LEADER

The Documentation Unit Leader (DUL) works within the Planning Section and is responsible for the maintenance of accurate, up-to-date incident files. The DUL should ensure that each section is maintaining and providing appropriate documents. The DUL will provide duplication and copying services for all other sections. The DUL will store incident files for legal, analytical and historical purposes.

Overall DUL Responsibilities

- Set up work area; begin organization of incident files.
- Establish duplication service; respond to requests.
- File all official forms and reports.
- Review records for accuracy and completeness; inform appropriate units of errors or omissions.
  Ensure ICS forms and documentation are dated and signed, as necessary.
- Provide incident documentation as requested.
- Store files for post-incident use.

DEMOBILIZATION UNIT LEADER

The Demobilization Unit Leader works with the Planning Section and is responsible for developing the Incident Demobilization Plan. This position will be activated in order to ensure that resources are effectively demobilized when they are no longer required.

Overall Demobilization Unit Leader Responsibilities:

- Participate in planning meetings as required.
- Review incident resource records to determine the likely size and extent of demobilization effort.
- Based on the above analysis, add additional personnel, workspace, and supplies as needed.
- Coordinate demobilization with Agency Representatives.
- Monitor the on-going Operations Section resource needs.
- Identify surplus resources and probable release time.
- Develop incident check-out function for all units.
- Evaluate logistics and transportation capabilities to support demobilization.
  Ensure that there is sufficient transportation to effectively demobilize resources.
- Establish communications with off-incident facilities, as necessary.
  Off-incident facilities can include locations where resources will be returned to and off-site locations that are assisting the response (i.e. laboratories, oiled wildlife care facilities, etc.). These facilities will eventually be demobilized as well.
- Develop an Incident Demobilization Plan detailing specific responsibilities and release priorities and procedures.
- Prepare appropriate directories (e.g., maps, instructions, etc.) for inclusion in the demobilization plan.
- Distribute demobilization plan (on and off-site).
- Provide status reports to appropriate requestors.
- Ensure that all Sections/Units understand their specific demobilization responsibilities.
- Supervise execution of the Incident Demobilization Plan.
- Brief the PSC on demobilization progress.

ENVIRONMENTAL UNIT LEADER

The Environmental Unit Leader (EUL) works with the Planning Section and is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting . The EUL prepares environmental data for the situation unit.

Overall Environmental Unit Leader Responsibilities:

- Obtain a briefing and special instructions from the PSC.
- Participate in Planning Section meetings.
- Identify sensitive areas and recommend response priorities.
  Utilize ICS Form 232.
- Following consultation with natural resource trustees, provide input on wildlife protection strategies (e.g., removing oiled carcasses, pre-emptive capture, hazing, and/or capture and treatment).
- Determine the extent, fate and effects of contamination.
- Acquire, distribute and provide analysis of weather forecasts.
- Monitor the environmental consequences of cleanup actions.
- Develop shoreline cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
- Identify the need for, and obtain, permits, consultations, and other authorizations including Endangered Species Act (ESA) provisions.
- Following consultation with the FOSC's Historical/Cultural Resources Technical Specialist identify and develop plans for protection of affected historical/cultural resources.
- Evaluate the opportunities to use various response technologies.
- Develop disposal plans.
- Develop a plan for collecting, transporting, and analyzing samples.

TECHNICAL SPECIALISTS

Certain incidents or events may require the use of Technical Specialists who have specialized knowledge and expertise. Technical Specialists may function within the Planning Section, or be assigned wherever their services are required.

An example of a Technical Specialist is:

LEGAL SPECIALIST:

The Legal Specialist will act in an advisory capacity within the Planning Section.

Overall Legal Specialist Responsibilities:

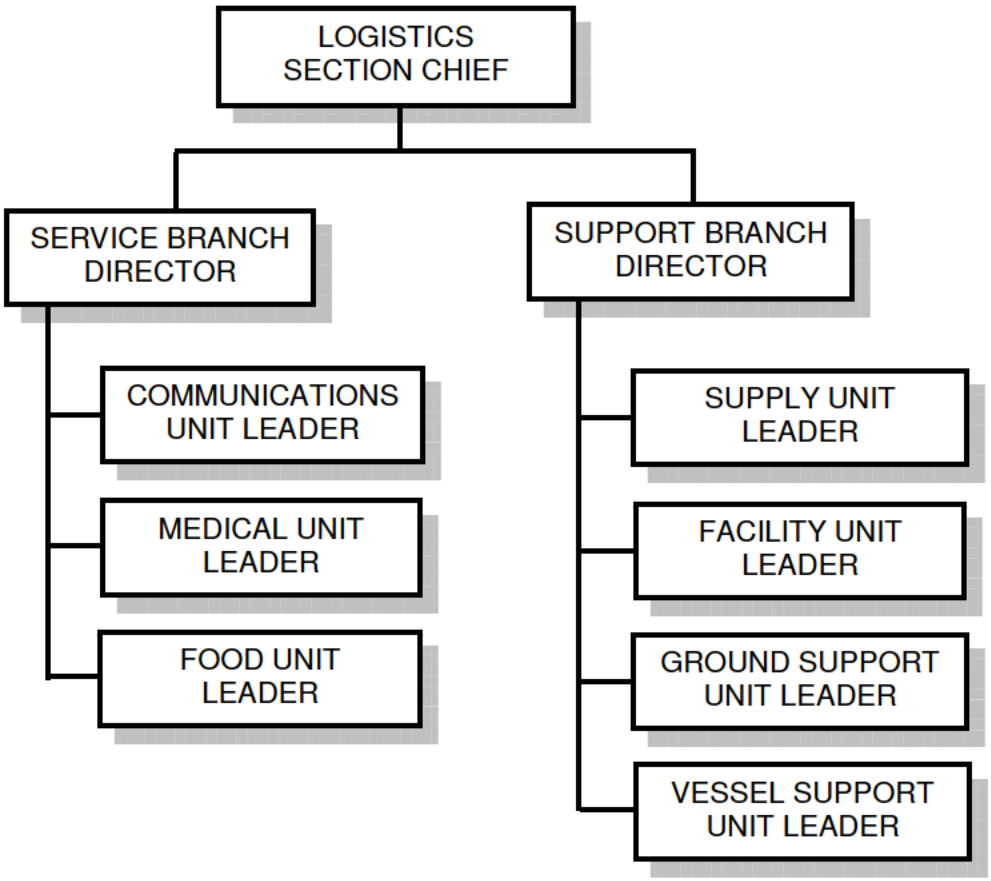
- Participate in planning meetings, if requested.
- Advise on legal issues relating to in-situ burning, use of dispersants, and other alternative response technologies.
- Advise on legal issues relating to differences between Natural Resource Damage Assessment Restoration (NRDAR) and response activities.
- Advise on legal issues relating to investigations.
- Advise on legal issues relating to finance and claims.
- Advise on legal issues relating to response.
- Utilize ICS Form 214.

LOGISTICS

Logistics Section Chief 4-44

Service Branch Director 4-44
- Communications Unit Leader 4-45
- Medical Unit Leader 4-45
- Food Unit Leader 4-46
- Hospital Coordination Unit 4-46

Support Branch Director 4-47
- Supply Unit Leader 4-47
- Facilities Unit Leader 4-47
- Ground Support Unit Leader 4-48
- Vessel Support Unit Leader 4-49



LOGISTICS SECTION CHIEF

The Logistics Section Chief (LSC) is responsible for providing facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the Incident Action Plan (IAP). The LSC activates and supervises the Branches and Units within the Logistics Section.

Resources are divided into Support and Services. Support resources are used in support of the IAP (i.e. boom, vacuum trucks, skimmers etc.). Service resources include food/water, communication and medical resources.

Overall LSC Responsibilities:

- Plan the organization of the Logistics Section.
- Assign work locations and preliminary work tasks to Section personnel.
- Notify the Resources Unit of the Logistics Section units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input to and review the Communications Plan (ICS Form 205), Medical Plan (ICS Form 206) and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive Incident Demobilization Plan from Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of Logistics Section personnel.

SERVICE BRANCH DIRECTOR

The Service Branch Director, when activated, is under the supervision of the LSC, and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical and Food Units.

Overall Service Branch Director Responsibilities:

- Determine the level of service required to support operations.
- Confirm dispatch of Branch personnel.
- Participate in planning meetings of Logistics Section personnel.
- Review the IAP.
- Organize and prepare assignments for Service Branch personnel.
- Coordinate activities of Branch Units.
- Inform the LSC of Branch activities.
- Resolve Service Branch problems.

SERVICE BRANCH DIRECTOR (Cont'd)

Communications Unit Leader – The Communications Unit Leader is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.

Overall Communications Unit Leader Responsibilities:

- Prepare and implement the Incident Radio Communications Plan (ICS Form 205).
- Ensure the Incident Communications Center and the Message Center is established.
- Establish appropriate communications distribution/maintenance locations within the Base/Camp(s).
- Ensure communications systems are installed and tested.
- Ensure an equipment accountability system is established.
- Ensure personal portable radio equipment from cache is distributed per Incident Radio Communications Plan.
- Provide technical information as required on:
  - Adequacy of communications systems currently in operation.
  - Geographic limitation on communications systems.
  - Equipment capabilities/limitations.
  - Amount and types of equipment available.
  - Anticipated problems in the use of communications equipment.
- Supervise Communications Unit activities.
- Maintain records on all communications equipment as appropriate.
- Ensure equipment is tested and repaired.
- Recover equipment from Units being demobilized.

Medical Unit Leader - The Medical Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for the development of the Medical Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparation of reports and records.

Overall Medical Unit Leader Responsibilities:

- Participate in Logistics Section/Service Branch planning activities.
- Prepare the Medical Plan (ICS Form 206).
- Prepare procedures for major medical emergency.
- Declare major emergency as appropriate.
- Respond to requests for medical aid, medical transportation, and medical supplies.
- Prepare and submit necessary documentation.

SERVICE BRANCH DIRECTOR (Cont'd)

Food Unit Leader - The Food Unit Leader is responsible for supplying the food needs for the entire incident, including all remote locations (e.g., Camps, Staging Areas), as well as providing food for personnel unable to leave tactical field assignments.

Overall Food Unit Leader Responsibilities:

- Determine food and water requirements.
- Determine the method of feeding to best fit each facility or situation.
- Obtain necessary equipment and supplies and establish cooking facilities.
- Ensure that well-balanced menus are provided.
- Order sufficient food and potable water from the Supply Unit.
- Maintain an inventory of food and water.
- Maintain food service areas, ensuring that all appropriate health and safety measures are being followed.
- Supervise caterers, cooks, and other Food Unit personnel as appropriate.

TERRORISM INCIDENT

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SUPPORT BRANCH DIRECTOR

The Support Branch Director, when activated, is under the direction of the LSC, and is responsible for the development and implementation of logistics plans in support of the Incident Action Plan. The Support Branch Director supervises the operations of the Supply, Facilities and Ground Support Units.

Overall Support Branch Director Responsibilities:

- Obtain work materials.
- Identify Support Branch personnel dispatched to the incident.
- Determine initial support operations in coordination with the LSC and Service Branch Director.
- Prepare initial organization and assignments for support operations.
- Assemble and brief Support Branch personnel.
- Determine if assigned Branch resources are sufficient.
- Maintain surveillance of assigned units work progress and inform the LSC of their activities.
- Resolve problems associated with requests from the Operations Section.

Supply Unit Leader - The Supply Unit Leader is primarily responsible for ordering personnel, equipment and supplies; receiving and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.

Overall Supply Unit Leader Responsibilities:

- Participate in Logistics Section/Support Branch planning activities.
- Determine the type and amount of supplies en route.
- Review the IAP for information on operations of the Supply Unit.
- Develop and implement safety and security requirements.
- Order, receive, distribute, and store supplies and equipment.
- Receive and respond to requests for personnel, supplies, and equipment.
- Maintain an inventory of supplies and equipment.
- Service reusable equipment.
- Submit reports to the Support Branch Director.

Facilities Unit Leader - The Facilities Unit Leader is primarily responsible for the layout and activation of incident facilities, (e.g., Base, Camp(s), and ICP). The Facilities Unit Leader provides sleeping and sanitation facilities for incident personnel and manages Base and Camp(s) operations. Each facility (Base, Camp) is assigned a manager who reports to the Facilities Unit Leader and is responsible for managing the operation of the facility. The basic functions or activities of the Base and Camp Managers are to provide security service and general maintenance. The Facility Unit Leader reports to the Support Branch Director.

SUPPORT BRANCH DIRECTOR (Cont'd)

Overall Facilities Unit Leader Responsibilities:

- Obtain a briefing from the Support Branch Director or the LSC.
- Receive and review a copy of the IAP.
- Participate in Logistics Section/Support Branch planning activities.
- Determine requirements for each facility, including the ICP.
- Prepare layouts of incident facilities.
- Notify Unit Leaders of facility layout.
- Activate incident facilities.
- Provide Base and Camp Managers and personnel to operate facilities.
- Provide sleeping facilities.
- Provide security services.
- Provide facility maintenance services (e.g., sanitation, lighting, clean up).
- Demobilize Base and Camp facilities.
- Maintain facility records

Ground Support Unit Leader - The Ground Support Unit Leader is primarily responsible for: 1) support out-of-service resources; 2) transportation of personnel, supplies, food, and equipment 3) fueling, service, maintenance, and repair of vehicles and other ground support equipment; and 4) implementing the Traffic Plan for the incident.

Overall Ground Support Unit Leader Responsibilities:

- Participate in Support Branch/Logistics Section planning activities.
- Develop and implement the Traffic Plan.
- Support out-of-service resources.
- Notify the Resources Unit of all status changes on support and transportation vehicles.
- Arrange for and activate fueling, maintenance, and repair of ground resources.
- Maintain Support Vehicle Inventory and transportation vehicles (ICS Form 218).
- Provide transportation services, IAW requests from the LSC or Support Branch Director.
- Collect information on rented equipment.
- Requisition maintenance and repair supplies (e.g., fuel, spare parts).
- Maintain incident roads.
- Submit reports to Support Branch Director as directed.

SUPPORT BRANCH DIRECTOR (Cont'd)

Vessel Support Unit Leader - The Vessel Support Unit Leader is responsible for implementing the Vessel Routing Plan for the incident and coordinating transportation on the water and between shore resources. Since most vessels will be supported by their own infrastructure, the Vessel Support Unit may be requested to arrange fueling, dockage, maintenance, and repair of vessels on a case-by-case basis.

Overall Vessel Support Unit Leader Responsibilities:

- Obtain a briefing from the Support Branch Director or the LSC.
- Participate in Support Branch/Logistics Section planning activities.
- Coordinate development of the Vessel Routing Plan.
- Coordinate vessel transportation assignments with the Protection and Recovery Branch or other sources of vessel transportation.
- Coordinate water-to-land transportation with the Ground Support Unit, as necessary.
- Maintain a prioritized list of transportation requirements that need to be scheduled with the transportation source.
- Support out-of-service vessel resources, as requested.
- Arrange for fueling, dockage, maintenance and repair of vessel resources, as requested.
- Maintain inventory of support and transportation vessels.

FINANCE/ADMINISTRATION

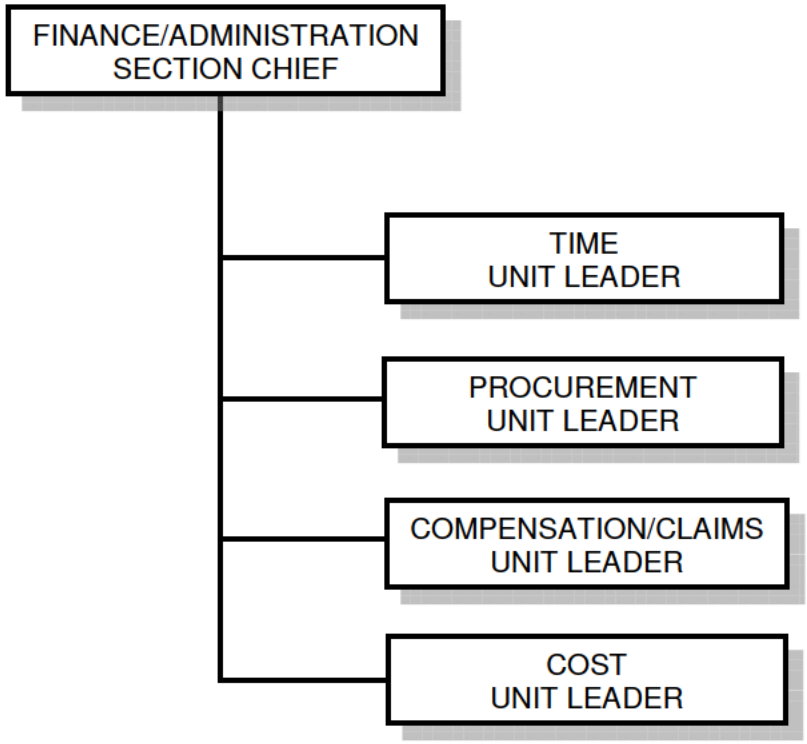
Finance/Administration Section Chief 4-51

Time Unit Leader 4-52

Procurement Unit Leader 4-52

Compensation/Claims Unit Leader 4-53

Cost Unit Leader 4-53



FINANCE/ADMINISTRATION SECTION CHIEF

The Finance/Administration Section Chief (FASC) is responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section. Depending on the incident, the FASC position may or may not be assigned. Agencies within the Unified Command may require and staff the FASC position. In either case, it is always beneficial to establish a system to oversee financial aspects of an incident.

Overall FASC Responsibilities:

- Attend planning meetings as required.
- Manage all financial aspects of an incident.
- Provide financial and cost analysis information as requested.
- Gather pertinent information from briefings with responsible agencies.
- Develop an operating plan for the Finance/Administration Section; fill supply and support needs.
- Determine the need to set up and operate an incident commissary.
- Meet with Assisting and Cooperating Agency Representatives, as needed.
- Maintain daily contact with agency(s) administrative headquarters on Finance/Administration matters.
- Ensure that all personnel time records are accurately completed and transmitted, according to policy.
- Provide financial input to demobilization planning.
- Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- Brief administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.

Additional KM Required FASC Responsibilities:

- Ensure compensation/claims are being managed for the incident.
  If necessary or required by the agencies, establish a claims telephone number.
- Arrange on-site legal counsel.
- Work with insurance adjusters.
- Track and assess charges related to the related effort.
- Coordinating activities with other Section Chiefs
- Providing cost authorization.
- Supervising daily activities of the Finance Section.
- Analyzing contract bids, management and payroll.

The FASC may have a Time Unit Leader, Procurement Unit Leader, Compensation/Claim Unit Leader, and Cost Unit Leader reporting to him/her. However if not assigned, the FASC will be responsible for their functions.

TIME UNIT LEADER

The Time Unit Leader is responsible for equipment and personnel time recording and for managing the commissary operations.

Overall Time Unit Leader Responsibilities:

- Determine incident requirements for time recording function.
- Determine resource needs.
- Contact appropriate agency personnel/representatives.
- Ensure that daily personnel time recording documents are prepared and in compliance with policy.
- Establish time unit objectives.
- Maintain separate logs for overtime hours.
- Establish commissary operation on larger or long-term incidents as needed.
- Submit cost estimate data forms to the Cost Unit, as required.
- Maintain records security.
- Ensure that all records are current and complete prior to demobilization.
- Release time reports from assisting agency personnel to the respective Agency Representatives prior to demobilization.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

PROCUREMENT UNIT LEADER

The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts, leases, and fiscal agreements.

Overall Procurement Unit Leader Responsibilities:

- Review incident needs and any special procedures with Unit Leaders, as needed.
- Coordinate with local jurisdiction on plans and supply sources.
- Obtain the Incident Procurement Plan.
- Prepare and authorize contracts and land-use agreements.
- Draft memoranda of understanding as necessary.
- Establish contracts and agreements with supply vendors.
- Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
- Interpret contracts and agreements; resolve disputes within delegated authority.
- Coordinate with the Compensation/Claims Unit for processing claims.
- Coordinate use of impress funds, as required.
- Complete final processing of contracts and send documents for payment.
- Coordinate cost data in contracts with the Cost Unit Leader.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

COMPENSATION/CLAIMS UNIT LEADER

The Compensation/Claims Unit Leader is responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims related activities (other than injury) for an incident.

Overall Compensation/Claims Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Establish contact with the incident SO and LO (or Agency Representatives if no LO is assigned).
- Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
- Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
- Review Incident Medical Plan (ICS Form 206).
- Ensure that Compensation/Claims Specialists have adequate workspace and supplies.
- Review and coordinate procedures for handling claims with the Procurement Unit.
- Brief the Compensation/Claims Specialists on incident activity.
- Periodically review logs and forms produced by the Compensation/Claims Specialists to ensure that they are complete, entries are timely and accurate and that they are in compliance with agency requirements and policies.
- Ensure that all Compensation for Injury and Claims logs and forms are complete and routed appropriately for post-incident processing prior to demobilization.
- Keep the Finance/Administration Section Chief briefed on Unit status and activity.
- Demobilize unit in accordance with the Incident Demobilization Plan.

COST UNIT LEADER

The Cost Unit Leader is responsible for collecting all cost data, performing cost effectiveness analyses and providing cost estimates and cost saving recommendations for the incident.

Overall Cost Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Coordinate cost reporting procedures.
- Collect and record all cost data.
- Develop incident cost summaries.
- Prepare resources-use cost estimates for the Planning Section.
- Make cost-saving recommendations to the Finance/Administration Section Chief.
- Ensure all cost documents are accurately prepared.
- Maintain cumulative incident cost records.
- Complete all records prior to demobilization.
- Provide reports to the Finance/Administration Section Chief.

5.0 NIMS INCIDENT COMMAND SYSTEM

5.1 INTRODUCTION

Section 4.0 described the typical NIMS response structure that KMEP would follow. This Section describes the planning cycle and Incident Action Plan forms necessary for properly documenting an incident response within that structure.

Relatively few KMEP facilities have the potential to release a significant amount of product to navigable waters. Such facilities include terminals which receive or deliver to sea-going barges or vessels. Several sections of product pipelines are also located adjacent to or are in close proximity to navigable waters (definition provided in the "Glossary of Terms" at the end of this Plan.

Section 5.2 and 5.3 provide the basic guidance and framework to preparing, facilitating executing, assessing and documenting the response activities associated with the incident. Section 5.2 explains the Operational Period Planning Cycle toward assembling an Incident Action Plan (IAP). Section 5.3 assembles the necessary standard ICS forms for completion during the incident so that the incident lifespan is captured and communicated in written form.

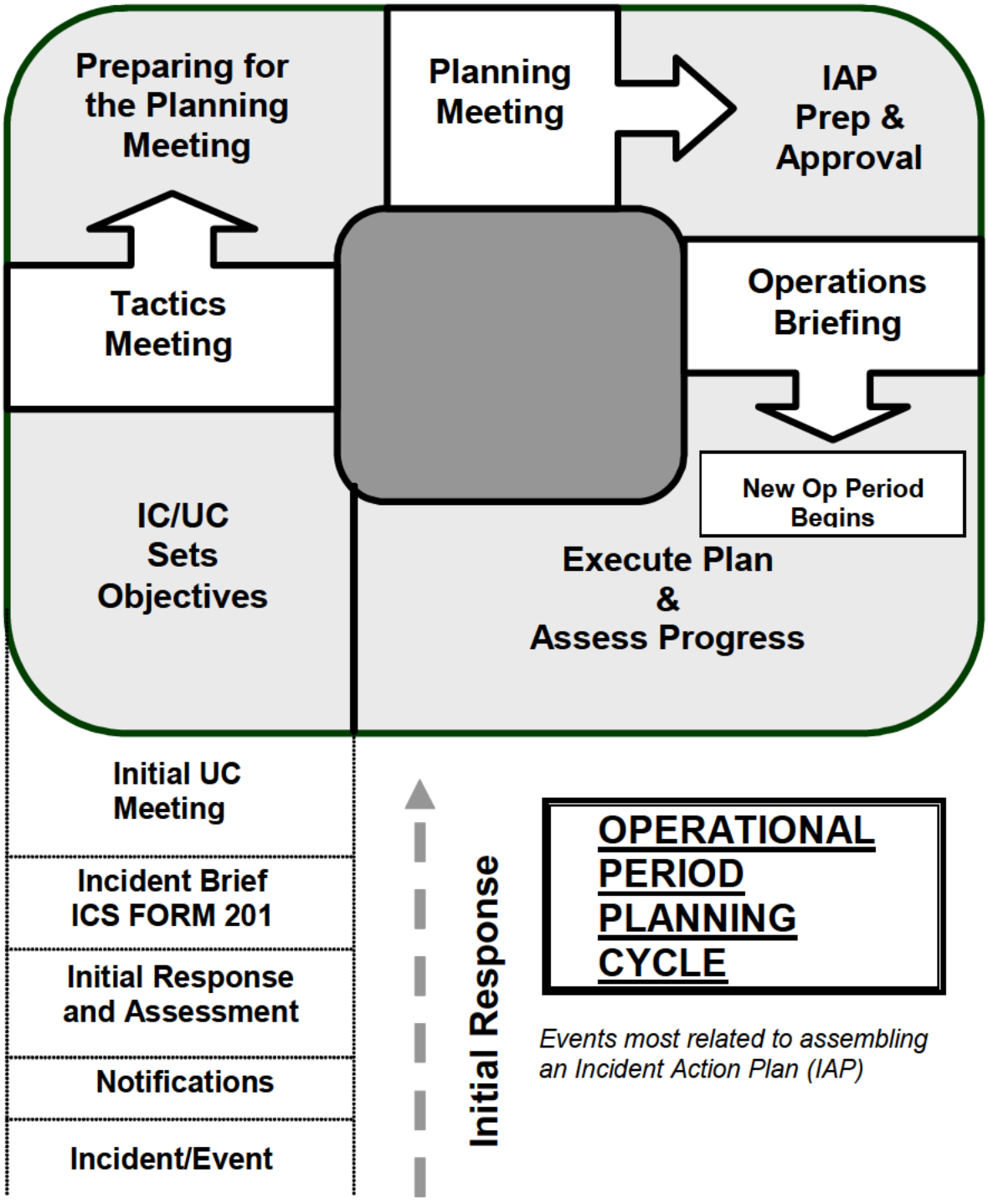
5.2 PLANNING CYCLE, MEETINGS, BRIEFINGS, AND THE PLANNING CHART

The Operational Period Planning Cycle delineates those events most related to assembling an Incident Action Plan (IAP). The explanation of the planning cycle, meetings, briefing and the planning chart provides the guidance for effective facilitation of the meeting process to establish goals and objectives, develop strategies and responses, prioritize assignments and responsibilities, assign available resources, execute plans and assess outcomes.

5.3 NIMS ICS FORMS

When responding to an incident, the accurate and complete documentation of a response activity is vital for the communication of information during the incident itself, during any transition phase of responsibilities and at the post incident assessments and follow-ups. This section provides the most common NIMS ICS Standard Forms to be used by KMEP to comply with NIMS ICS documentation guidelines during an on-water release. Regulator response agencies will expect KMEP to recognize and apply NIMS ICS forms.

PLANNING CYCLE, MEETINGS, BRIEFINGS, AND THE PLANNING CHART



INITIAL RESPONSE AND ASSESSMENT

The period of **Initial Response and Assessment** occurs in all incidents. Short-term responses, which are small in scope and/or duration (e.g., a few resources working one operational period) can often be coordinated using only ICS Form 201 (Incident Briefing Form).

INCIDENT BRIEFING (ICS Form 201) - During the transfer-of-command process, an ICS Form 201-formatted briefing provides the incoming Incident Commander (IC)/Unified Commander (UC) with basic information regarding the incident situation and the resources allotted to the incident. Most importantly it functions as the Incident Action Plan (IAP) for the initial response and remains in force and continues to develop until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to the Command and General Staff as well as needed assessment briefings for the staff.

ICS Form 201 facilitates documentation of response objectives, situational awareness, resource employment and deployment, and significant actions taken. This form is essential for future planning and the effective management of initial response activities.

When:	New IC/UC; staff briefing as required
Facilitator:	Current IC/UC
Attendees:	Prospective IC/UC; Command and General Staff, as required

General Tasks

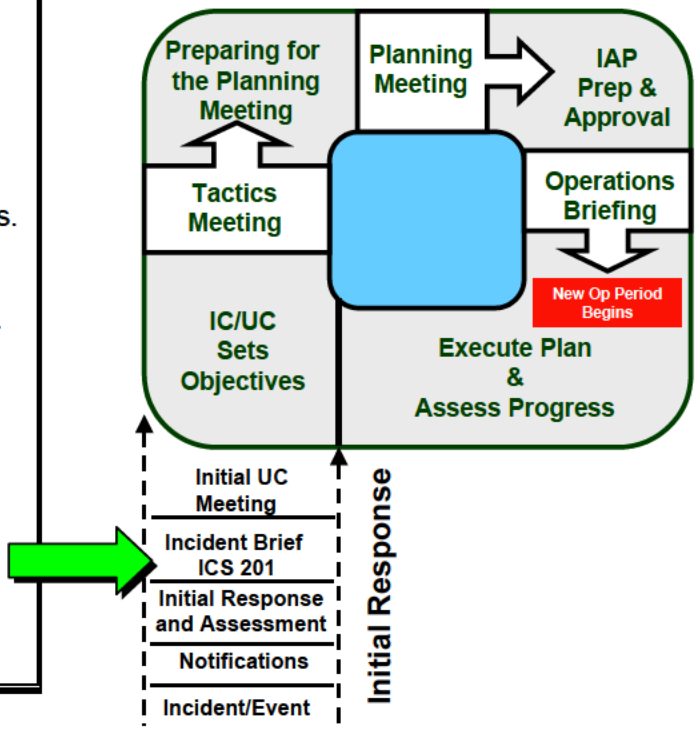
Incident Commander (IC)
- ❑ Obtain incident brief using ICS-201.
- ❑ Assess operational requirements.
- ❑ Determine organizational and response requirements and objectives.

Operations (OPS)
- ❑ Obtain briefing from IC.
- ❑ Consider available Contingency Plan.
- ❑ Develop strategies and tactics.
- ❑ Assemble resources.
- ❑ Conduct response using ICS-201.

Planning
- ❑ If/when activated orders staff.

Logistics
- ❑ If/when activated orders staff.

Finance/Admin
- ❑ If/when activated orders staff.



Agenda:

Using ICS Form 201 as an outline, include:

1. Situation (note territory, exposures, safety concerns, etc.; use map/charts).
2. Current priorities.
3. Strategy(s) and tactics.
4. Current organization.
5. Resource assignments.
6. Resources en-route and/or ordered.
7. Facilities established.

INITIAL UNIFIED COMMAND MEETING - Provides UC officials with an opportunity to discuss and concur on important issues prior to joint incident action planning. The meeting should be brief and important points documented. Prior to the meeting, parties should have an opportunity to review and prepare to address the agenda items. Planning meeting participants will use the results of this meeting to guide the operational efforts prior to the first tactics meeting.

When: The UC is formed prior to the first meeting
Facilitator: UC member
Attendees: Only ICs that will comprise the UC

General Tasks

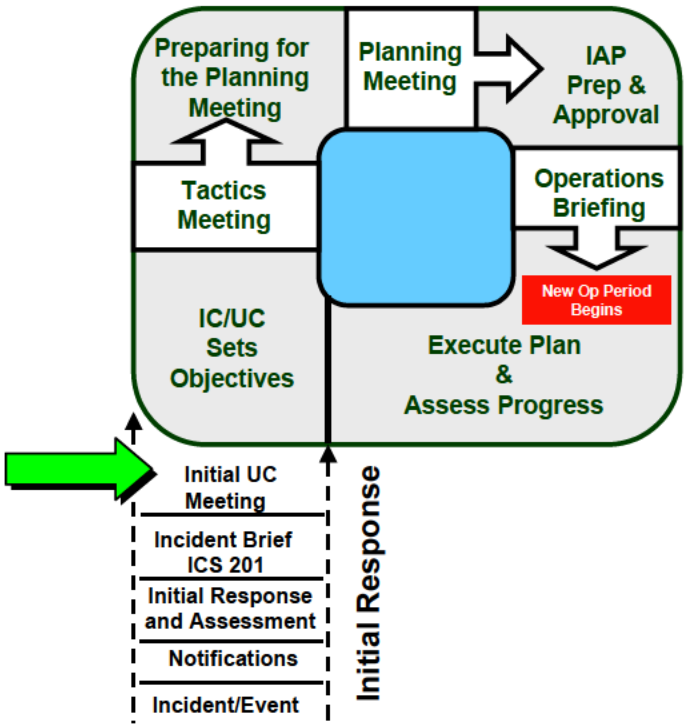
Incident Commander (IC)
- ❑ Determine need for UC.
- ❑ Negotiate/facilitate UC participation.
- ❑ Clarify UC roles & responsibilities.
- ❑ Negotiate and agree on response organization, facilities, and support.
- ❑ Determine Op Period length/start time.

Operations (OPS)
- ❑ Brief UC members on current operations.

Planning
- ❑ If activated, contact UC members as directed by IC.

Logistics
- ❑ May not be activated at this time.

Finance/Admin
- ❑ May not be activated at this time.



Agenda:

1. Identify UC, based on Chapter 6 criteria.
2. Identify jurisdictional priorities and objectives.
3. Present jurisdictional limitations, concerns and restrictions.
4. Develop a collective set of incident objectives.
5. Establish and agree on acceptable priorities.
6. Agree on basic organization structure.
7. Designate the best-qualified and acceptable Operations Section Chief (OPS).
8. Agree on General Staff personnel designations and planning, logistical, and financial agreements and procedures.
9. Agree on resource ordering procedures to follow.
10. Agree on cost-sharing procedures.
11. Agree on informational matters.
12. Designate a Unified Command Information Officer.

UNIFIED COMMAND OBJECTIVES MEETING - The IC/UC will identify/review and prioritize objectives for the next operational period on the ICS Form 202. Objectives from the previous operational period are reviewed and any new objectives are identified.

When: Prior to tactics meeting.
Facilitator: UC Member
Attendees: UC Members; Command and General Staff as appropriate

General Tasks

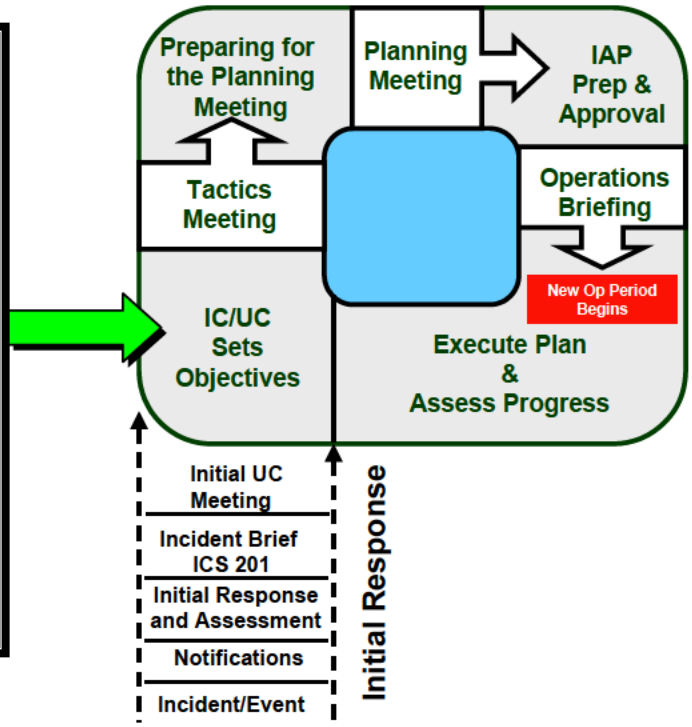
Incident Commander (IC/UC)
- ❑ Develop SMART incident objectives.
- ❑ Consider "Best Response".
- ❑ Delegate and provide guidance to Command and General Staff.

Operations (OPS)
- ❑ May be present if invited.

Planning
- ❑ May be present if invited.
- ❑ Propose draft SMART objectives to IC/UC.

Logistics
- ❑ May be present if invited.

Finance/Admin
- ❑ May be present if invited.



Agenda:

1. Review/identify objectives for the next operational period (Clearly stated and attainable with the resources available, yet flexible enough to allow members to choose tactics).
2. Review any open agenda items from initial/previous meetings.

TACTICS MEETING - This 30-minute meeting creates the blueprint for tactical deployment during the next operational period. In preparation for the Tactics Meeting, the Planning Section Chief (PSC), and OPS review the first stage of response operations or the current IAP situation status information as provided by the Situation Unit to assess work progress against IAP objectives. The OPS/PSC will jointly develop primary and alternate strategies to meet objectives for consideration at the next Planning Meeting.

When: Prior to Planning Meeting.
Facilitator: PSC
Attendees: PSC, OPS, Logistics Section Chief (LSC), and Resources Unit Leader (RUL)

General Tasks

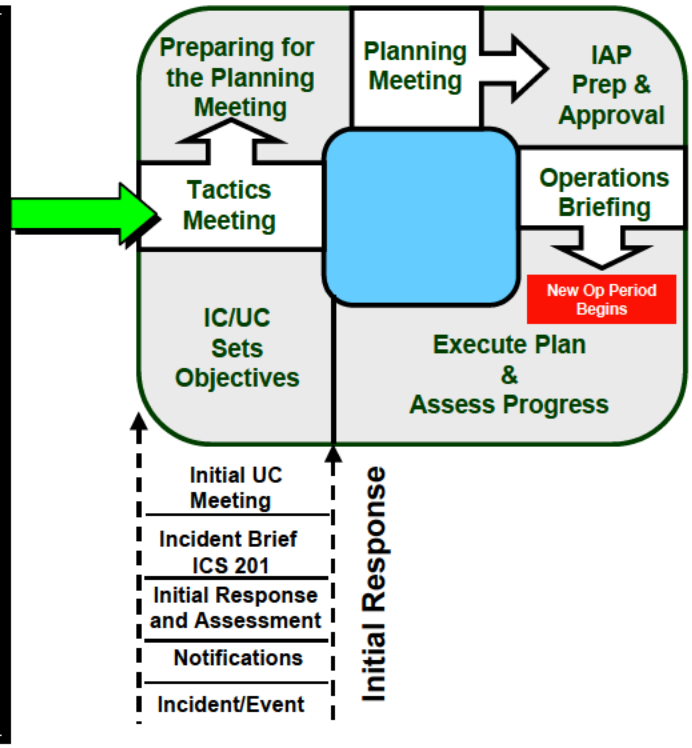
Incident Commander (IC/UC)
- ❑ Provide guidance/clarification.

Operations:
- ❑ Be prepared!
- ❑ Brief current operations.
- ❑ Develop strategies, tactics, and resource needs using ICS-215.

Planning
- ❑ Facilitate meeting.
- ❑ Determine support requirements for ICS-215.
- ❑ Consider alternative strategies.

Logistics
- ❑ Participate/contribute logistics information as necessary.
- ❑ Verify support requirements.

Finance/Admin
- ❑ Not normally present.



Agenda:

1. Review the objectives for the next operational period and develop strategies (primary and alternatives).
2. Prepare a draft of ICS Form 215 (used in planning meeting) to identify resources that should be ordered through Logistics.

PREPARE FOR THE PLANNING MEETING - During this phase of the Planning Cycle, the Section Chiefs and their associated staff members begin the work of preparing for the upcoming Planning Meeting. Each Section Chief is responsible for ensuring that his/her planning Meeting responsibilities are met. The PSC should facilitate this to the greatest extent possible to ensure that the material, information, resources, etc., to be used or discussed in the Planning Meeting is organized and prepared. There are to be no surprises in the Planning Meeting.

When: After the Tactics Meetings
Facilitator: PSC

General Tasks

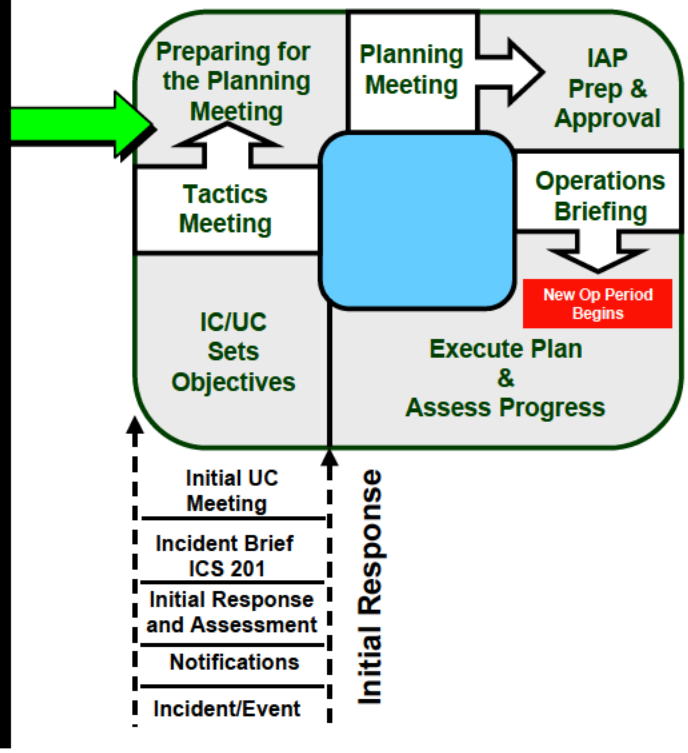
Incident Commander (IC/UC)
- ❑ Provide guidance/clarification.
- ❑ Monitor on-going operations.

Operations (OPS)
- ❑ Continue Operations.
- ❑ Prepare for Planning Meeting

Planning
- ❑ Facilitate General Staff and attendees' preparations for Planning Meeting.
- ❑ Publish/distribute meeting schedule and ensure attendees know roles.
- ❑ Allow no surprises.

Logistics
- ❑ Prepare for Planning Meeting.
- ❑ Verify support requirements.

Finance/Admin
- ❑ Prepare for Planning Meeting.
- ❑ Verify financial and administrative requirements.



PLANNING MEETING - This meeting defines incident objectives, strategies, and tactics and identifies resource needs for the next operational period. Depending on incident complexity, this meeting should last no longer than 45 minutes. This meeting fine tunes objectives and priorities, identifies and solves problems, and defines work assignments and responsibilities on a completed ICS Form 215 (Operations Planning Worksheet). Displays in the meeting room should include Objectives ICS Form 202 for the next period, large sketch maps or charts clearly dated and timed, a poster-sized ICS Form 215, a current resource inventory prepared by the Resource Unit, and current situation status displays prepared by the Situation Unit.

After the meeting, ICS Form 215 is used by the LSC to prepare the off incident tactical and logistical resource orders, and used by the PSC to develop IAP assignment lists.

When:	After the UC and Tactics Meetings
Facilitator:	PSC
Attendees:	Determined by IC/UC, generally IC/UC, Command Staff, General Staff, Air Operations Branch Director (Air Ops), the RUL, Safety Officer (SO), and Technical Specialists, as required.

General Tasks

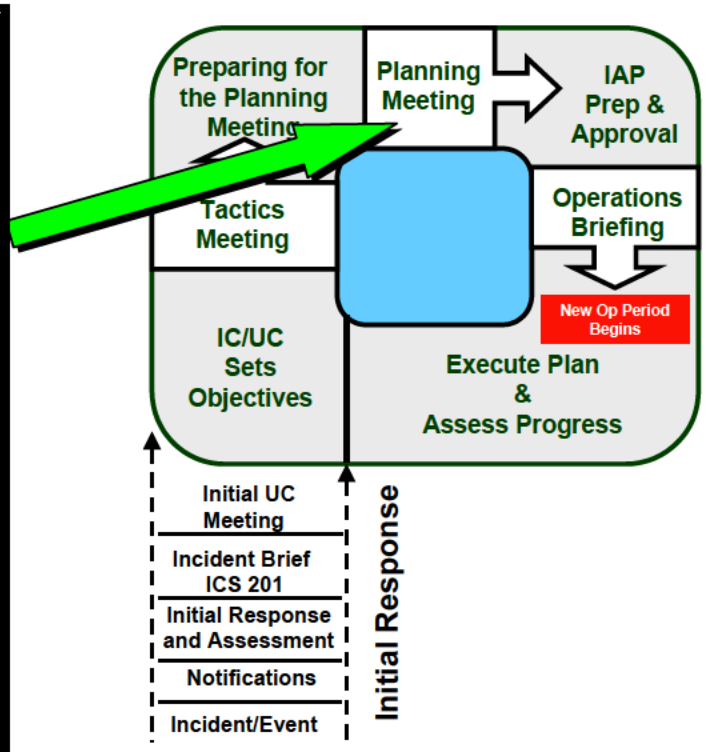
Incident Commander (IC/UC)
- ❑ Provide appropriate leadership.
- ❑ Brief incident objectives.

Operations (OPS)
- ❑ Brief operational strategies, and tactics using ICS-215, maps, charts, etc.
- ❑ Brief Branch/Division/Group functions and boundaries

Planning
- ❑ Facilitate Planning Meeting agenda.
- ❑ Brief present situation.
- ❑ Address/resolve response coordination issues as needed, gain consensus.

Logistics
- ❑ Brief logistical support and resource ordering status.

Finance/Admin
- ❑ Brief administrative and financial status/projections, etc.



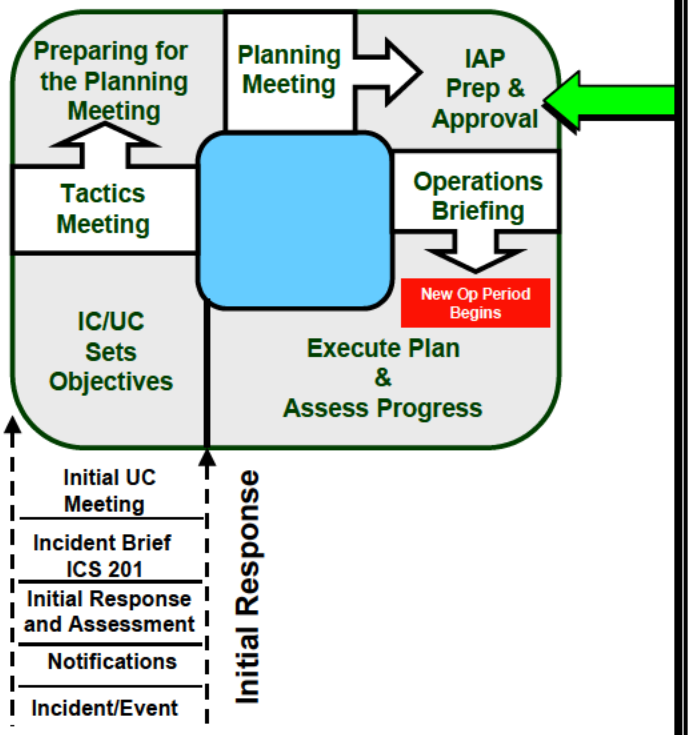
PLANNING MEETING (Cont'd)

	Agenda:	**Primary Responsibility**
1.	State incident objectives and Policy issues.	IC/UC
2.	Briefing of situation, critical and sensitive areas, weather/sea forecast, and resource status/availability.	SUL
3.	State primary and alternative strategies to meet objectives.	OPS
4.	Designate Branch, Division, and Group boundaries and functions as appropriate, use maps and ICS form 215.	OPS
5.	Specify tactics for each Division, note limitations.	OPS
6	Specify resources needed by Divisions/Groups.	OPS
7.	Specify operations facilities and reporting locations and plot on map.	OPS/LSC
8.	Develop resources, support, and overhead order (orders).	LSC
9.	Consider support: communications, traffic, safety, medical, etc.	LSC
10.	Contributing organization/agency considerations regarding work plan.	LO
11	Safety considerations regarding work plan.	SO
12	Media considerations regarding work plan.	IO
13.	Report on expenditures and claims.	F/ASC
14.	Finalize and approve work plan for the next operational period.	IC/UC

INCIDENT ACTION PLAN (IAP) PREPARATION - Attendees immediately prepare their assignments for the IAP to meet the PSC deadline for assembling the IAP components. The deadline will be early enough to permit timely IC/UC approval and duplication of sufficient copies for the Operations Briefing and for overhead.

When: Immediately following the Planning Meeting, the PSC assigns the deadline

Facilitator: PSC



General Tasks

Incident Commander (IC/UC)
- ❑ Review, approve and sign IAP

Operations (OPS)
- ❑ Provide required information for inclusion into IAP.
- ❑ Communicate incident status changes.

Planning
- ❑ Facilitate General Staff's IAP input.
- ❑ Ensure assignments and expectations are clear.
- ❑ Provide completed IAP to IC/UC for review/approval.
- ❑ Distribute completed IAP.

Logistics
- ❑ Provide logistics information for IAP.
- ❑ Verify resources ordered.

Finance/Admin
- ❑ Verify financial and administrative requirements for IAP.

Common Components	Primary Responsibility
1. Incident Objectives (ICS form 202).	Resources Unit
2. Organization List/Chart (ICS FORMS 203/207).	Resources Unit
3. Assignment List (ICS form 204).	Resources Unit
4. Communication Plan (ICS form 205).	Communications Unit
5. Medical Plan (ICS form 206).	Medical Unit
6. Incident Map.	Situation Unit
7. Safety Plan.	Safety Officer
8. Decontamination Plan.	Technical Unit
9. Waste Management or Disposal Plan.	Technical Unit

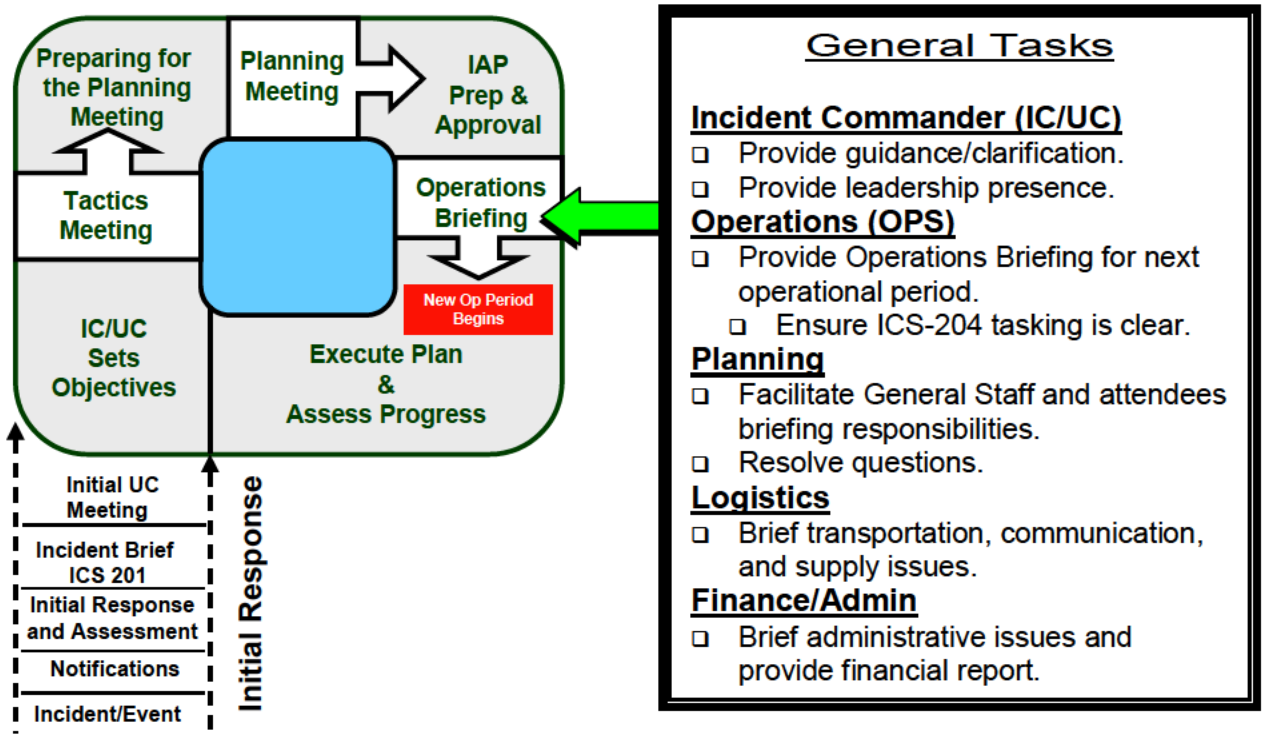
INCIDENT ACTION PLAN (IAP) PREPARATION (Cont'd)

Optional Components (use as pertinent):

1. Air Operations Summary (ICS form 220).	Air Operations Branch Director
2. Traffic Plan.	Ground Support Unit
3. Demobilization Plan.	Demobilization Unit

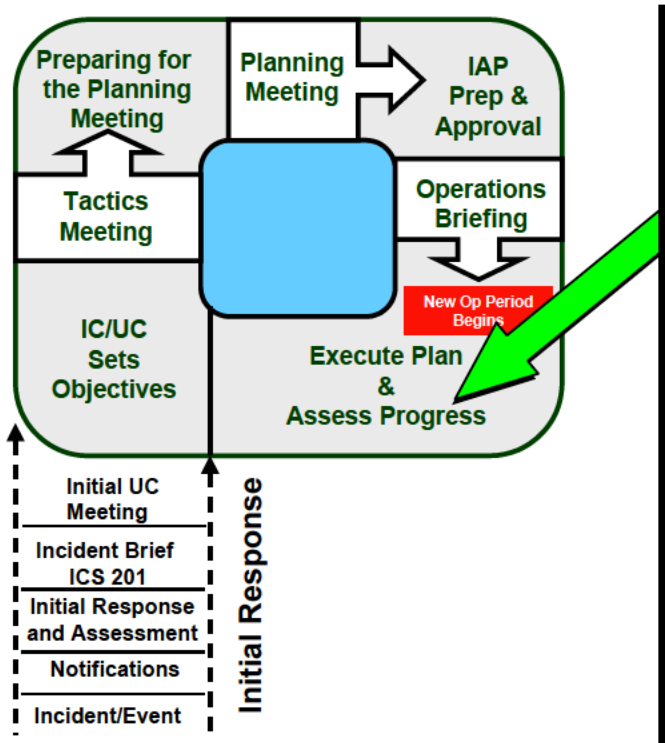
OPERATIONS BRIEFING - This 30-minute, or less, meeting presents the IAP to the oncoming shift of the response organization. After this meeting, off-going supervisors should be interviewed by their relief and by OPS in order to further confirm or adjust the course of the oncoming shift's IAP. Shifts in tactics may be made by the Division/Group supervisor in whose purview they are. Similarly, a supervisor may reallocate resources within that division to adapt to changing conditions.

When: About an hour prior to each shift change
Facilitator: PSC
Attendees: IC/UC, Command Staff, General Staff, Branch Directors, Division/Group Supervisors, Task Force/Strike Team Leaders (if possible), Unit Leaders, others as appropriate.



Agenda:	Primary Responsible
1. Review IC/UC objectives and changes to IAP.	PSC
2. Discuss current response actions and last shift's accomplishments.	OPS
3. Review weather and sea conditions forecast.	SUL
4. Division/Group and Air Operations assignment.	OPS
5. Trajectory analysis.	SUL
6. Transport, communications, and supply updates.	LSC
7. Safety message.	SO
8. Incident Action Plan (IAP) approval and motivational remarks.	IC/UC

ASSESS PROGRESS - Following the operation brief, all Section Chiefs will review the incident response progress and make recommendations to the IC/UC in preparation for the next UC Objective Meeting for the next operational period. This feedback/information is gathered from various sources, including Field Observers, responder debriefs, stakeholders, etc.



General Tasks

Incident Commander (IC/UC)
- ❑ Monitor on-going operations.
- ❑ Measure progress against stated objectives.
- ❑ Consider "Best Response."

Operations (OPS)
- ❑ Monitor on-going operations and make tactical changes as necessary.
- ❑ Measure/ensure progress against stated objectives.

Planning
- ❑ Facilitate General Staff's effectiveness and efficiency as appropriate.
- ❑ Provide response objectives recommendations to IC/UC.

Logistics
- ❑ Verify resources, resolve logistical problems.

Finance/Admin
- ❑ Facilitate smooth administrative and financial reporting.

SPECIAL PURPOSE MEETINGS

The **Special Purpose** meetings are most applicable to larger incidents requiring an **Operational Period Planning Cycle**, but may be useful during **Initial Response and Assessment**.

COMMAND STAFF MEETING - Coordinate Command Staff functions, responsibilities, and objectives. It is held before the Tactical Meeting. Command Staff (IC/UC, SO, LO, IO) attend.

COMMAND & GENERAL STAFF MEETING - An opportunity for the Command & General staffs to gather under informal conditions (breakfast/dinner) to discuss developing issues.

BUSINESS MANAGEMENT MEETING - This under-30-minute meeting develops and updates the operating plan for finance and logistical support. The agenda could include: documentation issues, cost sharing, cost analysis, finance requirements, resource procurement, and financial summary data. Attendees include: F/ASC, Cost Unit Leader (CUL), LSC, SUL, DUL.

AGENCY REPRESENTATIVE MEETING - This meeting is held to update Agency Representatives and ensure that they can support the IAP. It is conducted by the LO, and attended by Agency Representatives. It is most appropriately held after the Planning Meeting in order to announce plans for the next operational period. It allows for changes should the plan not meet the expectations of the Agency Representatives.

NEWS BRIEFING - This meeting briefs media and the public on the most current and accurate facts. It is set up by the IO, moderated by a UC spokesperson, and features selected spokespersons. This brief must be held away from the ICP. Spokespersons should be prepared by the IO to address anticipated issues. The briefing should be well-planned, organized, and scheduled to meet the media's needs.

NIMS ICS Forms

Another important aspect when implementing NIMS ICS during releases is the use of NIMS ICS forms. Regulatory response agencies will expect KMEP to recognize and apply NIMS ICS and forms during on water emergencies. Some of these response agencies may include:

- US Coast Guard
- Environmental Protection Agency
- Department of Ecology (Washington)
- Department of Fish and Game/Oil Spill Prevention and Response (California)
- Department of Environmental Quality (Oregon)
- Texas General Land Office (Texas)
- Texas Railroad Commission (Texas)

The following table provides a list of NIMS ICS forms to be used during an on-water release. Copies of these forms are also included.

NIMS ICS Forms		
ICS Form #	**Form Title**	**Prepared By**
ICS-201-OS	Incident Briefing	Incident Commander (IC)
ICS-202-OS	Response Objectives	Planning Section Chief (Planning)
ICS-203-OS	Organization Assignment List	Resources Unit Leader (Planning)
ICS-204-OS	Assignment List	Resources Unit Leader (Planning)
ICS-204a-OS	Assignment List Attachment	Resources Unit Leader (Planning)
ICS-205-OS	Incident Radio Communications Plan	Communications Unit Leader (Logistics)
ICS-205A-OS	Communications List	Communications Unit Leader (Logistics)
ICS-206-OS	Medical Plan	Medical Unit Leader (Logistics)
ICS-207-OS	Incident Organization Chart	Resources Unit (Planning)
ICS-209-OS	Incident Status Summary	Situation Unit Leader (Planning)
ICS-210-OS	Status Change Card	Communications Center (Logistics)
ICS-211	Check-In List	Resources Unit (Planning)
ICS-211e-OS	Check-In List (Equipment)	Resources Unit (Planning)
ICS211-p-OS	Check-In List (Personnel)	Resources Unit (Planning)
ICS-213-OS	General Message	Any message originator
ICS-214-OS	Unit Log	All sections and units
ICS-214a-OS	Individual Log	All sections and units
ICS-215-OS	Operational Planning Worksheet	Operations Section Chief (Operations)
ICS-216	Radio Requirements Worksheet	Communications Unit (Logistics)
ICS-217	Radio Frequency Assignment Worksheet	Communications Unit (Logistics)
ICS-218	Support Vehicle Inventory	Ground Support Unit (Logistics)
ICS-220-OS	Air Operations Summary	Operations Section Chief or Air Branch Director (Operations)
ICS-221 -OS	Demobilization Check-Out	Demobilization Unit (Planning)
ICS-230-OS	Daily Meeting Schedule	All sections and units
ICS-231-OS	Meeting Summary	All sections and units
ICS-232	Resources at Risk Summary	Situation Unit Leader (Planning)
ICS-232a-OS	ACP Site Index	Situation Unit Leader (Planning)

1. Incident Name	2. Operational Period to be covered by IAP (Date / Time) From: To:	IAP COVER SHEET

3. Approved by:

FOSC _____

SOSC _____

RPIC _____

_____ _____

_____ _____

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☐ ICS 202-OS (Response Objectives)
- ☐ ICS 203-OS (Organization List) - OR - ICS 207-OS (Organization Chart)
- ☐ ICS 204-OSs (Assignment Lists)
  One Copy each of any ICS 204-OS attachments:
  - ☐ Map
  - ☐ Weather forecast
  - ☐ Tides
  - ☐ Shoreline Cleanup Assessment Team Report for location
  - ☐ Previous day's progress, problems for location
- ☐ ICS 205-OS (Communications List)
- ☐ ICS 206-OS (Medical Plan)
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by: Date / Time

IAP COVER SHEET June 2000

Electronic version: NOAA 1.0 June 1, 2000

1. Incident Name	2. Prepared by: (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 1 of 4)

3. Map/Sketch (include maps drawn here or attached, showing the total area of operations, the incident site/area, overflight results, trajectories, Impacted shorelines, or other graphics depicting situational and response status)

INCIDENT BRIEFING	June 2000	ICS 201-OS (pg 1 of 4)

1. Incident Name	2. Prepared by: (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 2 of 4)

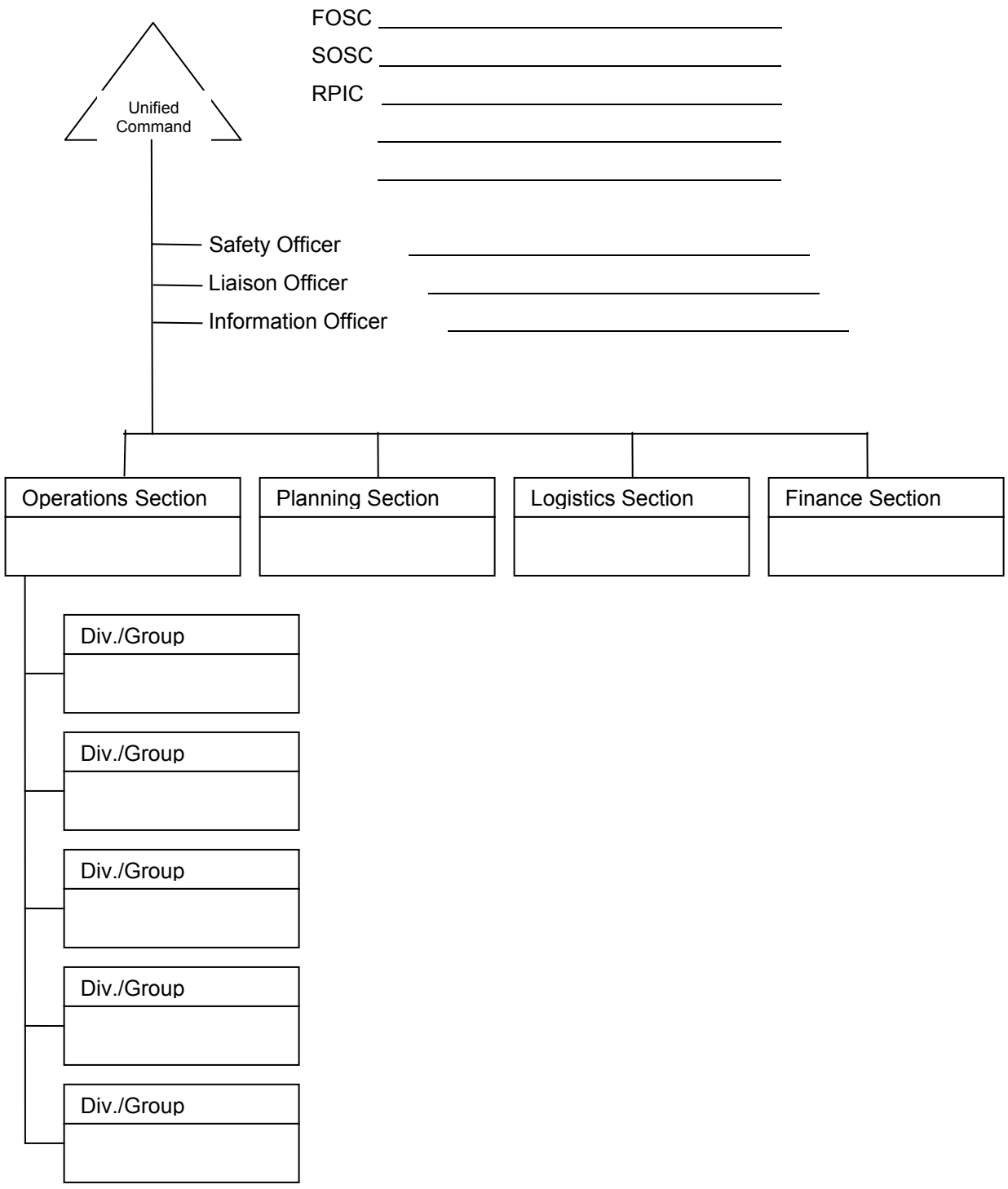
4. Initial Incident Objectives

5. Summary of Current Actions

Time	Action/Note

1. Incident Name	2. Prepared by: (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 3 of 4)

6. Current Organization



INCIDENT BRIEFING	June 2000	ICS 201-OS (pg 3 of 4)

1. Incident Name	**2. Prepared by:** (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 4 of 4)

7. Resources Summary

Resources Needed	Time Ordered	Resources Identifier	ETA	On-Scene? (X)	NOTES: (Location/Assignment/Status)

INCIDENT BRIEFING June 2000 ICS 201-OS (pg 4 of 4)

INSTRUCTIONS FOR COMPLETING THE INCIDENT BRIEFING (ICS FORM 201).

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Prepared By	Enter the name and position of the person completing the form and date time prepared (month, day, year).
3.	Map Sketch	Show perimeter and control lines, resources assignments, incident facilities, and other special information on a sketch map or attached to the topographic or orthophoto map.
4.	Initial Incident Objectives	Enter the initial incident objectives.
5.	Summary of Current Actions	Enter the strategy and tactics used on the incident and note any specific problem areas.
6.	Current Organization	Enter on the organization chart the names of the individuals assigned to each position. Modify the chart as necessary.
7.	Resources Summary	Enter the following information about the resources allocated to the incident.
	Resources Needed	Enter the number and type of resource needed.
	Time Ordered	Enter the time the resources needed were ordered.
	Resource Identification	Enter the agency three letter designator, S/T, Kind/Type and resource designator.
	ETA/On Scene	Enter the estimated arrival time and place the arrival time or a checkmark in the “on scene” column upon arrival.
	NOTES: (Location/ Assignment/Status)	Enter the assigned location of the resource and/or the actual assignment.
* NOTE		Additional pages may be added to ICS Form 201 if needed.

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT OBJECTIVES ICS 202-OS

3. Overall Incident Objective(s)

4. Objectives for specified Operational Period

5. Safety Message for Specified Operational Period

Approved Site Safety Plan Located at:

6. Weather **See Attached Weather Sheet**

7. Tides/Currents **See Attached Tide/Current Data**

8. Time of Sunrise **Time of Sunset**

9. Attachments (mark "X" if attached)

☐ Organization List (ICS 203-OS)	☐ Medical Plan (ICS 206-OS)	☐ Resource at Risk Summary (ICS 232-OS)
☐ Assignment List (ICS 204-OS)	☐ Incident Map(s)	☐ _____
☐ Communications List (ICS 205-OS)	☐ Traffic Plan	☐ _____

10. Prepared by: (Planning Section Chief) **Date/Time**

INCIDENT OBJECTIVES June 2000 ICS 202-OS

INSTRUCTIONS FOR COMPLETING THE INCIDENT OBJECTIVES (ICS FORM 202).

ITEM #	ITEM TITLE	INSTRUCTIONS
		NOTE: ICS Form 202, Incident Objectives, serves only as a cover sheet and is not considered complete until attachments are included.
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3.	Overall Incident Objective(s)	Enter short, clear, and concise statements of the objectives for managing the incident including alternatives.
4.	Objectives for Specified Operation Period	Enter short, clear, and concise statements of the objectives for the operational period.
5.	Safety Message for Specified Operation Period	Enter information such as known safety hazards and specific precautions to be observed during this operational period. If available, a safety message should be referenced and attached.
6.	Weather Forecast for Operational Period	Enter weather prediction information for the specified operational period.
7.	Tides/Currents	Enter tidal/current information for the specified operational period.
8.	Time of Sunrise/Sunset	Enter time of sunrise/sunset for the specified operational period.
9	Attachments	The form is ready for distribution when appropriate attachments are completed and attached to the form.
10.	Prepared By	Enter the name and position of the person (usually the Planning Section Chief) completing the form and the date/time prepared.

1. Incident Name	2. Operational Period (Date/Time) From: To:	ORGANIZATION ASSIGNMENT LIST ICS 203-OS

3. Incident Commander and Staff

	Primary	Deputy
Federal:		
State:		
RP(s):		
Safety Officer:		
Information Officer:		
Liaison Officer:		

4. Agency Representatives

Agency	Name

5. PLANNING SECTION

Chief	
Deputy	
Resources Unit	
Situation Unit	
Environmental Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION

Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Transportation Unit	
Vessel Support Unit	
Ground Support Unit	
b. Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION

Chief		
Deputy		
a. Branch I – Division Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division Group		
Division Group		
Division Group		
b. Branch II – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
c. Branch III – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
d. Air Operations Branch		
Air Operations Br. Dir		
Air Tactical Supervisor		
Air Support Supervisor		
Helicopter Coordinator		
Fixed Wing Coordinator		

8. FINANCE/ADMINISTRATION SECTION

Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit) **Date/Time**

ORGANIZATION ASSIGNMENT LIST June 2000 ICS 203-OS

INSTRUCTIONS FOR COMPLETING THE ORGANIZATION ASSIGNMENT LIST (ICS FORM 203).

ITEM #	ITEM TITLE	INSTRUCTIONS
		An Organization Assignment List may be completed any time the number of personnel assigned to the incident increase or decrease or a change in assignment occurs.
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3. thru 8.		Enter the names of personnel staffing each of the listed positions. Use at least first initial and last name. For Units indicate Unit Leader and for Divisions/Groups indicate Division/Group Supervisor. Use an additional page if more than three branches are activated.
9.	Prepared By	Enter the name of the Resources Unit member preparing the form and the date/time prepared. Attach form to the Incident Objectives.

1. Incident Name	2. Operational Period (Date/Time) From: To:	Assignment List ICS 204-OS
3. Branch	4. Division/Group	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor: _____

6. Resources Assigned This Period "X" indicates 204a attachment with special instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Notes/Remarks	▼
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Assignments

8. Special Instructions for Division/Group

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Pager

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared By (Resource Unit Leader	Date/Time	11. Approved By (Planning Section Chief)	Date/Time

ASSIGNMENT LIST June 2000 ICS 204-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-OS
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource Identifier	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions (if any) [Ops]

9. Special Equipment/Supplies Needed for Assignment (if any) [Ops]

10. Special Environmental Considerations (if any) [P.S.C.]

11. Special Site-Specific Safety Considerations (if any) [S.O.]

Approved Site Safety Plan Located at:

12. Other Attachments (as needed)

☐ **Map** ☐ **Shoreline Cleanup Assessment Team Report** ☐ _____

☐ **Weather Forecast** ☐ **Tides** ☐ _____

13. Prepared by: (Resources Unit Leader)

ASSIGNMENT LIST ATTACHMENT June 2000 ICS 204a-OS

INSTRUCTIONS FOR COMPLETING THE ASSIGNMENT LIST (ICS FORM 204).

ITEM #	ITEM TITLE	INSTRUCTIONS
		A separate sheet is used for each Division or Group. The identification letter of the Division is entered in the form title. Also enter the number (roman numeral) assigned to the Branch.
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3.	Branch	Enter the number (roman numeral) assigned to the Branch.
4.	Division/Group	Enter the identification letter of the Division and division/group name.
5.	Operations Personnel	Enter the name of the Operations Chief, applicable Branch.
6.	Resources Assigned Strike Team/Task Force/Resource Designator	List resource designators, leader name, and total number of personnel for strike teams, task forces, or single resources assigned.
7.	Assignments	Provide a statement of the tactical objectives to be achieved within the operational period. Include any special instructions for individual resources.
8.	Special Instructions	Enter statement calling attention to any safety problems or specific precautions to be exercised or other important information.
9.	Communications	The Communications Unit provides this information on the form for radios, phone and pager numbers. Also include Emergency numbers in this section.
9.	Prepared By	Enter the name and position of the person completing the form (usually the Planning Section Chief) and date/time prepared.
10.	Approved By	Enter the name and position of the person approving the form (usually the Incident Commander) and date/time approved.

1. Incident Name	2. Operational Period (Date / Time) From: To:	INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-OS

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMAKRS

4. Prepared by: (Communications Unit) **Date / Time**

INCIDENT RADIO COMMUNICATIONS PLAN June 2000 ICS 205-OS

1. Incident Name	2. Operational Period (Date / Time) From: To:	COMMUNICATIONS LIST ICS 205A-OS

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

COMMUNICATIONS LIST June 2000 ICS 205a-OS

INSTRUCTIONS FOR COMPLETING THE INCIDENT RADIO COMMUNICATIONS PLAN (ICS FORM 205).

ITEM #	ITEM TITLE	INSTRUCTIONS
		A separate sheet is used for each Division or Group. The identification letter of the Division is entered in the form title. Also enter the number (roman numeral) assigned to the Branch.
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3.	Basic Radio Channel Utilization System/Cache	Enter the radio cache system(s) assigned and used on the incident (e.g., Boise Cache, FIREMARS, Region 5 Emergency Cache, etc.).
	Channel Number	Enter the radio channel numbers assigned.
	Function	Enter the function each channel number is assigned (i.e., command, support, division tactical, and ground-to-air).
	Frequency	Enter the radio frequency tone number assigned to each specified function (e.g., 153.400).
	Assignment	Enter the ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations.
4.	Prepared By	Enter the name and position of the person completing the form (usually the Communication Unit Leader) and date/time prepared.

1. Incident Name	2. Operational Period (Date / Time) From: To:	MEDICAL PLAN ICS 206-OS

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

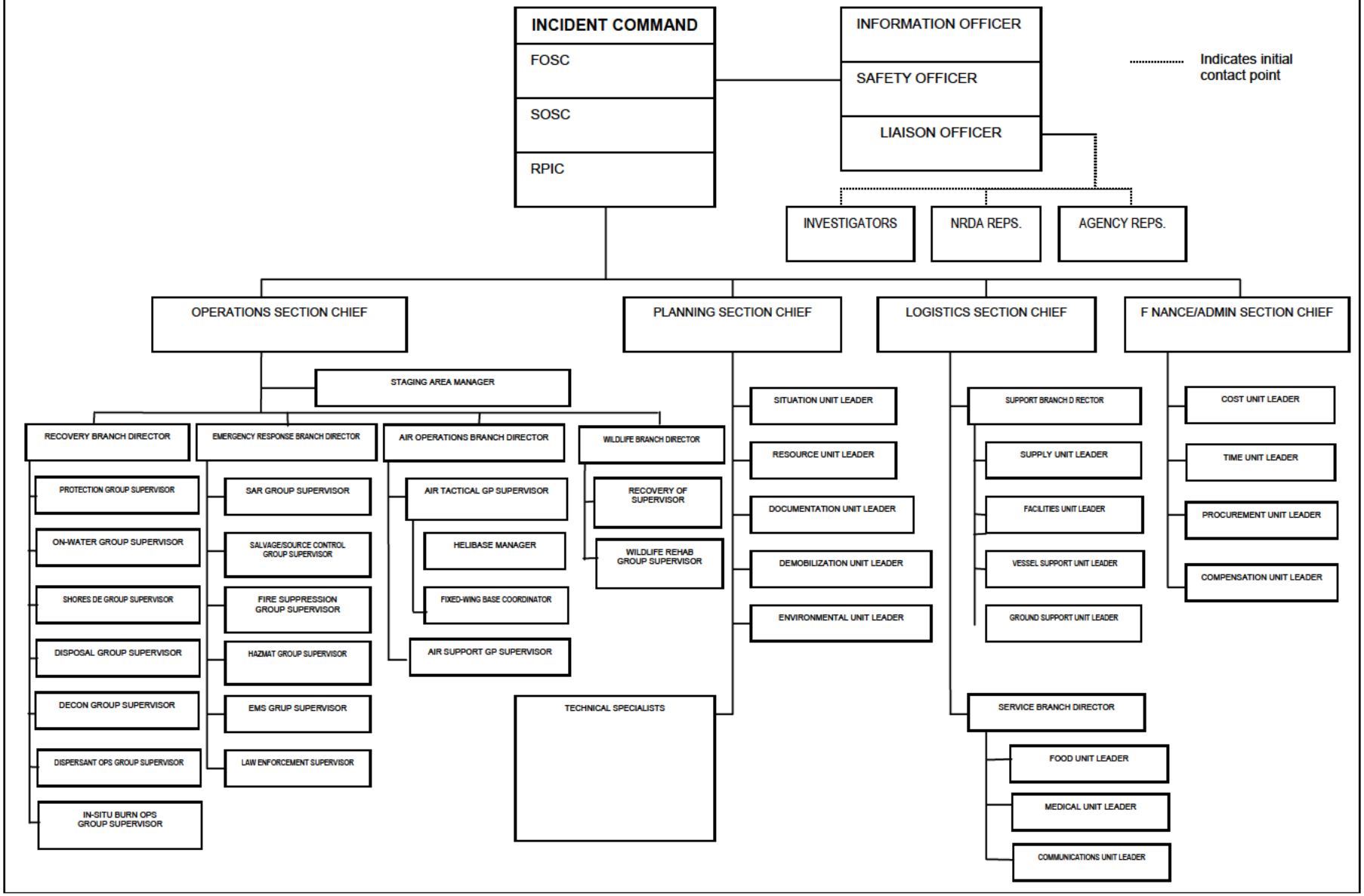
7. Prepared by: (Medical Unit Leader) Date/Time	8. Reviewed by: (Safety Officer) Date/Time

MEDICAL PLAN June 2000 ICS 206-OS

INSTRUCTIONS FOR COMPLETING THE MEDICAL PLAN (ICS FORM 206).

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3.	Medical Aid Stations	Enter name and location of incident medical aid stations and indicate if paramedics are located at the site.
4.	Transportation	List name and address of ambulance services. Provide phone number and indicate if ambulance company has paramedics.
5.	Hospitals	List hospitals which could serve this incident. Incident name, address, the travel time by air and ground from the incident to the hospital, phone number, and indicate with an X if the hospital is a burn center and has a helipad.
6.	Medical Emergency Procedures	Note any special emergency instructions for use by incident personnel.
9.	Prepared By	Enter the name of the Medical Unit Leader preparing the form and date/time prepared.
10.	Reviewed By	Obtain the name of the Safety Officer who must review the plan (usually the Incident Commander) and date/time reviewed.

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT ORGANIZATION CHART ICS 207-OS



INSTRUCTIONS FOR COMPLETING THE INCIDENT ORGANIZATIONAL CHART (ICS FORM 207).

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
	Organizational Chart	Enter the names of personnel staffing each of the listed positions. Use at least first initial and last name.

1. Incident Name	2. Operational Period (Date/Time) From: To:	Time of Report	INCIDENT STATUS SUMMARY ICS 209-OS

3. Spill Status (Estimated, in Barrels) [Ops & EUL/SSC]

Source Status: Remaining Potential (bbl): _____

☐ Secured Rate of Spillage (bb/hr): _____

☐ Unsecured

	Since Last Report	Total
Volume Spilled		
Mass Balance/Oil Budget		
Recovered Oil		
Evaporation		
Natural Dispersion		
Chemical Dispersion		
Burned		
Floating, Contained		
Floating, Uncontained		
Onshore		
Total spilled oil accounted for:		

4. Waste Management (Estimated) [Ops/Disposa]

	Recovered	Stored	Disposed
Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

5. Shoreline Impacts (Estimated, in miles) [PSC/EUL/SSC]

Degree of Oiling	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

6. Wildlife Impacts [Ops/Wildlife Br.]

	Numbers in () indicate subtotal that are threatened/endangered species.				Died in Facility	
	Captured	Cleaned	Released	DOA	Euth.	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

7. Safety Status [Safety Officer]

	Since Last Report	Total
Responder Injury		
Public Injury		

8. Equipment Resources [RUL]

Description	Ordered	Available/ Staged	Assigned	Out of Service
Spill Resp. Vsls				
Fishing Vessels				
Tugs				
Barges				
Other Vessels				
Skimmers				
Boom (ft.)				
Sbnt/Snr Bm. (ft.)				
Vacuum Trucks				
Helicopters				
Fixed Wing				

9. Personnel Resources [RUL]

Description	People in Cmd. Post	People in the Field	Total People On Scene
Federal			
State			
Local			
RP			
Contract Personnel			
Volunteers			
Total Response Personnel from all Organizations:			

10. Special Notes

11. Prepared by: (Situation Unit Leader)

INSTRUCTIONS FOR COMPLETING THE INCIDENT STATUS SUMMARY (ICS FORM 209).

1. Incident Name	2. Operational Period (Date / Time) From: To:	STATUS CHANGE ICS 210-OS
3. Personnel / Resource Name or I.D.		
4. New Status ☐ Available / Staged ☐ Assigned _____ ☐ Out of Service		
5. FROM Location or Status	6. TO Location or Status	
7. Time of Location / Status Change		
8. Comments		
9. Prepared by:	Date / Time	
10. Processed by: (Resource Unit)	Date / Time	

STATUS CHANGE June 2000 ICS 210-OS

INSTRUCTIONS FOR COMPLETING THE STATUS CHANGE CARD (ICS FORM 210).

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3.	Personnel/Resources Name ID	Enter the appropriate designator for the kind of resource
4.	Status	Determine the current status of the resource. If item is assigned, enter the location it is assigned to. If out-of-service status is checked, enter the time when the resource will return to service (ETR).
5.	From Location or Status	Enter location where resource came from. When more than one Division, Staging Area, or Camp is used, identify the specific location.
6.	To Location or Status	Enter the assigned location of the resource. When more than one Division, Staging Area, or Camp is used, identify the specific location.
7.	Time of Location/Status Change	Enter the time (24-hour clock) and the location of the status change.
8.	Comments	Enter any special information provided by the resource or dispatch center such as individual designators of strike teams and task forces.
9.	Prepared By	Enter the name and position of the person preparing the form and date/time prepared.
10.	Processed By	Enter the name of the Resource Unit Leader who will process the form and date/time processed.

CHECK-IN LIST	1 INCIDENT NAME	2 CHECK-IN LOCATION ____BASE ____CAMP ____ ____STAGING AREA ____ICP RESOURCES ____HELIBASE	3 DATE/TIME

CHECK-IN INFORMATION

4. LIST PERSONNEL (OVERHEAD) BY AGENCY & NAME – OR - LIST EQUIPMENT BY THE FOLLOWING FORMAT: AGENCY	SINGLE T/F S/T	KIND	TYPE	ID. NO./NAME	5 ORDER/ REQUEST NUMBER	6 DATE/TIME CHECK-IN	7 LEADER'S NAME	8 TOTAL NO PERSONNEL	9 MANIFEST YES	9 MANIFEST NO	10 CREW WEIGHT OR INDIVIDUAL WEIGHT	11 HOME BASE	12 DEPARTURE POINT	13 METHOD OF TRAVEL	14 INCIDENT ASSIGNMENT	15 OTHER QUALIFICATION	16 SENT TO RESOURCES TIME/INT

17 ICS 211 PAGE ____ of ____	18 PREPARED BY (NAME AND POSITION) USE BACK FOR REMARKS OR COMMENTS

1. Incident Name	2. Operational Period (Date / Time) From: To:	3. Check-in Location ☐ Command Post ☐ Other ☐ Staging Area	CHECK-IN LIST (Equipment) ICS 211e-OS

Equipment Check-in Information					9. Initial Incident Check-In?	10. Time	
4. Equipment Description	5. Equipment Identifier	6. Supplier/Owner	7. Assignment	8. Contact Information	(X)	In	Out
					☐		
					☐		
					☐		
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11. Prepared by:	Date / Time	12. Date / Time Sent to Resources Unit

CHECK-IN LIST (Equipment) June 2000 ICS 211e-OS

1. Incident Name	2. Operational Period (Date / Time) From: To:	3. Check-in Location ☐ Command Post ☐ Other ☐ Staging Area ____ ____	**CHECK-IN LIST (Personnel)** **ICS 211p-OS**

Personnel Check-in Information				8. Initial Incident Check-In?	9. Time	
4. Name	5. Company/Agency	6. ICS Section / Assignment / Quals.	7. Contact Information	(X)	In	Out
				☐		
				☐		
				☐		
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10. Prepared by: Date / Time	11. Date / Time Sent to Resources Unit

CHECK-IN LIST (Personnel) June 2000 ICS 211p-OS

INSTRUCTIONS FOR COMPLETING THE CHECK-IN LIST (ICS FORM 211).

ITEM #	ITEM TITLE	INSTRUCTIONS
		Incident Dispatchers, upon receipt of a check-in message by radio, record the information on the Check-in List (ICS Form 211) and then give the information to the Resources Unit.
		Resources Unit Recorders, upon receipt of information on an in-person check in, record the information directly onto the Check-in List form.
1.	Incident Name	Print the name assigned to the incident.
2.	Check-in Location	Place a check mark in the appropriate box indicating where the resource or person checked in at the incident.
3.	Date/Time Prepared	Enter date (month, day, year) and time prepared (24-hour clock).
4.	List Personnel (Overhead) by Agency & Name	Use this section to list agency three-letter designator and individual names for all overhead (supervisory) personnel. When listing equipment, use three-letter designator, indicate if resource is a single resource, task force or strike team; enter kind or resource (letter for single resources, Number 1-3 for Strike Team); enter type of resource (1-4), and designated identification number.
5.	Order/Request Number	Order number will be assigned by Agency dispatching the resources or personnel to the incident.
6.	Date/Time Check In	Self explanatory.
7.	Leader's Name	Self explanatory.
8.	Total Number Personnel	Enter total number of personnel in strike teams, task forces or manning single resources. Include leaders.
9.	Manifest	Indicate if a manifest was prepared.
10.	Crew Weight or Individual's Weight	Self Explanatory.
11.	Home Base	Location at which the resource/individual is normally assigned. (May not be departure location.)
12.	Departure Point	Location from which resource/individual departed for this incident.
13.	Method of Travel	Means of travel to incident (bus, truck, engine, personal vehicle, etc.)
14.	Incident Assignment	Assignment at time of dispatch.
15.	Other Qualifications	List any other ICS position the individual has been trained to fill.
16.	Sent to	Enter initials and time that the information pertaining to that entry was sent to the Resources Unit.
17.	Page	Indicate page number and number of pages being used for Check-In at this location.
18.	Prepared By	Enter name of Check-In Recorder.

1. Incident Name	2. Date and Time of Message	GENERAL MESSAGE ICS 213-OS
3. TO:	ICS Position	
4. FROM:	ICS Position	
5. Subject:		
6. Message		
7 Reply		
8. Signature/Position (person replying)	Date/Time of reply	
GENERAL MESSAGE	June 2000	ICS 213-OS

INSTRUCTIONS FOR COMPLETING THE GENERAL MESSAGE (ICS FORM 213)

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date	List the date and time.
3.	To	Indicate Unit/Person the General Message is intended for. Be specific.
4.	From	Indicate appropriate designation and location of sender.
5.	Subject	Fill in if applicable.
6.	Message	Briefly complete. Think through your message before writing it down. Try to be as concise as possible.
7.	Reply	This section is intended to be used by the Unit/Person who receives the message to reply to your message.
8.	Signature/Position	Record signature and title of person replying.
9.	Date	Record the date and time of reply.
	White Copy/Pink Copy	Both copies are sent by person who initiates the message.
	Yellow Copy	Retained by the person who initiates the message.
	Pink Copy	May be returned to the person who initiates the message.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-OS
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	INDIVIDUAL LOG ICS 214a-OS
3. Individual Name	4. ICS Section	5. Assignment/Location

6. Activity Log		Page of
Time	Major Events	

7. Prepared by:	Date/Time

INDIVIDUAL LOG	June 2000	ICS 214a-OS

INSTRUCTIONS FOR COMPLETING THE UNIT LOG (ICS FORM 214)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3.	Unit Name	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter the name and title of the person approving the log. Provide log to immediate supervisor at the end of each operational period.

1. Incident Name	2. Operational Period (Date/Time) From: To:	OPERATIONAL PLANNING WORKSHEET ICS 215-OS

3. Division/ Group or Location	4. Work Assignments	5. Resource/Equipment													9. "X" here if 204a Needed			
		Resource													6. Notes/Remarks	7. Reporting Location	8. Requested Arrival Time	
		Req.																
		Have																☐
		Need																
		Req.																
		Have																☐
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		Have																☐
		Need																
		Req.																
		Have																☐
		Need																
10. Total Resources Required															13. Prepared by:			
11. Total Resources On Hand																		
12. Total Resources Needed															Date		Time	

OPERATIONAL PLANNING WORKSHEET June 2000 ICS 215-OS

INSTRUCTIONS FOR COMPLETING THE OPERATIONAL PLANNING WORKSHEET (ICS FORM 215)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start time and end time and include date(s).
3.	Division/Group or Location	Enter the Division letter or location of the work assignment for the resources.
4.	Work Assignments	Enter the specific work assignments given to each of the Divisions.
5.	Resource	Complete resource headings, both for kind and type appropriate for the incident. Enter, for the appropriate resources, the number of resources by type (engines, crew, etc.) required "REQ", and the number of resources available "HAVE" to perform the work assignment. Then record the number of resources needed "NEED" by subtracting the number in the "HAVE" row from the number in the "REQ" row.
6.	Notes/Remarks	Enter any special information.
7.	Reporting Location	Enter the specific location the "needed" resources are to report for the work assignment (staging area, location on the fire line, etc.)
8.	Requested Arrival Time	Enter time resources are requested to arrive at the reporting location.
9.	204a needed	Enter "X" if a 204a is needed for the resource.
10. thru 12.	Total Resources Required, On Hand, Ordered	Enter the total number of resources by type (engines, crews, dozers, etc.) required, on hand, and ordered.
13	Prepared By	Record the name and position of the person completing the form and the date/time completed.

RADIO REQUIREMENTS WORKSHEET			1. INCIDENT NAME			2. DATE			3. TIME		
4. BRANCH			5. AGENCY			6. OPERATIONAL PERIOD			7. TACTICAL FREQUENCY		
8. DIVISION/GROUP AGENCY			DIVISION/ GROUP AGENCY			DIVISION/ GROUP AGENCY			DIVISION/ GROUP AGENCY		
9. AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS
216 ICS 3-82			PAGE			10. PREPARED BY (COMMUNICATIONS UNIT)					

INSTRUCTIONS FOR COMPLETING THE RADIO REQUIREMENTS WORKSHEET (ICS FORM 216)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date	Enter date (month, day, year) prepared.
3.	Time Prepared	Enter time prepared (24-hour clock).
4.	Branch	Enter the Branch number (I, II, etc.) for which radio requirements are being prepared.
5.	Agency	Enter the three-letter designator of the agency staffing the Branch Director position (e.g., VNC, CDF, ANF, LFD, etc.)
6.	Operational Period	Enter the time interval for which the assignment applies. Record the start date/time and end date/time.
7.	Tactical Frequency	Enter the radio frequency to be used by the Branch Director to communicate with each Division/Group Supervisor in the Branch.
8.	Division/Group	Enter for each Division/Group in the Branch the Division/Group identifier (A, B, etc.) and the agency assigned (e.g., LAC, VNC, etc.)
9.	Agency/ID No./Radio Requirements	List all units assigned to each Division/Group. Record the agency designator, unit or resource identification, and total number of radios needed for each unit or resource.
10.	Prepared By	Enter the name and position of the person completing the worksheet.

RADIO FREQUENCY ASSIGNMENT WORKSHEET

1 INCIDENT NAME	2 DATE	3 OPERATIONAL PERIOD (DATE/TIME) From:

4 INCIDENT ORGANIZATION / 5 RADIO DATA				BRANCH	DIVISION	DIVISION	DIVISION	BRANCH	DIVISION	DIVISION	DIVISION	BRANCH	DIVISION	DIVISION	DIVISION	INCIDENT COMMAND	SAFETY OFFICER	OPERATIONS SECTION CHIEF	AIR OPERATION	AIR TACTICAL SUPERVISOR	PLANNING SECTION CHIEF	GROUND SUPPORT UNIT	BASE UNIT							COMM. CENTER	TOTAL BY REQ
SOURCE	FUNCTION	CH#	FREQUENCY																													
6 AGENCY ID		CH#	FREQUENCY																													
7 TOTAL RADIOS REQUIRED																																
217 ICS																									8 PREPARED BY (NAME/POSITION)								

INSTRUCTIONS FOR COMPLETING THE RADIO FREQUENCY ASSIGNMENT WORKSHEET (ICS FORM 217)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date	Enter date (month, day, year) prepared.
3.	Operational Period	Enter the time interval for which the assignment applies. Record the start date/time and end date/time.
4.	Incident Organization	List frequencies allocated for each channel for each organizational element activated, record the number of radios required to perform the designated function on the specified frequency.
5.	Radio Data	For each radio cache and frequency assigned, record the associated function. Functional assignments are: Command Support Division tactical Ground-to-air
6.	Agency	List the frequencies for each major agency assigned to the incident. Also list the function and channel number assigned.
7.	Total Radios Required	Total each column. This provides the number of radios required by each organizational unit. Also total each row which provides the number of radios using each available frequency.
8.	Prepared By	Enter the name and position of the person completing the worksheet.

SUPPORT VEHICLE INVENTORY (USE SEPARATE SHEET FOR EACH VEHICLE CATEGORY)	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

VEHICLE INFORMATION

a. TYPE	b. MAKE	c. CAPACITY/SIZE	d. AGENCY/OWNER	e. I.D. NO.	f. LOCATION	g. RELEASE TIME

218 ICS 8-78	PAGE	5. PREPARED BY (GROUND SUPPORT UNIT)

INSTRUCTIONS FOR COMPLETING THE SUPPORT VEHICLE INVENTORY (ICS FORM 218)

ITEM#	ITEM TITLE	INSTRUCTIONS
		a. The Ground Support Unit Leader may prefer to use separate sheets for each type of support vehicle (e.g., buses, pickups, and food tenders). b. More than one line may be used to record information on each vehicle. If this is done, separate individual vehicle entries with a heavy line. c. Several pages may be used. When this occurs, number the pages consecutively (in the page number box at bottom of the form).
1.	Incident Name	Print the name assigned to the incident.
2.	Date Prepared	Enter date (month, day, year) prepared.
3.	Time Prepared	Enter time prepared (24-hour clock).
4.	Vehicle Information	Record the following vehicle information:
	Type	a. Specific vehicle type (e.g., bus, stakeside, etc.).
	Make	b. Vehicle manufacturer name (e.g., GMC, International).
	Capacity/Size	c. Vehicle capacity/size, (e.g., 30-person bus, 3/4-ton truck).
	Owner	d. Owner of vehicle (agency or private owner).
	ID Number	e. Serial or other identification number.
	Location	f. Location of vehicle.
	Release Time	g. Time vehicle is released from the incident.
	Page	Enter page number.
5.	Prepared By	Enter the name of the person completing the form.

1. Incident Name	2. Operational Period (Date / Time) From: To:	AIR OPERATIONS SUMMARY ICS 220-OS

3. Distribution

☐ Fixed-Wing Bases _____ ☐ Hel base _____

4. Personnel and Communications

	Air Operations Director	Air / Air Frequency	Air / Ground Frequency
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. Location / Function	7. Assignment	8. Fixed-Wing		9. Helicopter		10. Time		11. Aircraft Assigned	12. Operating Base
		NO.	TYPE	NO.	TYPE	Available	Commence		
	13. TOTALS								

14. Air Operation Support Equipment

15. Prepared by **Date / Time**

AIR OPERATIONS SUMMARY June 2000 ICS 220-OS

Instructions for Completing Air Operations Summary Worksheet (ICS Form 220)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the assignment applies. Record the start date/time and end date/time.
3.	Distribution	Check the block and enter the time and date when ICS Form 220 and attachments were sent to all fixed-wing bases and helibases supporting the incident.
4.	Personnel and Communications	Enter the name of the individuals in Air Operations and the primary air/air and air/ground (if applicable) radio frequencies to be used.
5.	Remarks	Enter special instructions or information, including safety notes, hazards, and priorities for Air Operations personnel.
6.	Location/Function	Enter area on incident where air resources will be assigned (i.e., Div. A, Branch II, Standby) or function (i.e., Air Tactical Group Supervisor, Situation Unit, MEDIVAC, etc.) to which they will be assigned.
7.	Assignment	Enter the specific assignment (e.g., water or retardant drops, logistical support, or availability status for a specific purpose, support backup, recon, MEDIVAC, etc.). If applicable, enter the primary air/air and air/ground radio frequency to be used.
8.	Fixed-Wing	Enter the number and type (1, 2, or 3) of air tankers allocated to the location/function.
9.	Helicopters	Enter the number and type of helicopters allocated to the location/function.
10.	Time Available/Commence	As applicable, enter the time (24-hour clock), when allocated air resources should be available and when they should commence their assignment.
11.	Aircraft Assigned	Enter the designators of the aircraft assigned. Gather information from Resources Unit, helibases, and fixed- wing bases.
12.	Operating Base	Enter the base (helibase, helispot, fixed-wing base) that each air resource is expected to initiate operations from.
13.	Totals	Enter the total number of fixed-wing and helicopters assigned to the incident in the number columns. Enter the total number of each type air tanker and helicopter assigned in Type column.
14.	Air Operations Support	Enter the designators and location of other support resources (i.e., helicopter support units, engines, IR, etc.) assigned to Air Operations.
15.	Prepared By	Enter the name of the person in Air Operations completing the form. Enter the date and time form was completed.

1. Incident Name	2. Operational Period (Date / Time) From: To:	DEMOB. CHECK-OUT ICS 221-OS
3. Unit / Personnel Released	4. Release Date / Time	

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. Unit Leader "X" appropriate box(es))

Logistics Section

☐ Supply Unit _____

☐ Communications Unit _____

☐ Facilities Unit _____

☐ Ground Unit _____

Planning Section

☐ Documentation Unit _____

Finance / Admin. Section

☐ Time Unit _____

Other

☐ _____ _____

☐ _____ _____

☐ _____ _____

6. Remarks

_____

_____

_____

_____

7. Prepared by: **Date / Time**

DEMOB. CHECK-OUT June 2000 ICS 221-OS

INSTRUCTIONS FOR COMPLETING THE DEMOBILIZATION CHECKOUT (ICS FORM 221).

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name/No.	Print the name and/or number assigned to the incident.
2.	Date/Time	Enter date and time prepared.
3.	Unit/Personnel Released	Enter appropriate vehicle or Strike Team/Task Force ID. Number(s) and Leader's name or individual overhead or staff personnel being released.
4.	Release Date/Time	Enter date time of appropriate vehicle or Strike Team/Task Force ID. Number(s) and Leader's name or individual overhead or staff personnel being released.
5.	Unit/Personnel	Demobilization Unit Leader will identify with a check in the box to the left of those units requiring check-out. Identified Unit Leaders are to initial to the right to indicate release. Blank boxes are provided for any additional check (unit requirements as needed), i.e., Safety Officer, Agency Representative, etc.
6.	Remarks	Any additional information pertaining to demobilization or release.
7.	Prepared by:	Enter the name of the person completing the form. Enter the date and time form was completed.

1. Incident Name	2. Operational Period (Date/Time) From: To:	DAILY MEETING SCHEDULE ICS 230-OS

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
	Tactics Meeting	Develop primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OPS, LSC, EUL, RUL & SUL	
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period.	Determined by the IC/UC	
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command Staff, General Staff, Branch Directors, Div. Sups., Task Force/Strike Team Leaders and Unit Leaders	
	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	

4. Prepared by: (Situation Unit Leader) **Date/Time**

DAILY MEETING SCHEDULE June 2000 ICS 230-OS

INSTRUCTIONS FOR COMPLETING THE DAILY MEETING SCHEDULE (ICS FORM 230-OS)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Meeting Schedule	For each scheduled meeting, enter the date/time, meeting name, purpose, attendees, and location. Note: Commonly-held meetings are included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of the standard meetings are not scheduled, they should be deleted from the form (normally the Situation Unit Leader).
4.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Meeting Date/Time	MEETING SUMMARY ICS 231-OS
3. Meeting Name		
4. Meeting Location		
5. Facilitator		
6. Attendees		
7. Notes (with summary of decisions and action items)		
8. Prepared by:	Date/Time	

MEETING SUMMARY June 2000 ICS 231-OS

INSTRUCTIONS FOR COMPLETING THE MEETING SUMMARY (ICS FORM 231-OS)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Enter the name assigned to the incident.
2.	Meeting Date/Time	Enter date and time of meeting.
3.	Meeting Name	Enter name of meeting.
4.	Meeting Location	Enter location of meeting.
5.	Facilitator	Enter the name and position of the meeting facilitator.
6.	Attendees	List the personnel who need to attend the meeting.
7.	Notes	List a summary of decisions and action items addressed in the meeting.
8.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	RESOURCES AT RISK SUMMARY ICS 232-OS

3. Environmentally-Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

5. Prepared by: (Environmental Unit Leader) **Date/Time**

RESOURCES AT RISK SUMMARY June 2000 ICS 232-OS

Electronic version: NOAA 1.0 June 1, 2000

1. Incident Name	2. Operational Period (Date/Time) From: To:	ACP Site Index ICS 232a-OS

3. Index to ACP/GRP sites shown on Situation Map

Site #	Priority	Site Name and/or Physical Location	Action	Status

Note: This form is designed to be posted next to the situation map. Use additional sheets, as needed.

4. Prepared by: **Date/Time**

ACP Site Index June 2000 ICS 232a-OS

INSTRUCTIONS FOR COMPLETING THE RESOURCES AT RISK SUMMARY (ICS FORM 232-OS)

ITEM#	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Environmentally-Sensitive Area and Wildlife Issues Site Number	Enter site number, priority as it is related to degree of sensitivity, site location, and description. Use the Narrative section to clarify any issues.
	Priority Site Name and/or Physical Location Site Issues	Can come from an Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or can be created during an incident. Priority specific to this incident.
4.	Archaeo-cultural and Socio-economic Issues	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.). Environmental concerns associated with this site and season. Enter name and position of person preparing form, and the date and time prepared. Normally would be the Environmental Unit Leader.
	Site Number Priority Site Name and/or Physical Location Site Issues	Can come from an ACP/GRP or can be created during an incident. Priority specific to this incident. Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.). Archaeo-cultural or socio-economic concerns associated with this site and season.
5.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

REGULATORY CROSS REFERENCE

Page

Regional / Area Breakdown ..... Cross Reference-2

U.S. DOT/PHMSA 49 CFR Part 194 ..... Cross Reference-5

U.S. EPA – OPA 90 ..... Cross Reference-8

U.S. Coast Guard 33 CFR 154 ..... Cross Reference-11

California Code of Regulations ..... Cross Reference-18
(Title 14 Division 1, Subdivision 4, Chapter 3 Subchapter 3, Sections 817)

Oregon Department of Environmental Quality ..... Cross Reference-23

Agency Jurisdiction

The multi-volume approach of developing this Plan has been selected to facilitate the use of these plans by the responder and the overall response organization. These regulatory cross references are provided to facilitate regulatory reviews of this series of plans.

It must be understood that NOT ALL OF THE REGULATIONS addressed in this Cross Reference section apply to all of the facilities/operations covered by this Plan.

	US DOT	US EPA	USCG	CAL OSPR	OR DEQ
Volume 1	●	●	●	●	●
Volume 2 - Northern Region - Bay					
§1 - §5	●	●	●	●	
Richmond/Brisbane Area					
§6 Pipeline Sections	●				
§7 Breakout Stations	●				
§8 Brisbane Terminal		●			
Concord Area					
§6 Pipeline Sections	●				
§7 Breakout Stations	●				
Richmond Terminal					
§6 Pipeline Sections	●				
§7 Breakout Stations	●				
§8 Richmond Terminal		●	●	●	
San Jose Area					
§6 Pipeline Sections	●				
§7 Breakout Stations	●				
§8 San Jose Terminal		●			
Northern Region - Bay - OSPR Jurisdictional Line Segments					
§9 OSPR Line Segments				●	
Volume 2 - Northern Region - California/Nevada					
§1 - §5	●	●		●	
Reno Area					
§6 Pipeline Sections	●				
§7 Breakout Stations	●				
§8 Reno Terminal		●			
Chico Rocklin Area					
§6 Pipeline Sections	●				
§7 Breakout Stations	●				
§8 Chico Terminal		●			
Sacramento Area					
§6 Pipeline Sections	●				
§7 Breakout Stations	●				
§8 Bradshaw Terminal		●			
Northern Region - California/Nevada - OSPR Jurisdictional Line Segments					
§9 OSPR Line Segments				●	

	US DOT	US EPA	USCG	CAL OSPR	OR DEQ
Volume 2 - Northern Region - Central					
§1 - §5	•	•			
Fresno Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Fresno Terminal		•			
Volume 2 - Northern Region - Northwest					
§1 - §5	•	•	•		•
Oregon Pipelines Area					
§6 Pipeline Sections	•				•
§7 Breakout Stations	•				•
§8 Eugene Terminal		•			•
Willbridge-Linnton Area					
§6 Pipeline Sections	•				•
§7 Breakout Stations	•				•
§8 Linnton Terminal		•	•		•
§8 Willbridge Terminal		•	•		•
Northern Region - Northwest- ODEQ Jurisdictional Line Segments					
§9 ODEQ Line Segments					•
Volume 2 - Southern Region - East					
§1 - §5	•	•			
El Paso Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
Imperial Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Imperial Terminal		•			
Phoenix Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Phoenix Terminal		•			
Tucson Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Tucson Terminal		•			

	US DOT	US EPA	USCG	CAL OSPR	OR DEQ
Volume 2 - Southern Region - Central					
§1 - §5	•	•		•	
Barstow Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Barstow Terminal		•			
Colton Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Colton South Terminal		•			
Las Vegas Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Las Vegas Terminal		•			
Volume 2 - Southern Region - West					
§1 - §5	•	•	•	•	
Carson Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Carson Terminal		•			
§8 LA Harbor Terminal		•	•	•	
Mission Valley Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Mission Valley Terminal		•			
Watson Area					
§6 Pipeline Sections	•				
§7 Breakout Stations	•				
§8 Orange Terminal		•			
Southern Region - West - OSPR Jurisdictional Line Segments					
§9 OSPR Line Segments				•	

DOT/PHMSA 49 CFR Part 194 Final Rule - January 5, 1993		
§ 194.105	**BRIEF DESCRIPTION**	**SECTION**
(a)	... determine the worst case discharge ... provide methodology, including calculations, used to arrive at the volume.	V2: § 6.0, 7.0
(b)	The worst case discharge is the largest volume, in barrels, of the following:	-----
(b)(1)	... maximum release time in hours, plus the maximum shutdown response time in hours, multiplied by the maximum flow rate expressed in barrels per hour, plus the largest line drainage volume after shutdown of the line section(s) ...	V2: § 6.0
(b)(2)	The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventative action taken.	V2: § 6.0
(b)(3)	If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels.	V2: § 6.0, 7.0
§ 194.107	**BRIEF DESCRIPTION**	**SECTION**
(a)	Each response plan must plan for resources for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge.	V1: §§ 3.5, 3.9; V2: § 3.0, 6.0, 7.0
(b)	Each response plan must be written in English ...	-----
8	Each response plan must be consistent with the NCP and each applicable ACP. An operator must certify that it has reviewed the NCP and each applicable ACP and that the response plan is consistent with the existing NCP and each existing applicable ACP.	V1: § 1.5
(d)	Each response plan must include:	-----
(d)(1)	A core plan consisting of --	-----
(d)(1)(i)	An information summary as required in ' 194.113.	V1: § 1.1, 1.2
(d)(1)(ii)	Immediate notification procedures.	V1: § 2.0
(d)(1)(iii)	Spill detection and mitigation procedures.	V1: § 2.0.1, 3.4, 3.9
(d)(1)(iv)	The name, address, and telephone number of the oil spill response organization, if appropriate.	V2: § 2.2, Figure 2.1
(d)(1)(v)	Response activities and response resources.	V1: § 3.4; V2: § 3.0, Figures 3.1, 3.2, 3.3
(d)(1)(vi)	Names and telephone numbers of Federal, state, and local agencies which the operator expects to have pollution control responsibilities or support.	V1: § 2.0; V2: § 2.0
(d)(1)(vii)	Training procedures.	V1: § 1.8
(d)(1)(viii)	Equipment testing.	V2: § 3.1, 3.2, 3.3, Figure 3.3
(d)(1)(ix)	Drill types, schedules, and procedures.	V1: § 1.8
(d)(1)(x)	Plan review and update procedures.	V1: § 1.7
(d)(2)	An appendix for each response zone. Each response zone appendix must include the information required in paragraph (d)(1)(i) to (ix) of this section that is specific to the response zone and the worst case discharge calculations.	V1: § 1.0, 2.0, 3.0; V2: § 1.3, 6.0

DOT/ PHMSA 49 CFR Part 194 (Cont'd) Final Rule - January 5, 1993		
§ 194.113	**BRIEF DESCRIPTION**	**SECTION**
(a)	The information summary for the core plan, required by ' 194.107, must include:	-----
(a)(1)	The name and address of the operator.	V1: § 1.1; V2: § 1.1
(a)(2)	For each response zone which contains one or more line sections that meet the criteria for determining significant and substantial harm as described in ' 194.103, a listing and description of the response zones, including county(s) and state(s).	V1: § 1.2; V2: § 1.2
(b)	The information summary for the response zone appendix, required in ' 194.107, must include:	-----
(b)(1)	The information summary for the core plan.	V2: § 1.1, 1.2
(b)(2)	The name and telephone number of the qualified individual available on a 24-hour basis.	V1: § 1.1, Figures 2.3a, 2.3b
(b)(3)	The description of the response zone, including county(s) and state(s), for those zones in which a worst case discharge could cause substantial harm to the environment.	V2: § 1.1, 1.2
(b)(4)	A list of line sections for each pipeline contained in the response zone, identified by milepost or survey station number, or other operator designation.	V2: § 1.2
(b)(5)	The basis for the operator's determination of significant and substantial harm.	V2: § 1.3
(b)(6)	The type of oil and volume of the worst case discharge.	V2: § 1.3
§ 194.115	**BRIEF DESCRIPTION**	**SECTION**
(a)	Each operator shall identify and ensure, by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.	V2: § 3.0, Figures 3.1, 3.2
(b)	An operator shall identify in the response plan the response resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge.	V2: § 3.0, Figures 3.1, 3.2
§ 194.117	**BRIEF DESCRIPTION**	**SECTION**
(a)	Each operator shall conduct training to ensure that:	-----
(a)(1)	All personnel know --	-----
(a)(1)(I)	Their responsibilities under the response plan	V1: § 1.8
(a)(1)(ii)	The name and address of, and the procedure for contacting, the operator on a 24-hour basis	V1: § 2.1
(a)(1)(iii)	The name of, and procedures for contacting, the qualified individual on a 24-hour basis	V1: § 2.1
(a)(2)	Reporting personnel know --	-----
(a)(2)(I)	The content of the information summary of the response plan.	V1: § 2.1
(a)(2)(ii)	The toll-free telephone number of the National Response Center	V1: Figure 2.4
(a)(2)(iii)	The notification process	V1: § 2.1
(a)(3)	Personnel engaged in response activities know --	-----
(a)(3)(I)	The characteristics and hazards of the oil discharged	V1: § 3.1, 3.14

DOT/ PHMSA 49 CFR Part 194 (Cont'd) Final Rule - January 5, 1993		
§ 194.117	**BRIEF DESCRIPTION**	**SECTION**
(a)(3)(ii)	The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions.	V1: § 3.8
(a)(3)(iii)	The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage	V1: § 3.9
(a)(3)(iv)	The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus	V1: § 3.1, 3.4
(b)	Each operator shall maintain a training record for each individual that has been trained as required by this section. Theses records must be maintained in the following manner as long as the individual is assigned duties under the response plan	-----
(b)(1)	Records for operator personnel must be maintained at the operator's headquarters	V1: § 1.8
(b)(2)	Records for personnel engaged in response, other than operator personnel, shall be maintained as determined by the operator.	V1: § 1.8
(b)(3)	Nothing in this section relieves an operator from the responsibility to ensure that all response personnel are trained to meet the OSHA standards for emergency response operations in 29 CFR 1910.120 ...	V1: § 1.8

U.S. EPA - OPA 90 *40 CFR Part 112.20 (h) and Appendix F*			
40 CFR § 112.20 (h)	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**SECTION**
-----	1.0	***Model Facility-Specific Response Plan***	-----
(1)	1.1	***Emergency Response Action Plan***	-----
(1)(i)		1. Qualified Individual Information	V1: § 1.1, Figures 2.3a, 2.3b
(1)(ii)		2. Emergency Notification Phone List	V1: Figures 2.3a, 2.3b, 2.3c, 2.4
(1)(iii)		3. Spill Response Notification Form	V1: Figure 2.2
(1) (iv)		4. Response Equipment List and Location	V2: § 3.0, Figures 3.1, 3.2, 3.3
-----		5. Response Equipment Testing and Deployment	V2: § 3.0
(1) (v)		6. Facility Response Team	V1: § 3.6
(1) (vi)		7. Evacuation Plan	V2: ERAP, § 8.4, Figure 8.6
(1) (vii)		8. Immediate Actions	V1: § 3.4; V2: ERAP - Initial Response Actions
(1) (viii)		9. Facility Diagram	V2: ERAP – Figure 8.3
(2)	1.2	***Facility Information***	-----
	1.2.1	Facility name and location	V2: Figures 1.3, 8.1, 8.2
	1.2.2	Latitude and Longitude	V2: Figure 8.1
	1.2.3	Wellhead Protection Area	V2: Figure 8.1
	1.2.4	Owner/operator	V2: Figure 8.1
	1.2.5	Qualified Individual	V2: Figures 2.2, 8.1
	1.2.6	Date of Oil Storage Start-up	V2: Figure 8.1
	1.2.7	Current Operation	V2: Figure 8.1
	1.2.8	Dates and Types of Substantial Expansion	V2: Figure 8.1
(3)	1.3	***Emergency Response Information***	-----
(3) (iii)	1.3.1	Notification	V1 & V2: § 2.0
(3) (i)	1.3.2	Response Equipment List / Location	V1: § 3.4; V2: § 3.0, Figures 3.1, 3.2, 3.3
(3) (ii)	1.3.3	Response Equipment Testing/Deployment	V1: § 3.4; V2: § 3.0, Figures 3.1, 3.2, 3.3
(3) (vi)	1.3.3	Response Equipment Testing/Deployment	V1: § 3.4; V2: § 3.0, Figures 3.1, 3.2, 3.3
(3) (i)	1.3.4	Personnel	V1: Figures 2.3a, 2.3b, 2.3c
(3) (iv)	----	A description of information to pass to response personnel	Figure 2.4
(3) (v)	----	A description of response personnel capabilities, including:	-----
	----	• duties of persons at the Facility during a response action	V1: Figures 3.2a, 3.2b, 3.3a, 3.3b, 3.3c, 3.3d, 3.4
	----	• response times and qualifications...	V1: § 1.8, §4.0
(3) (ii)	----	• Evidence of Contractual Arrangements	V2: Figure 3.3
(3) (vii)	1.3.5	Evacuation Plan / Diagrams	V2: § 8.4, Figure 8.6
(3) (viii)	1.3.5	Evacuation Plan / Diagrams	V2 § 8.4, Figure 8.6:
-----	1.3.6	Qualified Individual's Duties	V1: Figure 4.1

U.S. EPA - OPA 90 *40 CFR Part 112.20 (h) and Appendix F (Cont'd)*			
40 CFR § 112.20 (h)	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**SECTION**
(3) (ix)	-----	A description of the duties of the qualified individual that include	-----
(3) (ix) (A)	-----	Activate internal alarms and hazard communications systems	V1: Figure 4.1
(3) (ix) (B)	-----	Notify all response personnel, as needed	V1: Figure 4.1
(3) (ix) (C)	-----	Identify the character, exact source, amount, and extent of release	V1: Figure 4.1
(3) (ix) (D)	-----	Notify and provide necessary information to the appropriate Federal, State, and local authorities	V1: Figure 4.1
(3) (ix) (E)	-----	Assess the interaction of the spilled substance with water and/or other substances stored at the Facility	V1: Figure 4.1
(3) (ix) (F)	-----	Assess the possible hazards to human health and environment	V1: Figure 4.1
(3) (ix) (G)	-----	Assess and implement prompt removal actions	V1: Figure 4.1
(3) (ix) (H)	-----	Coordinate rescue and response actions	V1: Figure 4.1
(3) (ix) (I)	-----	Use authority to immediately access company funding	V1: Figure 4.1
(3) (ix) (J)	-----	Direct cleanup activities until properly relieved	V1: Figure 4.1
(4)	1.4	***Hazard Evaluation***	-----
	1.4.1	Hazard Identification	V1: § 3.1, 3.14, V2: § 8.2.1
	1.4.2	Vulnerability Analysis	V1: § 3.1, 3.14, V2: § 3.4, § 8.2.3
	1.4.3	Analysis of the Potential for an Oil Spill	V1: § 3.1, 3.14, V2: § 8.2.4
	1.4.4	Facility Reportable Oil Spill History	V2: § 8.2.5
(5)	1.5	***Discharge Scenarios***	-----
(5) (ii)	1.5.1	Small and Medium Discharges	V2: § 8.3
(5) (iii)	1.5.2	Small and Medium Discharges	V2: § 8.3
(5) (i)	1.5.3	Worst Case Discharge	V2: § 8.3
(6)	1.6	***Discharge Detection Systems***	-----
	1.6.1	Discharge Detection by Personnel	V2: § 8.2.1
(3) (ix) (A)	1.6.2	Automated Discharge Detection	V2: § 8.2.1
(7)	1.7	***Plan Implementation***	-----
(7) (i)	1.7.1	Response actions to be carried out by facility personnel or contracted personnel, Response Resources for Small, Medium, and Worst Case Spills	V1: § 3.9
(7) (iii)	1.7.2	Disposal Plans	
(7) (iv)	1.7.3	Containment and Drainage Planning	V2: § 8.2, Figure 8.5

U.S. EPA - OPA 90 *40 CFR Part 112.20 (h) and Appendix F (Cont'd)*			
40 CFR § 112.20 (h)	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**SECTION**
(8)	1.8	***Self-Inspection, Drills/Exercises, and Response Training***	-----
(8) (i)	1.8.1	Facility Self-Inspection	V2: § 8.2.2
(8) (i)	1.8.1.1	Tank Inspection / Secondary Containment	V2: § 8.2.2
(8) (i)	1.8.1.2	Response Equipment Inspection	V2: § 3.1
(8) (ii)	1.8.2	Facility Drills/Exercises	V1: § 1.8
(8) (iv)	1.8.2.1	Qualified Individual Notification Drill Log	V1: § 5.0
(8) (iv)	1.8.2.2	Crisis Management Team Tabletop Exercise Log	V1: § 5.0
(8) (iii)	1.8.3	Response Training	V1: § 1.8
(8) (iv)	1.8.3.1	Personnel Response Training Log	V1: § 5.0
(8) (iv)	1.8.3.2	Discharge Prevention Meeting Log	V1: § 5.0
(9)	1.9	***Diagrams***	-----
		(1) Site Plan Diagram	V2: Figure 8.3
		(2) Site Drainage Plan Diagram	V2: Figure 8.4
		(3) Site Evacuation Plan Diagram	V2: Figure 8.6
(10)	1.10	***Security***	V2: § 8.2.1
(11)	2.0	***Response Plan Cover Sheet***	V2: §8.11, Figure 8.1
-----	3.0	***Acronyms***	Glossary of Terms/ Acronyms
40 CFR § 112.21	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**SECTION**
(a)	1.8.2	Develop a training and drill program that satisfies the requirements of this section	V1: § 1.8
(b)	1.8.3	Develop a facility response training program to train personnel involved in response activities.	V1: § 1.8
(b)(1)	1.8.3	Proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations`	V1: § 1.8
(b)(2)	1.8.3	Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel	V1: § 1.8
(b)(3)	1.8.2	Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup	V1: § 1.8
(c)	1.8.2	Develop a program of facility response drills/exercises, including evaluation procedures. Can follow PREP.	V1: § 1.8

U.S. COAST GUARD 33 CFR 154 *FINAL RULE – July 1, 2010*		
§ 154.1030	**BRIEF DESCRIPTION**	**SECTION**
(a)	The plan must be written in English.	Entire Plan
(b)	A response plan must be divided into sections	---
(b)(1)	Introduction and plan contents.	V1 & V2: § 1.0
(b)(2)	Emergency response action plan:	---
(b)(2)(i)	Notification procedures.	V1 & V2: § 2.0
(b)(2)(ii)	Facility's spill mitigation procedures.	V1: § 3.4
(b)(2)(iii)	Facility's response activities.	V1: § 3.4
(b)(2)(iv)	Fish and wildlife and sensitive environments.	V2: § 3.4, 8.2.3
(b)(2)(v)	Disposal plan.	V2: § 5.0
(b)(3)	Training and Exercises:	---
(b)(3)(i)	Training procedures.	V1: § 1.8
(b)(3)(ii)	Exercise procedures.	V1: § 1.8
(b)(4)	Plan review and update procedures.	V1: § 1.7
(b)(5)	Appendices.	---
(b)(5)(i)	Facility-specific information.	V2: § 8.0, Figure 8.1
(b)(5)(ii)	List of contacts.	V1: Figures 2.3a, 2.3b, 2.3c, 2.4; V2: Figure 2.1
(b)(5)(iii)	Equipment lists and records.	V2: § 3.0
(b)(5)(iv)	Communications plan	V2: § 3.8
(b)(5)(v)	Site-specific safety and health plan.	V1: § 3.13, Figure 3.7
(b)(5)(vi)	List of acronyms and definitions.	Glossary of Terms/Acronyms
(b)(5)(vii)	A geographic-specific appendix ... mobile facility operates.	---
(c)	... contained in § 154.1035, 154.1040, and 154.1041, as appropriate.	---
(d)	...information required in § 154.1035, 154.1040, and 154.1041...	---
(e)	... cross-reference ...	V1: Cross Reference
(f)	... be consistent with the NCP and ACP ...	V1: § 1.5
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
	Introduction and plan content.	V1 & V2: § 1.0
	The Facility's name, street address, city, county, state, ZIP code, Facility telephone number, and tele-facsimile number, if so equipped...	V2: Figure 8.1
	The Facility's location ...	V2: Figures 8.1, 8.2
	... name, address, and procedures ... owner or operator ... 24-hour basis.	V2: Figure 8.1
	A table of contents.	V1 & V2: Table of Contents
	... cross index	V1: Cross Reference
	A record of change(s) to record information and plan updates.	V1 & V2: Revision Record
(b)	Emergency Response Action Plan...	---
(b)(1)	Notification procedures.	V1 & V2: § 2.0

U.S. COAST GUARD 33 CFR 154 *FINAL RULE – July 1, 2010 (Cont'd)*		
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
(b)(1)(i)	... a prioritized list identifying the person(s) ... to be notified of a discharge or substantial threat of a discharge of oil ...	V1: Figures 2.1a thru 2.1e, 2.3a, 2.3b, 2.3c, 2.4; V2: Figure 8.1
(b)(1)(i)(A)	Facility response personnel, and spill management team, oil spill removal organizations, and the qualified individual(s) ...	V1: Figures 2.3a, 2.3b, 2.3c; V2: Figure 8.1
(b)(1)(i)(B)	Federal, State, or local agencies, as required.	V1: Figure 2.4; V2: Figure 2.1
(b)(1)(ii)	... a form, ... which contains information to be provided in the initial and follow-up notifications to Federal, State, and local agencies ...	V1: Figure 2.2
(b)(2)	Facility's spill mitigation procedures.	V1: § 3.4, V2: § 8.3
(b)(2)(i)	..describe the volume(s) and oil groups..	V2: § 8.3
(b)(2)(i)(A)...(D)	...discharges from the MTR Facility ... non-transportation related...	V2: § 8.3
(b)(2)(ii)	... must contain prioritized procedures for Facility personnel to mitigate or prevent any discharge or substantial threat of a discharge of oil ...	V1: V2: § 8.3 2.1, Figure 2.1, 3.4, V2: § 8.3
(b)(2)(ii) (A)..(G)	... Typical scenarios....	V2: § 8.3
(b)(2)(iii)	... a listing of equipment and the responsibilities of Facility personnel to mitigate an average most probable discharge.	V1: § 3.4; V2: § 3.0, Figures 3.1, 3.2, 3.3
(b)(3)	Facility's response activities.	---
(b)(3)(i)	... a description of the Facility personnel's responsibilities ... pending the arrival of the qualified individual.	V1: Figure 3.2a
(b)(3)(ii)	... a description of the responsibilities and authority of the qualified individual and alternate as required in § 154.1026.	V1: Figure 4.1
(b)(3)(iii)	... describe the organizational structure that will be used to manage the response actions, including ...	V1: Figures 3.3a, 3.3b, 3.3c, 3.3d
(b)(3)(iii)(A)..(H)	Command and control...Public Information...Safety... Liaison...Operations...Planning...Logistics...Finance.	V1: Figures 4.1 through 4.9
(b)(3)(iv)	... identify the oil spill removal organization(s) and the spill management team ...	V1: Figures 2.3a, 2.3b, 2.3c; V2: Figure 2.1, Figure 3.3, Figure 8.1
(b)(3)(iv)(A)	Be capable of providing the following response resources:	---
(b)(3)(iv)(A)(1)	Equipment and supplies to meet...§154.1045, §154.1047 or...	V2: Figure 2.1, § 3.1
(b)(3)(iv)(A)(2)	Trained personnel necessary to continue operation...first 7 days of the response.	V1: Figures 2.3a, 2.3b, 2.3c, 2.4; V2: Figure 2.1, Figure 3.3, Figure 8.1
(b)(3)(v)	...job descriptions for each spill management team member...	V1: § 4.3
(b)(3)(vi) (b)(3)(vi)(A) through (D)	For facilities that handle, store or transport Group II through IV petroleum oils and that operate in waters where dispersant use is pre-authorized ...	N/A
(b)(3)(vii)	This subsection of the plan must also separately list resource providers and separate resources necessary to provide aerial oil tracking capabilities required in this subpart…	---
(b)(3)(vii)(A)	The identification of a resource provider; and	V2: Figures 2.1 and 3.3
(b)(3)(vii)(B)	Type and location of aerial surveillance aircraft that are ensured available, through contract or other approved means, to meet the oil tracking requirements of 33 CFR 154.1045(j).	V2: Figure 3.3

U.S. COAST GUARD 33 CFR 154 *FINAL RULE – July 1, 2010 (Cont'd)*		
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
(b)(3)(viii)	For mobile facilities that operate in more than one COTP zone …	N/A
(b)(3)(ix)	For mobile facilities that operate in more than one COTP zone …	N/A
(b)(4)	Fish and wildlife and sensitive environments.	---
(b)(4)(i)	This section of the plan must identify areas of economic importance and environmental sensitivity, as identified in the ACP, which are potentially impacted by a worst case discharge. ACPs are required under section 311(j)(4) of the FWPCA to identify fish and wildlife and sensitive environments. The applicable ACP shall be used to designate fish and wildlife and sensitive environments in the plan. Changes to the ACP regarding fish and wildlife and sensitive environments shall be included in the annual update of the response plan, when available.	V2: § 3.4, 4.0, 8.2.3
(b)(4)(ii)	For a worst case discharge from the facility, this section of the plan must—	---
(b)(4)(ii)(A)	List all fish and wildlife and sensitive environments identified in the ACP which are potentially impacted by a discharge of persistent oils, non-persistent oils, or non-petroleum oils.	V2: § 3.4, 4.0, 8.2.3
(b)(4)(ii)(B)	Describe all the response actions that the facility anticipates taking to protect these fish and wildlife and sensitive environments.	V2: § 3.4, 8.2.3
(b)(4)(ii)(C)	Contain a map or chart showing the location of those fish and wildlife and sensitive environments ...	V2: § 3.4
(b)(4)(iii)	For a worst case discharge, ... identify appropriate equipment and required personnel to protect these areas...	V2: § 8.3
(b)(4)(iii)(A)	Identify the appropriate equipment and required personnel to protect all fish and wildlife and sensitive environments ...	V2: § 4.0, § 6.0
(b)(4)(iii)(B)	Calculate the distances required by paragraph (b)(4)(iii)(A) of this section by selecting one of the methods described in this paragraph; (*1*) Distances may be calculated as follows:	V2 NR-Bay & SR-West: § 8.6 V2 NR-NW: § 8.4
(b)(4)(iii)(B)(2)	A spill trajectory or model may be substituted for distances...	---
(b)(4)(iii)(B)(3)	The procedures contained in the Environmental Protection Agency's regulations...may be substituted for distances...	---
(b)(4)(iii)(C)	Based on historical information or a spill trajectory or model, the COTP may require the additional fish and wildlife and sensitive environments also be protected.	---
(b)(5)	*Disposal Plan.* This subsection must describe any actions to be taken or procedures to be used to ensure that all recovered oil and oil contaminated debris produced as a result of any discharge are disposed according to Federal, state, or local requirements.	V2: § 5.0
(c)	*Training and exercises. To be divided into the following subsections:*	---
(c)(1)	*Training procedures. ..must describe the training procedures …*	V1: § 1.8
(c)(2)	*Exercise procedures. ... must describe the exercise program ...*	V1: § 1.8

U.S. COAST GUARD 33 CFR 154 *FINAL RULE – July 1, 2010 (Cont'd)*		
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
(d)	Plan review and update procedures. ... address the procedures ...	V1: § 1.7
(e)	Appendices. ...must include appendices described...	---
(e)(1)	Facility-specific information.. ... principal characteristics ...	---
(e)(1)(i)	There must be a physical description of the Facility...	V2: Figure 8.1
(e)(1)(ii)	...must identify the sizes, types, and number of vessels...	V2: Figure 8.1
(e)(1)(iii)	...must identify the first valve(s) ...inside the secondary containment...	V2: Figure 8.3
(e)(1)(iv)	...must contain information on the oil(s) and hazardous material...	V1: § 3.14
(e)(1)(iv)(A)	The generic or chemical name	V1: Figure 3.8
(e)(1)(iv)(B)	A description of the appearance and odor	V1: Figure 3.8
(e)(1)(iv)(C)	The physical and chemical characteristics	V1: Figure 3.8
(e)(1)(iv)(D)	The hazards involved in handling the oil(s) and hazardous...	V1: Figure 3.8
(e)(1)(iv)(E)	A list of firefighting procedures and extinguishing agents...	V1: Figure 3.8
(e)(1)(v)	The appendix may contain any other information which the Facility owner or operator determines to be pertinent...	---
(e)(2)	List of contacts...	---
(e)(2)(i)	The primary and alternate qualified individual(s) for the Facility;	V1: § 1.1, Figures 2.3a, 2.3b, V2: Figure 8.1
(e)(2)(ii)	The contact(s) ... for activation of the response resources; and	V1: § 2.1; V2: § 2.2, Figure 8.1
(e)(2)(iii)	Appropriate Federal, State, and local officials.	V1: § 2.2; V2: § 2.1
(e)(3)	Equipment list and records. ... must include ...	---
(e)(3)(i)	...list of equipment ... average most probable	V2: § 3.1. § 8.3
(e)(3)(ii)	...detailed listing of all the major equipment identified in the plan as belonging to an oil spill removal organization(s)...	V2: Figure 3.3
(e)(3)(iii)	It is not necessary to list response equipment from oil spill removal organization(s) ... classified by the Coast Guard ... When it is necessary ... the list must include for each piece of equipment -	---
(e)(3)(iii)(A)	The type, make, model, and year of manufacture ... of the equipment;	V2: Figure 3.3
(e)(3)(iii)(B)	For oil recovery devices, the effective daily recovery rate ...	V2: Figure 3.3
(e)(3)(iii)(C)	For containment boom, ...height and type of end connectors;	V2: Figure 3.3
(e)(3)(iii)(D)	The spill scenario in which the equipment will be used ...	V2: Figure 3.3
(e)(3)(iii)(E)	The total daily capacity for storage and disposal of recovered oil;	V2: Figure 3.3
(e)(3)(iii)(F)	For communication equipment, the type and amount of equipment ...	V2: Figure 3.3
(e)(3)(iii)(G)	Location of the equipment; and	V2: Figure 3.3
(e)(3)(iii)(H)	The date of the last inspection by the oil spill removal organization(s).	V2: Figure 3.3
(e)(4)	Communications plan ...	V2: § 3.8
(e)(5)	Site-specific safety and health plan ...	V1: § 3.13, Figure 3.7
(e)(6)	List of acronyms and definitions ...	Glossary of Terms/ Acronyms

U.S. COAST GUARD 33 CFR 154 *FINAL RULE –July 1, 2010 (Cont'd)*		
§154.1045	**BRIEF DESCRIPTION**	**SECTION**
(a)	...Facility that handles...Group I through Group IV petroleum oils..	---
(a)(1)	..criteria in Table 1 ...identification of appropriate equipment..	---
(a)(2)	...resources must be evaluated...including, but not limited to -	---
(a)(2)(i)...(v)	Ice conditions; Debris; ... other appropriate....	---
(a)(3(i)..(ii)	The COTP may reclassify a specific body of water or location	---
(b)(1)...(3)	Response equipment must ---	
(c)	...identify response resources...average most probable discharge...	V2: § 3.0, § 8.3
(c)(1)	1,000 feet of containment boom or two times the length of the largest vessel ... and the means of deploying and anchoring the boom ... within 1 hour of the detection of a spill;	V2: § 3.0, § 8.3
(c)(2)	...recovery devices and oil storage capacity ... within 2 hours ...	V2: § 3.0, § 8.3
(d)	... identify response resources ... maximum most probable discharge...	V2: § 3.0, § 8.3
(d)(1)	... include sufficient containment boom, oil recovery devices, and storage capacity for any recovery of up to the maximum most probable discharge planning volume...	V2: § 3.0, § 8.3
(d)(2)	... resources must be appropriate for each group of oil ...	V2: § 3.0, § 8.3
(d)(3)	... must be positioned ... arrive ... scene of a discharge ...	V2: § 3.0, § 8.3
(d)(3)(i)	... within the specified times ...	V2: § 3.0, § 8.3
(d)(3)(ii)	In higher volume port areas ... within 6 hours ...	V2: § 3.0, § 8.3
(d)(3)(iii)	In all other locations, ... within 12 hours ...	V2: § 3.0, § 8.3
(d)(4)	... COTP may impose additional operational restrictions ...	V2: § 3.0, § 8.3
(e)	... identify the response resources ... worst case discharge ...	V2: § 3.0, § 8.3
(e)(2)(i)	The volume of the Facility's worst case discharge;	V2: § 3.0, § 8.3
(e)(2)(ii)	Group(s) of oil...handled, stored or transported by the Facility; and	V2: § 3.0, § 8.3
(e)(2)(iii)	The geographic area(s) in which the Facility operates.	V1: § 1.2, Figure 1.1; V2: Figures 8.2
(e)(3)	... sufficient boom, oil recovery devices, and storage capacity to recover the worst case discharge planning volumes.	V2: § 3.0, § 8.3
(e)(4)	... quantity of response resources ... to respond ... to the worst case discharge to the maximum extent practicable.	V2: § 3.0, § 8.3
(e)(5)	... The following percentages of the response equipment ... must be capable of operating in waters of 6 feet or less depth.	V2: § 3.0, § 8.3
(e)(5)(i)	Offshore - 10 percent.	V2: § 3.0, § 8.3
(e)(5)(ii)	Nearshore/inland/Great Lakes/rivers and canals - 20 percent.	V2: § 3.0, § 8.3
(e)(6)	... COTP may impose additional operational restrictions ...	V2: § 3.0, § 8.3
(f)	Response equipment ... must be capable of arriving on scene within the times specified in this paragraph ...	V2: § 3.0, § 8.3
(g)	... response equipment identified for Tier 1 plan credit must be capable of being mobilized and en route to the scene of a discharge within 2 hours of notification ...	V2: § 3.0, § 8.3
(g)(1)	Either directly or through the qualified individual; and	V2: § 3.0, § 8.3
(g)(2)	Within 30 minutes of a discovery ...	V2: § 3.0, § 8.3

U.S. COAST GUARD 33 CFR 154 *FINAL RULE –July 1, 2010 (Cont'd)*		
§154.1045	**BRIEF DESCRIPTION**	**SECTION**
(h)	Response resources identified for Tier 2 and Tier 3 plan credit must be capable of arriving on scene within the time specified ...	V2: § 3.0, § 8.3
(i), (i)(1), (i)(2)(i) – (iv), (i)(3)	The owner or operator of a facility that handles, stores, or transports groups II through IV petroleum oils within the inland, nearshore, or offshore areas where pre-authorization for dispersant use exists must identify in their response plan, and ensure the availability of, through contract or other approved means, response resources capable of conducting dispersant operations within those areas.	N/A
(j)	The owner or operator of a facility handling Groups I through IV petroleum oil as a primary cargo must identify in the response plan, and ensure the availability through contract or other approved means, of response resources necessary to provide aerial oil tracking to support oil spill assessment and cleanup activities. Facilities operating exclusively on inland rivers are not required to comply with this paragraph. Aerial oil tracking resources must:	V2: Figures 2.1 and 3.3 (As applicable)
(j)(1)	Be capable of arriving at the site of a discharge in advance of the arrival of response resources identified in the plan for tiers 1, 2, and 3 Worst-Case Discharge response times, and for a distance up to 50 nautical miles from shore (excluding inland rivers);	V2: Figures 2.1 and 3.3 (As applicable)
(j)(2)	Be capable of supporting oil spill removal operations continuously for three 10-hour operational periods during the initial 72 hours of the discharge;	V2: Figures 2.1 and 3.3 (As applicable)
(j)(3)	Include appropriately located aircraft and personnel capable of meeting the response time requirement for oil tracking from paragraph (j)(1) of this section; and	V2: Figures 2.1 and 3.3 (As applicable)
(j)(4)	Include sufficient numbers of aircraft, pilots, and trained observation personnel to support oil spill removal operations, commencing upon initial assessment, and capable of coordinating on-scene cleanup operations, including dispersant and mechanical recovery operations. Observation personnel must be trained in: (i) The protocols of oil-spill reporting and assessment, including estimation of slick size, thickness, and quantity; and (ii) The use of assessment techniques in ASTM F1779–08 (incorporated by reference, *see* § 154.106), and familiar with the use of other guides, such as NOAA's "Open Water Oil Identification Job Aid for Aerial Observation," and NOAA's "Characteristic Coastal Habitats" guide (available on the Internet at *http://response.restoration.noaa.gov/*use the following links in the order presented: Home| Emergency Response| Responding to Oil Spills).	V2: Figures 2.1 and 3.3 (As applicable)
(k)	A response plan for a facility that handles, stores, or transports Group I through Group IV petroleum oils must identify response resources with firefighting capability…	V2: § 3.0, § 8.3

U.S. COAST GUARD 33 CFR 154 *FINAL RULE – July 1, 2010 (Cont'd)*		
§154.1045	**BRIEF DESCRIPTION**	**SECTION**
(l)	... identify equipment and required personnel ... to protect fish and wildlife and sensitive environments.	V2: § 3.0, § 8.3
(l)(1)	... the identified response resources must include the quantities of boom sufficient to protect	V2: § 3.0, § 8.3
(l)(2)	... resources and response methods ... must be consistent with the ... ACP in effect 6 months prior to initial plan submission or the annual plan review ...	V1: § 1.5; V2: § 3.4
(m)	The response plan for a Facility that handles, stores, or transports Groups I through IV petroleum oils must identify an oil spill removal organization(s) with response resources that are available...	V2: § 3.0, § 8.3
(m)(1)	Except as required in paragraph (l)(2) ... shoreline clean-up response resources required must be determined as described in Appendix C of this part.	V2: § 3.0, § 4.0, § 8.3
(m)(2)	... resources and response methods ... must be consistent with the ... ACP in effect 6 months prior to initial plan submission or the annual plan review ...	V1: § 1.5; V2: § 3.0
(n)	Appendix C ... quantity of response resources ... for the maximum most probable discharge volume, and for each worst case discharge response tier.	V1: § 1.5; V2: § 3.0
(n)(1)	Included in Appendix C of this part is a cap that recognizes the practical and technical limits of response capabilities ...	V1: § 1.5; V2: § 3.0
(n)(2)	... Appendix C of this part lists the caps that will apply in ... February 18, 1998. ...Facility whose estimated recovery capacity exceeds ... caps ... shall identify sources of additional equipment equal to twice the cap ... or the amount necessary to reach the calculated planning volume, whichever is lower.	V1: § 1.5; V2: § 3.0
(o)(1)...(2)	The Coast Guard will initiate a review of cap increases and other requirements contained within this subpart ...	---

CALIFORNIA CODE OF REGULATIONS *TITLE 14 DIVISION 1, SUBDIVISION 4, CHAPTER 3 SUBCHAPTER 3, SECTION 817*			
OSPR SECTION	**BRIEF DESCRIPTION**	**TERMINAL PLAN REFERENCE**	**PIPELINE PLAN REFERENCE**
817.02(a)(1)(A)	Name and address of facility	V2: Figure 8.1	V2: Figure 9.1
817.02(a)(1)(B)	Owner/Operator of facility	V1: §1.1; V2: Figure 8.1	V2: Figure 9.1
817.02(a)(1)(C)	Name, address and phone number of the person to whom correspondence should be sent	V2: Figure 8.1	V2: Figure 9.1
817.02(a)(1)(D)	Certification Statement	V2: §8.1.1	V2: §9.1.1
817.02(a)(1)(E)	Copy of CA COFR	V2: §8.1.2	V2: §9.1.2
817.02(a)(2)	Qualified Individual and alternates	V1: §2.3a 2.3 b	V1: §2.3a, 2.3b
817.02(a)(3)	Agent for service of process	V2: Figure 8.1	V2: Figure 9.1
817.02(a)(4)	OSRO Contracts	V2: Figure 3.5	V2: after p.9-8
817.02(b)(1)	Facility description	V2: Figure 8.1	V2: Figure 9.1
817.02(b)(1)(A)	- diagrams, age, design, general condition	V2: Figures 8.1, 8.3, 8.4, 8.7, 8.8, §8.10	V2: Figures 9.1, 9.2
817.02(b)(1)(B)	Products handled/daily throughput	V1: Figure 3.8; V2: Figure 8.1, §8.2.1	V2: Figure 9.1
817.02(b)(1)(C)	Normal transfer procedures	V2: §8.2.1, Fig. 8.1, §8.9	V2: Figure 9.1
817.02(b)(1)(D)	Hours of operation	V2: Figure 8.1	N/A
817.02(b)(1)(E)	E&P facility description	N/A	N/A
817.02(b)(2)(A)	Map and description of topography, drainage, and nearby watercourses	V1: GRP CD; V2: §8.2.1, 8.3, 8.6, Figures 8.1, 8.2, 8.7, §8.10	V1: GRP CD; V2: §9.2, 9.3, 9.6, Figures 9.1, 9.2
817.02(b)(2)(B)	Vicinity maps	V2: §8.2.2, Figures 1.1, 8.2	V2: Figures 1.1, 9.2
817.02(b)(2)(C)	Seasonal hydrographic and climatic conditions	V2: Figure 8.1	V2: Figure 9.1
817.02(b)(2)(D)	Physical geographic features	V2: §8.5, 8.6, Figure 8.1	V2: §9.5, 9.6, Figure 9.1
817.02(b)(2)(E)	Logistical resources	V1: Figure 2.4; V2: Figure 2.1*	V1: Figure 2.4; V2: Figure 2.1*
817.02(b)(2)(F)	Shoreline Access/Staging Areas	V1: GRP CD; §3.0	V1: GRP CD; §3.0
817.02(c)(1)(A)	Spill history	V2: §8.2.5, 8.5	V2: §9.4, 9.5
817.02(c)(1)(B)	Risk and Hazard Analysis	V2: §8.5	V2: §9.5
817.02(c)(1)(C)	Evaluation methods	V2: §8.5	V2: §9.5
	- Composition of working group	V2: §8.5	V2: §9.5
	- Documentation of analysis	V2: §8.5	V2: §9.5
817.02(c)(1)(D)	Summary of analysis	V2: §8.5	V2: §9.5
817.02(c)(1)(D)(1)	Analysis method	V2: §8.5	V2: §9.5
817.02(c)(1)(D)(2)	Inventory of hazards identified in analysis	V2: §8.2, 8.5	V2: §9.2, 9.5
817.02(c)(1)(D)(3)	Analysis of potential discharges	V2: §8.2, 8.5	V2: §9.2, 9.5

CALIFORNIA CODE OF REGULATIONS *TITLE 14 DIVISION 1, SUBDIVISION 4, CHAPTER 3 SUBCHAPTER 3, SECTION 817 (Cont'd)*			
OSPR SECTION	**BRIEF DESCRIPTION**	**TERMINAL PLAN REFERENCE**	**PIPELINE PLAN REFERENCE**
817.02(c)(1)(D)(4)	Control measures	V2: §8.2, 8.5	V2: §9.2, 9.5
817.02(c)(1)(D)(5)	Spill predictions	V2: §8.2, 8.5	V2: §9.5
817.02(c)(2)	Offsite Consequence Analysis	V2: §8.3, 8.6	V2: §9.6
817.02(c)(3)(A)	Map of Environmentally sensitive areas	V1: ACP/GRP CD; V2: §8.2, Figure 4.1	V1: ACP/GRP CD; V2: Figure 4.1
817.02(c)(3)(B)	Map of Economically and culturally sensitive areas	V1: ACP/GRP CD; V2: §8.2, Figure 4.1	V1: ACP/GRP CD; V2: Figure 4.1
817.02(c)(4)(A)	Testing, maintenance, and inspection procedures	V2: §8.2.2, Figure 8.1	V2: Figure 9.1
817.02(c)(4)(B)	Methods to reduce spills	V2: §8.2, Figure 8.1	V2: Figure 9.1
817.02(c)(4)(C)	Communication during operations	V2: §8.2.2, Figure 8.1	V2: Figure 9.1
817.02(c)(4)(D)	Protection measures for flood prone areas	V2: §8.2.1, Figure 8.1	V2: Figure 9.1
817.02(c)(4)(E)	Additional relevant information	-----	-----
817.02(c)(5)(A)	Risk incentive programs	V2: §8.7	V2: §9.7
817.02(c)(5)(B)	Leak detection	V2: § 8.2.2, Figure 8.1	V2: Figure 9.1
817.02(c)(5)(C)	Automatic controls	V2: §8.2.2, Figure 8.1	V2: Figure 9.1
817.02(c)(5)(D)	Alcohol and drug testing	V2: §8.8	V2: §9.8
817.02(c)(5)(E)	Additional prevention measures	N/A	N/A
817.02(c)(5)(F)	Security measures	V2: §8.2.1, Figure 8.1	V2: Figure 9.1
817.02(c)(5)(G)	Additional relevant information for Group V oils	N/A (no Group V oils)	N/A (no Group V oils)
817.02(d)(1)(A)	Reasonable Worst Case Spill Volume – Marine Facilities	V2: §8.3	N/A
817.02(d)(1)(B)	RWCS volume onshore pipeline	N/A	V2: §9.3
817.02(d)(1)(C)	RWCS volume offshore platforms	N/A	N/A
817.02(d)(1)(D)	Offshore platforms with active drilling	N/A	N/A
817.02(d)(1)(E)	Offshore pipelines	N/A	N/A
817.02(d)(1)(F)	RWCS calculations and parameters	V2: §8.3	V2: §9.3
817.02(d)(2)	Persistence and emulsification factors – Response Planning Volumes	V2: §8.3	V2: §9.3
817.02(d)(3)	Response capability standards	V2: §8.3	V2: §9.3
817.02(d)(3)(A)	Total equipment required	V2: §8.3, Figure 3.3	V2: §9.3, Figure 3.3
817.02(d)(3)(B)	Daily Recovery Rate	V2: §8.3, Figure 3.3	V2: §9.3, Figure 3.3
817.02(d)(3)(C)	Sufficient containment equipment for daily recovery rate	V2: §8.3, Figure 3.3	V2: §9.3, Figure 3.3
817.02(d)(3)(F)	Sufficient equipment and personnel to contain 50 bbls spill on site during Marine transfers	V2: §8.3, Figure 3.3	N/A

CALIFORNIA CODE OF REGULATIONS *TITLE 14 DIVISION 1, SUBDIVISION 4, CHAPTER 3 SUBCHAPTER 3, SECTION 817 (Cont'd)*			
OSPR SECTION	**BRIEF DESCRIPTION**	**TERMINAL PLAN REFERENCE**	**PIPELINE PLAN REFERENCE**
817.02(d)(4)(A)	Non-cascadable equipment in High Volume Ports	V2: §3.0, Figures 3.2, 3.3, 3.5	V2: §3.0, Figures 3.2, 3.3, 3.5
817.02(d)(4)(B)	Non-cascadable equipment in Facility Transfer Area	V2: §3.0, Figures 3.2, 3.3	V2: §3.0, Figures 3.2, 3.3
817.02(d)(5)(A)	Demonstration of access to on-water response equipment and services	V2: §3.0, Figures 3.2, 3.3, 3.5	V2: §3.0, Figures 3.2, 3.3, 3.5
817.02(d)(5)(B)(1)	Location, inventory, and ownership of equipment	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(2)	Inventory of non-mechanical response equipment	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(3)	Storage and transfer equipment	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(4)	Rated capacity and operational characteristics of equipment	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(5)	Derated capacity for major equipment	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(6)	Vessels dedicated for oil recovery	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(7)	Vessels of opportunity available	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(8)	Pumping and Transfer equipment	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(9)	Storage, maintenance, inspection, and testing of equipment	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(B)(10)	Equipment to track oil movement	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(C)(1)	List of response positions/job descriptions	V1: §2.1, 4.3, 5.2	V1: §2.1, 4.0, 5.0
817.02(d)(5)(C)(2)	Match of personnel and equipment	V1: §2.1, 4.0, 5.0	V1: §2.1, 4.0, 5.0
817.02(d)(5)(C)(3)	Personnel for 14 day response	V1: §2.1, 4.0, 5.0	V1: §2.1, 4.0, 5.0
817.02(d)(5)(D)	List of response personnel and qualifications	V1: §1.8, 2.1, 4.0, 5.0	V1: §1.8, 2.1, 4.0, 5.0
817.02(d)(5)(E)	Procedures to transport equipment during normal/adverse conditions	V2: §3.0, Figures 3.3, 3.5	V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(F)	Availability of personnel and equipment for on-water response	V1: Figures 2.3a, 2.3b, 2.3c; V2: §3.0, Figures 3.3, 3.5	V1: Figures 2.3a, 2.3b, 2.3c; V2: §3.0, Figures 3.3, 3.5
817.02(d)(5)(G)	Group 5 oils	N/A	N/A
817.02(d)(6)(A)	On-water containment and recovery methods	V1: GRP CD, § 3.9	V1: GRP CD, § 3.9
817.02(d)(6)(B)	Nearshore containment/recovery methods	V1: GRP CD, §3.11	V1: GRP CD, §3.11
817.02(d)(6)(C)	Chemical/non-mechanical recovery methods	V1: GRP CD, §3.10	V1: GRP CD, §3.0
817.02(d)(6)(D)	Methods for tracking oil	V1: GRP CD,§ 3.0, Figure 3.3	V1: GRP CD, § 3.0, Figure 3.3

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OSPR SECTION	**BRIEF DESCRIPTION**	**TERMINAL PLAN REFERENCE**	**PIPELINE PLAN REFERENCE**
817.02(d)(6)(E)	Locations of weather stations to be used	V1: Figure 2.4	V1: Figure 2.4
817.02(e)(1)	Shoreline Response Planning Volumes	V2: §8.3	V2: §9.3
817.02(e)(2)	Shoreline response equipment and services	V2: §8.3	V2: §9.3
817.02(e)(2)(A)(1)	Amount of equipment required for shoreline response	V1: §3.9 V2: §3.3, 3.4 8.3	V2: §9.3
817.02(e)(2)(A)(2)	Location, inventory, and ownership of equipment	V2: §3.0, Figures 3.2, 3.3	V2: §3.0, Figures 3.2, 3.3
817.02(e)(2)(A)(3)	Storage and maintenance, and inspection of equipment	V2: §3.0	V2: §3.0
817.02(e)(2)(B)(1)	List of response positions/job descriptions	V1: §4.0, 5.0	V1: §4.0, 5.0
817.02(e)(2)(B)(2)	Match of personnel and equipment	V2: Figure 3.3	V2: Figure 3.3
817.02(e)(2)(B)(3)	Personnel for 14 day response	V1: §2.0, 4.0, 5.0; V2: Figure 3.3	V1: §2.0, 4.0, 5.0; V2: Figure 3.3
817.02(e)(2)(C)	Availability of personnel/equipment for shoreline response	V1: §2.0; V2: Figure 3.3	V1: §2.0; V2: Figure 3.3
817.02(e)(3)	Reserved	-----	-----
817.02(e)(4)(A)(1)	Shoreline protection procedures	V1: GRP CD, §3.0; V2: §8.3, 8.6	V1: GRP CD, §3.0; V2: §9.6
817.02(e)(4)(A)(2)	Shoreline containment/recovery procedures	V1: GRP CD, §3.0, 3.9; V2: §8.3, 8.6	V1: GRP CD, §3.0; V2: §3.9, 9.6
817.02(e)(4)(A)(3)	Minimization of impacts from response procedures	V1: GRP CD, §3.0; V2: §4.1, 8.3, 8.6	V1: GRP CD, §3.0; V2: §4.1, 9.6
817.02(f)(1)	Organization of Spill Management Team – use of Unified Command	V1: §4.0, 5.0	V1: §4.0, 5.0
817.02(f)(1)(A)	Chain of command interface with SICS	V1: §4.0, 5.0	V1: §4.0, 5.0
817.02(f)(1)(B)	Information Officer incorporation into SICS	V1: §4.0, 5.0	V1: §4.0, 5.0
817.02(f)(1)(C)	Safety officer integration into SICS	V1: §4.0, 5.0	V1: §4.0, 5.0
817.02(f)(2)(A)	Establishment of central command post	V1: §4.0, 5.0	V1: §4.0, 5.0
817.02(f)(2)(B)	Establishment of communications post	V1: §4.0, 5.0	V1: §4.0, 5.0
817.02(f)(2)(C)	Establishment of staging areas	V1: §3.0; V2: 4.4	V1: §3.0
817.02(f)(3)	Depiction of major stages of response	V1: §3.0	V1: §3.0
817.02(f)(4)(A)	Fire, explosion, and rescue procedures	V1: Figure 3.1b	V1: Figure 3.1b
817.02(f)(4)(B)	Emergency medical/first aid procedures	V1: §3.13, Fig. 3.7	V1: §3.13
817.02(f)(4)(C)	Emergency ground, marine, and air traffic control	V1: pg. 4-15	V1: §2.2
817.02(f)(4)(D)	Management of access and decontamination	V1: §3.13, Figure 3.7	V1: §3.13, Figure 3.7
817.02(f)(4)(E)	PPE for responders	V1: §3.13, Figure 3.7	V1: §3.13, Figure 3.7
817.02(f)(5)(A)	Spill minimization/mitigation procedures	V1: GRP CD, § 3.11	V1: GRP CD, § 3.11
817.02(f)(5)(B)	Shutdown and mitigation procedures for specific personnel	V1: Figure 3.1a	V1: Figure 3.1a
817.02(f)(5)(B)(1)	Transfer equipment failure	V1: Figure 3.1a	V1: Figure 3.1a
817.02(f)(5)(B)(2)	Tank overfill	V1: Figure 3.1a	V1: Figure 3.1a
817.02(f)(5)(B)(3)	Tank failure	V1: Figure 3.1a	V1: Figure 3.1a
817.02(f)(5)(B)(4)	Pipe rupture	V1: Figure 3.1a	V1: Figure 3.1a
817.02(f)(5)(B)(5)	Pipe leak	V1: Figure 3.1a	V1: Figure 3.1a
817.02(f)(5)(B)(6)	Explosion and/or fire	V1: Figure 3.1b	V1: Figure 3.1b
817.02(f)(5)(B)(7)	Other failures	V1: Figure 3.1a	V1: Figure 3.1a
817.02(f)(6)(A)	Communication procedures	V2: §3.8	V2: §3.8

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OSPR SECTION	**BRIEF DESCRIPTION**	**TERMINAL PLAN REFERENCE**	**PIPELINE PLAN REFERENCE**
817.02(f)(6)(B)	Communication function/channels	V1: Figures 2.1a, 2.1b, 2.1c; V2: §2.3a, 2.3b, 2.3c	V2: §2.3a, 2.3b, 2.3c
817.02(f)(6)(C)	Broadcast ranges	V2: §2.3a, 2.3b, 2.3c	V2: §2.3a, 2.3b, 2.3c
817.02(f)(6)(D)	Back-up communications	V2: §2.3a, 2.3b, 2.3c	V2: §2.3a, 2.3b, 2.3c
817.02(f)(7)	Post spill review procedures	V2: §2.3a, 2.3b, 2.3c	V2: §2.3a, 2.3b, 2.3c
817.02(f)(8)	Procedures to manage access and designate exclusion, decontamination and safe zones	V1: §3.13, Figure 3.7	V1: §3.13, Figure 3.7
817.02(f)(9)	Procedures to develop Site Safety Plan	V1: §3.13, Figure 3.7	V1: §3.13, Figure 3.7
817.02(g)(1)(A)	Spill reporting to applicable agencies	V1: §2.2, Figure 2.4	V1: §2.2, Figure 2.4
817.02(g)(1)(B)	Central reporting office or individual and alternate	V1: §2.1	V1: §2.1
817.02(g)(1)(C)	Prioritization of notifications	V1: §2.1, §2.2	V1: §2.1, §2.2
817.02(g)(2)(A)	Notification of response contractor(s)	V1: Figure 2.4; V2: §2.0	V1: Figure 2.4; V2: §2.0
817.02(g)(2)(B)	Notification of QI, OES and NRC	V1: §2.0; V2: §2.0	V1: §2.0; V2: §2.0
817.02(g)(2)(C)	Telephone list	V1: §2.0; V2: §2.0	V1: §2.0; V2: §2.0
817.02(g)(3)	Call-out procedures for additional equipment	V2: Figure 2.2	V2: Figure 2.2
817.02(g)(4)	Notification checklist	V1: §2.1	V1: §2.1
817.02(h)(1)	Identification of sufficient temporary storage	V2: Figure 3.3, after pg. 3-8	V2: Figure 3.3
817.02(h)(2)	Personnel responsible for temporary storage	V2: Figure 3.3	V2: Figure 3.3
817.02(h)(3)	Temporary storage site criteria and methods	V2: §5.4	V2: §5.4
817.02(h)(4)	Agencies responsible for approving temporary storage	V2: §5.6	V2: §5.6
817.02(h)(5)	Information to expedite approval for temporary storage	V2: §5.6	V2: §5.6
817.02(i)	Wildlife rehabilitation	V2: §4.3	V2: §4.3
817.02(j)(1)(A)	Type and frequency training	V1: § 1.8	V1: § 1.8
817.02(j)(1)(B)	Use of volunteers	V2: §3.7	V2: §3.7
817.02(j)(2)(A)	Training to reduce operational risks identified in Hazard and Risk Analysis	V1: § 1.8	V1: § 1.8
817.02(j)(2)(B)(1)	Training for personnel involved in operations that could result in spill	V1: § 1.8	V1: § 1.8
817.02(j)(2)(B)(2)	Schedule and type of training for each position	V1: § 1.8	V1: § 1.8
817.02(j)(2)(C)	Prerequisites for positions	V1: § 1.8	V1: § 1.8
817.02(j)(3)	Safety training for response personnel	V1: § 1.8	V1: § 1.8
817.02(j)(4)	Training records	V1: § 1.8	V1: § 1.8
817.02(k)	Drills and Exercises – type and frequency	V1: § 1.8	V1: § 1.8

STATE OF OREGON *OAR-340-141* CROSS REFERENCE		
OAR 340-141-0140	**BRIEF DESCRIPTION**	**SECTION**
1	Submittal Agreement	Vol. 1 FWD-ii
1 (a)	Includes the name, address, and phone number of the submitting party;	Vol. 1 §1.1, Vol. 2 §1.1
1 (b)	Verifies acceptance of the plan…	Vol. 1 FWD-ii
1 (c)	Commits to execution of the plan…	Vol. 1 FWD-ii
1 (d)	Includes:	-----
1 (d)(A)	In the case of a facility, the name, location including latitude, longitude and river mile, and address of the facility, type of facility, starting date of operations, types of oils (see definition of oil) handled, volume of oil stored and maximum volume of oil capable of being stored.	Vol. 2, Fig. 8.1
1 (d)(B)	In the case of a covered vessel…	NA
1 (d)(C)	In the case of a covered vessel enrolled in a cooperative…	NA
2	Amendments….include a log sheet to record amendments....must be place at the front of the plan….a record of the section amended, the date that the old section was replaced with the amended section, verification that the Department was notified…the initials of the individual making the change. A description of the amendment and its purpose must also be included in the log sheet…	Vol. 1 and Vol. 2 Revision Record
3	Table of Contents….If the plan is an integrated plan…a cross reference must be included.	Vol. 1 and Vol. 2 Table of Contents, Vol. 1 Cross Reference
4	Purpose and Scope…including:	Vol. 1 § 1.4, § 1.5, Vol. 2 § 1.4
4 (a)	The region of operation covered by the plan;	Vol. 1 § 1.2, Vol. 2 § 1.2
4 (b)	The onshore facility, offshore facility or covered vessel operations covered by the plan; and	Vol. 2 § 8.0
4 (c)	The size and type of the average most probable spill and the worst case spill from the facility or covered vessel.	Vol. 2 § 1.3, § 8.3
5	Updates….describe the events or time periods that will trigger updates of the plan.	Vol. 1 § 1.7
6	Implementation Strategy….must present a strategy for ensuring use of the plan for spill response and cleanup operations as required by OAR 340-141-0210	Vol. 1 FWD-ii, Vol. 2 § 8.3
7	Spill Response System….must describe the organization of the spill response system…all task assignments anticipated by the end of the first full operational period, or necessary to manage the resources required by the 12 hour planning standard….must use a…(NIMS) type of incident management system…	Vol. 1 § 4.0, § 5.0
8	Contractor Identification….must identify the primary response contractor and subcontractors…	Vol. 2, Fig. 2.1, Fig. 3.2, Fig 3.3
8(a)	If a plan holder is a member of an oil spill response cooperative…state the cooperative's name, address, phone number and response capability….must also include proof of cooperative membership; or	Vol. 2 Fig 2.1, Fig 3.3

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0140	**BRIEF DESCRIPTION**	**SECTION**
8 (b)	If a plan holder is not a member of an oil spill response cooperative, for each contractor,…state that contractor's name, address, phone number or other means of contact at any time of the day, and response capability….must include a letter of intent signed by the contractor….Copies of written contracts or agreements with contractors must be available for inspection, if requested by the Department.	Vol. 2, Fig. 2.1, Fig. 3.3
9	Relationship to Other Plans….briefly describe its relations to all applicable local, state, regional and federal government spill response plans….describe how the plan holder's response organization will be integrated into the Northwest Area Contingency Plan.	Vol. 2 § 1.5
10	Spill Detection….list procedures that will be used to detect and document the presence and size of a spill, including methods which are effective during low visibility conditions….describe the use of mechanical or electronic monitoring or alarm systems (including threshold sensitivities) used to detect oil discharges into adjacent land or water from tanks, pipes, manifolds and other transfer or storage equipment.	Vol. 1 § 2.0.1, § 2.0.2 Vol 2. § 8.2
11	Notifications….describe procedures that will be taken to immediately notify appropriate parties that a spill has occurred.	Vol. 1 § 2.0, Vol. 2 § 2.0
11 (a)	…maintain a notification call out list that must be available for inspection upon the request of the Department, and that:	Vol. 1 § 2.0, Vol. 2 § 2.0
11 (a)(A)	Provides a contact at any time of the day for all spill response personnel identified under section (7) of this rule, including the contact's name, position title, phone number or other means of contact for any time of the day, and an alternate contact in the event the individual is unavailable;	Vol. 1 Figures 2.3a, 2.3b and 2.3c, Vol. 2 Fig. 2.2
11 (a)(B)	Lists the name and phone number of all government agencies that must be notified in the event of an oil spill…	Vol. 1 Fig. 2.4, Vol. 2 Fig. 2.1
11 (a)(C)	Establishes a clear order of priority for immediate notifications.	Vol. 1 Figures 2.1a, 2.1b, 2.1c, 2.1d, 2.1e, 2.1f
11 (b)	…identify a central reporting office or individual who is responsible for implementing the call out process.	Vol. 1 § 2.1, Vol. 2 § 2.2
12	Response Personnel….describe the personnel, including contract personnel available, to respond to an oil spill, including;	Vol. 1 Figures 2.3a, 2.3b and 2.3c, § 4.0, Vol. 2 Fig. 2.1, Fig. 3.3
12 (a)	A job description for each type of spill response position needed…	Vol. 1 § 4.0
12 (b)	The number of personnel available to perform the duties of each type of spill response position;	Vol. 1 Figures 2.3a, 2.3b and 2.3c, § 4.0, Vol. 2 Fig. 2.1, Fig. 3.3

STATE OF OREGON *OAR-340-141-0140* CROSS REFERENCE (Cont'd)		
OAR 340-141-0140	**BRIEF DESCRIPTION**	**SECTION**
12 (b)(A)	This number must be equal or greater than the number of persons necessary to sustain a response to the worst case spill…	Vol. 1 Figures 2.3a, 2.3b and 2.3c, § 4.0, Vol. 2 Fig. 2.1, Fig. 3.3
12 (b)(B)	If 24 hour operations are expected, the number of persons available to staff the ICS must be multiplied by the proposed number of operations periods (shifts).	Vol. 1 Figures 2.3a, 2.3b and 2.3c, § 4.0, Vol. 2 Fig. 2.1, Fig. 3.3
12 (c)	Arrangements of pre-positioning personnel at strategic locations…	Vol. 1 Figures 2.3a, 2.3b and 2.3c, § 4.0, Vol. 2 Fig. 2.1, Fig. 3.3
12 (d)	The type and frequency of spill response operations and safety training…	Vol. 1 § 1.8
13	Equipment and spill response resources….describe equipment and spill resources as follows:	-----
13 (a)	…list all resident equipment and resident dedicated response vessels used for oil containment, recovery, removal….list all relied upon communication tools.	Vol. 2 Figures 3.1 and 3.3
13 (b)	For resident equipment and vessels listed under subsection (a)…that are not owned by or available exclusively to the plan holder…estimate the extent that other contingency plans rely on the same equipment.	-----
13 (c)	For all resident oil containment and recovery equipment…include equipment make and model, the manufacturer's nameplate capacity of the response equipment, the EDRC (in barrels per day) an applicable design limits…	Vol. 2 Figures 3.1 and 3.3
13 (d)	…the plan must state the maximum amount of oil that could be recovered…per 24-hour period with the equipment used as it is designed.	Vol. 2 § 8.3
13 (e)	For purposes of determining plan adequacy under OAR 340-141-0190, and to assess realistic capabilities based on potential limitations…the Department will use the data presented in subsections (c) and (d) of this section to apply a higher efficiency factor for equipment listed in a plan if that plan holder provides adequate evidence that the higher efficiency factor is warranted for particular equipment or if the United States Coast Guard has approved a higher efficiency rating.	-----
13 (f)	…provide arrangements for pre-positioning of oil spill response equipment…	Vol. 2 § 3.0, § 4.4, § 8.3
13 (g)	When calculating the delivery time of equipment to a spill staging area…use travel speeds consistent with federal speed predictions for the equipment being moved.	Vol. 2 § 8.3

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0140	**BRIEF DESCRIPTION**	**SECTION**
14	Communications….describe the communication systems used for spill notification and response operations, including:	Vol. 2 § 3.8
14 (a)	Communication procedures that identify who will be responsible for the function, to whom and from whom communication will be established and any special instructions;	Vol. 1 § 4.0
14 (b)	The communication function(e.g. ground-to-air) assigned to each channel or frequency used;	Vol. 2 § 3.8
14 (c)	The maximum geographic range for each type of communications equipment used; and	Vol. 2 § 3.8
14 (d)	The communication system compatibility with key spill response agencies.	Vol. 2 § 3.8
15	Response Operation Sites….describe the process used by the plan holder to establish sites needed for spill response operations, including location or location selection criteria for an incident command post, a communications center if located away from the command post and equipment and personnel staging areas.	Vol. 1 § 3.0
16	Response Flow Chart or Timeline….describe the response process by:	-----
16 (a)	Presenting a flowchart or decision tree…	Vol. 1 § 3.0
16 (b)	Describing all key spill response operations in checklist forms…	Vol. 1 § 3.0, § 4.0
17	Authorities….describe responsible authorities by:	Vol. 1 § 2.0, § 4.0, Vol. 2 § 2.0
17 (a)	Listing the local, state and other government authorities responsible for the emergency procedures peripheral to spill containment and cleanup; and	Vol. 1 § 2.0, Vol. 2 § 2.0
17 (b)	Describing the plan holder's role in these emergency operations procedures before the proper authorities arrive…	Vol. 1 § 3.0, § 4.0
18	Damage Control….describe equipment and procedures…to minimize the magnitude of the spill and minimize structural damage that could increase the quantity of oil spilled.	Vol. 1 § 3.0
18 (a)	For facilities, damage control procedures must include methods to slow or stop pipeline, storage tank, and other leaks, and methods to achieve immediate emergency shutdown.	Vol. 1 § 3.0
18 (b)	For tank vessels, damage control procedures must include methods…	NA
18 (c)	For other covered vessels, damage control procedures must address methods…	NA
19	Containment….describe, in detail, any nonstandard methods specific to the plan to contain spilled oil and recover it from the environment. When a plan calls for the use of methods that have not been expressly approved by the Department, the description of the proposed options must include:	Vol. 1 § 3.0
19 (a)	The surveillance methods expected to be used to detect and track the extent and movement of the spill; and	Vol. 2
19 (b)	A description of methods to be used to contain and remove oil that will be effective for environmentally sensitive locations included in the Zone, or Zones, for which the plan is written.	Vol. 1 § 3.9, § 3.10, § 3.11, Vol. 2 Fig. 8.9

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0140	**BRIEF DESCRIPTION**	**SECTION**
20	Response Time….briefly describe initial equipment and personnel deployment activities that will accomplish the response…and provide:	Vol. 2 § 8.3
20 (a)	An estimate of the actual execution time;	Vol. 2 § 8.3
20 (b)	The specific location in the Zone where the resident required response equipment is stored; and	Vol. 2 Figures 3.1 and 3.3
20 (c)	The source and management of personnel to deploy the initial response equipment.	Vol. 1 Figures 2.3a-c, § 3.4-§ 3.12, Vol. 2 §2.0, § 3.0
21	Chemical Agents. If the plan holder proposed to use dispersants, coagulants, bioremediants or other chemical agents for response operations under certain conditions, the plan must describe:	N/A KMEP does not operate in areas where chemical agent use is appropriate.
21 (a)	Type and toxicity of chemicals, supplemented with material safety data sheets (MSDS) for each product;	N/A
21 (b)	The conditions under which the chemicals will be applied…	N/A
21 (c)	Methods of deployment; and	N/A
21 (d)	Location and accessibility of supplies and deployment equipment.	N/A
22	In Situ Burning. If the plan holder proposes to use in-situ burning for response operations, the plan must describe:	N/A KMEP does not operate in areas where In Situ Burning is appropriate.
22 (a)	Type of burning operations;	N/A
22 (b)	Conditions under which burning will be applied…	N/A
22 (c)	Methods of application; and	N/A
22 (d)	Location and accessibility of supplies and deployment equipment.	N/A
23	Environmental Protection….describe how environmental protection will be achieved, including:	-----
23 (a)	Protection of sensitive shoreline and island habitat by diverting or blocking oil movement;	Vol. 1 § 3.0, Vol. 2 § 4.0
23 (b)	Priorities of sensitive area protection in the region of operation covered by the plan as provided in a Geographic Response Strategy of the Northwest Area Contingency Plan, or designated by the Department;	Vol. 2 § 4.1
23 (c)	Rescue and rehabilitation of birds, marine mammals and other wildlife contaminated or otherwise affected by the oil spill; and	Vol. 2 § 4.3
23 (d)	Measures taken to reduce damages to the environment caused by shoreline and adjacent land cleanup operations.	Vol. 1 § 3.11

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0140	**BRIEF DESCRIPTION**	**SECTION**
24	Interim Storage. Each plan that has identified that oil will be recovered must plan for storage of the oil and combined oily waste material potentially created.	Vol. 2 § 5.4
24 (a)	Each plan must describe site criteria and methods used for interim storage of oil recovered…including sites available within the facility….	Vol. 2 § 5.4
24 (b)	If use of interim storage sites will require approval by local, state or federal officials…include information that could expedite the approval process, including a list of appropriate contacts and a brief description of procedures to follow for each applicable approval process.	Vol. 2 § 5.4
24 (c)	Interim storage and permanent disposal methods and sites must be sufficient to sustain support for oil recovery operations and manage the entire volume of oil recovered and oily wastes generated.	Vol. 2 § 5.4
24 (d)	Interim storage and permanent disposal methods and sites must comply with all applicable local, state and federal requirements.	Vol. 2 § 5.4
25	Health and Safety….describe procedures to protect the health and safety of oil spill response workers, and other individuals on-site. Provisions for training, decontamination facilities, safety gear and a safety officer position must be addressed.	Vol. 1 § 3.13
26	Post Spill Review….explain post-spill review procedures, including methods to review both the effectiveness of the plan and the need for plan amendments. Post-spill procedures must provide for a debriefing with the Department that will include any newly recognized need to amend the plan and list of any other lessons learned.	Vol. 1 § 3.15
27	Drills and Exercises….describe the schedule and type of drills and other exercised that will be practiced to ensure readiness of the plan elements…	Vol. 1 § 1.8
27 (a)	The plan holder must test and document internal call out procedures at least once every 90 calendar days….retain records…for at least three years and make them available for Department review upon request.	Vol. 1 § 1.8
27 (b)	The plan holder must notify the Department of drills and exercises at least 60 days before full deployment and tabletop drills, and 10 days prior to equipment exercises. Prior notice to the Department is not required before notification drills and internal phone number verification exercises.	Vol. 1 § 1.8
27 (c)	The plan holder must send post drill reports for all tabletop exercises and deployment drills to the Department no later than 60 days after the completion of the drill or exercise.	Vol. 1 § 1.8
28	Risk Variables. Each plan must list the spill risk variables within the region of operation covered by the plan, including:	Vol. 2 § 8.2
28 (a)	Each plan for a facility must list the following:	-----
28 (a)(A)	Types, physical properties and amounts of oil handled;	Vol. 1 Fig 3.8, Vol. 2, § 6.1, Fig 6.1a-i, Fig 8.1

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0140	**BRIEF DESCRIPTION**	**SECTION**
28 (a)(B)	A written description and map indicating site topography, stormwater and other drainage systems, mooring areas, pipelines, tanks, and other oil processing, storage and transfer sites and operations;	Vol. 2 § 6.0, § 7.0, § 8.1
28 (a)(C)	A written description of sites or operations with a history or high potential for oil spills, including key areas that pose significant navigation risk within the region of operation covered by the plan; and	Vol. 2 § 8.2
28 (a)(D)	Methods to reduce spills during transfer operations, including overfill protection.	Vol. 2 § 8.2
28 (b)	Each plan for a covered vessel must list the following:	NA
28 (b)(A)	Types, physical properties and amounts of oil handled;	NA
28 (b)(B)	A written description and diagram showing cargo, fuel, ballast tanks…	NA
28 (b)(C)	A written description of operations with a history of high potential for oil spills…	NA
29	Environmental Variables….list the environmental variables within the region of operation covered by the plan. Facility plans required to include river or coastal areas must identify the environmental variables from the probable point of release to the point the oil could travel in 24 hours in a current of four knots….	Vol. 2 § 4.0, ACP/GRP CD, Vol. 2 § 8.3, Vol. 2 § 9.2 and § 9.3
29 (a)	Natural resources, including coastal and aquatic habitat types and sensitivity by season, breeding sites, presence of state and federally listed endangered or threatened species and presence of commercial and recreational species;	Vol. 2 § 4.0, ACP/GRP CD Vol. 2 § 9.2 and § 9.3
29 (b)	Public resources, including public beached, water intakes, drinking water supplies and marinas;	Vol. 2 § 4.0, ACP/GRP CD
29 (c)	Seasonal hydrographic and climatic conditions; and	Vol. 2 § 4.0, ACP/GRP CD
29 (d)	Physical geographic features, including relative isolation of coastal regions, beach types, and other geological characteristics….	Vol. 2 § 4.0, ACP/GRP CD
30	Logistical Resources….list the logistical resources…including facilities for fire services, medical services and accommodations; and shoreline access areas, including boat launches.	Vol. 2 § 2.0
31	Response Strategy Outline….include a statement of the intended response activities.	Vol. 2 § 8.3, § 9.3
31 (a)	Deployment of resources and estimates of response times;	Vol. 2 § 8.3, § 9.3
31 (b)	The intended result of the activity of each person listed in section (7) and (12) of this section;	Vol. 2 § 8.3, § 9.3
31 (c)	Command and control arrangements;	Vol. 2 § 8.3, § 9.3
31 (d)	Required coordination; and	
31 (e)	Probable obstacles and an estimate of oil movement during the first 72 hours.	Vol. 2 § 8.3, § 9.3
32	Financial Responsibility….provide evidence that the facility or vessel is in compliance with federal financial responsibility requirements…	-----
33	Technical Terms Glossary….include a glossary of technical terms and abbreviations used in the plan.	Glossary of Terms/Acronyms

STATE OF OREGON
OAR-340-141
CROSS REFERENCE (Cont'd)

Note: This Regulatory Cross Reference refers to the Integrated Contingency Plan (ICP) as well as other documents prepared to address other regulatory requirements that have not been incorporated into the ICP. These documents will be made available for review at the facility upon request.

OAR 340-141-0160	BRIEF DESCRIPTION	SECTION
(1)	The owner or operator of each onshore and offshore facility must develop spill prevention strategies that will, when implemented, provide the best achievable protection from damages caused by the discharge of oil into the waters of the state. The strategies may be in the form of:	-----
(a)	Appendices to oil spill prevention and emergency response plans required under this chapter; or	-----
(b)	A stand alone prevention plan that meets all the requirements of OAR 340-141-0100 to 340-141-0230.	-----
(2)	Spill Prevention Countermeasure and Control Plans (SPCC), Operations Manuals and other prevention documents prepared to meet federal requirements under 33 CFR 154, 33 CFR 156, 40 CFR 109, 40 CFR 112, or the Federal Oil Pollution Act of 1990 or plans prepared to meet the requirements of other states may be submitted to satisfy requirements under this chapter if the Department deems that such requirements equal or exceed those of the department, or if the plans are modified or appended to satisfy the requirements of this Division.	Vol. 1 Agency Correspondence, Linnton SPCC, Willbridge SPCC, Oregon Pipelines Area § 9.0
(3)	Spill prevention strategies must at a minimum provide all the following:	-----
(a)	Documentation of types and frequency of spill prevention training provided to applicable personnel;	SPCC § 3.1, Vol. 2 § 9.0
(b)	Evidence that the facility has an operations manual;	Vol. 1 Agency Correspondence
(c)	A description of a drug and alcohol awareness program that provides training and information materials to all employees on recognition of alcohol and drug abuse treatment opportunities, and applicable company policies;	Vol. 2 § 9.0
(d)	Evidence of a maintenance and inspection program that includes:	-----
(A)	Summary of the frequency and type of all regularly scheduled inspection and preventative maintenance procedures for tanks, pipelines, key storage, transfer, or production equipment including associated pumps, valves, and flanges, and overpressure safety devices and other spill prevention equipment;	SPCC § 3.2, Vol. 2 § 9.0
(B)	Description of integrity testing of storage tanks and pipelines using such techniques as hydrostatic testing and visual inspection, including but not limited to the frequency of tests, means of identifying that a leak has occurred and measures to reduce spill risk if test material is product;	SPCC § 3.2, Vol. 2 § 9.0

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0160	**BRIEF DESCRIPTION**	**SECTION**
(C)	External and internal corrosion detection and repair;	SPCC § 3.2, Vol. 2 § 9.0
(D)	Damage criteria for equipment repair or replacement;	SPCC § 3.2, Vol. 2 § 9.0
(E)	Maintenance and inspection records of the storage and transfer facilities and related equipment will be made available to the Department upon request; and	-----
(F)	Documentation required by 40 CFR 112.7(e) or 33 CFR 154, Subparts C and D may be used to address elements of this subsection.	-----
(3)(e)	A description of the use of containment boom at facilities transferring persistent oil, including:	Vol. 2 Figures 3.1 and 8.9
(A)	Type(s) of boom used based upon varied conditions within the region(s) of operation; and	Vol. 2 Figures 3.1 and 8.9
(B)	Methods of boom placement and anchoring.	Vol. 2 Figures 3.1 and 8.9
(f)	Identification of spill prevention technology currently in use, including if applicable:	-----
(A)	Tank and pipeline materials and design;	SPCC § 5.1, § 6.1; Vol. 2 § 9.0
(B)	Storage tank overflow alarms, tank overflow cutoff switches, low level alarms and automatic transfer shutdown systems, including methods to alert operators, system accuracy and tank fill margin remaining at time of alarm activation before overflow would occur at maximum pumping rate (documentation required under 40CFR 112.7(e)(3) or 33 CFR 154.310(a)(12-13) may be used to address some or all of these elements);	SPCC § 5.0, Vol. 2 § 9.0
(C)	Leak detection systems for both active and non-active pipeline conditions including thresholds in terms of duration and percentage of pipeline flow limitations on system performance due to normal pipeline events, and procedures for operator response to leak alarms (documentation required under 40 CFR 112.7(e)(3) may be used to address some or all of these elements).	SPCC § 6.0 Vol. 2 § 9.0
(D)	Rapid pump and valve shutdown procedures, including means of ensuring that surge and overpressure conditions do not occur, rates of valve closure, sequence and time duration (average and maximum) for entire procedure, automatic and remote control capabilities utilized and visual displays of system status for operator use (documentation required under 40 CFR 112.7(e)(3) may be used to address some or all of these elements);	SPCC § 6.0, Vol. 2 § 9.0
(E)	Minimization of post-shutdown residual drainout from pipes, including criteria for locating valves, identification of all valves (including types and means of operation) that may be open during a transfer process, and any other techniques for reducing drain out;	SPCC § 6.0, Vol. 2 § 9.0

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0160	**BRIEF DESCRIPTION**	**SECTION**
(F)	Means of relieving pressure due to thermal expansion of liquid in pipes during periods of nonuse;	L O&M Procedure 700 (Series)
(G)	Secondary containment, including contents of the largest tank plus space for precipitation, and material design and permeability of the secondary containment area (documentation required under 40 CFR 112.7(e)(1) and (2)(ii)-(iv) may be used to address some or all of these elements);	SPCC § 5.1
(H)	Surge control systems;	Vol. 2 § 9.0
(I)	Internal and external corrosion control coatings or wrappings and instruments;	SPCC § 5.1, § 6.1; Vol. 2 § 9.0
(J)	Storm water and other drainage retention, treatment and discharge systems, including maximum storage capabilities and identification of any applicable discharge permits (documentation required under 40 CFR 112.7(e)(1) and (2)(iii) and (ix) may be used to address some or all of these elements); and	SPCC § 4.0, Vol. 2 § 9.0
(K)	Criteria for suspension of operations while leak detection or other spill control systems are inoperative.	SPCC, Vol. 2 § 9.0
(3)(g)	A description of facility site security systems, including:	SPCC, Vol. 2 § 9.0
(A)	Procedures for controlling and monitoring facility access;	SPCC, Vol. 2 § 9.0
(B)	Lighting (documentation required under 33 CFR 154.570 may be used to address some or all of this element);	SPCC, Vol. 2 § 9.0
(C)	Signage; and	SPCC, Vol. 2 § 9.0
(D)	Right of way identification or other measures to prevent third party damage (documentation required under 40 CFR 122.7(e)(3)(v) and (9) may be used to address some or all of this element)	Vol. 2 § 9.0
(h)	History of any discharges of oil to land or waters of the state in excess of 25 barrels (1,050 gallons) which occurred during the five year period prior to plan submittal date. For each discharge, describe:	Vol. 2 § 8.2.5, § 9.4 KM Intranet Database
(A)	Quantity;	Vol. 2 § 8.2.5, § 9.4 KM Intranet Database
(B)	Type of oil;	Vol. 2 § 8.2.5, § 9.4 KM Intranet Database
(C)	Geographic area;	Vol. 2 § 8.2.5, § 9.4 KM Intranet Database
(D)	Analysis of cause, including sources (s) of discharged oil and contributing factors (e.g., equipment failure, employee error, adverse weather, etc.); and	Vol. 2 § 8.2.5, § 9.4 KM Intranet Database
(E)	Measures taken to remedy the cause and prevent reoccurrence.	Vol. 2 § 8.2.5, § 9.4 KM Intranet Database

STATE OF OREGON *OAR-340-141* CROSS REFERENCE (Cont'd)		
OAR 340-141-0160	**BRIEF DESCRIPTION**	**SECTION**
(i)	A detailed and comprehensive site risk analysis that:	-----
(A)	Evaluates construction, age, corrosion, inspection and maintenance, operation and oil spill risk of the transfer, production and storage system including piping, tanks, pumps, valves and associated equipment;	SPCC, VOL 2 § 9.5
(B)	Evaluates spill minimization and containment systems;	SPCC, VOL 2 § 9.5
(C)	Incorporates information required in subsection (f) of this section;	SPCC, VOL 2 § 9.5
(D)	Is prepared under the supervision of (and bears the seal of) a licensed professional engineer; and	SPCC, VOL 2 § 9.5
(E)	Includes documentation required under 40 CFR 112.7(b) and (e) may be used to address some or all of the elements in this subsection.	-----
(j)	A description of how the facility will incorporate those measures that will provide best achievable protection to address spill risks identified in the risk analyses required in subsection (i) of this section. (Information documented pursuant to 40 CFR 112.7(e) and 33 CFR 154.310 may be used to address some or all of the elements of this subsection.)	SPCC, VOL 2 § 9.5

GLOSSARY OF TERMS/ACRONYMS

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This glossary contains definitions of terms that will be used frequently during the course of response operations.

Abandon Pipeline: A pipeline or pipeline segment which has met the criteria of an Out-Of-Service pipeline (purged, sealed and disconnected from an operating system) but will not be maintained to minimum USDOT inspection and maintenance standards.

Activate: The process of mobilizing personnel and/or equipment within the response organization to engage in response operations.

Active Pipeline: A pipeline or pipeline segment which is in service whether or not the pipeline is fully operational. This includes pipelines which may have been utilized to transport hazardous liquids but are currently static or unused.

Adverse Weather: The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice, temperature, weather - related visibility, and currents within the Captain of the Port (COTP) zone in which the systems or equipment are intended to function.

Agency Representative: Individual assigned to an incident from an agency who has been delegated full authority to make decisions on all matters affecting that agency's participation in response operations.

Alert: Means an incident has occurred at the terminal which has the potential to affect off-site locations.

Area Committee: As defined by Sections 311(a)(18) and (j)(4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for the area designated by the President. The Area Committee may include ex-officio (i.e., non-voting) members (e.g., industry and local interest groups).

Area Contingency Plan: As defined by Sections 311(a)(19) and (j)(4) of CWA, as amended by OPA, means the plan prepared by an Area Committee, that in conjunction with the NCP, shall address the removal of a discharge including a worst-case discharge and the mitigation or prevention of a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President.

Average Most Probable Discharge: A discharge of the lesser of 50 barrels or 1% of the volume of the worst case discharge.

Barrel (bbl): Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit.

Bioremediation Agents: Means microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation to mitigate the effects of the discharge.

Boom: A piece of equipment or a strategy used to either contain free floating oil to a confined area or protect an uncontaminated area from intrusion by oil.

Booming Strategies: Strategic techniques which identify the location and quantity of boom required to protect certain areas. These techniques are generated by identifying a potential spill source and assuming certain conditions which would affect spill movement on water.

Breakout Tank: Means a tank used to (a) relieve surges in a hazardous liquid pipeline system or (b) receive and store hazardous liquid transported by a pipeline for reinjection and continued transportation by pipeline.

Bulk: Material that is stored or transported in a loose, unpackaged liquid, powder, or granular form capable of being conveyed by a pipe, bucket, chute, or belt system.

Captain of the Port Zone (COTP): Means a zone specified in 33 CFR Part 3 and the seaward extension of that zone to the outer boundary of the exclusive economic zone (EEZ).

CERCLA: Means the Comprehensive Environmental Response, Compensation Liability Act regarding hazardous substance releases into the environment and the cleanup of inactive hazardous waste disposal sites.

Chemical Agents: Means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the oil pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include solvents.

CHEMTREC: Means the Chemical Transportation Emergency Center operated by Chemical Manufacturers Association. Provides information and/or assistance to emergency responders. Can be reached 24 hours a day by calling 800-424-9300.

Clean-up Contractor: Persons contracted to undertake a response action to clean up a spill.

Cleanup: For the purposes of this document, cleanup refers to the removal and/or treatment of oil, hazardous substances, and/or the waste or contaminated materials generated by the incident. Cleanup includes restoration of the site and its natural resources.

Coastal Waters: For the purpose of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

Coastal Zone: As defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Coast Guard District Response Group (DRG): As provided for by CWA sections 311(a)(20) and (j)(3), means the entity established by the Secretary of the department in which the USCG is operating within each USCG district and shall consist of: the combined USCG personnel and equipment, including firefighting equipment, of each port within the district; additional prepositioned response equipment; and a district response advisory team.

Command: The act of controlling manpower and equipment resources by virtue of explicit or delegated authority.

Command Post: A site located at a safe distance form the spill site where response decisions are made, equipment and manpower deployed, and communications handled. The Incident Commander and the On-Scene Coordinators may direct the on-scene response from this location.

Communications Equipment: Equipment that will be utilized during response operations to maintain communication between the Company employees, contractors, Federal/State/Local agencies. (Radio/ telephone equipment and links)

Containment Boom: A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.

Contingency Plan: A document used by (1) federal, state, and local agencies to guide their planning and response procedures regarding spills of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.

Contract or Other Approved Means: For OPA 90, a written contract with a response contractor; certification by the facility owner or operator that personnel and equipment are owned, operated, or under the direct control of the facility, and available within the stipulated times; active membership in a local or regional oil spill removal organization; and/or the facility's own equipment.

Critical Areas to Monitor: Areas which if impacted by spilled oil may result in threats to public safety or health.

Cultural Resources: Current, historic, prehistoric and archaeological resources which include deposits, structures, ruins, sites, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to the historical or prehistorical culture of people in the state as well as to the natural history of the state.

Damage Assessment: The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.

Decontamination: The removal of hazardous substances from personnel and their equipment necessary to prevent adverse health effects.

Discharge: Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Dispersants: Means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Diversion Boom: A floatation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert the product towards a pick up point, or away from certain areas.

Drinking Water Supply: As defined by Section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

Economically Sensitive Areas: Those areas of explicit economic importance to the public that due to their proximity to potential spill sources may require special protection and include, but are not limited to: potable and industrial water intakes; locks and dams; and public and private marinas.

Emergency Planning Zone: Means the area designated by the jurisdiction boundaries of those communities which are within a radial distance of one-half mile from the terminal.

Emergency Response: Means the response to any occurrence which results, or is likely to result in a release of a hazardous substance due to an event.

Emergency Service: Those activities provided by state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.

Environmentally Sensitive Areas: Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.

Exclusive Economic Zone: Means the zone contiguous to the territorial sea of the United States extending to a distance up to 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.

Facility (DOT): Means new and existing pipe, rights-of-way and any equipment, facility, or building used in the transportation of hazardous liquids or carbon dioxide.

Facility (EPA/USCG): Either an onshore facility or an offshore facility and includes, but is not limited to structures, equipment, and appurtenances thereto, used or capable of being used to transfer oil to or from a vessel or a public vessel. A facility includes federal, state, municipal, and private facilities.

Facility That Could Reasonably Be Expected To Cause Significant And Substantial Harm: Means any fixed MTR on-shore facility (including piping and any structures that are used for the transfer of oil between a vessel and a facility) that is capable of transferring oil, in bulk, to or from a vessel of 250 barrels or more, and a deepwater port. This also includes any facility specifically identified by the COTP.

Facility That Could Reasonably Be Expected To Cause Substantial Harm: Means any mobile MTR facility that is capable of transferring oil to or from a vessel with a capacity of 250 barrels or more. This also includes any facility specifically identified by the COTP.

Facility Operator: The person who owns, operates, or is responsible for the operation of the facility.

Federal Fund: The spill liability trust fund established under OPA.

Federal Regional Response Team: The federal response organization (consisting of representatives from selected federal and state agencies) which acts as a regional body responsible for planning and preparedness before an oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill.

Federal Response Plan (FRP): Means the agreement signed by 25 federal departments and agencies in April 1987 and developed under the authorities of the Earthquake Hazards Reduction Act of 1977 and the Disaster Relief Act of 1974, as amended by the Stafford Disaster Relief Act of 1988.

First Responders, First Response Agency: A public health or safety agency (e.g., fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.

General Emergency: Means an incident has occurred and the affected community is implementing protective actions.

Handle: To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.

Harmful Quantity Of Oil: The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen upon or discoloration of the surface of the water or a shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

Hazardous Chemicals: Means all chemicals which constitute a physical hazard or a health hazard as defined by 29 CFR 1910.1200, with the exceptions listed in section 311(e). This term comprises approximately 90 percent of all chemicals.

Hazardous Material: Any nonradioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.

Hazardous Substance: Any substance designed as such by the Administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act; regulated pursuant to Section 311 of the Federal Water Pollution Control Act, or discharged by the SERC.

Hazardous Waste: Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.

HAZMAT: Hazardous materials or hazardous substances, exposure to which may result in adverse effects on health or safety of employees.

HAZWOPER: Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of

Health Hazard: Means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principals that acute or chronic health effects may occur in exposed employees.

Heat Stress: Dangerous physical condition caused by over exposure to extremely high temperatures.

Hypothermia: Dangerous physical condition caused by over exposure to freezing temperatures.

Incident: Any event that results in a spill or release of oil or hazardous materials. Action by emergency service personnel may be required to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Briefing Meeting: Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world.

Incident Command Post (ICP): That location at which all primary command functions are executed.

Incident Command System (ICS): The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of assigned resources at an incident.

Incident Commander (IC): The one individual in charge at any given time of an incident. The Incident Commander will be responsible for establishing a unified command with all on-scene coordinators.

Indian Tribe: As defined in OPA section 1001, means any Indian tribe, band, nation, or other organized group or community, but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the Tribe.

Initial Cleanup: Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of cleanup increases significantly without timely remedial action. All sites must be evaluated to determine whether initial cleanup is total cleanup, however, this will not be possible in all cases due to site conditions (i.e., a site where overland transport or flooding may occur).

Initial Notification: The process of notifying the necessary Company personnel and Federal/ State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.

Initial Response Actions: The immediate actions that are to be taken by the spill observer after detection of a spill.

Inland Area means the area shoreward of the boundary lines defined in 46 CFR part 7, except that in the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) as defined in §80.740 through 80.850 of this chapter. The inland area does not include the Great Lakes.

Inland Waters: State waters not considered coastal waters; lakes, rivers, ponds, streams, underground water, et. al.

Inland Zone: Means the environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Interim Storage Site: A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.

Internally Reported Event: Means an incident has occurred that does not meet the reporting criteria established for notification of off-site authorities. No evacuation has occurred.

Lead Agency: The government agency that assumes the lead for directing response activities.

Lead Federal Agency: The agency which coordinates the federal response to incident on navigable waters. The lead federal agencies are:

- **U.S. Coast Guard:** Oil and chemically hazardous materials incidents on navigable waters.
- **Environmental Protection Agency:** Oil and chemically hazardous materials incidents on inland waters.

Lead State Agency: The agency which coordinates state support to federal and/or local governments or assumes the lead in the absence of federal response.

Line Section: Means a continuous run of pipe between adjacent pressure pump stations, between a pressure pump station and terminal or breakout tanks, between a pressure pump station and a block valve, or between adjacent block valves.

Light Oil Terminal Operations: Means the storage and distribution of gasoline and diesel fuel to wholesale customers.

Loading: Transfer from Facility to vehicle.

Local Emergency Planning Committee (LEPC): A group of local representatives appointed by the State Emergency Response Commission (SERC) to prepare a comprehensive emergency plan for the local emergency planning district, as required by the Emergency Planning and Community Right-to-know Act (EPCRA).

Local Response Team: Designated Facility individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil or hazardous substance spill. They will supervise and control all response and clean-up operations.

Lower Explosive Limit: Air measurement utilized to determine the lowest concentration of vapors that support combustion. This measurement must be made prior to entry into a spill area.

Marinas: Small harbors with docks, services, etc. for pleasure craft.

Marine Transportation Related Facility (MTR FACILITY): Means an on-shore facility, including piping and any structure used to transfer oil to or from a vessel, subject to regulation under 33 CFR Part 154 and any deepwater port subject to regulation under 33 CFR Part 150.

Maximum Extent Practicable: Means the planning values derived from the planning criteria used to evaluate the response described in the response plan to provide the on-water recovery capability and the shoreline protection and cleanup capability to conduct response activities for a worst case discharge from a facility in adverse weather.

Maximum Most Probable Discharge: Means a discharge of the lesser of 1,200 barrels or 10 percent of the volume of a worst case discharge.

Medium Discharge: Means a discharge greater than 2,100 gallons (50 Bbls) and less than or equal to 36,000 gallons (85+ Bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD.

National Contingency Plan: The plan prepared under the Federal Water Pollution Control Act (33 United State Code §1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code § 9601 et seq), as revised from time to time.

National Pollution Funds Center (NPFC): Means the entity established by the Secretary of Transportation whose function is the administration of the Oil Spill Liability Trust Fund (OSLTF). Among the NPFC's duties are: providing appropriate access to the OSLTF for federal agencies and states for removal actions and for federal trustees to initiate the assessment of natural resource damages; providing appropriate access to the OSLTF for claims; and coordinating cost recovery efforts.

National Response System (NRS): Is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Area Committees, and Special Teams and related support entities.

National Strike Force (NSF): Is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team (PIAT), and the National Strike Force Coordination Center. The NSF is available to assist OSCs in their preparedness and response duties.

National Strike Force Coordination Center (NSFCC): Authorized as the National Response Unit by CWA section 311(a)(23) and (j)(2), means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina, with responsibilities that include administration of the USCG Strike Teams, maintenance of response equipment inventories and logistic networks, and conducting a national exercise program.

Natural Resource: Land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality.

Navigable Waters: As defined by 40 CFR 110.1 means the waters of the United States, including the territorial seas. The term includes:

All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

Interstate waters, including interstate wetlands;

All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters;

That are or could be used by interstate or foreign travelers for recreational or other purposes;

From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; and

That are used or could be used for industrial purposes by industries in interstate commerce. All impoundments of waters otherwise defined as navigable waters under this section;

Tributaries of waters identified in paragraphs (a) through (d) of this definition, including adjacent wetlands; and

Wetlands adjacent to waters identified in paragraphs (a) through (e) of this definition: Provided, that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act jurisdiction remains with EPA.

Nearshore Area: For OPA 90, the area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation defined in §80.740 - 80.850 of title 33 of the CFR.

Non-persistent or Group I Oil: A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

1. At lease 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F);
2. At least 95% of which volume, distill at a temperature of 370 degrees C (700 degrees F).

Ocean: The open ocean, offshore area, and nearshore area as defined in this subpart.

Offshore area: The area up to 38 nautical miles seaward of the outer boundary of the nearshore area.

Oil or Oils: Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR Part 302 adopted August 14, 1989, under Section 101(14) of the federal comprehensive environmental response, compensation, and liability act of 1980, as amended by P. L. 99-499.

Oil Spill Liability Trust Fund: Means the fund established under section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509).

Oil Spill Removal Organization: Means an entity that provides response resources.

Oily Waste: Product contaminated waste resulting from a spill or spill response operations.

On-Scene Coordinator (OSC): Means the federal official predesignated by the EPA or the USCG to coordinate and direct response under subpart D.

On-site: Means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action.

Open Ocean: means the area from 38 nautical miles seaward of the outer boundary of the nearshore area, to the seaward boundary of the exclusive economic zone.

Operating Area: Refers to the Rivers and Canals, Inland, Nearshore, Great Lakes, or Offshore geographic location(s) in which a facility is handling, storing, or transporting oil.

Operating Environment: Refers to Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the conditions in which response equipment is designed to function.

Out of Service (OOS) Pipeline: A pipeline or pipeline segment which has been effectively cleaned of all hazardous liquids, filled with water or inert gas and blinded or otherwise isolated from an active pipeline system.

Owner or Operator: Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character.

Persistent Oil: A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:

1. Group II specific gravity less than .85
2. Group III specific gravity between .85 and less than .95
3. Group IV specific gravity .95 and including 1.0
4. Group V specific gravity greater than 1.0

Pipeline System: Means all parts of a pipeline facility through which a hazardous liquid or carbon dioxide moves in transportation, including but not limited to, line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.

Plan Holder: The plan holder is the industry transportation related facility for which a response plan is required by federal regulation to be submitted by a vessel or facility's owner or operator.

Post Emergency Response: The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.

Post Emergency: The phase of response operations conducted after the immediate threat of the release has been stabilized, and cleanup operations have begun.

Primary Response Contractors or Contractors: An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil.

Qualified Individual (QI): That person or entity who has authority to activate a spill cleanup contractors, act as liaison with the "On-Scene Coordinator" and obligate funds required to effectuate response activities.

Recreation Areas: Publicly accessible locations where social/sporting events take place.

Regional Response Team (RRT): The Federal response organization (consisting of representatives from selected Federal and State agencies) which acts as a regional body responsible for overall planning and preparedness for oil and hazardous materials releases and for providing advice to the OSC in the event of a major or substantial spill.

Remove or Removal: As defined by section 311(a)(8) of the CWA, refers to containment and removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare (including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes monitoring of action to remove discharge.

Response Activities: The containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to public health or welfare, or the environment.

Response Contractors: Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Response Guidelines: Guidelines for initial response that are based on the type of product involved in the spill, these guidelines are utilized to determine clean-up methods and equipment.

Response Plan: A practical manual used by industry for responding to a spill. Its features include: (1) identifying the notifications sequence, responsibilities, response techniques, etc. in a easy to use format; (2) using decision trees, flowcharts, and checklists to ensure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from data required by regulatory agencies to prevent confusion during a spill incident.

Response Priorities: Mechanism used to maximize the effective use of manpower and equipment resources based upon their availability during an operational period.

Response Resources: All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Responsible Party: Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state.

Restoration: The actions involved in returning a site to its former condition.

Rivers and Canals: A body of water confined within the inland area that has a project depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

Securing the Source: Steps that must be taken to stop discharge of oil at the source of the spill.

Sinking Agents: Means those additives applied to oil discharges to sink floating pollutants below the water surface.

Site Characterization: An evaluation of a cleanup site to determine the appropriate safety and health procedures needed to protect employees from identified hazards.

Site Conditions: Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.

Site Emergency: Means an incident has occurred and the entire terminal, with the exception of critical employees has been sheltered on-site or evacuated.

Site Safety and Health Plan: A site specific plan developed at the time of an incident that addresses:

- Safety and health hazard analysis for each operation.
- Personal protective equipment to be used.
- Training requirements for site workers.
- Medical surveillance requirements.
- Air monitoring requirements.
- Site control measures.
- Decontamination procedures.
- Emergency response procedures.
- Confined space entry procedures.

Site Security and Control: Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.

Skimmers: Mechanical devices used to skim the surface of the water and recover floating oil. Skimmers fall into four basic categories (suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices) which vary in efficiency depending on the type of oil and size of spill.

Snare Boom: Oil will adhere to the material of which this boom is made of and thus collect it.

Sorbents: Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.

Spill: An unauthorized discharge of oil or hazardous substance into the waters of the state.

Spill Observer: The first Facility individual who discovers a spill. This individual must function as the first responder and person-in-charge until relieved by an authorized supervisor.

Spill of National Significance (SONS): Means a spill which due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and cleanup the discharge.

Spill Management Team: The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Spill Response: All actions taken in responding to spills of oil and hazardous materials, e.g.: receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.

Spill Response Personnel: Federal, state, local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region.

Staging Areas: Designated areas near the spill site accessible for gathering and deploying equipment and/or personnel.

State Emergency Response Commission (SERC): A group of officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Re-authorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.

Substantial Threat of a Discharge: Means any incident or condition involving a facility that may create a risk of discharge of fuel or cargo oil. Such incidents include, but are not limited to storage tank or piping failures, above ground or underground leak, fires, explosions, flooding spills contained within the facility, or other similar occurrences.

Surface Collecting Agents: Means those chemical agents that form a surface film to control the layer thickness of oil.

Surface Washing Agent: Is any product that removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not involve dispersing or solubilizing the oil into the water column.

Tanker: A self-propelled tank vessel constructed or adapted primarily to carry or hazardous material in bulk in the cargo spaces.

Tidal Current Tables: Tables which contain the predicted times and heights of the high and low waters for each day of the year for designated areas.

Toxic Substances: Means any substances which have the capacity to produce personal injury or illness to man through ingestion, inhalation, or absorption through any body surface.

Trajectory Analysis: Estimates made concerning spill size, location, and movement through aerial surveillance or computer models.

Transfer: Any movement of oil to, from, or within a vessel by means of pumping, gravitation, or displacement.

Trustee: Means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the OPA, a foreign government official, who may pursue claims for damages under section 1006 of the OPA.

Underwriter: An insurer, a surety company, a guarantor, or any other person, other than an owner or operator of a vessel or facility, that undertakes to pay all or part of the liability of an owner or operator.

Unified Command: The method by which local, state, and federal agencies and the responsible party will work with the Incident Commander to:

- Determine their roles and responsibilities for a given incident.
- Determine their overall objectives for management of an incident.
- Select a strategy to achieve agreed-upon objectives.
- Deploy resources to achieve agreed-upon objectives.

Unified or Coordinated Command Meeting: Held to obtain agreement on strategic objectives and response priorities; review tactical strategies; engage in joint planning, integrate response operations; maximize use of resources; and minimize resolve conflicts.

Unusual Event: Means an incident has occurred which is noticeable and dramatic from the Terminal perimeter, however, no outside assistance is required and no evacuation outside the incident scene has occurred.

Volunteers: An individual who donates their services or time without receiving monetary compensation.

Waste: Oil or contaminated soil, debris, and other substances removed from coastal waters and adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized discharge. Waste means any solid, liquid, or other material intended to be disposed of or discarded and generated as a result of an unauthorized discharge of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of their generation or if they are brought to a recycling facility within that time.

Waters of the U.S. - See Navigable Waters, page Glossary / Acronyms-7.

Wetlands: Those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds (40 CFR 112.2(y)).

Wildlife Rescue: Efforts made in conjunction with Federal and State agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.

Worst Case Discharge: The largest foreseeable discharge under adverse weather conditions. For facilities located above the high water line of coastal waters, a worst case discharge includes those weather conditions most likely to cause oil discharged from the facility to enter coastal waters.

AC	-	Area Committee
ACP	-	Area Contingency Plan
ADAPTS	-	Air Deliverable Anti-Pollution Transport
AFFF	-	Aqueous Film Forming Foam
AGT	-	Any Gross Tonnage (TONS)
AOR	-	Area of Responsibility
API	-	American Petroleum Institute
AQI	-	Alternate Qualified Individual
ARPA	-	Automatic Radar Plotting Aid
AST	-	Aboveground Storage Tank
ASTM	-	American Society for Testing and Materials
AT	-	Airtight
ATSDR	-	Agency for Toxic Substances and Disease Registry
AWG	-	American Wire Gauge
B	-	Beam
BIA	-	Bureau of Indian Affairs
BBL	-	Barrel (Unit of Volume Equal to 42 Gallons)
BLM	-	Bureau of Land Management
BPD	-	Barrels Per Day
BOD	-	Biological Oxygen Demand
BOM	-	Bureau of Mines
C	-	Degrees Centigrade
C3	-	**Command, Control, and Communications**
C & R	-	Cargoes and Restriction (List)
CAER	-	Community Awareness and Emergency Response
CERCLA	-	Comprehensive Environmental Response, Compensation and Liability Act
CCR	-	California Code of Regulations
CDB	-	Continuous Discharge Book
CDG	-	Subcommittee on the Carriage of Dangerous Goods, IMO
CEQ	-	Council on Environmental Quality
CFM	-	Cubic Feet per Minute
CFR	-	Code of Federal Regulations
CG or USCG	-	Coast Guard
CGA	-	Compressed Gas Association
CH	-	Cargo Hold
CHEMTREC	-	Chemical Transportation Emergency Center
CHRIS	-	Chemical Hazards Response Information System
CMA	-	Chemical Manufacturers Association
CNG	-	Compressed Natural Gas
CO	-	Commanding Officer
COA	-	Certificate of Adequacy
COC	-	Certificate of Compliance
COE	-	U. S. Army Corps of Engineers
COF	-	Certificate of Fitness
COFR	-	Certificate of Financial Responsibility
COI	-	Certificate of Inspection
COIL	-	Central Oil Identification Laboratory
COMDTINST	-	Commandant Instruction
COMDTNOTE	-	Commandant Notice
COMDTPUB	-	Commandant's Publication
CONUS	-	Continental United States
COPH	-	Cargoes of Particular Hazard
CORE	-	Contingency Response
COTP	-	Captain of the Port Zone
COW	-	**Crude Oil Washing**
CRZ	-	Contamination Reduction Zone
CS	-	General Cargo Ship
CSA	-	Canada Standards Association
CSC	-	International Convention for Safe Containers, 1972
CT	-	Cargo Tank
C/V	-	Container Vessel
CVS	-	Commercial Vessel Safety Program
CWA	-	Clean Water Act (Federal - Public Law 100-4)
CWS	-	Community Water System
CZM	-	Coastal Zone Management
DECON	-	Decontamination
DEIS	-	Draft Environmental Administration
DEQ	-	Department of Environmental Quality
DL	-	Decision Letters
DOC	-	Department of Commerce

DOD	-	Department of Defense
DOE	-	Department of Energy
DOI	-	Department of Interior
DOJ	-	Department of Justice
DOL	-	Department of Labor
DOS	-	Department of State
DOSC		Deputy On-Scene Coordinator
DOT	-	Department of Transportation
DSHO	-	Designated Safety and Health Official
DWT	-	Deadweight Tons
EBS	-	Emergency Broadcast System
EEBA	-	Emergency Escape Breathing Apparatus
EEI	-	Essential Elements of Information
EERU	-	Environmental Emergency Response Unit
EG	-	Emergency Generator Room
EHS	-	Extremely Hazardous Substance
EIS	-	Environmental Impact Statement
EMA	-	Emergency Management Agency
EMS	-	Emergency Medical Service
EMT	-	Emergency Medical Technician
EO	-	Executive Order
EOC	-	Emergency Operations Center
EOD		Explosive Ordinance Disposal
EP	-	Estimated Position
EPA	-	U. S. Environmental Protection Agency
EPCRA	-	The Emergency Planning and Right-to-Know Act of 1986 (Title III of SARA)
EQ	-	Environmental Quality
ERT	-	Environmental Response Team
ESA	-	Endangered Species Act
ESD	-	Emergency Shutdown
ETA	-	Estimated Time of Arrival
ETF	-	Emergency Task Force
FAA	-	Federal Aviation Administration
FAX	-	Facsimile Machine
FCC	-	Federal Communications Commission
FCL	-	Flammable Cryogenic Liquid
FEMA	-	Federal Emergency Management Agency
FMC	-	Federal Maritime Commission
FOIA	-	Freedom of Information Act
FOIL	-	Field Oil Identification Laboratory
FOSC	-	Federal On-Scene Coordinator
FP	-	Flashpoint
FPN	-	Federal Project Number
FR	-	Federal Register
FRDA	-	Freshwater Resource Damage Assessment
FRF	-	Federal Revolving Fund
FT	-	Fuel Tank
FTJ	-	Failure to Join
FWPCA	-	Federal Water Pollution Control Act (as amended) (33 U.S.C. 1251 et seq.)
GIS	-	Geographic Information System
GMT	-	Greenwich Mean Time
GPM	-	Gallons Per Minute
GSA	-	General Services Administration
GT	-	Gross Tons
HAZMAT	-	Hazardous Materials
HAZWOPER	-	Hazardous Waste Operations and Emergency Response
HHS	-	Department of Health and Human Services
HP	-	High Pressure
IC	-	Incident Commander
ICS	-	Incident Command System
IDLH	-	Immediately Dangerous to Life or Health
IG	-	Inert Gas
IGS	-	Inert Gas System
IOPP	-	International Oil Pollution Prevention Convention
IS	-	Intrinsically Safe
JRT	-	Joint Response Team
KMEP	-	Kinder Morgan Energy Partners, L.P.
KW	-	Kilowatt
LEL	-	Lower Explosive Limit
LEPC	-	Local Emergency Planning Committee

LFL - Lower Flammable Limit
LNG - Liquefied Natural Gas
LOA - Length Overall
LOC - Letter of Compliance
LOP - Line of Position
LOSC - Local On-Scene Coordinator
LOX - Liquefied Oxygen
LP - Low Pressure
LPG - Liquefied Petroleum Gas
LRT - Local Response Team
MAWP - Maximum Allowable Working Pressure
MBL - Mobile
MEP - Marine Environmental Protection
MOU - Memorandum of Understanding
MSDS - Material Safety Data Sheet
MSO - Marine Safety Office
MSU - Marine Safety Unit
N/A - Not Applicable
NC - Not Certified
NCP - National Contingency Plan
NCWS - Non-Community Water System
NEPA - National Environmental Policy Act
NIIMS - National Interagency Incident Management System
NIOSH - National Institute for Occupational Safety and Health
NLS - Noxious Liquid Substances
NM - Nautical Mile
NMFS - National Marine Fisheries Service
NMT - Not More Than
NOAA - National Oceanic and Atmospheric Administration (Department of Commerce)
NPDES - National Pollution Discharge Elimination System
NPFC - National Pollution Funds Center
NPRM - Notice of Proposed Rulemaking
NPS - National Park Service
NRC - National Response Center
NRDA - Natural Resource Damage Assessment
NRS - National Response System
NRT - National Response Team
NSF - National Strike Force
NSFCC - National Strike Force Coordination Center
NTNCWS - Non -Transient Non-Community Water System
OPA - Oil Pollution Act
OPS - Office of Pipeline Safety (DOT)
ORB - Oil Record Book
OSC - On-Scene Coordinator
OSHA - Occupational Safety and Health Administration (USDL)
OSLTF - Oil Spill Liability Trust Fund
OSPRA - Oil Spill Prevention and Response Act
OSRL - Oil Spill Response Limited
OSRO - Oil Spill Response Organization
OT - Oil Tight
OVA - Organic Vapor Analyzer
OWS - Oily Water Separator
PCB - Polychlorinated Biphenyls
PFD - Personal Flotation Device
PGR - Pager
PHMSA - Pipeline and Hazardous Materials Safety Administration (DOT - OPS) (Replaced RSPA)
PIAT - Public Information Assist Team
POLREP - Pollution Report
PPE - Personal Protective Equipment
PPM - Parts Per Million
PSD - Prevention of Significant Deterioration
QDC - Quick Disconnect Coupling
QI - Qualified Individual
RACT - Reasonably Achievable Control Technology
RCP - Regional Contingency Plan
RCRA - Resource Conservation and Recovery Act
RECON - Reconnaissance
RQ - Reportable Quantity
SARA - Superfund Amendments and Reauthorization Act
SCBA - Self Contained Breathing Apparatus
SDWA - Safe Drinking Water Act

SERC	-	State Emergency Response Commission
SI	-	Surface Impoundment
SIC	-	Standard Industrial Classification
SKIM	-	Spill Cleanup Equipment Inventory
SMT	-	Spill Management Team
SONS	-	Spill of National Significance
SOP	-	Standard Operating Procedure
SPCC	-	Spill Prevention Control and Countermeasures
SSC	-	Scientific Support Coordinator (NOAA)
STEL	-	Short Term Exposure Limits
SUPSALV	-	United States Navy Supervisor of Salvage
SWD	-	Salt Water Disposal
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TSDF	-	Treatment, Storage or Disposal Facility
UCS	-	Unified Command System
U.S.	-	United States
USACOE	-	U.S. Army Corps of Engineers
U.S.C.	-	United States Code
USCG	-	U.S. Coast Guard
USDA	-	U.S. Department of Agriculture
USDL	-	U.S. Department of Labor
USDOD	-	U.S. Department of Defense
USDOE	-	U.S. Department of Energy
USDW	-	Underground Source of Drinking Water
USFWS	-	U. S. Fish and Wildlife Services
USGS	-	U. S. Geological Survey
USPCI	-	United States Pollution Control, Incorporated
UST	-	Underground Storage Tank
WCD	-	Worst Case Discharge
WT	-	Water Tight

AGENCY CORRESPONDENCE

U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

November 1, 2005

Certified Mail – 7003 3110 0003 2603 4621 Return Receipt Requested

Mr. Edward Fant
Kinder Morgan Energy Partners, LP
500 Dallas, Suite 1000
Houston, TX 77002

Re: OPS Sequence Numbers

559 Core Plan
1585 Southern Region-Central
1586 Northern Region-Northwest
1587 Northern Region-Central
1588 Northern Region-California/Nevada
1589 Northern Region-Bay
1590 Southern Region-East
1591 Southern Region-West

Dear Mr. Fant,

The Office of Pipeline Safety (OPS), Pipeline and Hazardous Materials Safety Administration (PHMSA) reviewed the proposed December 2005 plan revision to address our plan review findings in our 25 January 2005 letter as discussed between the representatives of your company and OPS on 2 February 2005. We have determined that the proposed revision will address satisfactorily the findings in our referenced letter.

We also reviewed the January 2005 revisions for the plan. Note that there are several findings for these revisions because of certain modified information in the revisions. The results of the review of the proposed December 2005 and the January 2005 plan revisions are enclosed. OPS will approve the plan when we receive the reissued plan on or before 31 January 2006, provided the reissued plan addresses satisfactorily the findings in the enclosure.

Kinder Morgan Energy Partners, LP still has temporary approval for the plan as provided in our letter dated June 12, 2000. Note that as shown above, OPS is now part of a new U.S. Department of Transportation administration, PHMSA. The Research and Special Programs Administration (RSPA) no longer exists in the department. We bring this to your attention for your future consideration because your plan still refers to RSPA.

If the revisions are sent via the United States Postal Service, please send to:
L. E. Herrick
Response Plans Officer (PHP-80)
US DOT Office of Pipeline Safety
P.O. Box 267
Alexandria, VA 22313-0267

If the revisions are sent via any other carrier, please send to:
L. E. Herrick
Response Plans Officer (PHP-80)
US DOT Office of Pipeline Safety
400 Seventh Street, S.W., Room 2103
Washington, D.C. 20590

Please refer to the "OPS Plan Sequence Numbers" listed above in all plan-related correspondence, including e-mails. E-mail is the preferred method for submitting inquiries, questions and comments to me at le.herrick@dot.gov. You can also telephone me at (202) 366-5523 or fax me at (202) 366-4566. Thank you for your cooperation.

Sincerely,

L. E. Herrick
Response Plans Officer

Enclosure

KINDER MORGAN
ENERGY PARTNERS, L.P.

January 19, 2011

Via Federal Express

Office of Pipeline Safety
Pipeline and Hazardous Material Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE – E- 22 - 321
Washington, DC 20590

Re: Kinder Morgan Energy Partners, L.P./Pacific Region
Integrated Contingency Plan Update
(OPS Sequence Numbers: 559 and 1585 through 1591)

Dear Ms Barber;

Enclosed are two (2) CD's containing electronic copies of the Pacific Region Integrated Contingency Plan for your review and approval in accordance with 49 CFR 194.121 (a) (2). A copy of the Facility Response Plan questionnaire is included on each CD. A printed copy of the questionnaire has been included as well.

The Integrated Contingency Plan has been updated through January 2011 to address changes in company personnel and contractors as well as recent terminal expansions in Phoenix, Reno and Tucson.

If you have any questions, comments or need further information, please contact me at (713) 369-8530.

Sincerely,

Charles V. Mathis
Manager – Emergency Response Programs
Kinder Morgan Energy Partners, L.P.

Enclosures

500 Dallas Suite 1000 Houston, TX 77002 713-369-9000 713-369-9394 Fax

KINDER MORGAN
ENERGY PARTNERS, L.P.

March 17, 2011

Via Federal Express

Office of Pipeline Safety
Pipeline and Hazardous Material Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE – E- 22 - 321
Washington, DC 20590

Re: Kinder Morgan Energy Partners, L.P./Pacific Region
Integrated Contingency Plan Update
(OPS Sequence Numbers: 559 and 1585 through 1591)

Dear Ms Barber:

Enclosed are two (2) CD's containing electronic copies of the Pacific Region Integrated Contingency Plan. A copy of the Facility Response Plan Questionnaire is included on each CD. A printed copy of the Questionnaire has been included as well.

The Integrated Contingency Plan has been updated through March 2011 to address changes in Area Managers/Qualified Individuals in the Northern Region – Bay Area. These copies supersede the January 2011 version submitted for the 5-year review and approval.

If you have any questions, comments or need further information, please contact me at (713) 369-8530.

Sincerely,

Charles V. Mathis
Manager – Emergency Response Programs

Enclosures

500 Dallas Suite 1000 Houston, TX 77002 713-369-9000 713-369-9394 Fax

KINDER MORGAN
ENERGY PARTNERS, L.P.

May 4, 2011

Via Federal Express

Office of Pipeline Safety
Pipeline and Hazardous Material Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE – E- 22 - 321
Washington, DC 20590

Re: Kinde r Morgan Energy Partners, L.P./Pacific Region
Integrated Contingency Plan Update
(OPS Sequence Numbers: 559 and 1585 through 1591)

Dear Ms Barber:

Enclosed are two (2) CD's containing electronic copies of the Pacific Region Integrated Contingency Plan. A copy of the Facility Response Plan Questionnaire is included on each CD. A printed copy of the Questionnaire has been included as well.

The Integrated Contingency Plan has been updated through April 2011 to address changes in Area Managers/Qualified Individuals in the Northern Region – Northwest Area as well as revisions to notification procedures and internal contact information. These copies supersede the January 2011 version submitted for the 5-year review and approval.

If you have any questions, comments or need further information, please contact me at (713) 369-8530.

Sincerely,

Charles V. Mathis
Manager – Emergency Response Programs

Enclosures

500 Dallas Suite 1000 Houston, TX 77002 713-369-9000 713-369-9394 Fax

State of California - The Resources Agency
ARNOLD SCHWARZENEGGER, Governor

Office of Spill Prevention and Response
1700 K Street
Post Office Box 944209
Sacramento, CA 94244-2090
(916) 327-9946

May 29, 2008

Mr. Steve Marositz
Kinder Morgan Energy Partners, L.P.
c/o Manager, Codes and Standards,
Pacific Region, 2319 S. Riverside Ave.
Bloomington, California 92316

Dear Mr. Marositz,

Your California Facility Oil Spill Contingency Plan submittal, dated May 23, 2008, has been reviewed for compliance with the California Code of Regulations Title 14, Subchapter 3, Sections 815, 816, and 817. Based on this review the following plan is approved:

Kinder Morgan Energy Partners, LP **Control #** **P2-07-175A, P2-07-175B, P2-07-175C**

A copy of this letter should be kept aboard each vessel covered by this contingency plan and must be presented to a bunkering company prior to transferring oil in California Marine Waters. **This approval expires on March 31, 2013.**

Your California Facility Oil Spill Contingency Plan must be kept current at all times. Promptly send plan revisions to all plan recipients. When submitting plan revisions, use the letterhead address, with "Attention: Marine Safety Branch".

The current California regulations regarding Oil Spill Contingency Plans can be located through the internet at:

http://www.dfg.ca.gov/ospr/index.html

Printed regulations can be obtained by contacting Barclay's Publishing House at telephone number (800) 888-3600.

We appreciate your efforts to improve the safety of California's marine environment. If you have any questions regarding this approval, contact Mr. Dave Blurton, Marine Safety Branch, at telephone number (707) 864-4975, or by e-mail at Dblurton@ospr.dfg.ca.gov.

Sincerely,

T.L. Mar
Chief, Marine Safety Branch
Office of Spill Prevention and Response

cc: Mr. Dave Blurton
Marine Safety Branch
Sacramento, California

U.S. Department of Homeland Security

United States Coast Guard

Commander
U.S. Coast Guard
Sector Los Angeles – Long Beach

1001 S. Seaside Ave, Bldg 20
San Pedro, CA 90731
Staff Symbol: spi
Phone: 310-732-7380
Fax: 310-732-7389

16611/185-07
FIN# LOSMS115
AUG 1 2007

Kinder Morgan
Attn: Mr. Tom Hosler
2000 E. Sepulveda Blvd.
Carson, CA 90810

Dear Mr. Hosler:

The Coast Guard has completed a final review of your Facility Response Plan submitted May 25, 2007 to meet the requirements of the Oil Pollution Act of 1990 (OPA 90). Your plan is hereby approved. **The expiration date of this approval is August 01, 2012.**

As a reminder, in accordance with Title 33 Code of Federal Regulations (CFR), Parts 154.1030(f) and 154.1065, you shall review this plan annually and submit any revisions to the Captain of the Port and any other plan holders for information or approval as appropriate. Plans submitted for re-approval must be consistent with the National Contingency Plan (NCP) and the applicable Area Contingency Plan (ACP) covering the area in which the facility operates and that are in effect at the time of plan submission. If the NCP and ACP have been revised within 6 months prior to the date of submission, the plan may be based on the prior NCP or ACP.

If you have any question, please contact our Facilities Division at (310) 732-7388.

Sincerely,

D. C. Miller
Lieutenant Commander, U.S. Coast Guard
Chief, Inspections Division
By direction

U.S. Department of Homeland Security
United States Coast Guard

Commander
United States Coast Guard
Sector Portland

6767 N. Basin Ave
Portland, Oregon 97217-3992
Phone: 503-240-2333
Fax: 503-240-2586

16474
December 10, 2008

FIN # PDX20050

Kinder Morgan Willbridge
Attn: Mr. Greg Westling
11400 NW St. Helens RD
Portland, OR 97213

Dear Sir:

This office has completed a final review of the Kinder Morgan Willbridge facility response plan that was submitted to meet the requirements of the Oil Pollution Act of 1990 (OPA 90). No deficiencies were noted, and the plan is hereby approved. The expiration date of this approval is five years from the date of this letter. You must resubmit the plan to the Coast Guard for re-approval six months prior to expiration as required by Title 33 Code of Federal Regulations (CFR) Section 154.1065.

You are reminded to review your response plan annually as required in 33 CFR Section 154.1065 (a). If revisions are necessary, then you must submit the revisions to the Captain of the Port (COTP) and all other plan holders for information or approval, as appropriate. Changes at the facility that significantly affect the implementation of your plan must be submitted to the COTP within 30 days of the change.

I commend your efforts in developing a response plan that reflects your company's operating procedures and organizational structure. I remind you that your plan is a vital working document and that implementing the plan will help ensure effective oil spill response and mitigation. Please ensure that all parties with responsibilities under the plan are familiar with the plan's procedures and requirements.

Please keep in mind that Kinder Morgan Willbridge is prohibited from handling, storing, transporting, transferring, or lightering oil unless it is operating in full compliance with this plan.

A copy of this letter shall be kept with your approved Facility Response Plan.

If you have any questions, please contact the Facilities Inspection Branch at (503) 240-2333.

Sincerely,

F.G. Myer
Captain, U. S. Coast Guard
Captain of the Port

U.S. Department of Homeland Security

United States Coast Guard

Commander
United States Coast Guard
Sector Portland

6767 N. Basin Ave.
Portland, Oregon 97217-3992
Phone: 503-240-2333
Fax: 503-240-2586

16611
28 April 2008

FIN# PDX20050

Kinder Morgan Willbridge
Attn: Mr. Greg Westling
11400 NW St Helens Rd
Portland, OR 97231

Dear Sir:

In accordance with Title 33 Code of Federal Regulations (CFR) Section 154.325(d), this letter is issued to Kinder Morgan Willbridge to certify that the Operations Manual submitted on 24 June 1982, was "Examined by the Coast Guard" and met all applicable requirements for a transfer facility outlined in 33 CFR Parts 154 and 156.

Please submit any future amendments to the Operations Manual to this office in accordance with the procedures outlined in 33 CFR Section 154.320.

Maintain a copy of this letter with each copy of your Operations Manual. Your cooperation and effort to safeguard the environment and the port are greatly appreciated.

If you have any questions, please contact the Facilities Inspection Branch at (503)-240-2333.

Sincerely,

R.C. Proctor
Captain, U. S. Coast Guard
Captain of the Port

U.S. Department of Homeland Security
United States Coast Guard

Commander
United States Coast Guard
Sector Portland

6767 N. Basin Ave.
Portland, Oregon 97217-3992
Phone: 503-240-2333
Fax: 503-240-2586

16611
28 April 2008

FIN# PDX20016

Kinder Morgan Linnton
Attn: Mr. Greg Westling
11400 NW St Helens Rd
Portland, OR 97231

Dear Sir:

In accordance with Title 33 Code of Federal Regulations (CFR) Section 154.325(d), this letter is issued to Kinder Morgan Linnton to certify that the Operations Manual submitted on 24 June 1982, was "Examined by the Coast Guard" and met all applicable requirements for a transfer facility outlined in 33 CFR Parts 154 and 156.

Please submit any future amendments to the Operations Manual to this office in accordance with the procedures outlined in 33 CFR Section 154.320.

Maintain a copy of this letter with each copy of your Operations Manual. Your cooperation and effort to safeguard the environment and the port are greatly appreciated.

If you have any questions, please contact the Facilities Inspection Branch at (503)-240-2333.

Sincerely,

R.C. Proctor
Captain, U. S. Coast Guard
Captain of the Port

U.S. Department of Homeland Security

United States Coast Guard

Commander
United States Coast Guard
Sector San Francisco

1 Yerba Buena Island
San Francisco, CA 94130
Phone: 510-918-0917
Fax: 510-437-6690

16611

April 7, 2011

Kinder Morgan Energy Partners, L.P.
Attn: Mr. Mike Sudheimer
1140 Canal Blvd.
Richmond, CA 94804

SUBJ: SIGNIFICANT AND SUBSTANTIAL HARM FACILITY RESPONSE PLAN
APPROVAL FOR: Kinder Morgan Energy Partners, L.P.
FIN# SF00308 MISLE# 3943498

My office has completed a final review of the Kinder Morgan Energy Partners, L.P. facility response plan that was submitted to meet the requirements of the Oil Pollution Act of 1990 (OPA 90). No deficiencies were noted, and the plan is hereby approved. You must resubmit the plan to the Coast Guard for re-approval prior to expiration as required by Title 33 Code of Federal Regulations (CFR) Section 154.1060. A copy of this letter shall be kept with your approved Facility Response Plan.

You are reminded to review your response plan annually as required in 33 CFR Section 154.1065 (a). If revisions are necessary, then you must submit the revisions to the Captain of the Port (COTP) and all other plan holders for information or approval, as appropriate. Changes at the facility that significantly affect the implementation of your plan must be submitted to the COTP within 30 days of the change.

I commend your efforts in developing a response plan that reflects your company's operating procedures and organizational structure. I remind you that your plan is a vital working document and that implementing the plan will help ensure effective oil spill response and mitigation. Please ensure that all parties with responsibilities under the plan are familiar with the plan's procedures and requirements.

Please keep in mind that Kinder Morgan Energy Partners, L.P. is prohibited from handling, storing, transporting, transferring, or lightering oil unless it is operating in full compliance with this plan.

The expiration date of this approval is April 7, 2016 five years from the date of this letter.

Sincerely,

C. L. STOWE
Captain, U.S. Coast Guard
Captain of the Port

Mathis, Charles

From: melanie.barber@dot.gov
Sent: Thursday, August 11, 2011 1:17 PM
To: Mathis, Charles
Cc: Hernandez, Jaime; Fant, Buzz; PHMSA.OPA90@dot.gov; Terri.J.Binns@dot.gov
Subject: RE: Receipt Confirmation Request for Kinder Morgan Pacific Region Integrated Contingency Plan, Sequence Numbers 559 and 1585 through 1591

The United States Department of Transportation Office of Pipeline Safety has received and is reviewing the Kinder Morgan Energy Partners L.P. Pacific Region Integrated Contingency Plan, Sequence Numbers 559 and 1585 through 1591.

Sincerely,

Melanie M. C. Barber
Environmental Planning Officer
United States Department of Transportation
Office of Pipeline Safety
Room E22-210
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590
Office: 202-366-4560

From: Mathis, Charles [mailto:Charles_Mathis@kindermorgan.com]
Sent: Thursday, August 11, 2011 12:01 PM
To: Barber, Melanie (PHMSA)
Cc: Hernandez, Jaime; Fant, Buzz
Subject: Receipt Confirmation Request for Kinder Morgan Pacific Region ICP

Melanie,

This email is being sent as requested in discussions between Terry Benz, Jaime Hernandez and myself.

Please confirm receipt and review status on the Kinder Morgan Pacific Region Integrated Contingency Plan OPS Sequence Numbers 559 and 1585 through 1591.

Thank you.

Chuck Mathis
Manager - Emergency Response Programs
Kinder Morgan Energy Partners, L.P.
713.369.8530 Office
(b) (6) ***Cell***
713.369.9215 Fax
Charles_mathis@kindermorgan.com

Oregon
John A. Kitzhaber, MD, Governor

Department of Environmental Quality
Headquarters
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY: 711

August 17th, 2011

Mr. Andrew Holbrook
Kinder Morgan Energy Partners
5880 NW St Helens Rd
Portland, OR 97210

RE: Approval of Oil Spill Contingency Plan

Dear Mr. Holbrook :

Based upon our review, the Department of Environmental Quality grants conditional approval to your submitted integrated contingency plan pursuant to Oregon Revised Statutes 468B.300-500 and Oregon Administrative Rules 340-141. Conditional approval is valid from August 17th, 2011 and is set to expire after August 16th, 2016. Your integrated contingency plan covers the following Oregon facilities and pipelines:

1) Kinder Morgan Linnton Terminal: 11400 NW St Helens Rd. Portland, OR 97231
2) Kinder Morgan Willbridge Terminal: 5880 NW St Helens Rd. Portland, OR 97210
3) Aviation Fuel Pipeline which runs from the Kinder Morgan Willbridge Terminal to ASIG terminal at the Portland International Airport.
4) Refined products pipeline which runs from the Kinder Morgan Willbridge Terminal to the Kinder Morgan Eugene Terminal.
5) Various inter-facility pipelines as outlined in the pipelines section of the Kinder Morgan Integrated Contingency Plan, Volume 2 § 6.0.

The conditional approval of the Kinder Morgan Integrated Contingency plan is dependent on Kinder Morgan Energy Partner's successful cooperation with annual unannounced notification and deployment exercises. The first unannounced notification and deployment exercise must be completed by Feburary 1, 2012.

If Kinder Morgan Energy Partners fails to meet state standards you will have 30 calendar days to correct any deficiencies or submit any required changes to the Oregon Department of Environmental Quality. Failure to meet state standards after 30 calendar days can result in the requirement for precautionary measures as allowed in OAR 340-141-0190(8) such as required deployment of containment boom prior to transfer operations, reduction of oil transfer rates, restriction of operations to daylight hours, or increasing personel levels, or the revocation of contingency plan approval.

Approval does not constitute an express assurance regarding the adequacy of this plan nor does it constitute a defense to liability imposed under state law. Further, in accordance with OAR 340-141-0220, the Department of Environmental Quality must be notified as soon as possible and within 24 hours of any

significant change which could affect implementation of the plan, including a substantial decrease in available spill response equipment or personnel. The plan holder shall also provide a schedule for the prompt return of the plan to full operational status. An e-mail or facsimile will be considered written notice for the purposes of this subsection.

Congratulations in developing an excellent plan. We look forward to working with Kinder Morgan Energy Partners in the future. Please do not hesitate to contact Scott A. Smith of my staff at (503) 229-5370 or smith.scott@deq.state.or.us with any questions or concerns.

Sincerely,

Jeff Christensen, Manager
Emergency Response/Environmental Cleanup
Land Quality Division

Enclosures: Approval Certificate

cc: LCDR Parsons USCG MSD-Portland
Richard Franklin USEPA Region 10
DEQ Northwest Region
DEQ Western Region

The Integrated Oil Spill Contingency Plan

for

Kinder Morgan Energy Partners, Inc

Has been approved pursuant to
Oregon Revised Statutes 468B.300-.500
and
Oregon Administrative Rules 340-141
by the
Oregon Department of Environmental Quality

State of Oregon
Department of Environmental Quality

Jeff Christensen
Manager
Emergency Response Program

August 17th 2011
Approval Date

August 16th 2016
Expiration Date

PHMSA 000100912

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ENVIRONMENTAL
CLEANUP

January 14, 2013

RECEIVED
JAN 24 2013

Kinder Morgan Energy Partners, LP
Charles Mathis
500 Dallas St.
Suite 1000
Houston, TX 77002

Kinder Morgan Energy Partners, LP
Kelly Johnson
1765 Prairie Rd.
Eugene, OR 97402

RE: 5-Year Review of Facility Response Plan FRP 16

Dear Mr. Mathis and Ms. Johnson:

Pursuant to the Clean Water Act, 33 U.S.C. Section 1321(j)(5), as amended by the Oil Pollution Act of 1990, the United States Environmental Protection Agency (U.S. EPA) has reviewed your Facility Response Plan (FRP) and finds that it meets the requirements of Section 311(j)(5) of the Clean Water Act and 40 CFR 112.20(c)(4). The next 5 year plan will be due January 14, 2018.

Note that, pursuant to 40 CFR 112.20(d)(1), the owner or operator of a facility for which a response plan is required shall revise and resubmit revised portions of the response plan to U.S. EPA within 60 days of each facility change that may materially affect the response to a worst-case discharge. Changes which may require revisions to a response plan include:

- a change in the facility's configuration;
- a change in the type of oil handled, stored or transferred;
- a change in the capabilities of the oil spill response organization;
- a change in the facility's spill prevention and response equipment or emergency response procedures; and
- any other change that materially affect the implementation of the response plan.

In addition, 40 CFR Section 112.20(d)(2) provides that changes in personnel and telephone number lists included in an FRP do not require U.S. EPA approval, but should be supplied to U.S. EPA as the revisions occur.

If you have questions regarding this correspondence, please contact me at (206) 553-1886 or Janet Wien at 206-553-8634 or wien.janet@epa.gov.

Sincerely,

Janet Wien
for

Michael I Sibley II
On Scene Coordinator (OSC)
Emergency Preparedness and Prevention Unit

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ENVIRONMENTAL
CLEANUP

March 1, 2013

Charles Mathis
Kinder Morgan Energy Partners, LP
500 Dallas St
Suite 1000
Houston, TX 77002

RE: Facility Response Plan FRP 6A

Dear Mr. Mathis:

Pursuant to the Clean Water Act, 33 U.S.C. Section 1321(j)(5), as amended by the Oil Pollution Act of 1990, the United States Environmental Protection Agency (U.S. EPA) has reviewed your Facility Response Plan (FRP) and finds that it meets the requirements of Section 311(j)(5) of the Clean Water Act and 40 CFR 112.20(c)(4). The next 5 year plan will be due February 28, 2018.

Note that, pursuant to 40 CFR 112.20(d)(1), the owner or operator of a facility for which a response plan is required shall revise and resubmit revised portions of the response plan to U.S. EPA within 60 days of each facility change that may materially affect the response to a worst-case discharge. Changes which may require revisions to a response plan include:

- a change in the facility's configuration;
- a change in the type of oil handled, stored or transferred;
- a change in the capabilities of the oil spill response organization;
- a change in the facility's spill prevention and response equipment or emergency response procedures; and
- any other change that materially affect the implementation of the response plan.

In addition, 40 CFR Section 112.20(d)(2) provides that changes in personnel and telephone number lists included in an FRP do not require U.S. EPA approval, but should be supplied to U.S. EPA as the revisions occur.

If you have questions regarding this correspondence, please contact me at (206) 553-1886 or Janet Wien at 206-553-8634 or wien.janet@epa.gov.

Sincerely,

Michael I Sibley II
On Scene Coordinator (OSC)
Emergency Preparedness and Prevention Unit

cc: Sonja Larson, Washington Department of Ecology, Spills Program, Preparedness Section, PO Box 47600, Olympia, WA 98506-7600

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Office of Spill Prevention and Response
425G Executive Court N
Fairfield, California 94534
Telephone: (707) 864-4900
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

March 11, 2013

Mr. Grant McClellan
Kinder Morgan
1550 Solano Way
Concord, California 94520

Dear Mr. McClellan:

Your California Facility Oil Spill Contingency Plan has been reviewed for compliance with the California Code of Regulations Title 14, Subchapter 3, Sections 815, 816, and 817. Based on this review the following plan is approved:

Kinder Morgan Pipeline **P2-01-0175**

A copy of this letter should be kept on the facility covered by this contingency plan. **This approval expires on March 31, 2018.**

Your California Facility Oil Spill Contingency Plan must be kept current at all times. Promptly send plan revisions to all plan recipients. When submitting plan revisions to OSPR, use the letterhead address, with "attention: Marine Safety Branch."

The current California regulations regarding Oil Spill Contingency Plans can be located through the internet at:

http://www.wildlife.ca.gov

We appreciate your efforts to improve the safety of California's marine environment. If you have any questions regarding this approval, contact Vincent Jeffries, Oil Spill Prevention Specialist, at 707-864-4904 or by e-mail at vincent.jeffries@wildlife.ca.gov.

Sincerely,

Roy Mathur
Field Supervisor, Marine Safety Branch
Office of Spill Prevention and Response

cc: Vincent Jeffries, OSPS
Mr. Ted Mar

Conserving California's Wildlife Since 1870

Keywords to find areas

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INTEGRATED CONTINGENCY PLAN

Volume 2

[redacted]

Northern Region - Bay

Concord Area
Richmond/Brisbane Area
Richmond Terminal
San Jose Area

Prepared for:

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street
Houston, TX 77002
or
1100 Town and Country Road
Orange, CA 92868

Prepared by:

Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 ● Fax: (281) 320-9700
www.rmaworld.com

EMERGENCY RESPONSE ACTION PLAN (ERAP)

The users of this Plan carry and maintain the complete Volume 1 and Volume 2 documents and the Plan has been designed for quick reference. Accordingly, the Emergency Response Action Plan (ERAP) for this Integrated Contingency Plan is addressed by cross-reference as follows:

● Qualified Individual	Volume 1 Figure 2.3; Volume 2 § 8.1.2
● Emergency Notification Phone List	Volume 1 §§ 2.1, 2.2; Volume 2 §§ 2.1, 2.2
● Spill Response Notification Form	Volume 1 Figure 2.2
● Response Equipment List and Location	Volume 2 § 3.1 and Figure 3.2
● Response Equipment Testing and Deployment	Volume 2 §§ 3.1, 3.2, 3.3, Figure 3.4
● Facility Response Team	Volume 1 § 2.0; Volume 2 § 2.0
● Evacuation Plan	Volume 2 § 8.4
● Immediate Actions	Volume 1 § 3.4
● Facility Diagram	Volume 2 § 8.1.2, Figure 8.3

REVISION RECORD

CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipeline, GATX Terminals, and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	OSPR Lines Update and General Plan Updates; Revisions to Address DOT-RSPA Review
January 2005	Pgs. iii, v, 2-9, 3-5 thru 3-10, 3-12 thru 3-18; Richmond - 8.2-5, 8.2-35, 8.6-3; Brisbane - 8.2-13, 8.2-14, 8.2-19 thru 8.2-21; San Jose - 8.2-2, 8.2-21 thru 8.2-23, OSPR - 9-17 thru 9-24	Pgs. iii, v, 2-9, 3-5 thru 3-10, 3-12 thru 3-18; Richmond - 8.2-5, 8.2-35, 8.6-3; Brisbane - 8.2-13, 8.2-14, 8.2-19 thru 8.2-21; San Jose - 8.2-2, 8.2-21 thru 8.2-23, OSPR - 9-17 & Inserts, 9-18 thru 9-24	Miscellaneous revisions
June 2005	Pgs. iii thru v, TOC-iii; 2-1; Richmond - 8.1-2, 8.1-5, 8.1-6, 8.2-6, 8.2-8, 8.2-33, 8.2-34, 8.2-38, 8.2-39, 8.3-2, 8.3-4, 8.3-9, 8.4-2, 8.6-1, 8.6-2, 8.6-4, 8.6-5, 8.7-1, 8.8-1, 8.9-1, 8.10-1; Brisbane - 8.1-4, 8.2-15 thru 8.2-18, 8.2-22 thru 8.2-24, OSPR - 9-2, 9-5, 9-9, 9-14 thru 9-16, 9-18	Pgs. iii thru v, TOC-iii; 2-1; Richmond - 8.1-2, 8.1-5, 8.1-6, 8.2-6, 8.2-8, 8.2-33, 8.2-34, 8.2-38, 8.2-39, 8.3-2, 8.3-4, 8.3-9, 8.4-2, 8.6-1, 8.6-2, 8.6-4, 8.6-5, 8.7-1, 8.8-1, 8.9-1, 8.10-1; Brisbane - 8.1-4, 8.2-15 thru 8.2-18, 8.2-22 thru 8.2-24, OSPR - 9-2, 9-5, 9-9, 9-14 thru 9-16, 9-18	Facility information update and miscellaneous revisions; Revisions to address Notifications and OSPR review
August 2005	Pgs. iii, vi	Pgs. iii, vi	General Plan Update
September 2005	Pgs. iii, TOC-iii, 3-2, 3-11, 3-17, 5-8, Concord Area - 6-1, 6-25, Richmond - 8.1-5, Area Map Fig. 8.2, 8.11-1, OSPR - 9-5, 9-6, 9-7	Pgs. iii, TOC-iii, 3-2, 3-11, 3-17, 5-8, Concord Area - 6-1, 6-25, Richmond - 8.1-5, Area Map Fig. 8.2 , 8.11-1, OSPR - 9-5, 9-6, 9-7	General Plan Update
October 2005	Pgs. iii, iiia, 1-2, 2-7 thru 2-10, Concord - 6-1, 6-25, 6-26, Richmond - 8.1-5, Fig. 8.2 Area Map (Richmond); Richmond Facility Diagram, Fig. 8.4; Brisbane - 8.1-3, San Jose - 8.1-3, OSPR - (Richmond-25) Fig. 9.2, (Brisbane-11) Fig. 9.2, (Concord-15) Fig. 9.2, 9-5, 9-7	Pgs. iii, iiia, 1-2, 2-7 thru 2-10, Concord - 6-1, 6-25, 6-26, Richmond - 8.1-5, Fig. 8.2 Area Map (Richmond); Richmond Facility Diagram, Fig. 8.4; Brisbane - 8.1-3, San Jose - 8.1-3, OSPR - (Richmond-25) Fig. 9.2, (Brisbane-11) Fig. 9.2, (Concord-15) Fig. 9.2, 9-5, 9-7	General Plan Update

REVISION RECORD (Cont'd)

CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
December 2005	Pgs. Foreword, Table of Contents, 1-9 (Concord Fig. 1.1), 1-11 (San Jose Fig. 1.1), Section 2.0, Section 3.0, 4-8, Richmond – Section 8.1, Section 8.2, Section 8.11, Brisbane - 6-2, 7-2, Section 8.1, Section 8.2, Concord - 7-1, San Jose - 6-2, Section 8.1, Section 8.2, Section 9 (See revision packet for specific pages)	Pgs. Foreword, Table of Contents, 1-9 (Concord Fig. 1.1), 1-11 (San Jose Fig. 1.1), Section 2.0, Section 3.0, 4-8, Richmond – Section 8.1, Section 8.2, Section 8.11, Brisbane - 6-2, 7-2, Section 8.1, Section 8.2, 8.4.4 (Fig. 8.9 & inserts), Concord - 7-1, San Jose - 6-2, Section 8.1, Section 8.2, 8.4-4 (Fig. 8.9 & inserts), Section 9 (See revision packet for specific pages)	General Plan Update
June 2006	Pgs. iiia, iv thru vi, 1-2, 1-7, 2-2, 2-3, 2-4, 2-5, 2-7, 2-10, 3-1, 3-5, 3-6, 3-7, 4-2, Richmond - 8.1-5 thru 8.1-9, 8.2-9 thru 8.2-21, 8.2-27, Tactical Plan 1a, Tactical Plan 1b, Brisbane - 8.1-3, 8.1-5, 8.1-6, Concord - 6-1, 6-1a, 6-6, 6-7, San Jose – 7-3, 8.1-3, Figure 8.3 (Facility Diagram), Figure 8.4 (Fire Protection Diagram), 8.2-10, Figure 8.7 (Drainage Diagram), Figure 8.8 (Evacuation Diagram), Section 9 - Pg. 9-5	Pgs. iiia, iv thru vi, 1-2, 1-2a, 1-7, 2-2, 2-3, 2-4, 2-5, 2-7, 2-10, 3-1, 3-5, 4-2, Richmond - 8.1-5 thru 8.1-9, 8.2-9 thru 8.2-21, 8.2-27, Tactical Plan 1a, Tactical Plan 1b, Brisbane - 8.1-3, 8.1-5, 8.1-6, Concord - 6-1, 6-1a, 6-6, San Jose – 7-3, 8.1-3, Figure 8.3 (Facility Diagram), Figure 8.4 (Fire Protection Diagram), 8.2-10, Figure 8.7 (Drainage Diagram), Figure 8.8 (Evacuation Diagram), Section 9 - Pg. 9-5	General Plan Update
November 2007	Pgs. iiia, iv, vi, TOC-ii thru TOC-iv, 1-6, 2-1 thru 2-7, 2-15; Richmond – Section 6.0 (all); Brisbane – Section 6.0 (all), 8.2-9, Concord – Section 6.0 (all); San Jose – Section 6.0 (all), 8.2-10, 8.2-12 thru 8.2-14	Pgs. iiia, iv, vi, TOC-ii thru TOC-iv, 1-6, 2-1 thru 2-7, 2-15; Richmond – Section 6.0 (all); Brisbane – Section 6.0 (all), 8.2-9, Concord – Section 6.0 (all), 7-4 (Fire Protection Diagram); San Jose – Section 6.0 (all), 8.2-10, 8.2-12 thru 8.2-14	Annual Update
March 2008	Pgs. iiia thru vi, TOC-i, TOC-v, Section 9.0 (all)	Pgs. iv thru vii, TOC-i, TOC-v, Section 9.0 (all)	OSPR Resubmission
May 2008	Pgs. iv, Brisbane – 6-1 thru 6-3, 9-7	Pgs. iv, Brisbane – 6-1 thru 6-3, 9-7	LS-41/LS-42 WCD/RWCS update

REVISION RECORD (Cont'd)			
CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
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December 2008	Pgs. v thru vii, 3-2,	Pgs. v thru viii, 3-2,	Annual review and update. Update distribution list, notification information, personnel and facility information.
March 2009	Pgs. v thru vii, Richmond Area 8.1-2 and 8.1-5, 9-2, 9-5	Pgs. v thru vii, Richmond Area 8.1-2 and 8.1-5, 9-2, 9-5	Update COFR, update distribution, QI/AQI change.
August 2009	Pgs v thru viii, 2-7; Brisbane Area -8.1-3, 8.1-4, 8.1-6, Figure 8.2; San Jose Area – 8.1-3 thru 8.1-5, Figures 8.3 and 8.4; Richmond Area 8.1-5, 8.2-10, 8.2-12, 8.2-13, 8.2-14, 8.2-18, 8.2-20, 8.2-21; 9-5	Pgs v thru viii, 2-7; Brisbane Area 8.1-3, 8.1-4, 8.1-6, General Layout Diagram and Fire Protection Diagram (following Figure 8.2); San Jose Area – 8.1-3 thru 8.1-5, General Layout Diagram, Fire Protection Diagram (following Figure 8.2); Richmond Area 8.1-5 8.2-10, 8.2-12, 8.2-13, 8.2-14, 8.2-18, 8.2-20, 8.2-21; 9-5	Annual Review Update QI/AQI and distribution information.
December 2009	Pgs. v, viii, 9-3	Pgs. v, viii, 9-3	Distribution update and CA COFR renewal.
January 2010	Pgs. v, TOC-i, 2-8 through 2-12, 3-1, 3-5 through 3-22 (Retain MSRC contracts)	Pgs. v, TOC-i, 2-8 through 2-12, 3-1, 3-5 through 3-18	Update response/repair equipment, OSRO and contractor information.
July 2010	Pgs. v, TOC-I, TOC-iv, 2-16 and Open End and On-Call Contractor List	Pgs. v, TOC-I, TOC-iv; Concord Area 6-16 and Walnut Creek Tactical Plans	Tactical Plan Development. PHMSA Advisory Review
January 2011	Pgs. v, 2-8 through 2-10, 2-12, 2-15	Pgs. v, 2-8 through 2-10, 2-12, 2-15	Update contact information.
February 2011	Pgs. v, 3-5, 3-12, 3-18	Pgs. v, 3-5, 3-12, 3-18 and MSRC Letter.	USCG Aerial Surveillance Requirements

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CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
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April 2011	Pgs. vi, vii	Pgs. vi, vii	Distribution update.
May 2011	Pgs. vi, Richmond/Brisbane Area 7-2 and 8.2-7	Pgs. vi, Richmond/Brisbane Area 7-2 and 8.2-7	Update jurisdictional status of tank BT-09
July 2011	Pgs. vi, Richmond/Brisbane Area 7-1, 7-4, 7-5 and Oakland Terminal Facility Diagram.	Pgs. vi, Richmond/Brisbane Area 7-1	Correct jurisdictional status of Oakland Terminal
November 2011	Pgs. vi, vii, ix, 1-2, 1-3, 1-4, 1-6, 1-8 and Northern Region-Bay Area Map, 2-2, 2-3, Concord Area 6-1, 6-15, 6-16, Section 7 (all)	Pgs. vi, vii, ix, 1-2, 1-3, 1-4, 1-6, 1-8 and Northern Region-Bay Area Map, 2-2, 2-3, Concord Area 6-1, 6-15 through 6-18, Section 7 (all)	New Travis Station and associated pipelines, Oakland Terminal classification correction and notification information updates.
January 2012	Pgs. vi, vii, viii, xi, Concord Area 6-17 and HCA Index; Richmond-Brisbane Area 6-19 and HCA Index; San Jose Area 6-3 and HCA Index; 9-3, 9-11 and HCA Index	Pgs. vi, vii, viii, xi, Concord Area 6-17 and HCA Index; Richmond-Brisbane Area 6-19 and HCA Index; San Jose Area 6-3 and HCA Index; 9-3, 9-11 and HCA Index	Update distribution information, HCA information and COFR
January 2012(2)	Pgs. vi and Richmond Terminal 8.1-2	Pgs. vi and Richmond Terminal 8.1-2	Update Certificate of Financial Responsibility
July 2012	Pgs. vi, TOC-iii, 1-2 through 1-6, 1-8 and Area Map, 2-3, 2-7; Concord Area 6-1, 6-2, 6-17, 6-18 (Retain HCA Index and Tactical Plans), 7-1; Richmond Brisbane Area 6-1, 6-4, 7-1, 7-2, 7-4, 7-5, (Retain Evacuation Diagram), 8.1-6 and Fire Protection Diagram, 8.2-4, 8.2-7, 8.2-10, 8.4-3 and Evacuation Diagram; San Jose Area Section 7, Figures 8.3 and 8.4, 8.2-4, 8.2-8, 8.2-9, 8.2-16 through 8.2-30 and Figure 8.7, 9-3, 9-8	Pgs. vi, TOC-iii, 1-2 through 1-6, 1-8 and Area Map, 2-3, 2-7; Concord Area 6-1, 6-2, 6-17 through 6-22 (Insert HCA Index following 6-21 and Tactical Plans following 6-22), 7-1, 7-6, 7-7 and Stockton Terminal Diagrams; Richmond Brisbane Area 6-1, 6-4, 7-1, 7-2, 7-4, 7-5, Fire Protection Diagram (Following Evacuation Diagram), 8.1-6 and Fire Protection Diagram (Following General Layout Diagram), 8.2-4, 8.2-7, 8.2-10, 8.4-3 and Evacuation Diagram; San Jose Area Section 7, Figures 8.3 and 8.4, 8.2-4, 8.2-8, 8.2-9, 8.2-16 through 8.2-22 and Drainage Diagram, 9-3 and COFRs, 9-8	Annual Review.
March 2013	Title Page, vi through ix, 1-1, 1-6 through 1-8, 2-12, 3-2; Concord Area Section 6 (Retain HCA Map and Tactical Plans), 7-3 and Station Diagrams; Richmond-Brisbane Area Section 6, 8.1-3; San Jose Area 6-1 and 6-2, 8.1-3; Richmond Terminal 8.1-2, 8.1-5; 9-5, 9-7 and 9-8	Title Page, vi through x, 1-1, 1-6 through 1-9, 2-12, 3-2; Concord Area Section 6, 7-3 and Station Diagrams; Richmond-Brisbane Area Section 6, 8.1-3; San Jose Area 6-1 and 6-2, 8.1-3; Richmond Terminal 8.1-2, 8.1-5; 9-5, 9-7 and 9-8	COFR renewal; update notification, company and pipeline information; update facility diagrams.
June 2013	vi, Richmond Terminal 8.1-2.	vi, Richmond Terminal 8.1-2 and CA COFR 2-0044-01-002	Incorporate current CA COFR.

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26	Facility Copy – Richmond Terminal						
4	Area Manager (Richmond/Brisbane Area) 950 Tunnel Ave Brisbane, CA 94005	A		A			A
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1.0 INTRODUCTION AND PLAN CONTENT

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

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1.0 INTRODUCTION AND PLAN CONTENT

1.2 OPERATING ASSETS COVERED BY THIS PLAN

The following tables provide a general information summary for the pipeline sections, pipeline facilities, breakout stations and terminals in each of the Areas in this Region. Specific detail can be located in the following sections for the applicable area.

- Section 6 – Area Pipeline Sections (for DOT jurisdiction)
- Section 7 – Area Breakout Stations (for DOT jurisdiction)
- Section 8 – Area Terminals (for EPA, USCG and OSPR jurisdiction)
- Section 9 – Regional OSPR Line Segments (for OSPR jurisdiction)

RICHMOND/BRISBANE AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
BRISBANE AREA LINES		
Richmond - Christie Road 8”	8	Contra Costa, CA
Richmond - Oakland 10”/12”	36	Alameda, Contra Costa, San Mateo, CA
Amorco Junction – Richmond (Amorco Station) 12”	37	Contra Costa, CA
Brisbane - SFO Airport Junction 12”	38	San Mateo, CA
Oakland – OAK Airport Junction 10”	41	Alameda, CA
OAK Airport Junction - Brisbane 10”	41	Alameda, San Mateo, CA
Oakland – OAK Airport Junction 12”	42	Alameda, CA
OAK Airport Junction - Brisbane 12”	42	Alameda, San Mateo, CA
Richmond - Oakland 8”/10”	46	Contra Costa, Alameda, CA
Chevron 8”	69	Contra Costa, CA
ARCO 8”	71	Contra Costa, CA
ARCO 8”	74	Contra Costa, CA

1.0 INTRODUCTION AND PLAN CONTENT

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

RICHMOND/BRISBANE AREA (Cont'd)		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
BRISBANE AREA LINES		
IMTT 8"	75	Contra Costa, CA
Time 8"	76	Contra Costa, CA
ARCO 8"	89	Contra Costa, CA
Benecia - Amorco 10"	95	Solano, Contra Costa, CA
Chevron 10"	99	Contra Costa, CA
Chevron 10"	104	Contra Costa, CA
PIPELINE FACILITIES (Non-Storage)		
Amorco Pump Station (Booster)		
Richmond Pump Station (Booster)		
Benecia Refinery – Launcher		
Jefferson Junction - Piping Manifold Only		
Airport Junction - Piping Manifold Only		
Unit 80 Line Section 37		
SFO Airport Junction - Piping Manifold Only		
BREAKOUT STATIONS		**COUNTY / STATE**
None		---
TERMINALS		**COUNTY / STATE**
Brisbane Terminal		San Mateo, CA
Oakland Terminal		Alameda, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

CONCORD AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
CONCORD INCOMING LINES		
Benecia - Mococo 10"/12"	103	Solano, Contra Costa, CA
Mococo - Concord 12"	33	Contra Costa, CA
Rodeo - Concord 8"	72	Contra Costa, CA
Martinez - Concord 12"	27	Contra Costa, CA
Martinez - Amorco 8"	68	Contra Costa, CA
Christie Road - Concord 8"	8	Contra Costa, CA
Amorco – Valero Connection 10"	88	Contra Costa, CA
CONCORD OUTGOING LINES		
Concord - Suisun 8"	47	Solano, Contra Costa, CA
Concord - Brentwood Junction 10"	9	Contra Costa, CA
(b) (3), (b) (7)(F)	90	Contra Costa, CA
Concord - Dougherty 10"	16	Contra Costa, CA
Concord - Hay Road 14"/20"	130	Contra Costa, Solano, CA
Travis Junction – Travis Station 16"	147	Solano, CA
Travis Station – Travis Terminal 10"	148	Solano, CA
Stockton Junction - Stockton 8"	62	San Joaquin, CA
(b) (3), (b) (7)(F)		
Stockton - Rough & Ready Junction 8"	45	San Joaquin, CA
Stockton - Arco 8"	43	San Joaquin, CA
PIPELINE FACILITIES (Non-Storage)		
(b) (3), (b) (7)(F)		

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

CONCORD AREA (Cont'd)	
PIPELINE SECTIONS	**COUNTY / STATE**
PIPELINE FACILITIES (Non-Storage) (Cont'd)	
Carquinez South - Piping Manifold / Scraper	
Mococo - Piping Manifold / Scraper	
Bridgehead - LS103 / 33 Scraper	
Bridgehead - LS88 Piping Manifold	
Benecia Bridge North - LS103 / 33 Scraper	
Benecia Refinery - Launcher	
Brentwood Junction - Piping Manifold	
Stockton Junction - Piping Manifold Only	
Rough & Ready Junction - Piping Manifold Only	
BREAKOUT STATIONS	**COUNTY / STATE**
Concord Station	Contra Costa, CA
Travis Station	Solano, CA
Stockton Terminal	San Joaquin, CA
TERMINALS	**COUNTY / STATE**
None	---

RICHMOND TERMINAL	
PIPELINE SECTIONS	**COUNTY / STATE**
None	---
PIPELINE FACILITIES (Non-Storage)	
None	---
BREAKOUT STATIONS	**COUNTY / STATE**
None	---
TERMINALS	**COUNTY / STATE**
Richmond Terminal	Contra Costa, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

SAN JOSE AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
SAN JOSE AREA LINES		
Dougherty - San Jose 10"	16	Alameda, Santa Clara, CA
PIPELINE FACILITIES (Non-Storage)		
Dougherty Booster		
BREAKOUT STATIONS		**COUNTY / STATE**
None		---
TERMINALS		**COUNTY / STATE**
San Jose Terminal		Santa Clara

1.3 SUBSTANTIAL HARM

It is Kinder Morgan Energy Partners, L.P. (KMEP)'s goal to respond as quickly as possible to all uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the overbreadth of the definitions provided in each of the applicable regulations, KMEP is compelled to consider all of the Facility's breakout stations, and active line sections listed above in this Section as capable of a release potentially causing "significant and substantial harm". A summary of the Worst Case Discharge scenarios for these facilities is provided as follows:

NORTHERN REGION-BAY WORST CASE DISCHARGE DOT JURISDICTION	
Discharge Scenario	Planning Volume
(b) (7)(F), (b) (3)	

* DOT Worst Case Discharge volumes are based on 50% of the tank maximum storage capacity and for pipelines based on an annual Integrity Management Program study, as follows:

Release volume prior to line shutdown and valve closures (Initial Loss):

- Full flow release due to rupture. This is computed at the maximum pumping rate the line segment.
- Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of fifteen (15) minutes in the event of a full flow rupture, which would cause an instant alarm (unless otherwise noted in the line segment information).
- Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

Line drainage following pump shutdown (Stabilization Loss) is computed the maximum potential line drainage between adjacent isolation or check valves, and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line. The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

1.3 SUBSTANTIAL HARM (Cont'd)

NORTHERN REGION-BAY DISCHARGE SCENARIOS EPA JURISDICTION	
Discharge Scenario	**Planning Volume**
Small Discharge	
• Brisbane Terminal	50 Bbls
• Richmond Terminal	50 Bbls
• San Jose Terminal	50 Bbls
Medium Discharge	
• Brisbane Terminal	857 Bbls
• Richmond Terminal	857 Bbls
• San Jose Terminal	857 Bbls
Worst Case Discharge	
(b) (7)(F), (b) (3)	

Note: EPA Worst Case Discharge is based on the maximum storage capacity of the largest tank at each facility.

NORTHERN REGION-BAY DISCHARGE SCENARIOS USCG JURISDICTION	
Discharge Scenario	**Planning Volume**
(b) (7)(F), (b) (3)	

NORTHERN REGION BAY WORST CASE DISCHARGE CALIFORNIA OSPR JURISDICTION
The Reasonable Worst Case Spill (RWCS) for the California OSPR jurisdictional Terminal (Richmond) is equal to the volume depicted in the prior USCG table and is further detailed in the Richmond Area Section 8.3. The RWCS for the California OSPR jurisdictional pipeline segments are detailed in Section 9.3.

These Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three-tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. Sections 6, 7, 8 and 9 of this Plan demonstrate a series of calculations and planning volume determinations based on guidance provided by all applicable regulations. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios detailed in the table above.

1.4 FORMAT AND SCOPE OF PLAN

This Volume 2 of the Integrated Contingency Plan (ICP) is intended to guide emergency response activities throughout KMEPs Pacific Operations Northern Region - Bay. This Region is divided into four (4) Areas (see Figure 1.1) each of which has its own tab in this document. These Areas are as follows:

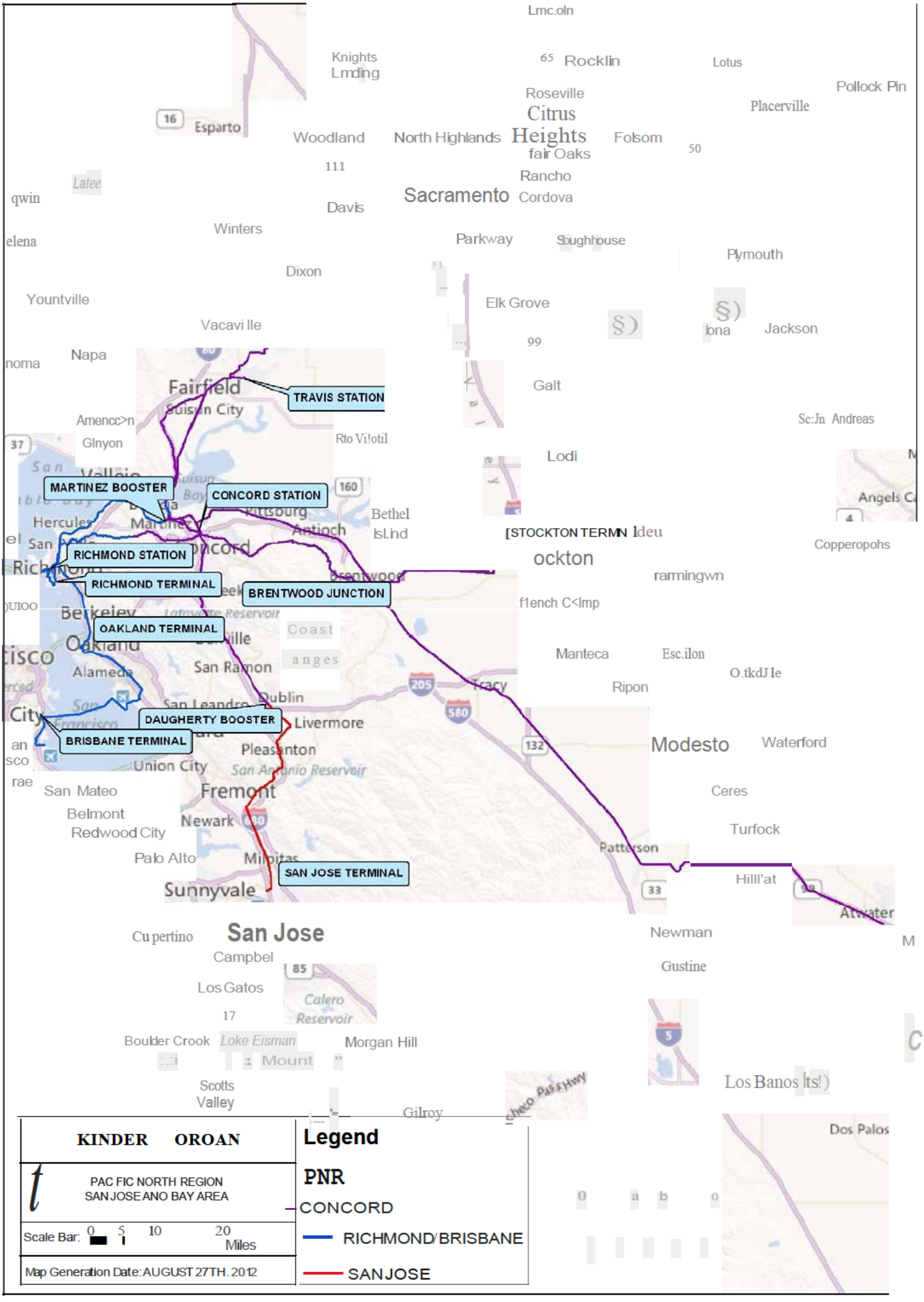
- Richmond/Brisbane Area
- Concord Area
- Richmond Terminal
- San Jose Area

Each of the Volume 2 plans in this ICP has identical Sections 1 through 5. Section 6 of each Area details the Pipeline Sections in the respective area, Section 7 of each Area details the Breakout Stations (DOT-jurisdictional) in the respective Area, Sections 8 of each Area details the Terminals (multi-jurisdictional) in the respective Area, and Section 9 through the end of each Plan details the OSPR Jurisdictional Lines in the Region. The Region covered by this Plan is identified on the front cover of this Plan and on the footer of each page and on the maps provided in Figure 1.1.

Volume 1 of the Integrated Contingency Plan provides guidance which is consistent across the Pacific Operations. The two (2) documents are intended to work together as one seamless Integrated Contingency Plan for the various facilities/operations and agency jurisdictions in Pacific Operations.

Figure 1.1

NORTHERN REGION-BAY AREA MAP


TRAVIS STATION
MARTINEZ BOOSTER
CONCORD STATION
RICHMOND STATION
RICHMOND TERMINAL
BRENTWOOD JUNCTION
OAKLAND TERMINAL
DAUGHERTY BOOSTER
BRISBANE TERMINAL
SAN JOSE TERMINAL
Fairfield
Suisun City
Vacaville
Dixon
Winters
Davis
Woodland
Esparto
Sacramento
Rancho Cordova
Elk Grove
Galt
Lodi
Stockton
Manteca
Ripon
Modesto
Waterford
Ceres
Turlock
Patterson
Newman
Gustine
Los Banos
Dos Palos
Livermore
Pleasanton
Dublin
San Ramon
Fremont
Newark
Union City
Hayward
Oakland
Berkeley
Richmond
Martinez
Antioch
Pittsburg
Concord
Benicia
Napa
Yountville
Rocklin
Roseville
Citrus Heights
Folsom
Placerville
Lincoln
Auburn
Plymouth
Jackson
Angels Camp
Copperopolis
Tracy
Livermore
San Jose
Cupertino
Campbell
Los Gatos
Morgan Hill
Gilroy
Sunnyvale
Palo Alto
Mountain View
Redwood City
Belmont
San Mateo
Alameda
San Leandro
Hercules
Bethel Island
Calero Reservoir
San Antonio Reservoir
Coast Ranges
Scale Bar: 0 5 10 20 Miles
Map Generation Date: AUGUST 27TH. 2012
KINDER OROAN
PACIFIC NORTH REGION
SAN JOSE AND BAY AREA
Legend
PNR
CONCORD
RICHMOND/BRISBANE
SAN JOSE

2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific reference to all internal notifications is detailed in **Volume 1** Section 2.1 which provides the following:

- KM Employee or Agent Notification Process - California Only (Figure 2.1a)
- Operator Notification Process - Non-California (Figure 2.1b)
- Company Employee Other Than Operator Notification Process - Non-California (Figure 2.1c)
- Controller - Orange, CA Notification Process - California Only (Figure 2.1d-1)
- Controller - Orange, CA Notification Process - Non-California (Figure 2.1d-2)
- Controller - Houston, TX Notification Process (Figure 2.1e)
- Managers Internal Notification Process (Figure 2.1f)
- Initial Reporting Details Form (Figure 2.2)
- Northern Region Internal Notifications References (Figure 2.3a)
- Southern Region Internal Notifications References (Figure 2.3b)
- Crisis Support Team Internal Notifications References (Figure 2.3c)

2.2 EXTERNAL NOTIFICATIONS

Specific reference to all **"Regulatory Required"** external notifications is detailed in Volume 1, Section 2.2 and Figure 2.4. **With the exception of notification to 911 and/or local fire/police agencies which are handled by local area operations, the Environmental, Health and Safety (EHS) and/or Compliance, Codes and Standards is responsible for making all regulatory required external notifications in all states other than in California. In California and locations monitoring or controlling, pipeline sections in California, refer to Volume 1, Section 2.2 and Figure 2.4.**

The locally required notifications and additional external notification references which are detailed in the following Volume 2, Figure 2.1 provide for assistance/advisory notifications. Specific notifications for contacting OSROs is found in Volume 2, Figure, 2.1, "_____ Terminal Response Contractors".

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FIRE DEPARTMENTS		
California		
Contra Costa County Fire Department – Richmond/Concord Terminal	Pleasant Hill, CA	(925) 930-5500
Richmond City Fire Department	Richmond, CA	(510) 233-5223
Brisbane City Fire Department	Brisbane, CA	(415) 657-4300
San Jose City Fire Department	San Jose, CA	(408) 277-8991
Alameda County Fire Department	San Leandro, CA	(510) 618-3490
Dixon Fire Department	Dixon, CA	(707) 678-7060
Suisun City Fire Department	Suisun City, CA	(707) 429-1297
Benicia Fire Department	Benicia, CA	(707) 746-4275
Travis AFB Fire Department	Travis AFB, CA	(707) 424-4911* (707) 424-3887

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FEDERAL		
U.S. Coast Guard (Recommended Courtesy Call – As Applicable)		
USCG- Sector San Francisco (*Contra Costa, Santa Clara, Alameda, and San Mateo Counties*) (Command Center)	San Francisco, CA	(415) 399-3300*
U.S. Environmental Protection Agency (EPA)		
U.S. Environmental Protection Agency (EPA) Region IX	San Francisco, CA	(415) 947-4400
U.S. Fish and Wildlife Service		
US Fish and Wildlife Service (USFWS) *(California/Nevada)*	Sacramento, CA	(916) 414-6464
CALIFORNIA		
Office of Spill Prevention and Response (OSPR)		
California Department of Fish and Game Office of Spill Prevention and Response (OSPR)	Sacramento, CA	(916) 358-1310* (dispatch) (888) 334-2258 (916) 445-9338
LEPC		
Local Emergency Planning Committee (LEPC) Coastal Region - *Contra Costa, Santa Clara, Alameda, and San Mateo Counties*	Walnut Creek, CA	(925) 953-1402
California Department of Transportation (DOT)		
California Department of Transportation/Caltrans	Sacramento, CA	(916) 653-3442
Regional Water Quality Control Board		
Regional Water Quality Control Board Region 2	Oakland, CA	(510) 622-2300 (510) 622-2460 FAX

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS
(outside resources)
NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS

AGENCY	LOCATION	OFFICE/ ALTERNATE
CALIFORNIA		
Air Pollution Control District		
Bay Area Air Quality Management District-Richmond Terminal	San Francisco, CA	(415) 771-6000
California Department of Conservation		
California Department of Conservation Oil and Gas District 3	Santa Maria, CA	(805) 937-7246
California Department of Conservation Oil and Gas District 6	Sacramento, CA	(916) 322-1110
State Lands Commission		
California State Lands Commission No. California Branch	Hercules, CA	(510) 741-4950
Cal/OSHA		
Cal/OSHA-Richmond/Concord Area	Concord, CA	(925) 602-6517
Cal/OSHA-Brisbane	Foster City, CA	(650) 573-3812
Cal/OSHA-San Jose	San Jose, CA	(408) 452-7288
Native American Heritage Commission		
Native American Heritage Commission	Sacramento, CA	(916) 653-4082
Office of Historic Preservation Dept. Parks and Recreation		
Office of Historic Preservation Dept. Parks and Recreation	Sacramento, CA	(916) 653-6624
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)		
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)	Sacramento, CA	(916) 653-4529 (24-Hour recorder)
California Coastal Comm./Bay Area Conservation Dev. Comm.		
California Coastal Commission	San Francisco, CA	(415) 904-5200 (415) 904-5285 (415) 904-5400 Fax
San Francisco Bay Conservation and Development Commission	San Francisco, CA	(415) 352-3600
Port of Richmond		
Port of Richmond	Richmond, CA	(510) 215-4600

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON-REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Dig Alert		
USA Underground Service Alert	Concord, CA	(800) 642-2444
Fire Marshal		
Office of the State Fire Marshall 3950 Paramount Blvd #210 Lakewood, CA 90712	Lakewood, CA	(562) 497-9100 * (562) 497-9104 FAX
Law Enforcements		
State Police (Highway Patrol) - Richmond Terminal	Oakland, CA	(510) 450-3821
State Police (Highway Patrol) – Concord Terminal	Martinez, CA	(925) 646-4980
State Police (Highway Patrol) – Brisbane Terminal	San Francisco, CA	(415) 557-1094
State Police (Highway Patrol) – San Jose Terminal	San Jose, CA	(408) 467-5400
Local Water Supply System		
East Bay Municipal Utility- Richmond Terminal	Oakland, CA	(866) 403-2683*
City of Brisbane – Brisbane Terminal	Brisbane, CA	(415) 508-2130*
City of San Jose – San Jose Terminal	San Jose, CA	(408) 279-7811*
City of Concord – Concord Terminal	Concord, CA	(925) 671-3068

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
SERVICES	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Weather Report		
National Weather Service (NWS)	Monterey, CA	(831) 656-1725
Radio/ Television		
Public Radio	Oakland, CA	(510) 869-9910
National Public Radio	San Francisco, CA	(415) 503-3160
KSAN	San Francisco, CA	(415) 981-5726
KSTS	Brisbane, CA	(415) 468-4848
KGO News AM	San Francisco, CA	(415) 954-8100
KCBS Radio	San Francisco, CA	(415) 765-4000
KSJO Radio	Concord, CA	(925) 825-9000
KLIV Radio	San Jose, CA	(408) 293-8030
KARA Radio	San Jose, CA	(408) 293-8030
TV ABC Channel 7 News	San Francisco, CA	(415) 954-7926
KFCB TV 42	Concord, CA	(925) 825-4242
KNTV Channel 11	San Jose, CA	(408) 286-1111
KCBS	San Jose, CA	(408) 295-9307
Fox News	San Francisco, CA	(415) 951-8550
CBS News	San Francisco, CA	(415) 362-8177

NORTHERN REGION-BAY

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
SERVICES	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Hospitals / Ambulance Service		
Alta Bates Hospital/Clinic	Berkeley, CA	(510) 204-4444 (510) 204-1303* (Emergency Room)
Doctor's Medical Center/ Brookside Hospital	San Pablo, CA	(510) 970-5000
Concentra Medical Center	Richmond, CA	(510) 222-8000
Alameda County Medical Center	Oakland, CA	(510) 437-4800
O'Connor Hospital	San Jose, CA	(408) 947-2500
Kaiser Permanente Medical Center	San Francisco, CA	(415) 833-2000
Kaiser Permanente Hospital	Richmond, CA	(510) 307-1500
San Francisco General Hospital	San Francisco, CA	(415) 206-8000
Good Samaritan	San Jose, CA	(408) 559-2011
John Muir Medical Center	Concord, CA	(925) 682-8200
American Medical Response Inc.	Emeryville, CA	(510) 895-7638
American Medical Response Inc.	San Jose, CA	(408) 574-3800
Falcon Critical Care Transport	El Sobrante, CA	(510) 223-1171*
Bay Medic Ambulance	Concord, CA	(925) 689-9000
Bayshore Ambulance	Foster City, CA	(650) 525-3855
Ambu-Trans Inc.	San Francisco, CA	(415) 931-3036

NORTHERN REGION-BAY

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

BRISBANE TERMINAL RESPONSE CONTRACTORS				
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO) OSPR RATED OIL SPILL REMOVAL ORGANIZATION (OSRO)				
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**	**RESPONSE TIME**
Northern Region-Bay – Brisbane Terminal				
Marine Spill Response Corporation (MSRC)	Spill Removal Organization	So. San Francisco – Oyster Pt. San Francisco – Pier 50 Berkeley Marina Oakland Berth 9 Sausalito – Bay Model Redwood City Port Richmond Marina Richmond 6C Richmond MSRC Marin - Rod & Gun Club Crockett MSRC Concord MSRC Martinez Tesoro Martinez Eagle Marine Martinez Marina Pittsburg – Mirant Power Cordelia Fire District Stockton Sacramento	(800) 645-7745* (925) 685-2800*	0.6 0.8 1.0 1.0 1.0 1.1 1.2 1.2 1.2 1.2 1.5 1.5 1.6 1.7 1.7 1.8 1.8 3.0 3.1
ADDITIONAL CONTRACTED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)				
NRC Environmental Services Company	Spill Removal Organization	Various	(800) 337-7455*	Various

* 24 Hour Number

Planning Assumptions: On-water speed, 5 knots; land speed, 35 miles per hour; notification/ mobilization - 30 minutes.

Response Actions for AMPD Kinder Morgan Brisbane Terminal will use MSRC's boom, skimming, and temporary storage capacity, as identified above.

NORTHERN REGION-BAY-BRISBANE TERMINAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

RICHMOND TERMINAL RESPONSE CONTRACTORS				
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO) OSPR RATED OIL SPILL REMOVAL ORGANIZATION (OSRO)				
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**	**RESPONSE TIME**
Northern Region-Bay – Richmond Terminal				
Marine Spill Response Corporation (MSRC)	Spill Removal Organization	Richmond MSRC Richmond 6C Richmond Marina Marin – Rod & Gun Club Berkeley Marina Oakland Berth 9 Sausalito – Bay Model Crockett MSRC San Francisco – Pier 50 Martinez Eagle Marine Martinez Marina Concord MSRC S. San Francisco – Oyster Pt. Martinez Tesoro Cordelia Fire District Pittsburg – Mirant Power Redwood City Port Sacramento Stockton	(800) 645-7745* (925) 685-2800*	0.5 0.5 0.6 0.7 0.8 0.9 0.9 1.0 1.0 1.2 1.2 1.3 1.3 1.3 1.4 1.5 1.8 2.6 2.9
ADDITIONAL CONTRACTED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)				
NRC Environmental Services Company	Spill Removal Organization	Various	(800) 337-7455*	Various

* 24-hour number

Planning Assumptions: On-water speed, 5 knots; land speed, 35 miles per hour; notification/ mobilization - 30 minutes.

Response Actions for AMPD Kinder Morgan Richmond Terminal will use MSRC's boom, skimming, and temporary storage capacity, as identified above.

NORTHERN REGION-BAY-RICHMOND TERMINAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

SAN JOSE TERMINAL RESPONSE CONTRACTORS				
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO) OSPR RATED OIL SPILL REMOVAL ORGANIZATION (OSRO)				
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**	**RESPONSE TIME**
Northern Region-Bay – San Jose Terminal				
Marine Spill Response Corporation (MSRC)/ Clean Harbors of San Jose, LLC	Spill Removal Organization	Redwood City Port	(800) 645-7745*	1.1
		Oakland Berth 9	(925) 685-2800*	1.5
		So. San Francisco – Oyster Pt.		1.6
		Berkeley Marina		1.7
		San Francisco – Pier 50		1.9
		Concord MSRC	(800)645-8265*	1.9
		Richmond Marina		1.9
		Richmond MSRC		1.9
		Richmond 6C		2.0
		Martinez Tesoro		2.0
		Martinez Eagle Marine		2.0
		Martinez Marina		2.0
		Marin - Rod & Gun Club		2.1
		Sausalito – Bay Model		2.1
		Pittsburg – Mirant Power		2.2
		Crockett MSRC		2.2
		Cordelia Fire District		2.4
		Stockton		2.6
		Sacramento		3.6
ADDITIONAL CONTRACTED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)				
NRC Environmental Services Company	Spill Removal Organization	Various	(800) 337-7455*	Various

* 24-hour number

Planning Assumptions: On-water speed, 5 knots; land speed, 35 miles per hour; notification/ mobilization - 30 minutes.

Response Actions for AMPD Kinder Morgan San Jose Terminal will use their own on-scene boom, and MSRC's skimming and temporary storage capacity, as identified above.

NORTHERN REGION-BAY-SAN JOSE TERMINAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS			
ADDITIONAL RESPONSE RESOURCES			
COMPANY/ CONTRACT AGREEMENT	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Non-USCG Classified OSRO with Contract Agreement			
ARB, Inc.	Pipeline Contractor	Pittsburg, CA	(925) 432-3563*
Corey Delta Construction Co.	Pipeline Contractor	Benicia, CA	(707) 747-7500
Ecology Control Industries, Inc.	Cleanup Contractor	Richmond, CA Torrance, CA	(510) 235-1393* (310) 320-2555*
PSC Industrial Outsourcing, Inc.	Cleanup Contractor	Benicia, CA	(707) 746-8287* (800) 800-7472*
Universal Environmental	Cleanup Contractor	Benicia, CA	(800) 747-6609* (707) 747-6699*

DISPOSAL FACILITY	LOCATION	MATERIAL	OFFICE/ ALTERNATE	EPA ID#
Royal Tallow	San Francisco, CA	Non-hazardous liquids	(415) 647-4890	CAD 982361016
Republic Services VASCO Road LLC	Livermore, CA	Non-hazardous solids	(925) 447-0491	CAD 982407645
Romic Environmental Technologies Corp.	East Palo Alto, CA	Hazardous solids and liquids	(800) 766-4248	CAD 009452602
Clean Harbors	Buttonwillow, CA	Hazardous landfill	(661) 762-6200	CAD 980675276
General Environmental Management	Rancho Cordova, CA	Hazardous solids and liquids	(916) 351-0980	CAD 980884183

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL CONTRACTED RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Environmental Consultants			
Witt Obrien's	SMT Support/Consultants	Slidell, LA Houston, TX	(981) 781-0804* (281) 320-9796
ARCADIS U.S., Inc.	Consultants	Los Altos, CA Oakland, CA San Francisco, CA San Jose, CA Walnut Creek, CA	(650) 469-7230 (510) 271-7997 (415) 374-2744 (408) 365-5703 (925) 365-5703
Pipeline Contractor			
ARB, Inc.	Pipeline Contractor	Pittsburg, CA	(925) 432-3563*
Corey Delta Construction Co.	Pipeline Contractor	Benicia, CA	(707) 747-7500*
Trucking Companies			
Ecology Control Industries, Inc.	Hazardous Waste Transporter	Richmond, CA	(510) 235-1393
X-Ray			
Industrial Tests, Inc.	X-ray	Sacramento, CA	(916) 483-2225

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Cleanup Contractor			
Asta Construction Co.	Hazardous Waste & Materials	Rio Vista, CA	(707) 374-6472
Delta Oilfield Services	Hazardous Waste & Materials	Woodward, CA	(530) 662-2841
General Environmental	Hazardous Waste & Materials	Rancho Cordova, CA	(916) 351-0980
Environmental Consultants			
Fluor Daniel	Consultants	Redwood City, CA	(415) 595-6342 (415) 595-6244 (415) 595-6310
Groundwater Tech.	Consultants	Concord, CA	(510) 671-2387
Kaprealian Engineering	Consultants	Martinez, CA	(510) 676-9100
Woodward/Clyde	Consultants	Oakland, CA San Jose, CA	(510) 444-1256 (408) 297-9585
Heavy Equipment			
Albany Construction Co	Cranes	Martinez, CA	(925) 228-5400
Beacon Petroleum Products	Tank Trucks, Pumps	Chico, CA	(530) 342-6949
Cliff Edwards	Backhoe, Dozers, Trucks, Tank Trucks	Colfax, CA	(916) 346-2432
Collins Construction	Backhoe	Clovis, CA	(559) 299-4295 Dennis Collins
Cresco Equipment Rentals	Equipment Rental	Martinez, CA	(925) 228-9811 (800) 649-6629
Crutchfield Const Co.	Backhoe, Side Boom Trucks, Dump Trucks	Stockton, CA	(209) 463-5352 (209) 931-9287 – Linden
Dockendorf Equipment Co	Pumps, Hoses	Chico, CA	(530) 342-4391 (530) 895-8383 - Nights

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING) (Cont'd)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Heavy Equipment (Cont'd)			
Hertz Equipment Rental	Equipment Rental	Concord, CA Fresno, CA	(925) 680-0316 (559) 497-1960
Manson Construction	Group V Oil Cleanup	Richmond, CA	(510) 232-6319
McGill Elliot Construction	Backhoe	Sacramento, CA	(530) 677-8930 Roy McGill
Parker Diving Service	Group V Oil Cleanup	Forest Knolls, CA	(415) 488-0537*
Paydirt Excavating Co.	Backhoe, Loader, Trucks	Ripon, CA	(209) 599-2347
Placer Tractor Service		Loomis, CA	(916) 652-5535
Quinn "Cat" Rental	Heavy Equipment	Fresno, CA	(559) 268-8800
Ramos Environmental	Tank Trucks, Pumps, Hoses, Vacuum Trucks	West Sacramento, CA	(916) 371-5747
Teichert Construction	Excavating Equipment	Truckee, CA Sacramento, CA	(916) 587-3811 (916) 386-6800
Triangle, Inc.	Pumps, Hoses	Sacramento, CA	(916) 421-1990
Truckee Sanitary Dist	Backhoe, Loaders	Truckee, CA	(916) 587-3804
United Rentals	Equipment Rental	Rocklin, CA Chico, CA	(916) 624-0641 (530) 894-7799
West Valley Construction Co.	Construction Equipment, Fill Material	Chico, CA	(916) 895-0216 (Day/Night)
W F Landy / Gomes Excavation	Excavation	Rio Vista, CA	(707) 374-2881
Williams Tank Lines, Inc	Tank Trucks, Pumps, Hoses	Stockton, CA	(209) 944-5613
Pipeline Contractor			
W. M. Lyles Co.	Pipeline Contractor	Fresno, CA	(559) 237-2200

* 24-hour number

NORTHERN REGION-BAY

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING) (Cont'd)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Vacuum and Tank Trucks			
Delta Oilfield Services	Hazwaste & Mat'l	Woodward, CA	(916) 662-2841
Asta Construction Co.	Hazwaste	Rio Vista, CA	(530) 686-5223
Beneto Tank Lines	Tank Trucks		(916) 371-8241
California Tank Lines	Tank Trucks, Pumps, Hoses	Stockton, CA	(209) 466-3554 (209) 883-2658 (209) 931-1003 (209) 931-3818
A & C Industrial	Vacuum Trucks	Chico, CA	(530) 343-5488
Teichert Construction	Vacuum Trucks, Tank Trucks	Sacramento, CA	(916) 386-6800 (800) 287-7383*
Philip Services, Inc.	Vacuum Trucks	Benicia, CA	(707) 746-8287
Wildlife/Rescue			
Oiled Wildlife Care Network	Wildlife Rescue & Rehab.	Davis, CA	(877) 823-6926* (530) 752-4167
International Bird Rescue Research Center	Wildlife Rescue & Rehab.	Fairfield, CA	(707) 207-0380
X-Ray			
Conam Inspection (formerly Pacific Coast Testing)	X-ray	Benicia, CA	(707) 746-5878

* 24-hour number

NORTHERN REGION-BAY

3.0 RESPONSE RESOURCES

The following sections outline the various response equipment/resources available from the Facility, other Company facilities, and other outside resources.

3.1 AREA RESPONSE EQUIPMENT

This Area of the KMEP operations maintains response equipment readily available for spill response as detailed on the "Facility Response Equipment" lists provided in Figure 3.1 and the "Pipeline Repair Equipment" lists provided in Figure 3.2. The equipment is stored at locations in the Area as detailed on the equipment lists.

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. The equipment will be exercised as semi-annually (terminal equipment) or annually (pipeline equipment) as required (PREP Guidelines). A sample form for documenting these Equipment Deployment Exercises is provided in Figure 3.4.

KMEP has contracts in place with Oil Spill Removal Organizations and other clean-up and response contractors that are capable of responding to all discharges within the Area and supplementing Area KMEP resources.

The Qualified Individual has the authority to activate these and other KMEP resources or that of private contractors and other experts and consultants as the situation demands.

3.2 OTHER COMPANY RESOURCES

Neighboring KMEP Areas have response resources similar to those provided in this Area (Figures 3.1 and 3.2). These resources as well as additional Company spill response equipment and manpower resources may be available to supplement the response operation.

3.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation. *The Company will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.*

Response resources will be secured from a Company approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Volume provides a quick reference to the OSROs and additional clean-up and response contract organizations. A detailed list of the "Pacific Region Open End and On-Call Contractors" is provided in Figure 2.2. Specific reference to their response capability (UCSG OSRO classification) is provided in Figure 3.3.

3.3 CONTRACT RESOURCES (Cont'd)

These OSRO's have adequate equipment and personnel resources available within the Area to respond to the applicable regulatory planning volumes in the required time frames.

OSROs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. KMEP personnel will oversee and coordinate with the OSRO to ensure their actions conform with overall incident objectives and established incident action plans.

OSROs also have extensive experience in using the Area Contingency Plans (ACPs) as a resource when responding to an incident that has affected a navigable waterway. The KMEP Incident Commander, Planning Officer and Operations Chief will employ the OSRO's experience to integrate applicable local ACPs into the overall incident action plans.

3.4 AREA CONTINGENCY PLANS (ACP)

Area Committees comprised of Federal, state and local agencies develop ACPs. Response efforts performed within a certain "area" should reference the ACPs for that specific area. ACPs include clean-up strategies and information on environmentally sensitive areas within a particular region. Some of the ACPs include maps, shoreline characteristics and booming strategies for specific areas while other ACPs offer priority lists of environmentally sensitive areas.

ACPs generally contain the following information:

- Physical features
- Seasonal concerns
- Resources of primary concern
- Containment, and cleanup strategies, including recommended techniques
- Equipment considerations
- Incident Command System Roles and Responsibilities (NIMS)

To identify specific spill response and protection strategies for the applicable region/area, ACP and Geographic Response Plan information can be found at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/pacific_icp.html Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-KMEP plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1 (inside front cover) or in a separate folder in electronic copies and is referenced in Figure 4.2.

To determine adequate response resources, the Worst Case Discharge volumes are used in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

3.5 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/mutual aid resources will be utilized when available and/or necessary.

3.6 EXPERTS AND CONSULTANTS

KMEP maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

3.7 VOLUNTEERS

Volunteers will not be utilized by KMEP for the response operations. All volunteers will be referred to the state or Federal On-Scene Coordinator (EPA).

3.8 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between KMEP and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

3.8.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with KMEP emergencies. The notification procedures and telephone contacts documented in Section 2 of Volume 1 and Volume 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and state emergency telephone numbers for the Orange Control Center and emergency response personnel (Volume 1; Section 2).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Volume 2; Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Volume 2; Figure 2.1).

3.8 COMMUNICATIONS (Cont'd)

3.8.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing KMEP communications network. This network will utilize existing radios, telephones, beepers, fax machines, and computers and will be maintained by KMEP personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other KMEP and contract resources as the situation demands.

Each KMEP responder has, at a minimum, a cellular telephone. All KMEP response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the KMEP spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and kept in designated KMEP response trailers. In addition, KMEP also utilizes radio sets provided by contract resources. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain KMEP personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited. Most response team members carry a pager.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and KMEP personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE 3.1

FACILITY RESPONSE EQUIPMENT

RICHMOND TERMINAL (TOSCO EQUIPMENT)			
Equipment Type/ Manufacturer/ Model	**Quantity**	**Location**	**Inspection/ Maintenance**
Conoco Phillips Dock: *Kepner Sea Curtain *Containment Boom 8" X 12"	1,000 feet	North end of barge dock	Prior to each Marine Transfer
	1,000 feet	South end of tanker dock	Prior to each Marine Transfer
	1,000 feet	On-Shore adjacent to boat house	Prior to each Marine Transfer
	600 feet	On Portable Trailer	Prior to each Marine Transfer
Conoco Phillips Dock: *19 foot Utility Workboat & *17 foot Utility Work boat containing absorbent pads, boom, and shovels	2 boats	Boat house on trailers	Prior to each Marine Transfer
Conoco Phillips Dock: Absorbent pads, booms, litter	500 pads 10 booms	Boat house, warehouse, dock, spill trailer	Semi-annual
Fire Protection **Facility:**			
Fire Hydrants	13 ea.	Facility	Monthly
Portable Fire Ext.	30 ea.	Facility	
Conoco Phillips Dock:			
3 Fixed Monitors	3 ea.	Tosco Dock	
Double Fire Hydrant	4 ea.	Tosco Dock	
1-1/2 in. Fire Hose Reel	5 ea.	Tosco Dock	
20 # Portable Fire Ext.	5 ea.	Tosco Dock	

The equipment listed underneath the words "Conoco Phillips Dock" is owned by Conoco Phillips Dock which is leased by Richmond Terminal. The Richmond Terminal has an agreement with Conoco Phillips Marine Terminal in which Conoco Phillips will provide on-site response equipment.

***Note:** **Should this major response equipment be removed from service for a period of 24 hours or more for maintenance or repair, the OSPR Administrator shall be notified. A temporary replacement shall be furnished in such cases so that the ability to respond is not affected.**

FIGURE 3.2

PIPELINE REPAIR EQUIPMENT
SAN JOSE TERMINAL

San Jose Terminal		
Item	**Description**	**Quantity**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Absorbents	Pads 24"X24"	300
Absorbent Boom	8"X10'	3
Cleanup/Disposal Kits	5 gallon buckets	
Generator		1
Foam Trailer w/Pintal Hook	1,000 gallon	1
Drums	55 gallon	7
Fire Extinguisher	150#	1
Fire Extinguisher	30# Dry Chemical	42
Fire Extinguisher		17
Fire Extinguisher	10# Dry Chemical	11
Fire Extinguisher	20# Dry Chemical	2
Fire Extinguisher	10# Halon	1
First Aid Kit		1

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2

PIPELINE REPAIR EQUIPMENT (Cont'd)

Concord Maintenance Yard (Response Trailer)		
Item	**Description**	**Quantity**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Absorbents	Pads 17" x 19"	200
Absorbent Boom		(4) Large (5) Small
Air Compressor	12 Volt 200 PSI	1
Air Filter	For Generators	1
Alhambra Water	5 Gal.	3
Allen Set	8 Piece	1
Anti Bacterial Wipes		100
Ball Valves	(1) 1" (1) 2" (1) 3"	
Big Board Stands		4
Bitumatic		1 Gal.
Blower	GX 120 Honda 4 HP W/Tube	1
Boots	Rain	1 Pair
Broom		1
Brush		1
Bungee Cord		6
Camlock Fitting	3" W/Cap	
Canopy	10' x 20'	1
Caution Tape		8 Rolls
Chain Saw	Gasoline Driven	1
Circuit Guard	Portable GFI	1
Clipboard		9
Coffee Maker		
Coffee Supplies		
Container	Spill	2
Coveralls	Nomex	4
Coveralls	Disposable	8
Crescent Wrench		5
Cutting Oil		2 Gal.
Delineator and Stands		12
Drill Set		1
Drilling Mud		5 Gal.
Duct Tape		2
Dust Particle Masks		28
Explosimeter		1
Extension Cords		10
Faucet	¾"	1

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2

PIPELINE REPAIR EQUIPMENT (Cont'd)

Concord Maintenance Yard (Response Trailer)		
Item	**Description**	**Quantity**
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
File		2
File Boxes		2
File Folders		100
Fire Blanket		2
Fire Extinguisher	Type BCDF	2
Fire Hose	2"	4
Fire Hose	Rubber	3
First Aid Kit		1
Flash Light		6
Flashlight Batteries		8
Folding Chairs		6
Garden Hose		4
Gas Can	5 Gal.	2
Gas Detector	Model 13145 SMPM	1
Generator	Honda ES 6500 120vlt/240vlt	1
Glass Vials		55
Gloves	Rubber	9 Sets
Glovesets		4
Grease Gun & Grease		1
Hacksaw Blades		1
Hammer	Claw	1
Hand Cleaner		1
Hand Soap		1
Hard Hats		6
Hose	Air	2
Ice Chest		1
Jack		1
Johnny Cat	Kitty Litter 20 lb Bag	2 Bags
Jumper Cables	15' w/Clamps	1
Kinder Morgan Signs	Magnetic	6
Lamps/Stands	With Bulbs	3
Legal Pads		12
Level		1
Light Stands		3
Line Locater	Metrotech Model 810	1
Nipple	1" x 4"	1
Nipple	2" 3" 4"	

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2

PIPELINE REPAIR EQUIPMENT (Cont'd)

Concord Maintenance Yard (Response Trailer)		
Item	**Description**	**Quantity**
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Oil	for Generator 30 Wt.	9 Qts.
Oil Can		2
Overnight Bag		2
Paint Brush		1
Paper Towels		8
Pipe Nipple	3/4" x 6"	1
Pipe Wrench		3
Plastic Cups	16 Oz.	50
Pliers		2
Polykin Primer		1 Gal.
Polykin Tape	4" wide	12 Rolls
Pump	Submersible 2"	1
Rags		12
Rain Suite	(2) Small (2) Lrg (3) X Lrg	
Rake		1
Respirators	Small	3
Respirators	Medium	3
Respirators	Large	2
Rope		100'
Safety Cones		6
Safety Harness		3
Safety Vests		9
Sample Tube		5
Sand Bags		20
Screw Driver Set	Phillips and Flathead	2
Scrub Brush		3
Signal Light		2
Simple Green	1 Gal.	2
Siphon Tubes		1
Sledge Hammer	(1) 12# (1) 2#	2
Socket Set	52 pc.	2 Sets
Spark Plugs	For Generators	2
Speed Bumps		2
Spill Boom	(4) Large (5) Small	
Styrofoam Cups		24
Table	2.5' x 6'	2

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2

PIPELINE REPAIR EQUIPMENT (Cont'd)

Concord Maintenance Yard (Response Trailer)		
Item	**Description**	**Quantity**
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Tapping Saddle Rings		50
Tapping Saddles	(2) 6" (3) 8" (1) 10" (1) 12" (1) 14"	
Tarp		1
Tin Snaps		1
Tool Box		1
Trailer Hitch W/Sway Bars		1
Trash Bags	Large	70
Trash Can		1
Vacuum Tube	Visible (1) 3" (1) 2"	
Valve	3/4"	1
Vice		1
Vice Grips		1
Visquene		2 Rolls
Warning Signs		4
Water Cooler	2.5 Gal.	1
WD-40		3
Weather Direction Flag		2
Weed Sprayer	3 Gal.	1
Wildon Pump	2"	1
Wire Cutters		2
Ziploc Bags	Sandwich 6" x 5"	30

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.3
Terminal OSRO Information

AMPD INFORMATION - KMEP Brisbane Terminal

- **AMPD response provider**

  OSRO / Clean-up Contractor
  Marine Spill Response Corporation
  11502
  (Equipment deployment personnel are located at equipment site.)

  Contract Expiration Date
  12/31/2013

- **Equipment Address (*1-hour response time):**

  Boom: MSRC Oyster Point
  95 Harbor Master Rd.
  South San Francisco, CA 94080

- **Equipment Address (*2-hour response time):**

  Skimmer: MSRC Pier 50, San Francisco 94105

  Temporary Storage: MSRC Pier 50, San Francisco 94105

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation (MSRC)	11502	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	
		Open Ocean			X	X	
		Offshore			X	X	
		Nearshore			X	X	

FIGURE 3.3
Terminal OSRO Information (Cont'd)

AMPD INFORMATION - KMEP Richmond Terminal

- **AMPD response provider**

Proprietary Equipment
Richmond Terminal
1140 Canal Blvd., Richmond, CA 94804

Contract Expiration Date
(Proprietary Equipment)

OSRO / Clean-up Contractor
Marine Spill Response Corporation
11502
(Deployment personnel are located at equipment site.)

12/31/2013

- **Equipment Address (*1-hour response time):**

Boom: Richmond Terminal
1140 Canal Blvd.
Richmond, CA 94804

North end of Conoco Philips barge dock 1,000 feet
South end of Conoco Philips tanker dock 1,000 feet
On-Shore adjacent to boat house 1,000 feet
On portable trailer 600 feet

- **Equipment Address (*2-hour response time):**

Skimmer: MSRC 1314 Canal Blvd., Richmond, CA 94804

Temporary Storage: MSRC 1314 Canal Blvd., Richmond, CA 94804
(in excess of 3,500 bbls)

- **Aerial Oil Tracking Capabilities (via MSRC):**

Aircraft Provider	No.	Type
San Francisco Helicopter	1	Helicopter (Bell 407)
	1	Helicopter (Bell 206B)
	1	Fixed Wing (King Air 200)
Air Flight Services	1	Fixed Wing (Aero Commander 500)
	1	Fixed Wing (Piper Navajo PA-31)
South Bay Helicopter	1	Helicopter (Augusta 109)
	1	Helicopter (Eurocopter AS 350)

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)
OSPR Rated Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation (MSRC)	11502	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	

FIGURE 3.3
Terminal OSRO Information (Cont'd)

AMPD INFORMATION - KMEP San Jose Terminal

- **AMPD response provider**

  OSRO / Clean-up Contractor
  Marine Spill Response Corporation/
  Clean Harbors of San Jose, LLC
  11502
  (Equipment deployment personnel are located at equipment site.)

  Contract Expiration Date
  12/31/2013

- **Equipment Address (*1-hour response time):**

  Boom: Clean Harbors of San Jose, LLC
  1040 Commercial Street-Suite 109
  San Jose, CA 95133
  800-645-8265- 24/7

- **Equipment Address (*2-hour response time):**

  Skimmer: Skim Pack

  Temporary Storage: 5,000 Gal total

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation (MSRC)/ Clean Harbors of San Jose, LLC	11502	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	
		Open Ocean			X	X	
		Offshore			X	X	
		Nearshore			X	X	

FIGURE 3.3
Response Zone OSRO Information

Northern Region – Bay

USCG CLASSIFIED-OSRO
Marine Spill Response Corporation (MSRC)

Contract Expiration Date
12/31/2010[1]
Contract Number: 11479

The identified Oil Spill Removal Organization is capable of arriving at the scene of a discharge within the time specified for the applicable response tier, as follows:

	Tier 1	Tier 2	Tier 3
High Volume Areas	6 Hours	30 Hours	54 Hours
All Other Areas	12 Hours	36 Hours	60 Hours

The Northern Region – Bay Response Zone is not in a High Volume Area as defined in 49 CFR 194 Appendix B

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Note 1: MSRC membership automatically renews every three (3) years unless cancelled in accordance with the membership agreement.

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation (MSRC)/ Clean Harbors of San Jose, LLC	11479	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	
		Open Ocean			X	X	
		Offshore			X	X	
		Nearshore			X	X	

FIGURE 3.3

OIL SPILL REMOVAL ORGANIZATIONS (Cont'd)

USCG OSRO Classifications

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

FIGURE 3.4

Internal Exercise Documentation Form
Semiannual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

3. Deployment location(s):

   _____
   _____
   _____
   _____
   _____
   _____

4. Time started: _____
   Time completed: _____

5. Equipment deployed was:
   - ❑ Facility - owned
   - ❑ Oil spill removal organization - owned if so, which OSRO? _____
   - ❑ Both

6. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:

   _____
   _____
   _____
   _____
   _____
   _____

7. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):

   _____
   _____
   _____
   _____
   _____

8. For deployment of facility-owned equipment, was the amount of equipment deployed <u>at least</u> the amount necessary to respond to your facility's average most probable spill?

   _____
   _____

   Was the equipment deployed in its intended operating environment?

   _____
   _____

FIGURE 3.4

Internal Exercise Documentation Form
Semiannual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

9. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

   Was the equipment deployed in its intended operating environment?

10. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

    If so, describe the program: _____

    Date of last equipment inspection: _____

11. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

12. Was all deployed equipment operational? If not, why not?

Response Equipment Inspection Log

Inspector	Date	Comments

FIGURE 3.5

OSRO CONTRACTS

Judith A. Roos
Vice President
Marketing, Customer Services & Corporate Relations
(703) 326-5617

February 4, 2011

Re: Aerial Oil Tracking Resources

Dear Customer:

On February 22, 2011, the Aerial Oil Tracking requirements of 33 CFR Part 154.1035 (b)(3)(vii) for MTR Facility Response Plans (FRPs) and 33 CFR Part 155.1035(i)(11), 33 CFR Part 155.1040(j)(11), and 33 CFR Part 155.1050(l) for Vessel Response Plans (VRPs) go into effect.

For planning purposes under these regulations, the Aerial Oil Tracking resources must be capable of supporting all response operations, including: mechanical recovery, dispersant application, and in situ burning. The Marine Spill Response Corporation (MSRC) has developed the following capability in conjunction with this new regulatory requirement that our plan holder customers may cite in their response plans, along with their citation of MSRC as the resource provider:

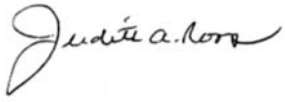
- Aerial surveillance aircraft;
- Along with the aircraft, the pilots and trained personnel to support oil spill response operations;
- For planning purposes, these resources are capable of arriving at the site of the discharge in advance of the arrival of response resources identified for Tiers 1, 2 and 3 planning timeframes; and
- Observation personnel trained in the protocols of oil spill reporting and assessment.

Observation personnel are primarily trained MSRC employees. The other resources are available through contracts or other approved means (specifically Letters of Intent ("LOIs") or other agreements with various aircraft providers. These services are subject to availability of aircraft and personnel. Multiple aircraft providers are listed for each geographic Captain of the Port ("COTP") Zone.

MSRC will maintain lists of the potentially available aircraft providers, along with other documentation, by COTP zones within the respective MSRC Regional Response Center. These records will be made available upon request. MSRC will periodically review this capability by COTP zone and update the documentation as appropriate.

MSRC has provided a copy of this letter to US Coast Guard Headquarters personnel responsible for VRP compliance and to COTPs within MSRC's Operations Area for their information. Customers may use this letter in their FRP or VRP as they deem appropriate.

Sincerely,



Marine Preservation Association
8777 N. Gainey Center Drive, Suite 165
Scottsdale, AZ 85258
Telephone 480-991-5500 Fax 480-991-6085
www.mpaz.org

MSRC
Marine Spill Response Corporation
220 Spring Street, Suite 500
Herndon, VA 20170
Telephone 703-326-5600 Fax 703-326-5660
www.msrc.org

To: **Heidi Dyer**
Subject: **Kinder Morgan Energy Partners' Transitional Membership in MPA**
Date: **December 22, 2005**
Re: **Membership Status**

MPA has recently received dues payment by Kinder Morgan Energy Partners for the First Quarter Dues Call. This payment ensures that Kinder Morgan Energy Partners remains an MPA member in good standing under its CB Transitional Membership Agreement dated as of December 31, 2003, and thus can continue to cite and call-out MSRC for spill response services in the Northern California Operations Area, as defined.

As you may recall, the period covering the CB Transitional Membership is 10 years from the date of MSRC/Clean Bay Incorporated merger, or December 31, 2003. So long as Kinder Morgan Energy Partners continues to pay its quarterly dues during this period, it will remain a member in good standing. Kinder Morgan may at any time decide to become a national member of MPA, in which case the Kinder Morgan Energy Partners' assets in the Operational Area currently covered by the CB Transitional Membership would be included.

I hope this has addressed your concerns. If you should have any questions regarding this information, please contact me.

Best Regards,

Brett G. Drewry
CFO

04-CK-20-096-ORG

Marine Preservation Association
8777 N. Gainey Center Drive, Suite 165, Scottsdale, Arizona 85258
Telephone: (480) 991-5599 Facsimile: (480) 991-6085
E-mail: RAldag@MPAz.org

Robert Aldag
President and Chief Executive Officer

January 21, 2004

Mr. Mike Sudheimer
Kinder Morgan Liquid Terminals (Kinder Morgan Energy Partners)
1140 Canal Blvd
Richmond, CA 94804 USA

Dear Mr. Sudheimer,

It is my pleasure to welcome Kinder Morgan Liquid Terminals (Kinder Morgan Energy Partners) as a Clean Bay Transitional Member resulting from the merger between the Marine Spill Response Corporation (MSRC) and Clean Bay Incorporated. Kinder Morgan LT's Clean Bay Transitional Membership Effective Date is **December 31, 2003.**

MPA has received and accepted Kinder Morgan LT's Clean Bay Transitional Membership Application and Initial Membership Dues of **$19,750.** MPA has also received two copies of the signed Clean Bay Transitional Membership Agreement. A fully executed copy of this Membership Agreement is enclosed for your records.

As you know, Kinder Morgan LT's Clean Bay Transitional Membership has entitled Kinder Morgan LT to sign a Service Agreement with MSRC for spill response services in the Northern California Operational Area. Upon execution of the Service Agreement Kinder Morgan LT will be entitled to cite and have access to the combined resources of MSRC and the former Clean Bay Incorporated in the area.

MPA looks forward to working with Kinder Morgan LT, and MPA also looks forward to Kinder Morgan LT further considering the benefits of joining MPA as a national member.

Please contact myself or Brett Drewry at (480) 991-5500 if you have any questions or concerns regarding MPA or Kinder Morgan LT's CB Transitional Membership.

Yours very truly,

RA:lds

cc: Judith Norell, MSRC

CB TRANSITIONAL MEMBERSHIP AGREEMENT

(Lower-Maryland Clearing Partners)

This CB TRANSITIONAL MEMBERSHIP AGREEMENT dated as of December 31, 2003 (this "Agreement") between [illegible] (the "Company") and MARINE PRESERVATION ASSOCIATION, a nonprofit membership corporation organized under the laws of the State of Arizona (the "Association").

WITNESSETH:

WHEREAS, the Association was organized exclusively to promote the welfare and interests of the petroleum transportation, petroleum, and energy industries by addressing the problems caused by spills of oil and petroleum products on water; and

WHEREAS, the Association raises funds through the collection of Annual Dues from its Members and grants the funds to nonprofit oil spill response service entities, such as Marine Spill Response Corporation, a nonprofit membership Tennessee corporation ("MSRC"); and

WHEREAS, with the Association's approval, MSRC has agreed to acquire by merger Clean Bay Incorporated ("CB"), a nonprofit Delaware membership corporation engaged in providing oil spill response services in the Northern California Operational Area hereinafter referred to, and CB has also entered into an Agreement with the Association (the "MPA Agreement") governing, inter alia, the non-voting membership rights of the former CB members (the "Former CB Members") in the Association during a transitional period; and

WHEREAS, the Company was heretofore a Former CB Member and now desires to become a non-voting CB Transitional Member of the Association; and

WHEREAS, capitalized terms used herein and not otherwise defined herein shall have the meanings ascribed thereto in Schedule A.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Association and the Company agree as follows:

1. Initial Membership Dues; Admission Effective Date. The Company will become a CB Transitional Member on its Admission Effective Date, which is the later of the date the Company has (i) executed and delivered this Agreement (together with any other documents required by the Association) and (ii) the Effective Time of the merger of CB with MSRC. The Company agrees that, on or before its Admission Effective Date, it shall pay Initial Membership Dues equal in amount to that quarterly or other portion of its estimated Annual Dues for 2004 as shall be initially assessed by MPA.

2. Annual Dues.

(a) Dues to be Paid. The Company acknowledges and agrees that, throughout its Membership Period, it shall pay Annual Dues as a CB Transitional Member computed as follows:

(i) An amount of dues equal to (y) the MPA national rate per Qualified Barrel, as such national rate is determined from time to time by MPA, multiplied by (z) the Company's number of Qualified Barrels in the Northern California Operational Area as reported to MPA (pursuant to MPA procedures for the reporting of Qualified Barrels); provided, however, that such amount of such annual dues may not be less than the amount of the Company's 2002 budgeted annual dues to CB as a Former CB Member; and provided further that the MPA national rate per Qualified Barrel utilized for this computation shall not include any amount in respect of any costs or liabilities of MSRC with respect to its operations in Northern California prior to the Closing Date of the Merger.

(ii) The Company shall be obligated to pay such Annual Dues, as and when assessed by the MPA Board, for each of the ten years after the Closing Date of the Merger that it remains a CB Transitional Member; provided, however, that the dues for the first and last calendar years of the Company's Membership shall be pro-rated for the actual number of days the Company is a CB Transitional Member of MPA.

(iii) The Company shall be entitled to a dues credit, in accordance with MPA Dues Procedures, but only with respect to vessels, equipment or personnel located in the Northern California Operational Area (and not with respect to any vessels, equipment or personnel that may be 'cascaded' into that area to assist in a spill response).

(iv) The Company shall also be responsible, severally (but not jointly) and on a Pro Rata Basis, for any additional dues assessed pursuant to Section 2.6(b) of the MPA Agreement for any unpaid liabilities of CB with respect to periods prior to the merger with MPA. For purposes of computing any such additional dues assessment, the Company's "Pro Rata Basis" shall be calculated by (y) computing the percentage resulting from dividing the amount of the Company's 2002 budgeted annual dues obligations to CB by the aggregate amount of all members 2002 budgeted annual dues obligations to CB, and (z) grossing up such percentage by the proportional amount necessary to cover any amount that has not been paid by any other prior members of CB.

(b) Annual Dues Information Report. The Company acknowledges and agrees that, throughout its Membership Period, on or before the due date established each year by the Board of Directors, the Company shall provide to the Association an Annual Dues Information Report (which will primarily provide information as to the Company's Qualified Barrels in the Northern California Operational Area in the preceding year), in the form prescribed by the Board of Directors from time to time, so as to allow the Association to make a final determination of the Company's Annual Dues for the prior year with any adjustments applied as set forth in the Dues Procedures, estimate the Company's Annual Dues for the then current year and/or other periods relating to a Cash Dues Call, and determine whether the Company meets the criteria established for a CB Transitional Member. In addition, the Company hereby agrees to submit to the Association, on or before June 30th of each year, a report, in the form prescribed by the Board of Directors from time to time, of an independent accountant engaged by the Company, attesting to the completion of the Agreed-Upon Procedures.

(c) Removal for Failure to Perform. The Company acknowledges and agrees that the failure of the Company to (i) pay its Annual Dues on a timely basis, as required by the

Board of Directors pursuant to the By-laws, and/or (ii) provide the information required pursuant to Section 2(b), will be "cause" for the Association immediately to remove the Company as a Member of the Association, provided that such removal of the Company shall not relieve the Company of its obligation to pay the Annual Dues or other obligations owing at the time of its removal.

3. Resignation. The Company may resign as a CB Transitional Member of the Association only by giving the Association written notice of such resignation. Resignation shall be effective on the Resignation Effective Date. Resignation of the Company shall not relieve the Company of its obligation to (i) pay the Annual Dues or other obligations owing at the time of its removal or (ii) comply with certain reporting requirements specified in the Dues Procedures. The Company may, as of the effective date of any such resignation, apply to become a Standard Member of the Association.

4. Merger, Consolidation and Reorganization or Sale of Certain Assets. If the Company is a party to a merger, consolidation, reorganization or other change in operations (including, but not limited to, a sale of all its facilities in the Northern California Operational Area) which results in the Company no longer meeting the criteria established for CB Transitional Members, the Company shall promptly (and in any event not later than the fifth (5th) business day prior to such event) notify the Association. The effective date of such event shall be deemed to be the Resignation Notice Date of the Company pursuant to Section 3.

5. Failure to Qualify as a CB Transitional Member. If the Association determines that the Company no longer meets, or will no longer meet at a future point in time, the criteria of a CB Transitional Member (as described in the MPA Agreement), it shall give written notice thereof to the Company. This Agreement shall terminate on the thirtieth (30th) day after such notice, unless the Company promptly provides additional information and evidence reasonably acceptable to the Association demonstrating that the Company continues to meet the criteria established for a CB Transitional Member. The Company may, during such 30-day notice period, apply for membership in the Association as a Standard Member by executing a Standard Member Dues Agreement with the Association and complying with its provisions and any other requirements established for Standard Members of the Association.

6. Severability. It is expressly understood and agreed that the provisions of this Agreement are severable from each other and from the rest of this Agreement and shall be fully effective, operative and enforceable even though the remainder or any part of this Agreement shall be held to be invalid or unenforceable by a court of competent jurisdiction.

7. Limitation of Membership Rights.

(a) The Company understands and acknowledges that, as a CB Transitional Member, it will have no voting rights whatsoever in the Association.

(b) The Company further understands and acknowledges that its CB Transitional Membership (i) will only extend to facilities owned or operated by it (and actually enrolled in CB for coverage) at the Effective Time; (ii) will terminate in the event it sells all such facilities in the Northern California Operational Area; (iii) is subject to the other requirements

and limitations set forth in Section 2.3 of the MPA Agreement; and (iv) will in any event terminate at the latest on the tenth anniversary of the Effective Time.

8. Successors; No Assignment. Successors by operation of law (by merger, consolidation, reorganization or otherwise) shall be bound by this Agreement. However, neither the Association nor the Company may otherwise assign this Agreement.

9. Term of Agreement. Unless otherwise terminated pursuant to Section 3, 4, 5 or 7 this Agreement shall remain in full force and effect until the Resignation Effective Date of the Company.

10. Amendments. No provision of any Section of this Agreement may be amended or waived, without the prior written consent of the Association and the Company.

11. Severalty; Release; Waiver. The obligations of the Company under this Agreement are not joint and several with the obligations of any other Member of the Association pursuant to the terms of any other Membership Agreement or any agreement of any nature. None of the Association or any other Person shall at any time be entitled to assert that such obligations are joint and several or that this Agreement is evidence of any joint venture or partnership among the Members of the Association. To the fullest extent permitted by law, neither failure nor delay by the Association to exercise any right or remedy provided herein or by statute or at law or in equity shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or remedy preclude any other or further exercise thereof or the exercise of any other right or remedy.

12. Representations and Warranties. The Company represents and warrants to the Association on the date hereof that:

(a) It will be a Former CB Member as of the Effective Time, and it is not currently an MPA Member.

(b) It is duly organized and validly existing and in good standing under the laws of the jurisdiction of its organization and has all requisite power and authority to enter into this Agreement and to carry out the terms and provisions hereof and this Agreement has been duly authorized, executed and delivered by the Company and constitutes the legal, valid and binding obligation of the Company enforceable in accordance with the terms of this Agreement except as such enforceability may be limited by bankruptcy, insolvency or other similar laws of general application relating to or affecting the enforcement of creditors' rights or by general equitable principles.

(c) There is no action, proceeding or investigation pending or, so far as the Company is advised, threatened, and no term or provision of any charter, by-law or other organizational document, mortgage, indenture, contract, agreement, instrument, judgment, decree, order, statute, rule or regulation, which action, proceeding or investigation or term or provision would have a material adverse effect on the entering into by it of this Agreement, or the validity of this Agreement as to it or the carrying out by it of any of the terms or provisions of this Agreement.

(d) No approval of any governmental body is required for it entering into or carrying out the terms of this Agreement.

13. GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

14. Usage. All accounting terms not specifically defined herein shall be construed in accordance with GAAP. In this Agreement, the singular includes the plural and the plural the singular; "hereof," "herein," "hereto," "hereunder" and the like mean and refer to this Agreement as a whole and not merely to the specific section or clause in which the respective word appears; words importing any gender include the other genders; references to statutes are to be construed as including all statutory provisions consolidating, amending or replacing the statutes referred to; and references to "writing" include printing, typing, lithography and other means of reproducing words in a tangible visible form.

15. Notices. All notices, requests, consents, demands, certificates and other documents and communications required or permitted to be given hereunder shall be in writing ("Written Communications") and shall conform to, and be effective as provided in, the definition of Written Communication set forth in Schedule A hereto.

16. Counterparts. This Agreement may be executed in two counterparts which together shall constitute one and the same instrument and may be executed by either party on either counterpart.

17. Costs and Expenses of Enforcement. The Company agrees to pay on demand all reasonable costs and expenses of the Association, if any (including reasonable counsel fees and disbursements), in connection with the successful enforcement against the Company of this Agreement.

18. No Third Party Beneficiaries. Nothing in this Agreement is intended or shall be construed to give any Person, other than the parties hereto, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained herein or to impose any obligation on the Company other than the obligations specifically set forth herein.

19. Confidentiality. The Association agrees on behalf of itself, its agents and employees that all information not publicly available that is designated in writing as confidential and is provided to it by the Company in connection with this Agreement shall be considered confidential and proprietary in nature, and, therefore, shall not be used for any purpose other than as contemplated by this Agreement. The Association may, after providing, where not expressly prohibited by applicable law, prompt written notice to the entity to which the information applies, disclose such information (i) pursuant to subpoena or other court process; (ii) when required to do so in accordance with the provisions of any applicable law; (iii) at the express direction of any agency of any State of the United States of America or of any other jurisdiction in which the Association conducts its business; and (iv) to the Association's independent auditors and other professional advisors; provided that the Association agrees to furnish to such third parties a copy of this provision and request that such third parties keep such information confidential.

IN WITNESS WHEREOF, the parties hereunto have each caused this Agreement to be duly executed.

MARINE PRESERVATION ASSOCIATION

By _____
Title: President

Address: 8777 N. Gainey Center Drive
Suite 165
Scottsdale, Arizona 85258

Telephone No.: (602) 991-5500
Telecopy No.: (602) 991-6085

KINDER MORGAN LIQUID TERMINALS
(KINDER MORGAN ENERGY PARTNERS)
(Company Name)

By _____
Title: DIRECTOR OF OPERATIONS

Address: 100 CEMENT HILL ROAD, SUITE 500
FAIRFIELD, CA 94533

Telephone No.: 707-438-2102
Telecopy No.: 707-424-6089

SCHEDULE A

to the

CB TRANSITIONAL MEMBERSHIP AGREEMENT

Definitions and Interpretations

The following terms (not otherwise defined) shall have the following meanings (references herein to Sections shall, unless otherwise indicated, be a reference to such Section in the CB Transitional Membership Agreement):

"Admission Effective Date" means the date on which a Person becomes a Member of the Association in accordance with Section 1 and the By-laws.

"Agreed-Upon Procedures" means the procedures, prescribed from time to time by the Board of Directors, to be performed by independent accountants in providing the attestation report with respect to the information contained in the Annual Dues Information Report, as described in Section 2(b).

"Agreement" means the CB Transitional Membership Agreement to which this Schedule is attached, as such agreement may be amended, supplemented, restated or otherwise modified from time to time.

"Annual Dues" means the annual dues assessed to the Members of the Association (including the CB Transitional Members) from time to time by the Board of Directors.

"Annual Dues Information Report" means, with respect to the Company, that certain annual report of the Company required pursuant to Section 2(b).

"Board of Directors" means the board of directors of the Association, as such body might be constituted from time to time pursuant to the terms of the By-laws.

"By-laws" means the by-laws of the Association, as such by-laws may be amended from time to time.

"Cash Dues Call" means the periodic call by the Association of dues payable by Members on a specific date as determined by the Board of Directors and as set forth in the Dues Procedures.

"Closing Date" means the actual Closing Date under the Merger Agreement.

"Debt Service Dues" means the amount of dues necessary to fund payments of principal and interest on debt obligations of MSRC, supported by the Association, as set forth in the Dues Procedures.

"Dues Agreement" means that certain dues agreement between the Association and all other Members which are responsible for dues as set forth in the Dues Procedures.

"Dues Procedures" means those certain Dues Procedures adopted and/or amended from time to time by the Board of Directors with respect to, the payment procedures for Annual Dues for Members and other related matters.

"Effective Time" means the Effective Time under the Merger Agreement.

"GAAP" means generally accepted accounting principles in the United States or in the case of a Person to which generally accepted accounting principles of the United States are not customarily applied, generally accepted accounting principles of the country that would be customarily applied to such Person.

"Initial Membership Dues" means the initial dues (as specified in Section 1) assessed to each Member of the Association at the time such Person becomes a Member of the Association.

"Member" or "Members" (as the context may require) means a Member of the Association, as defined by the By-laws, and shall include voting Members of the Association as well as the non-voting CB Transitional Members.

"Membership Period" means the period during which a Person is a Member of the Association in accordance with the terms of the By-laws and the Agreement, commencing with the Admission Effective Date.

"Merger Agreement" means the Merger Agreement between MSRC and CB.

"Northern California Operational area" means the operational area referred to in the Merger Agreement.

"Person" means any individual, corporation, company, voluntary association, partnership, joint venture trust, unincorporated organization or government (or any agency, instrumentality or political subdivision thereof).

"Pro Rata Basis" has the meaning specified in Section 3(a)(14).

"Qualified Barrels" has the meaning specified in the Dues Procedures.

"Resignation Effective Date" means (i) with respect to a resigning Member, the day which is thirty (30) days after the Resignation Notice Date of such Member, and (ii) with respect to a Member being removed, the date when the Member is actually removed as a Member of the Association.

"Resignation Notice Date" means (i) with respect to a resigning Member, the date on which the Association receives notice in writing of such resignation from such Member, and (ii) with respect to a Member being removed, the Resignation Effective Date for such Member.

"Standard Member" means, at any time during the calendar year, a Member who pays Annual Dues based upon Qualified Barrels or Minimum Dues and which Member is not responsible for Debt Service Dues relating to prior supported debt.

"Written Communication" has the meaning set forth in Section 14. All Written Communications shall be addressed to the party for whom intended at its address specified under its signature hereto, or such other address as such party may specify by written notice. Written Communications shall be either delivered personally or sent by mail (first-class mail, postage prepaid in the case of a notice to and from a party with an address in the United States and air mail, postage prepaid in the case of notice to or from a party with an address not in the United States), overnight courier or facsimile transmission (in the case of facsimile transmission, promptly confirmed by mail). All Written Communications shall be effective only when actually received during the recipient's normal business hours. The receiving party of any facsimile transmission shall provide the sending party with acknowledgment of receipt if requested by the sending party; provided, however, that the failure of the sending party to request such acknowledgment or the receiving party to provide such acknowledgment shall not in any way affect the fact the facsimile transmission was effective when actually received during the recipient's normal business hours.

All other defined capitalized terms shall have the meanings ascribed in the Merger Agreement.

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT
FOR CB TRANSITIONAL MEMBERS

EXECUTION INSTRUMENT

The MSRC SERVICE AGREEMENT FOR CB TRANSITIONAL MEMBERS attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement dated as of December 31, 2003, is hereby entered into by and between

SFPP-LP (KINDER MORGAN ENERGY PARTNERS)
[Name of COMPANY]

a PIPELINE (PETROLEUM PRODUCTS) OPERATOR
[Type of entity and place of organization]

with its principal offices located at 100 CEMENT HILL RD, SUITE 500 FAIRFIELD, CA 94533 (the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. ICB-003 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of 01-01-04, 2004.

SFPP-LP (KINDER MORGAN E.P.) [COMPANY]

By: [signature]

GENE BRAITHWAITE [print name]

Title: NORTHERN REGION DIRECTOR

Address: 100 CEMENT HILL RD. SUITE 500
FAIRFIELD, CA. 94533

Telephone: 707 424-6080 Fax: 707 424-6089

MARINE SPILL RESPONSE CORPORATION:

By: Judith R. Norell

Judith Roos Norell
Marketing & Customer Service Manager
220 Spring Street, Suite 500
Herndon, VA 20170
(703) 326-5617; Fax: (703) 326-5660

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT
FOR CB TRANSITIONAL MEMBERS

EXECUTION INSTRUMENT

The MSRC SERVICE AGREEMENT FOR CB TRANSITIONAL MEMBERS attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement dated as of December 31, 2003, is hereby entered into by and between

SFPP-LP (KINDER MORGAN ENERGY PARTNERS)
[Name of COMPANY]

a PIPELINE (PETROLEUM PRODUCTS) OPERATOR
[Type of entity and place of organization]

with its principal offices located at 100 CEMENT HILL RD, SUITE 500 FAIRFIELD, CA 94533 (the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. ICB-050 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of 01-01-04, 2004

SFPP-LP (KINDER MORGAN E.P.) [COMPANY]

By: [signature]

GENE BANTHAVOTE [print name]

Title: NORTHERN REGION DIRECTOR

Address: 100 CEMENT HILL RD. SUITE 502
FAIRFIELD, CA 94533

Telephone: 707 424-6080 Fax: 707 424-6089

MARINE SPILL RESPONSE CORPORATION:

By: Judith R. Norell
Judith Roos Norell
Marketing & Customer Service Manager
220 Spring Street, Suite 500
Herndon, VA 20170
(703) 326-5617; Fax: (703) 326-5660

AMENDMENT ONE
TO
MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT
FOR CB TRANSITIONAL MEMBERS

The MSRC SERVICE AGREEMENT FOR CB TRANSITIONAL MEMBERS by and between Kinder Morgan (the "COMPANY") and MARINE SPILL RESPONSE CORPORATION ("MSRC"), a standard form of agreement dated as of December 31, 2003 (the "Agreement"), is hereby amended as follows:

1. Section 2.01(a) is hereby amended in its entirety as follows:

2.01(a). Oil Spill Event outside Northern California Operational Area or Not Involving a Covered Facility or Covered Vessel. MSRC will not provide any Resources for a Spill Event occurring outside the Northern California Operational Area (which for the purposes of this Section 2.01(a) includes the area of California inland from the Northern California Operational Area) or not involving a Covered Facility or Covered Vessel. However, if MSRC becomes involved in a response outside the Northern California Operational Area (due to spill migration or any other reason), or involving a non-Covered Facility or non-Covered Vessel, that response will be governed by the terms and conditions of this Agreement.

2. The parties agree this Amendment shall be effective December 31, 2003.

3. Any MSRC response in inland areas of the Northern California Operational Area shall be subject to and in accordance with an Inland (Non-Responder Immunity) Addendum to the Agreement to be executed and maintained by the COMPANY.

IN WITNESS WHEREOF, the parties hereto each have caused this Amendment to be duly executed and effective as set forth above.

Kinder Morgan Energy Partners L.P.
COMPANY

By: _____
Name: Eugene A. Braithwaite
Title: Director

MARINE SPILL RESPONSE CORPORATION:

By: _____
~~Judith Roos Norell~~
~~Marketing & Customer Service Manager~~
~~220 Spring Street, Suite 500~~
~~Herndon, VA 20170~~
STEPHEN D. RICKS
VICE PRESIDENT, CALIFORNIA REGION

ADDENDUM
SERVICE AGREEMENT
(NON-RESPONDER IMMUNITY OIL SPILL RESPONSE)

THIS ADDENDUM TO SERVICE AGREEMENT (this "Addendum"), entered into as of December 31, 2003, modifies and supplements the Service Agreement (the "Service Agreement") by and between Marine Spill Response Corporation ("MSRC") and Kinder Morgan Energy Partners ("Kinder Morgan"), as set forth below. Notwithstanding anything to the contrary set forth in the Service Agreement, this Addendum shall control in the event of a conflict between any provision of this Addendum and any other provision of the Service Agreement.

In consideration of the promises and the mutual covenants of this Addendum, MSRC and Kinder Morgan agree as follows:

1. Kinder Morgan has requested Resources for a Spill Events in a state (California) which has not adopted Responder Immunity.

2. Kinder Morgan and MSRC acknowledge and agree that the lack of Responder Immunity potentially exposes MSRC to additional liabilities. In other states with Responder Immunity, MSRC would not have this exposure, but rather this potential liability would be transferred to the responsible party by the Responder Immunity statute. The intent of this Addendum is to place MSRC and Kinder Morgan in the same respective positions they would be had [state] adopted Responder Immunity.

3. Section 9.03(b) of the Service Agreement is hereby amended in its entirety as follows for this Such Spill Event (with changes underlined):

9.03(b) COVER INDEMNIFICATION. SUBJECT TO THE PROVISIONS OF SECTIONS 9.03(d) AND (e) BELOW, IT IS AGREED THAT THE COVERED ENTITY (Kinder Morgan) WILL DEFEND, INDEMNIFY AND HOLD HARMLESS THE INDEMNITEES AND EACH OF THEM, AGAINST AND FROM ANY AND ALL LOSSES, LIABILITIES, DAMAGES, COSTS AND EXPENSES OF ANY SUCH INDEMNITEES RELATED TO ANY CLAIM ARISING OUT OF, OR IN ANY MANNER CONNECTED WITH, MSRC'S PERFORMANCE OF OR ALLEGED FAILURE TO PERFORM ITS OBLIGATIONS UNDER THIS AGREEMENT AS A RESULT OF A SPILL EVENT WHERE THE INDEMNITEE DEMONSTRATES THAT THE COMPANY, OR ANY APPLICABLE COVERED ENTITY, COULD HAVE BEEN LIABLE IF SUED DIRECTLY OR DID OR DOES HAVE A LIABILITY FOR OR WITH RESPECT TO SUCH CLAIM UNDER OPA OR ANY OTHER APPLICABLE FOREIGN, FEDERAL, STATE OR LOCAL LAW (WHETHER STATUTORY OR COMMON) (OR WOULD HAVE HAD SUCH LIABILITY IF [STATE] HAD ADOPTED RESPONDER IMMUNITY) AND IRRESPECTIVE AS TO WHETHER SUCH LIABILITY WOULD BE CONSIDERED DIRECT, INDIRECT, CONCURRENT, JOINT, PRIMARY, SECONDARY, VICARIOUS OR DERIVATIVE

OF THE LIABILITY OF ANY INDEMNITEE WITH RESPECT TO SUCH CLAIM. IF THE COVERED ENTITY PROVIDING AN INITIAL CALL-OUT NOTICE IS NOT THE "RESPONSIBLE PARTY" FOR THE APPLICABLE DISCHARGE AS DEFINED IN OPA, THE LIABILITY OF THE COVERED ENTITY FOR THE PURPOSES OF THIS SECTION 9.03(b) SHALL INCLUDE THE LIABILITY OF SUCH "RESPONSIBLE PARTY".

4. Section 9.03(d) of the Service Agreement is hereby amended in its entirety as follows for this Such Spill Event (with changes underlined):

9.03(d) Excluded Obligations. The obligations of the Covered Entity under Sections 9.03(b) and (c) shall not include and shall not apply to:

(i) the extent (but only to the extent) that applicable law would render such indemnity or hold harmless agreement void or unenforceable;

(ii) the extent that any Claim is caused by any Indemnitee's gross negligence or willful, reckless, or criminal misconduct;

(iii) the portion of any Claim for which an insurer of MSRC recognizes or otherwise has an obligation to pay under the applicable policy or cover;

(iv) any portion of a Claim arising from or related to services or equipment provided by MSRC to a Spill Event other than pursuant to this Agreement including services or equipment provided by MSRC to a Spill Event after the Covered Entity has, pursuant to this Agreement, terminated the services of MSRC under this Agreement at such Spill Event;

(v) any Claim for personal injury or wrongful death of Persons who are employees of MSRC or MSRC Integral Subcontractors;

(vi) any portion of a Claim with respect to a Spill Event where the payment of such portion of the Claim would cause the aggregate of (i) the amount of any payments actually made by or on behalf of the COMPANY or the Covered Entity to or on behalf of any Indemnitees under this Agreement or any MSRC Subcontractors pursuant to Section 9.03(i) with respect to such Spill Event and (ii) the amount of any payments made by or on behalf of the COMPANY or the Covered Entity for removal costs or damages under OPA with respect to such Spill Event, to exceed the Cap with respect to such Spill Event, whether or not under OPA or any other applicable law or regulation or in any proceeding the Cap can be maintained by the COMPANY or the Covered Entity; provided that the restrictions of this Section 9.03(d)(vi) shall not apply to any Claim for which (A) the COMPANY or the Covered Entity has previously assumed the defense of such Claim under Section 9.03(e), or (B) the Indemnitee would have been entitled to immunity if [state] had in effect Responder Immunity; or

(vii) any portion of a Claim with respect to which an Indemnitee has successfully maintained an immunity from liability under any applicable provision of OPA or other foreign, Federal or state law; provided, however, that the exclusion under this Section 9.03(d)(vii) shall not apply to costs (including attorneys' fees) incurred by the Indemnitee in asserting said immunity.

IN WITNESS WHEREOF, the undersigned have executed this Addendum as of the date first above written.

Kinder Morgan Energy Partners, L.P.

By: [signature] 10/7/04

Name: Eugene G. Braithwaite

Title: Director
Its duly authorized representative

MARINE SPILL RESPONSE CORPORATION

By: [signature]

Name: Stephen D. Ricks

Title: Vice President, California Region
Its duly authorized representative

KINDER MORGAN FAX

From Larry Hosler of Kinder Morgan PNR

No. of Pages including cover: 2

Fax. No.: 480 991-6085

Phone Number (707) 438-2104:

Return Fax No. (707) 424-6087:

To: Bret Drewery

Subject: CB Transitional Membership App

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT

STANDARD FORM OF SERVICE AGREEMENT
FOR CB TRANSITIONAL MEMBERS

as of December 31, 2003

between

the COMPANY

and

MARINE SPILL RESPONSE CORPORATION

a Tennessee nonprofit corporation

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT

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December 31, 2003

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT

STANDARD FORM OF AGREEMENT

Parties and Background

This is a SERVICE AGREEMENT with attached signature pages (the "Agreement") between the COMPANY and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC").

For convenience and simplicity, as between the COMPANY and Covered Entity (if any), references to the party for performance are made to a "Covered Entity," but the COMPANY can exercise the rights and will guarantee the performance of a Covered Entity as set forth more fully in this Agreement.

In consideration of the promises and the mutual covenants of this Agreement, MSRC and the COMPANY agree as follows:

Articles

ARTICLE I CALLOUT

1.01. Call-Out of Resources

1.01(a). Alert. A Covered Entity may alert MSRC of the possibility of a call-out under this Agreement. Upon receipt of an alert MSRC will review its readiness to respond in the event of a call-out under Section 1.01(b). Such alert does not (i) obligate the Covered Entity to pay MSRC's rates or any costs incurred by MSRC, (ii) obligate MSRC to Mobilize any Resources, or (iii) give the Covered Entity any rights to obtain any particular Resources, unless and until MSRC is called out in accordance with this Agreement.

1.01(b). Call Out Process. An Authorized Representative, or an individual MSRC reasonably believes is acting on behalf of a Covered Entity, may obtain and MSRC will provide any of the Resources available under this Agreement by calling an MSRC response manager through one of the telephone call-out numbers provided by MSRC from time to time by notice to the COMPANY. This Initial Callout Notice shall consist of a specific request for desired Resources to be provided from the list on Schedule 3 (or as otherwise made available by MSRC at the time of callout), in consultation with one of MSRC's response managers. The Authorized Representative or the Incident Commander of a Covered Entity may add to or discontinue use of any Resources, in consultation with MSRC's response manager, at any time. The Covered Entity and MSRC will document the Resources requested and provided. If MSRC Subcontractors are required to provide the requested Resources, MSRC will call out and supervise those MSRC Subcontractors, unless and until other arrangements are made as described in Section 3.04. Part II of Schedule 3 contains the special terms and conditions and call out procedures for MSRC support for transfer operations requiring "Average Most Probable Discharge" response capability under OPA.

1.02. Deleted.

1.03. Mobilizing MSRC Response Resources. As soon as practicable under the circumstances after MSRC receives an Initial Call-Out Notice or subsequent change to a request, MSRC will Mobilize the

requested Resources including MSRC Subcontractors.

ARTICLE II. CAPABILITIES

2.01. Resource Availability. Except as otherwise directed by governmental authorities, agreed by mutual consent or as described below, Resources are provided to the COMPANY and others on a first-come/first-served basis. Any of the Resources can be requested for any Spill Event, subject to the following restrictions and qualifications, as applicable:

2.01(a). Oil Spill Event outside Northern California Operational Area or Not Involving a Covered Facility or Covered Vessel. MSRC will not provide any Resources for a Spill Event occurring outside the Northern California Operational Area or not involving a Covered Facility or Covered Vessel. However, if MSRC becomes involved in a response outside the Northern California Operational Area (due to spill migration or any other reason), or involving a non-Covered Facility or non-Covered Vessel, that response will be governed by the terms and conditions of this Agreement.

2.01(b). Responder Immunity. If at any time Responder Immunity is not available for a Spill Event, MSRC may withdraw, or decline to provide, MSRC Response Personnel or any Resources requiring such MSRC Response Personnel, unless other arrangements acceptable to MSRC in its sole discretion are made to offset any additional legal and financial risk that may result.

2.01(c). Discharges of substances other than Oil. MSRC may offer from time to time to provide Resources under this Agreement to Spill Events involving substances other than Oil (including Hazardous Substances) as permitted and in accordance with MSRC's policies and procedures adopted from time to time. Any additional or different terms and conditions applicable to the provision of Resources for such non-Oil Spill Events will be set forth in an addendum to this Agreement executed by MSRC and the COMPANY in advance or at the time of callout for the Spill Event.

2.01(d). Conflicting Requests. If the Covered Entity and some other person with whom MSRC has a contract both desire the same Resources or otherwise have conflicting requests, MSRC will immediately notify and consult with each of the respective incident commanders regarding the conflict. MSRC will continue to follow a first-come/first-served approach unless and until it receives timely non-conflicting directions from the incident commanders to redirect Resources or activities. If, after such notice and consultation the conflicting parties still do not agree, MSRC will follow the relevant FOSC(s)' non-conflicting directions, if any.

2.02. Changes in Resources Offered. MSRC will periodically update Schedule 3 to reflect changes in the Resources offered under this Agreement, and will give prompt notice to the COMPANY in advance where practicable of any significant reduction in response capability.

ARTICLE III ROLES AND PROCEDURES FOR RESPONSE PERFORMANCE

3.01 Responsibilities of the COMPANY and Covered Entity

3.01(a). **General Management and Overall Direction.** Subject to the power and authority of Governmental Bodies, the Covered Entity will provide general management and overall direction and control of all Response Activities under this Agreement. The Covered Entity shall designate an Incident Commander, who shall be in frequent communication with MSRC while MSRC is providing Resources under this Agreement. The designated Incident Commander will advise MSRC in writing of any non-apparent limitations and restrictions on the authority of the Covered Entity's employees, contractors, and agents to authorize and direct Response Activities of MSRC and MSRC Subcontractors. The Incident Commander will also advise MSRC of any directions or pertinent concerns of Governmental Bodies or the Unified Command that affect, or that may reasonably be expected to affect, any Resources or activities under this Agreement. All activities of MSRC under this Section 3.01(a) will be subject to the overall direction and control of the Covered Entity.

3.01(b) **Care of Resources.** The Covered Entity will use its best efforts to operate, maintain, and store any MSRC Response Equipment provided without associated MSRC Response Personnel in a careful and proper manner under the circumstances and in accordance with applicable law.

3.02. Responsibilities of MSRC

3.02(a). **Operational Supervision.** MSRC will, within the limits of its available resources, at the Covered Entity's cost and expense, and in accordance with applicable law, provide operational supervision and coordination (i) for Resources, including any MSRC Subcontractor called out by MSRC prior to assignment under Section 3.04, and (ii) upon request of the Covered Entity, for any subcontractors called out by or assigned to the Covered Entity. Such supervision shall be in accordance with and subject to the overall direction and control of the Covered Entity's Incident Commander, as described in Section 3.01(a).

3.02(b). **Initial Coordination and Communication.** MSRC will, upon request, provide an on-scene point of coordination and communication between the Covered Entity and the FOSC and other response officials until the first to occur of: (i) 24 hours after initial callout; or (ii) the Covered Entity's response management team (as contemplated by 33 CFR 155.1035(d)) arrives on-scene and assumes direct management and control.

3.02(c). **Governmental Directions.** MSRC will immediately notify the Covered Entity's Incident Commander of any directions MSRC receives from any Governmental Body which MSRC believes may conflict with previous guidance or direction MSRC may have received from the Covered Entity. If the FOSC or SOSC gives directions to MSRC and MSRC does not receive timely directions from the Incident Commander, MSRC will follow those FOSC or SOSC directions. In any event, MSRC will immediately act on directions from any Governmental Body that relate to personnel safety, alleged violations of law or regulations, immediate endangerment of public health or the environment, or directions that constitute an order or command of a Governmental Body with apparent legal authority. MSRC will notify the Incident Commander of those

10/08/2004 10:46 9258242288 MSRC CONCORD CA PAGE 01

Marine Spill Response Corporation
California Region
2170 Commerce Avenue
Concord, CA 94520-4912
(925) 685-1000
(925) 685-1068 (FAX)

Facsimile Transmittal

To: Sherry Clifford Fax: 714-560-6593

From: Steve Ricks Date: 10/8/04

Re: Contract Pages: 5

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

STANDARD FORM RESPONSE PLAN CITATION OF MSRC FOR CB TRANSITIONAL MEMBERS

The Marine Spill Response Corporation ("MSRC") is a mutual benefit corporation organized exclusively to promote the welfare of the public by mitigating the environmental damage caused by spills of oil and other substances. MSRC has in place four regional response centers and various prepositioned equipment sites.

Because the owner or operator of the vessel or facility to which this Response Plan relates ("Plan Holder") is entitled to the benefits of membership as a CB Transitional Member in the Marine Preservation Association (MPA), the Plan Holder has entered into a standard form agreement for CB Transitional Members ("MSRC Service Agreement") with MSRC. The MSRC Service Agreement for CB Transitional Members permits the Plan Holder to cite MSRC Resources (personnel, equipment and/or subcontractor resources) as "contracted" resources in the Plan Holder's response plans for designated vessels and facilities owned or operated by the Plan Holder that are operated in MSRC's defined Northern California Operational Area, described below. These Resources may be cited, called out and used only in accordance with the terms and conditions of the MSRC Service Agreement for CB Transitional Members.

Information on the type, amount, storage location, and other details regarding MSRC's Resources made available under the MSRC Service Agreement appear in MSRC's Oil Spill Removal Organization (OSRO) Classification Response Resource Inventory ("RRI") submitted to the U.S. Coast Guard, as well as any application submitted by MSRC for similar purposes of state law, as amended from time to time by MSRC. A Copy of the OSRO classification RRI is available upon request from MSRC. The U.S. Coast Guard RRI Bulletin Board System contains a description of MSRC resources available to meet U.S. Coast Guard response planning requirements.

A CB Transitional Member Plan Holder who has executed a MSRC Service Agreement with MSRC may obtain available MSRC equipment, MSRC response personnel, and MSRC subcontractor personnel, equipment, goods and services for a spill in the Northern California Operational Area. MSRC offers "core" response resources for on-water containment and recovery, shoreline protection and associated activities and, as arranged through MSRC Subcontractors, shoreline cleanup capabilities. In addition, as arranged through MSRC as determined appropriate by the Plan Holder, appropriate resources can be provided to satisfy the planning requirements of Average Most Probable Discharge ("AMPD") on an as needed/as-requested basis. To obtain stand-by resources for AMPD for a given transfer operation, the Plan Holder must make a written request to MSRC at least 24 hours in advance, unless the AMPD is for an ocean area where transit time is allowed in lieu of on-scene standby. With regard to firefighting, salvage and lightering services and

wildlife hazing, rescue and rehabilitation, MSRC can only assist the Plan Holder in identifying an appropriate contractor with whom the Plan Holder can contract.

During a response, the Plan Holder will provide the overall management, control and direction of MSRC resources. In providing these resources, MSRC is obligated to use commercially reasonable efforts, consistent with applicable spill response industry practices considering available information and available resources under circumstances, conditions (including weather and sea conditions), and factors existing at any relevant time.

MSRC services do not include: (1) disposal of waste, including recovered oil, oily waste or any hazardous substance, (2) source control, (3) wreck removal, (4) natural resources damage assessment, (5) third party damage claims evaluation or adjustment, (6) acting as overall incident commander, (7) development or preparation of individual response plans; or (8) shoreline remediation performed in conjunction with the Natural Resource Trustees to restore the shoreline to its pre-spill condition, rather than as part of the cleaning process carried out under the oversight of the FOSC.

With certain exceptions, MSRC can generally respond with any available resources to spills occurring in the Northern California Operational Area. This area extends from the California/Oregon border, to the north, to Morro Bay, California to the south. Similarly, MSRC can be cited for contracted resources for purposes of individual response plans only in MSRC's defined Northern California Operational Area.

Upon request, MSRC can verify to the appropriate regulatory authority whether specific facilities or areas of vessel transit are within MSRC's Northern California Operational Area, and whether the Plan Holder's specific vessels or facilities are entitled to cite MSRC as "contracted" resources in the Plan Holder's response plans.

According to the MSRC Service Agreement, if federal responder immunity; and state or other applicable jurisdiction responder immunity with the same or similar effect as the federal immunity standard, are not available in a spill event, then MSRC may withdraw, or decline to provide, response personnel or equipment requiring response personnel, unless other arrangements acceptable to MSRC in its sole discretion are made to offset any additional legal and financial risk that may result. Also the provision of MSRC resources requires that the Plan Holder not be in default under the MSRC Service Agreement.

MSRC resources will be available to many entities other than the Plan Holder. MSRC will provide the resources on a first-come, first-served basis without maintaining a specific reserve. However, the resources can be redeployed in the event of conflicting requests where agreement can be reached among the parties requesting

the services, or, in the absence of such consensus, from nonconflicting directions of the relevant FOSCs.

Under the MSRC Service Agreement, as between MSRC and the Plan Holder, the Plan Holder bears all responsibility for and must perform or otherwise satisfy all duties and obligations and pay all charges associated with the management of Recovered Product or Waste (i.e., recovered oil, oily waste, or hazardous substances). The Plan Holder must provide MSRC the necessary documentation for MSRC to deliver Recovered Product or Waste for transportation by others to selected facilities, as well as instructions for the management of Recovered Product or Waste. The Plan Holder also must provide access to facilities, vessels or other receptacles for receipt or disposal of recovered product or waste. MSRC's operations depend upon these activities.

MSRC will rely on certain subcontractors in assisting a customer response. Upon request of the Plan Holder and consent of the subcontractors, these subcontractors will be assigned to the Plan Holder.

Under the MSRC Service Agreement, MSRC's obligation to provide equipment and/or personnel is subject to compliance by its customers with certain obligations. For example, each customer must demonstrate appropriate financial responsibility, promptly pay for all equipment and personnel provided, and meet its other financial obligations under the agreement. MSRC's obligations terminate, and MSRC may cease all operations, upon the occurrence of certain events of default by a customer. MSRC may suspend performance of affected activities upon the occurrence of certain events, including if MSRC is prevented from performance by a Force Majeure event, a subcontractor is unavailable to provide essential services, or responder immunity is unavailable. The Plan Holder can terminate all or any portion of MSRC's resources at any time.

Upon request from a Plan Holder and subject to availability, MSRC may provide an on-scene point of coordination and communication between the Plan Holder and the FOSC. This assistance may be provided only until the Plan Holder's spill response management team arrives on-scene, or 24 hours after initial callout, whichever occurs first.

MSRC has not reviewed or determined what response resources are needed to meet the Plan Holder's response plan requirements, and, as between the Plan Holder and MSRC, the Plan Holder has the sole responsibility for the content, accuracy and adequacy of any response plan. MSRC has not advised on or approved the adequacy of any response plan.

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT
FOR CB TRANSITIONAL MEMBERS

EXECUTION INSTRUMENT

The MSRC SERVICE AGREEMENT FOR CB TRANSITIONAL MEMBERS attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement dated as of December 31, 2003, is hereby entered into by and between

SFPP-LP (KINDER MORGAN ENERGY PARTNERS)
[Name of COMPANY]

a PIPELINE (PETROLEUM PRODUCTS) OPERATOR
[Type of entity and place of organization]

with its principal offices located at 100 CEMENT HILL RD, SUITE 500 FAIRFIELD, CA 94533 (the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. ICB-001 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of 01-01-04, 2004.

SFPP-LP (KINDER MORGAN E.P.) [COMPANY]

By: [signature]

GENE BARTHWAITE [print name]

Title: NORTHERN REGION DIRECTOR

Address: 100 CEMENT HILL RD. SUITE 500
FAIRFIELD, CA. 94533

Telephone: 707 424-6080 Fax: 707 424-6089

MARINE SPILL RESPONSE CORPORATION:

By: Judith R Norell

Judith Roos Norell
Marketing & Customer Service Manager
220 Spring Street, Suite 500
Herndon, VA 20170
(703) 326-5617; Fax: (703) 326-5660

MARINE SPILL RESPONSE CORPORATION
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FOR CB TRANSITIONAL MEMBERS

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SERVICE AGREEMENT No. ICB - 001 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of 01-01-04, 2004.

SFPP-LP (KINDER MORGAN E.P.) [COMPANY]

By: [signature]

GENE BRAITHWAITE [print name]

Title: NORTHERN REGION DIRECTOR

Address: 100 CEMENT HILL RD. SUITE 500
FAIRFIELD, CA. 94533

Telephone: 707 424-6080 Fax: 707 424-6089

MARINE SPILL RESPONSE CORPORATION:

By: Judith R. Norell

Judith Roos Norell
Marketing & Customer Service Manager
220 Spring Street, Suite 500
Herndon, VA 20170
(703) 326-5617; Fax: (703) 326-5660

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EXECUTION INSTRUMENT

The MSRC SERVICE AGREEMENT FOR CB TRANSITIONAL MEMBERS attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement dated as of December 31, 2003, is hereby entered into by and between

SFPP-LP (KINDER MORGAN ENERGY PARTNERS)
[Name of COMPANY]

a PIPELINE (PETROLEUM PRODUCTS) OPERATOR
[Type of entity and place of organization]

with its prinoipal offices located at 100 CEMENT HILL RD. SUITE 500 FAIRFIELD, CA 94533 (the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. _____ [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of 01-01-04, 2004.

SFPP-LP (KINDER MORGAN E.P.) [COMPANY]

By: _____ [signature]

GENE BRANTHWAITE [print name]

Title: NORTHERN REGION DIRECTOR

Address: 100 CEMENT HILL RD. SUITE 500
FAIRFIELD CA 94533

Telephone: 707 424-6080 Fax: 707 424-6089

MARINE SPILL RESPONSE CORPORATION:

By: _____

Judith Roos Norell
Marketing & Customer Service Manager
220 Spring Street, Suite 500
Herndon, VA 20170
(703) 326-5617; Fax: (703) 326-5660

FINANCIAL RESPONSIBILITY CERTIFICATION

In accordance with Section 2.01(a) of Schedule 2 to the MSRC Service Agreement, the undersigned, being a duly authorized officer of SEPP-LP (KINDER MORGAN EP) *[insert name of the "COMPANY" that is the party to the Service Agreement]* ("COMPANY"), does hereby certify to the best knowledge and belief of the undersigned, that the COMPANY meets the requirements of Schedule 2 and:

(i) the method relied on by the COMPANY to establish financial responsibility for each Vessel and Facility owned or operated within the Operational Area by the COMPANY or its affiliates is as follows *(see Section 2.02 (a) through (c) of Schedule 2 for the available methods)*:

SEE ATTACHED CERTIFICATE OF FINANCIAL RESPONSIBILITY

[Attach additional sheets if necessary]

(ii) the applicable Financial Responsibility Amount for each Vessel and Facility owned or operated within the Operational Area by the COMPANY or its affiliates is as follows *(see the definitions in Section 2.03 of Schedule 2 for the proper calculation of Financial Responsibility Amount)*:

SEE ATTACHED RENEWAL APPLICATION AND RULES OF 6919 BBLS

[Attach additional sheets if necessary]

Capitalized terms used in this Certificate and not defined have the meaning ascribed to such terms under the Service Agreement.

IN WITNESS WHEREOF, the undersigned has executed this Certificate in the name and on behalf of the COMPANY as of 12-16, 2003.

SEPP-LP (KINDER MORGAN E.P.)
[COMPANY NAME]

BY: _____
[signature of duly authorized officer]

Name: GENE BLANKENSHIP
[print name of officer signing]

Title: NORTHERN REGION DIRECTOR
[print title of officer signing]

4.0 SPILL IMPACT CONSIDERATIONS

4.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil. The Federal, state, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY

- Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species.
- Areas which consist of vegetated low banks, freshwater/saltwater marshes, swamps, scrub-shrub wetlands and impact to threatened/endangered species.

MODERATE SENSITIVITY

- Areas of moderate productivity, somewhat resistant to the effects of oiling.
- Areas which consist of mixed sand, gravel beaches, bars, gently sloping banks, and no impact to threatened/endangered species.

LOW SENSITIVITY

- Areas of low productivity, man-made structures, and/or high energy.
- Areas which consist of gravel, sand, or clay material, barren/rocky shores or banks, man-made structures, concrete/compacted earthen drainage ditches and no impact to threatened/endangered species.

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans (see CD affixed to inside front cover of Volume 1 and the CD Navigation Summary in Figure 4.2)
- Other industry and private experts

The environmental and socio-economic sensitivities in the area have been broken down into specific categories and identified in this section.

4.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

4.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 4.1.

4.3.2 Wildlife Rescue

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

4.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

4.3.2 Wildlife Rescue (Cont'd)

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
  - Use of capture and relocation.

4.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife of their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
  - Outside rehabilitation organizations
  - Local regulatory agencies
  - Other resources

4.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

4.5 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

FIGURE 4.1

ENDANGERED/THREATENED SPECIES LISTING

The following is a list of endangered and threatened species with known or possible occurrence in the State of California by county (listed alphabetically by the Scientific Name).

ANIMALS	
Common Name	**Scientific Name**
Alameda County	
Shrimp, Longhorn Fairy	Branchinecta Longiantenna
Shrimp, Vernal Pool Fairy	Branchinecta Lynchi
Plover, Western Snowy	Charadrius Alexandrinus Nivosus
Plover, Mountain	Charadrius Montanus
Goby, Tidewater	Eucyclogobius Newberryi
Butterfly, Bay Checkerspot	Euphydryas Editha Bayensis
Salmon, Chinook (Sacramento River Winter Run)	Oncorhynchus Tshawytscha
Pelican, Brown	Pelicanus Occidentalis
Rail, California Clapper	Rallus Longirostris Obsoletus
Mouse, Salt Marsh Harvest	Reithrodontomys Raviventris
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
Contra Costa County	
Butterfly, Lange's Metalmark	Apodemia Mormo Langei
Shrimp, Longhorn Fairy	Branchinecta Longiantenna
Shrimp, Vernal Pool Fairy	Branchinecta Lynchi
Plover, Mountain	Charadrius Montanus
Goby, Tidewater	Eucyclogobius Newberryi
Butterfly, Bay Checkerspot	Euphydryas Editha Bayensis
Salmon, Chinook (Central Valley Spring Run)	Oncorhynchus Tshawytscha
Salmon, Chinook (Sacramento River Winter Run)	Oncorhynchus Tshawytscha
Pelican, Brown	Pelicanus Occidentalis
Rail, California Clapper	Rallus Longirostris Obsoletus
Mouse, Salt Marsh Harvest	Reithrodontomys Raviventris
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
San Joaquin County	
Shrimp, Vernal Pool Fairy	Branchinecta Lynchi
Plover, Mountain	Charadrius Montanus
Beetle, Valley Elderberry Longhorn	Desmocerus Californicus Dimorphus
Eagle, Bald	Haliaeetus Leucocephalus
Smelt, Delta	Hypomesus Transpacificus
Shrimp, Vernal Pool Tadpole	Lepidurus Packardi
Rabbit, Riparian Brush	Sylvilagus Bachmani Riparius
Snake, Giant Garter	Thamnophis Gigas
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
San Mateo County	
Murrelet, Marbled	Brachyramphus Marmoratus
Butterfly, San Bruno Elfin	Callophrys Mossii Bayensis
Plover, Western Snowy	Charadrius Alexandrinus Nivosus
Goby, Tidewater	Eucyclogobius Newberryi
Butterfly, Bay Checkerspot	Euphydryas Editha Bayensis
Eagle, Bald	Haliaeetus Leucocephalus
Butterfly, Mission Blue	Icaricia Icarioides Missionensis
Salmon, Coho (Central California Coast Pop)	Oncorhyncgus Kisutch

FIGURE 4.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

ANIMALS (Cont'd)	
Common Name	**Scientific Name**
San Mateo County (Cont'd)	
Salmon, Chinook (Sacramento River Winter Run)	Oncorhynchus Tshawytscha
Pelican, Brown	Pelicanus Occidentalis
Rail, California Clapper	Rallus Longirostris Obsoletus
Frog, California Red-Legged	Rana Aurora Draytonii
Mouse, Salt Marsh Harvest	Reithrodontomys Raviventris
Butterfly, Callippe Silverspot	Speyeria Callippe Callippe
Snake, San Francisco Garter	Thamnophis Sirtalis Tetrataenia
Santa Clara County	
Plover, Western Snowy	Charadrius Alexandrinus Nivosus
Goby, Tidewater	Eucyclogobius Newberryi
Butterfly, Bay Checkerspot	Euphydryas Editha Bayensis
Eagle, Bald	Haliaeetus Leucocephalus
Pelican, Brown	Pelicanus Occidentalis
Rail, California Clapper	Rallus Longirostris Obsoletus
Mouse, Salt Marsh Harvest	Reithrodontomys Raviventris
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
Solano County	
Shrimp, Vernal Pool Fairy	Branchinecta Lynchi
Plover, Mountain	Charadrius Montanus
Beetle, Valley Elderberry Longhorn	Desmocerus Californicus Dimorphus
Beetle, Delta Green Ground	Elaphrus Viridis
Smelt, Delta	Hypomesus Transpacificus
Shrimp, Vernal Pool Tadpole	Lepidurus Packardi
Salmon, Chinook (Central Valley Spring Run)	Oncorhynchus Tshawytscha
Salmon, Chinook (Sacramento River Winter Run)	Oncorhynchus Tshawytscha
Pelican, Brown	Pelicanus Occidentalis
Rail, California Clapper	Rallus Longirostris Obsoletus
Mouse, Salt Marsh Harvest	Reithrodontomys Raviventris

PLANTS	
Common Name	**Scientific Name**
Alameda County	
Fiddleneck, Large-Flowered	Amsinckia Grandiflora
Manzanita, Pallid	Arctostaphylos Pallida
Clarkia, Presidio	Clarkia Franciscana
Bird's-Beak, Palmate-Bracted	Cordylanthes Palmatus
Dudleya, Santa Clara Valley	Dudleya Setchellii
Goldfields, Contra Costa	Lasthenia Conjugens
Navarretia, Few-Flowered	Navarretia Leucocephala Ssp. Pauciflora
Navarretia, Many-Flowered	Navarretia Leucocephala Ssp. Plieantha
Contra Costa County	
Fiddleneck, Large-Flowered	Amsinckia Grandiflora
Manzanita, Pallid	Arctostaphylos Pallida
Bird's-Beak, Soft	Cordylanthus Mollis Ssp. Mollis
Dudleya, Santa Clara Valley	Dudleya Setchellii

FIGURE 4.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

PLANTS (Cont'd)	
Common Name	**Scientific Name**
Contra Costa County (Cont'd)	
Goldfields, Contra Costa	Lasthenia Conjugens
Navarretia, Few-Flowered	Navarretia Leucocephala Ssp. Pauciflora
Navarretia, Many-Flowered	Navarretia Leucocephala Ssp. Plieantha
Evening-Primrose, Antioch Dunes	Oenothera Deltoides Ssp. Howellii
San Joaquin County	
Fiddleneck, Large-Flowered	Amsinckia Grandiflora
Bird's-Beak, Palmate-Bracted	Cordylanthes Palmatus
San Mateo County	
Manzanita, San Bruno Mountain	Arctostaphylos Imbricata
Cypress, Santa Cruz	Cupressus Abramsiana
Lessingia, San Francisco	Lessingia Germanorum
Pentachaeta, White-Rayed	Pentachaeta Bellidiflora
Potentilla, Hickman's	Potentilla Hickmanii
Santa Clara County	
Paintbrush, Tiburon	Castilleja Affinis Ssp. Neglecta
Ceanothus, Coyote	Ceanothus Ferrisae
Dudleya, Santa Clara Valley	Dudleya Setchellii
Goldfields, Contra Costa	Lasthenia Conjugens
Navarretia, Few-Flowered	Navarretia Leucocephala Ssp. Pauciflora
Navarretia, Many-Flowered	Navarretia Leucocephala Ssp. Plieantha
Polygonum, Scotts Valley	Polygonum Hickmanii
Solano County	
Bird's-Beak, Soft	Cordylanthus Mollis Ssp. Mollis
Goldfields, Contra Costa	Lasthenia Conjugens
Navarretia, Few-Flowered	Navarretia Leucocephala Ssp. Pauciflora
Navarretia, Many-Flowered	Navarretia Leucocephala Ssp. Plieantha
Grass, Colusa	Neostapfia Colusana
Grass, Solano	Tuctoria Mucronata (=Orcuttia M.)

FIGURE 4.2

ACP/GRP CD
NAVIGATION INSTRUCTIONS
(Excerpt from CD affixed to inside front cover of Volume 1)

KINDER MORGAN

The information contained herein is provided to identify specific spill response and protection strategies for the applicable Kinder Morgan Pacific Operations Regions. Navigating through the bookmark links provided on the CD will take you to the Environmentally Sensitive Sites and the Economically Significant Sites provided in the applicable Area Contingency Plans and Geographic Response Plans.

INSTRUCTIONS FOR USE

1. From the screen on the left, click on region of interest. The different regions are identified by the red font.
2. Once the appropriate region is accessed, click on the "+" to the left of the region name to display the various areas within each region. These are identified with blue font.
3. Once the appropriate area is accessed, the links to the Environmentally Sensitive Sites and the Economically Significant Sites will be available for selection.
   - ➢ It is important to note that once each Environmentally Sensitive Site and Economically Significant Site is accessed, the user will have to scroll to the desired location.
   - ➢ Use the zoom icon to zoom into each page for easier reading.

NOTES:

1. In those areas where the statement "No ACP Information Available" is made, it indicates that there is no ACP or GRP information which is specific to the particular region or area of interest.
2. EPA REGION IX: For areas without specific ACP/GRP information, the Region IX Contingency Plan (RCP) is used as the response guidance; however, this RCP is currently in revision.
3. EPA REGION X: Region X is covered by the Northwest Area Contingency Plan; however, inland facilities are not addressed.
4. Thus, the following areas are covered by specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Linnton-Willbridge, Washington Area
   - Northern Region—Bay: Brisbane, Concord, Richmond, San Jose
   - Southern Region—Central: Mission Valley-Orange
   - Southern Region—West: Carson, Watson
5. And, the following areas do not have specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Oregon Pipelines (inland)
   - Northern Region—Central: Fresno
   - Northern Region—CalNev: Sacramento, Rocklin, Reno
   - Southern Region—East: Imperial, Phoenix, Tucson
   - Southern Region—Central: Colton, Barstow, Las Vegas

Developed by:
Response Management Associates, Inc.
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(281) 320-9796
www.rmaworld.com

5.0 DISPOSAL PLAN

5.1 OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Manager or their designee to manage the following:

- Coordinates waste disposal activities;
- Identifies appropriate interim storage methods and locations;
- Coordinates permitting activities needed to ensure proper disposal; and
- Documents compliance with appropriate local, State, and Federal handling of hazardous materials and/or wastes.

Material will be containerized or stored in a manner complying with applicable environmental regulations pertaining to the known or suspected materials characteristics. Upon characterization, waste, recyclable materials, or contaminated materials will be treated on-site, recycled, or transported and disposed of at an appropriate KMEP approved facility after appropriate regulatory approval.

5.2 WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Solid Wastes

A solid waste is defined as any discarded material provided that it is not specifically excluded under the regulations. These exclusions cover materials such as domestic sewage and mixtures of sewage discharged through a sewer system or industrial wastewater point source discharges.

A discarded material is any material which is abandoned (disposed of, burned or incinerated) or accumulated, stored or treated prior to being abandoned. A discarded material is also any material recycled or any material considered inherently wastelike. Recycled material is considered solid waste when used in a manner constituting disposal, placed on land or burned for energy recovery.

5.2 WASTE CLASSIFICATION (Cont'd)

Solid Wastes (Cont'd)

A solid waste may be considered a hazardous waste. A solid waste, as defined above, may be a hazardous waste if it is not excluded from regulation and is either a listed hazardous waste or exhibits the characteristics of a hazardous waste. A solid waste exhibits the characteristics of a hazardous waste if it exceeds the thresholds established in determining the following:

1) ignitability
2) corrosivity
3) reactivity
4) toxicity

A solid waste may also become a hazardous waste if it is mixed with a listed hazardous waste or, in the case of any other waste (including mixtures), when the waste exhibits any of the characteristics identified above.

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

5.3 WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

Safety Considerations

Care would be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes would wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles would be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste would be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

5.3 WASTE HANDLING (Cont'd)

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.

- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure 5.1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

5.4 WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure 5.2. The majority of these options can be used either onshore or offshore.

If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.
- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Access.
- Public contact.

5.4 WASTE STORAGE (Cont'd)

Temporary storage sites should use the best achievable technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 mils or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least three (3) meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

5.5 WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the Facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

During an oil spill incident, KMEP would consult with the Federal and state On Scene Coordinator (OSC) to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. KMEP maintains a list of approved disposal sites that satisfy local, state, and Federal regulations and KMEP requirements. This identification of suitable waste treatment and disposal sites would be prepared by the Environmental Manager or their designee in the form of an Incident Disposal Plan which must be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

5.5 WASTE DISPOSAL (Cont'd)

Techniques for Disposal of Recovered Oil (Cont'd)

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure 5.3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Environmental Manager or their designee is responsible for ensuring that all waste materials be disposed of at an internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

5.5 WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning (Cont'd)

As a general rule, *in situ* burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at Company-approved disposal facilities. The Environmental Manager or their designee is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Environmental Manager or their designee prior to sending any waste to such a facility.

5.6 REGULATORY REQUIREMENT AND PERMITS

The management of oil and oily wastes must comply with the standards set forth in.:

- Code of Federal Regulations (CFR) Parts 261 and 265 as mandated by the Resource Conservation and Recovery Act (RCRA).
- California Code of Regulations (CCR) Title 22, Division 4, Chapter 30.
- CCR, Title 14, Division 1, Subdivision 4, Chapter 7, Subchapter 2, Determining Amount of Petroleum Hydrocarbons Recovered.

To expedite removal of spilled oil, refined products, and contaminated material from marine waters during an emergency response, temporary storage sites may be erected at appropriate shore locations (22 CCR 66270.1(c)(3)). The transportation of oil and contaminated material to temporary storage sites during emergency response is exempt from handling and permitting requirements (22 CCR 66263.30 and/or 66263.43). The onsite California Environmental Protection Agency, Department of Toxic Substance Control (DTSC) representative or duty officer should be contacted for approval. If a Unified Command is established, OSPR will facilitate the contact with DTSC through their liaison function.

Kinder Morgan will maintain responsibility for recovered oil and oily wastes generated during recovery operations. A temporary storage site may require an emergency permit from the San Francisco Bay Conservation & Development Commission (BCDC) or the California Coastal Commission (CCC).

5.6 REGULATORY REQUIREMENT AND PERMITS (Cont'd)

Citing of the temporary facility must be done with the concurrence of the USCG and State OSC, DTSC, the local RQQCB, and the local health, fire and emergency services. If a Unified Command is established, OSPR will facilitate the contact of the state and local agencies through their liaison function.

The San Francisco Bay Conservation and Commission and the California Coastal Commission have created the Joint CCC/BCDC Oil Spill Program to respond to oil-spill-related matters in the San Francisco Bay area and along the coast. This program acts as the single point of contact, and requests for emergency permits (including waste management) should be directed to the following Joint CCC/BCDC Oil Spill Program staff:

Joint CCC/BCDC Oil Spill Program (415) 904-5250 (phone)
45 Fremont Street, Suite 2000 (415) 904-5400 (fax)
San Francisco, CA 94105-2291

The Incident Commander will coordinate activities to obtain the necessary permits to ensure proper disposal or recycling of recovered oil and debris.

FIGURE 5.1

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

A. Normally require remote power sources, thus are safe around flammable fluids.
B. Should have a relief valve in the outlet line to prevent bursting hoses.
C. Air powered units tend to freeze up in sub-freezing temperatures.
D. Units with work ball valves are difficult to prime.
E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
F. Can also pump air at low pressure.
G. Transfer is batch-wise rather than continuous.
H. Waste must be in separate container for efficient transfer.
I. Transportable with its own prime mover.
J. High shear action tends to emulsify oil and water mixtures.

FIGURE 5.2

TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

FIGURE 5.3

OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

SECTION 9

NORTHERN REGION – BAY
OSPR-JURISDICTIONAL PIPELINE SEGMENTS

REGULATORY COMPLIANCE
● **OSPR** - California Oil Spill Prevention and Response, Title 14, Division 1 Subdivision 4, Subchapter 3, Section 815.

9.1.1 FACILITY EXECUTABILITY STATEMENT

KINDER MORGAN ENERGY PARTNERS, L.P.

FACILITY EXECUTABILITY STATEMENT

I certify to the best of my knowledge and belief, under penalty of perjury under the laws of the state of California, that the information contained in this contingency plan is true and correct and that the plan is both feasible and executable.

Peter G. Murphy
Signature

Peter G. Murphy
Name

Operations Manager
Title

3/19/09
Date

The above certification statement, required by California Code of Regulations Title 14, Division 1, Subdivision 4, Chapter 3, Subpart 3, §817.02(a)(1)(D), has been signed by an executive with the plan holder's management. The signer has training, knowledge, and experience in the area of oil spill prevention and response, has the authority to fully implement the oil spill contingency plan written within this Integrated Contingency Plan, and will review this Plan for accuracy, feasibility, and executability.

9.1.2 CERTIFICATES OF FINANCIAL RESPONSIBILITY

The following Certificates of Financial Responsibility are presented on the following pages:

Line Number:	LS 8,9,16,27,33,36,37,38,41,42,46,47,68,71,72,74,75,76, 88,89,90,95,99,103,104,130
COFR Number:	20310-00-012
Line Number:	LS 43
COFR Number:	20310-00-021
Line Number:	LS 45
COFR Number:	20310-00-022
Line Number:	LS 62
COFR Number:	20310-00-023

CALIFORNIA CERTIFICATE OF FINANCIAL RESPONSIBILITY (CA COFR)

OWNER OR OPERATOR: SFPP, L.P.
meets the financial responsibility requirements specified in Government Code Section 8670.37.53 as it applies to the operation of

NAME AND LOCATION: Northern Region- Bay Line No. 38, 41,42,8,9,16,27,33,47,68,72,88,90,36,37,41,42,46,69,71,74,75,76,89,95,99,103 104, 130

CERTIFICATE #: 2-0310-00-012 CONTROL #: FA077

ISSUE DATE: 01/01/2012 EXPIRATION DATE: 12/31/2013

The holder of this document named above is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act). This certificate holder has provided the necessary evidence of financial responsibility mandated by these requirements.

For the purpose of determining liability pursuant to the Act, this Certificate of Financial Responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specific Marine Facility.

No alterations of this certificate are permitted after issuance by the Administrator of OSPR. If there is a change in the name or ownership of the Marine Facility, the certificate holder must notify the Office of Spill Prevention and Response (OSPR) immediately. If the certificate expires, a new certificate will be required.

This certificate remains valid as long as the current method for demonstrating financial responsibility is maintained (eg. insurance). Any changes in this status must be reported to OSPR immediately.

It is the owner or operator's responsibility to ensure that this certificate number is also included in the owner or operator's marine oil spill contingency plan, which must be submitted to this office for approval, before operating in a location where a spill could impact California marine waters.

If you have any questions, please contact Farina Khan at 916-327-9937.

Sincerely,

Farina A. Khan

Financial Analyst
Office of Spill Prevention and Response
cacofr-facilities@ospr.dfg.ca.gov

CALIFORNIA CERTIFICATE OF FINANCIAL RESPONSIBILITY (CA COFR)

OWNER OR OPERATOR: SFPP, L.P.
meets the financial responsibility requirements specified in Government Code Section 8670.37.53 as it applies to the operation of

NAME AND LOCATION: San Joaquin River Line No. 43

CERTIFICATE #: 2-0310-00-021 CONTROL #: FA086

ISSUE DATE: 01/01/2012 EXPIRATION DATE: 12/31/2013

The holder of this document named above is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act). This certificate holder has provided the necessary evidence of financial responsibility mandated by these requirements.

For the purpose of determining liability pursuant to the Act, this Certificate of Financial Responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specific Marine Facility.

No alterations of this certificate are permitted after issuance by the Administrator of OSPR. If there is a change in the name or ownership of the Marine Facility, the certificate holder must notify the Office of Spill Prevention and Response (OSPR) immediately. If the certificate expires, a new certificate will be required.

This certificate remains valid as long as the current method for demonstrating financial responsibility is maintained (eg. insurance). Any changes in this status must be reported to OSPR immediately.

It is the owner or operator's responsibility to ensure that this certificate number is also included in the owner or operator's marine oil spill contingency plan, which must be submitted to this office for approval, before operating in a location where a spill could impact California marine waters.

If you have any questions, please contact Farina Khan at 916-327-9937.

Sincerely,

Farina A. Khan

Financial Analyst
Office of Spill Prevention and Response
cacofr-facilities@ospr.dfg.ca.gov

CALIFORNIA CERTIFICATE OF FINANCIAL RESPONSIBILITY (CA COFR)

OWNER OR OPERATOR: SFPP, L.P.
meets the financial responsibility requirements specified in Government Code Section 8670.37.53 as it applies to the operation of

NAME AND LOCATION: San Joaquin River Line No. 45

CERTIFICATE #: 2-0310-00-022 CONTROL #: FA087

ISSUE DATE: 01/01/2012 EXPIRATION DATE: 12/31/2013

The holder of this document named above is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act). This certificate holder has provided the necessary evidence of financial responsibility mandated by these requirements.

For the purpose of determining liability pursuant to the Act, this Certificate of Financial Responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specific Marine Facility.

No alterations of this certificate are permitted after issuance by the Administrator of OSPR. If there is a change in the name or ownership of the Marine Facility, the certificate holder must notify the Office of Spill Prevention and Response (OSPR) immediately. If the certificate expires, a new certificate will be required.

This certificate remains valid as long as the current method for demonstrating financial responsibility is maintained (eg. insurance). Any changes in this status must be reported to OSPR immediately.

It is the owner or operator's responsibility to ensure that this certificate number is also included in the owner or operator's marine oil spill contingency plan, which must be submitted to this office for approval, before operating in a location where a spill could impact California marine waters.

If you have any questions, please contact Farina Khan at 916-327-9937.

Sincerely,

Farina A. Khan

Financial Analyst
Office of Spill Prevention and Response
cacofr-facilities@ospr.dfg.ca.gov

CALIFORNIA CERTIFICATE OF FINANCIAL RESPONSIBILITY (CA COFR)

OWNER OR OPERATOR: SFPP, L.P.
meets the financial responsibility requirements specified in Government Code Section 8670.37.53 as it applies to the operation of

NAME AND LOCATION: San Joaquin River Line No. 62

CERTIFICATE #: 2-0310-00-023 CONTROL #: FA088

ISSUE DATE: 01/01/2012 EXPIRATION DATE: 12/31/2013

The holder of this document named above is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act). This certificate holder has provided the necessary evidence of financial responsibility mandated by these requirements.

For the purpose of determining liability pursuant to the Act, this Certificate of Financial Responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specific Marine Facility.

No alterations of this certificate are permitted after issuance by the Administrator of OSPR. If there is a change in the name or ownership of the Marine Facility, the certificate holder must notify the Office of Spill Prevention and Response (OSPR) immediately. If the certificate expires, a new certificate will be required.

This certificate remains valid as long as the current method for demonstrating financial responsibility is maintained (eg. insurance). Any changes in this status must be reported to OSPR immediately.

It is the owner or operator's responsibility to ensure that this certificate number is also included in the owner or operator's marine oil spill contingency plan, which must be submitted to this office for approval, before operating in a location where a spill could impact California marine waters.

If you have any questions, please contact Farina Khan at 916-327-9937.

Sincerely,

Farina A. Khan

Financial Analyst
Office of Spill Prevention and Response
cacofr-facilities@ospr.dfg.ca.gov

9.1.3 INTRODUCTION

KMEP, in compliance with CCR Title 14, Division 1, Sections 815-819, has elected to substitute its approved DOT Oil Spill Response Plan for a blanket California OSPR Contingency Plan supplemented by this section. A complete Cross Reference of OSPR Regulations to this substitute plan are included in Volume 1.

This OSPR section for the Northern Region – Bay Areas provides additional spill planning and response information appropriate for use along identified OSPR line segments of the KMEP pipeline system in these Areas.

The line segments referenced in Figure 9.1 have been identified as subject to OSPR jurisdiction based on the likelihood of a worst case pipeline rupture potentially resulting in impact to California marine waters. Figure 9.1 lists valve or control point locations, distances to marine waters, and reasonable worst case spill (RCWS) volumes.

This Section 9 is provided in order to document the following OSPR pipeline segment-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- OSPR Pipeline Segment Information (Figure 9.1)
- HCA Index Map (Figure 9.2)
- Discharge Scenarios (Section 9.3)
- Reportable Oil Discharge History (Section 9.4)
- Risk Analysis Summary (Section 9.5)
- Offsite Consequence Analysis (Section 9.6)
- Risk Reduction Incentive Programs (Section 9.7)
- Drug and Alcohol Policies (Section 9.8)

9.2 OSPR LINE SEGMENTS

The pipeline segments identified in Figure 9.1 for this area have been identified as subject to OSPR contingency plan requirements. The segments were selected based on the likelihood of a worst case pipeline release potentially resulting in impacts to California marine waters. Some minor ephemeral drainage crossed at substantial distances from coastal waters are not included due to the sufficient time to respond and avoid marine water impacts.

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	709 Beck Avenue Fairfield, CA 94533 (707) 438-2100 (707) 424-6089 *(Fax)*
OSPR Plan CNTRL Number:	P2-07-0175A
COFR Certificate Number:	20310-00-012
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 (713) 369-9454 *(Office)* (713) 495-2713 *(Fax)*
	Send correspondence to: Rod Dillon Manager – Emergency Response Programs 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 420-7633 *(Office)* (713) 369-9215 *(Fax)* rod_dillon@kindermorgan.com *(email)*
Qualified Individual (Emergency Coordinator):	Pete Murphy Operations Manager 1550 Solano Way Concord, CA 94520 (925) 680-5493 *(Office)* (b) (6) *(Mobile)* (303) 984-3823 *(Fax)* pete_murphy@kindermorgan.com *(email)*
Alternate Qualified Individual:	Grant McClellan Area Manager 1500 Solano Way Concord, CA 94520 (925) 682-0764 *(Office)* (b) (6) *(Mobile)* (925) 827-2971 *(Fax)* grant_mcclellan@kindermorgan.com *(email)*
Agent for Service:	CSC - Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*
Design Details:	The design details of these line segments are provided on large-scale, alignment sheets which are revised and updated as needed. Detailed procedures for operating the pipeline system are contained within KMEP's Operations Manuals.
Products Handled:	Gasoline, Diesel and Jet Fuel

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

GENERAL INFORMATION (Cont'd)

Seasonal Weather Conditions:

Air Temperature:	Ranges from 30° to 95°F
Water Temperature:	Ranges from 52° to 54°F
Winds:	Generally southwest at 15 to 25 mph in afternoons from April to September; calm in other months except during storms.
Rain:	Generally 18 to 20 inches per year during October to May.
Marine Tide/Current:	The tidal range is generally from 0 feet to +5 feet MLLW, with the extremes being -2.5 feet and +7.5 feet.

Site Descriptions:

Richmond/Brisbane Area: The pipeline segments within the Richmond/Brisbane Area include crossings of the Carquinez Strait and San Francisco Bay as well as segments located adjacent to San Pablo Bay and approaches along or crossings of nearby sloughs, lagoons and creeks in the Berkeley, Brisbane, Oakland, Pinole, and Richmond areas. Topography is very flat. Land uses include primarily railroad rights of way, industrial and commercial developments. Figure 9.2 depicts the location of the line segments and general terrain/drainage channels in the area.

Concord Area: The pipeline segments within the Concord Area include crossings of the Carquinez Strait, and other drainages leading to Suisun Bay and the Sacramento/ San Joaquin River Delta. Many of these crossings represent multiple crossings of the same drainages, all in very flat terrain. Land uses include marshlands in the Delta area, commercial, urban, residential, and industrial land uses around Concord, Pittsburg, and Martinez. Figure 9.2 depicts the location of the line segments and general terrain/drainage channels in the area.

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

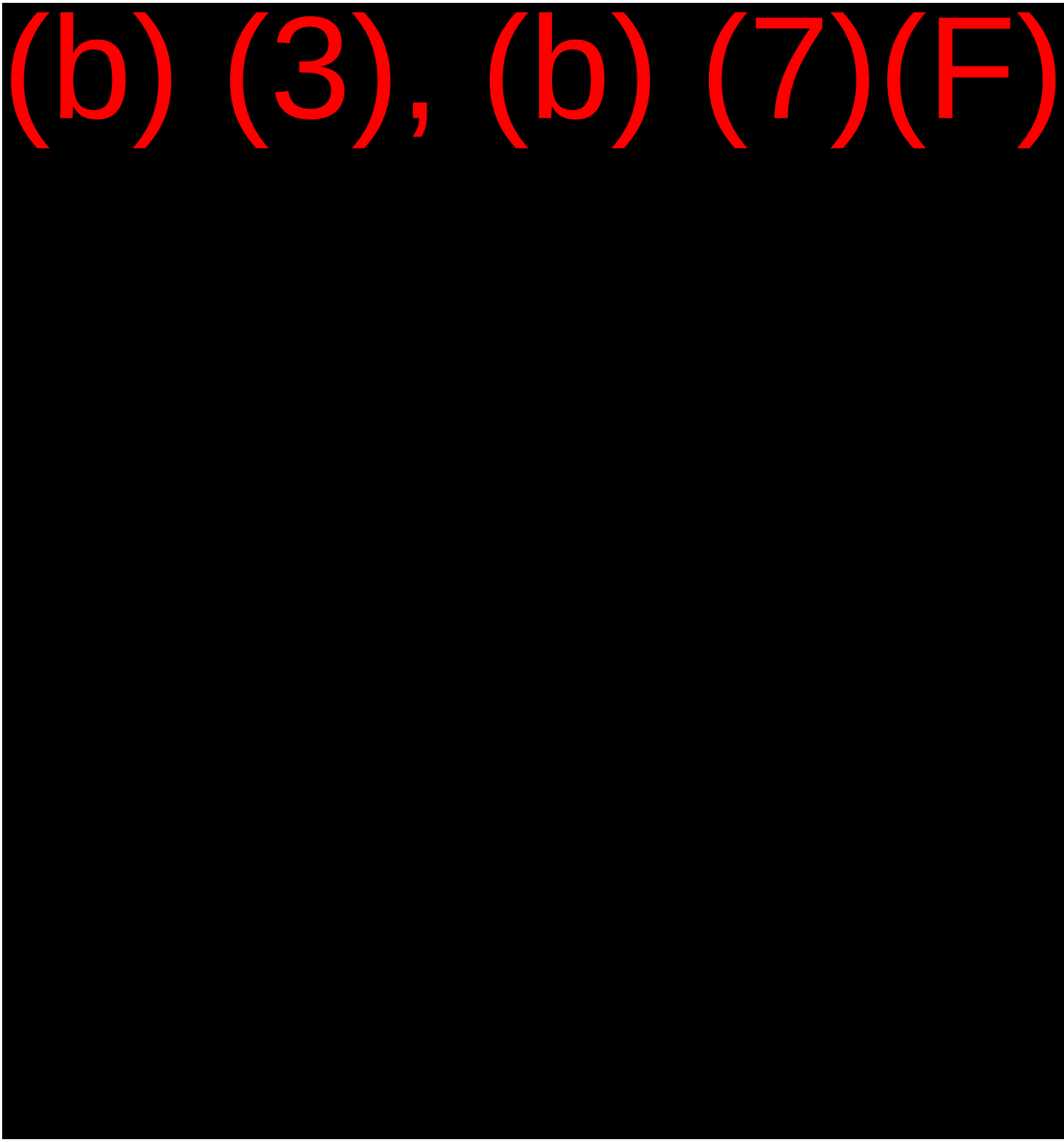
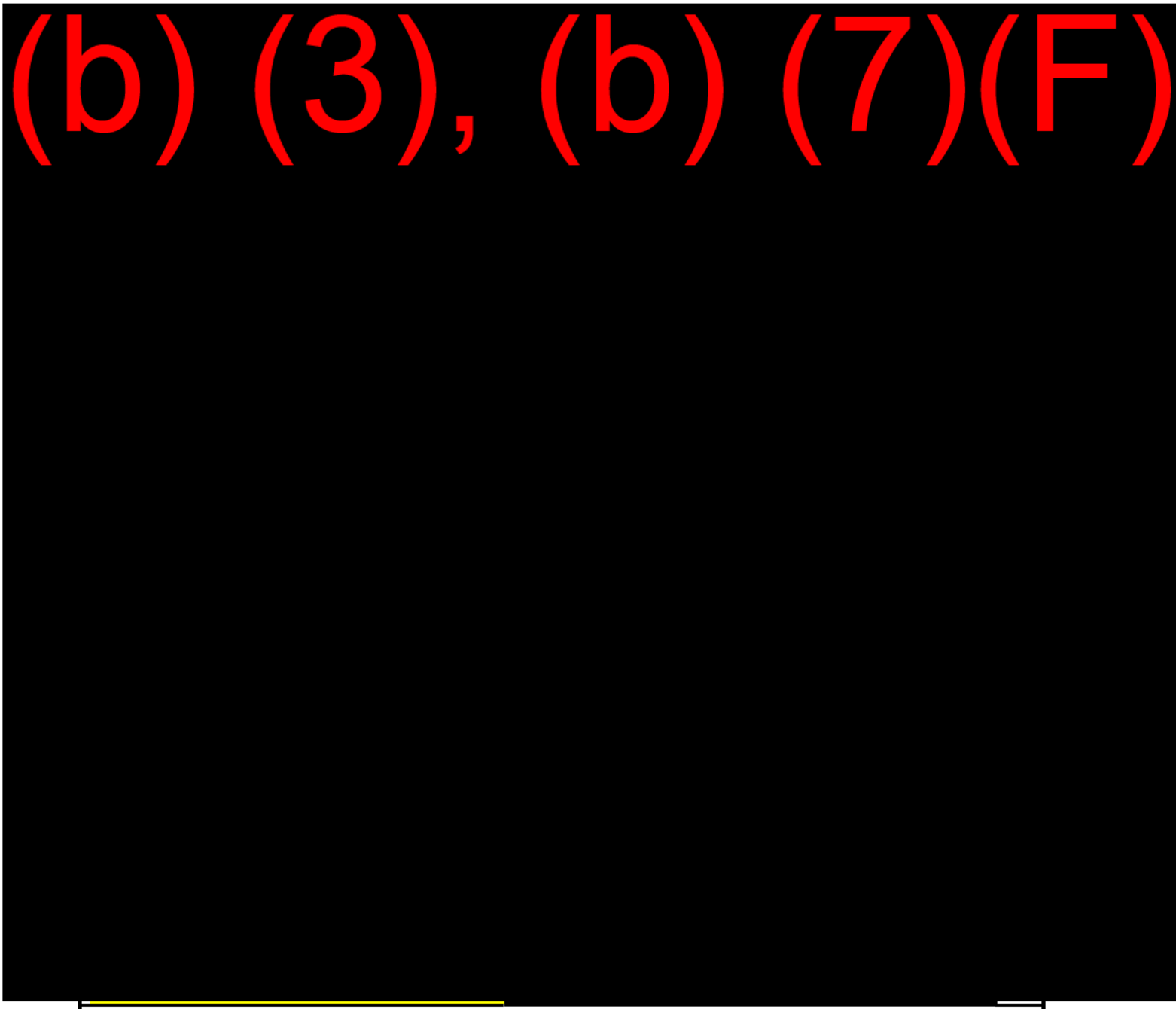


FIGURE 9.1



Note[1]: This identifies the location of the segment of line within OSPR jurisdiction.

Note[2]: B = Block Valve, M = MOV, A = Automatic Pressure Valve, C = Check Valve.

Note[3]: Reasonable worst case spill volume based on annual Liquid Volume Release Modeling which takes into account maximum pumping rate, discovery/shutdown times and drainage volumes based on elevation changes between isolation points (EFRDs and/or endpoint block valves).

FIGURE 9.1 OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

PREVENTION MEASURES

KMEP Operations and Maintenance Manuals

KMEP facilities are built and maintained in accordance with all applicable codes and regulations as well as relevant API (American Petroleum Institute) standards. Pipelines are coated and cathodically protected. Any abnormalities found by periodic maintenance inspections and/or internal inspections are promptly repaired. The Company's operating practices meet or exceed industry standards.

KMEP Operations and Maintenance Manuals have been developed in accordance with DOT 49 CFR 195 and various aspects of the operations, inspection, and maintenance procedures have been summarized below for reference. The design and installation details of KMEP's pipelines are provided on large-scale alignment sheets which are revised and updated as needed.

Integrity testing of pipelines and leak detection equipment

Pipelines are hydrostatically pressure tested, in accordance with DOT Part 195 when installed. In addition, KMEP performs integrity testing of OSPR pipelines by utilizing internal inspection tools or pressure test every five years. The internal inspection log produces data which is read and interpreted by third party experts and KMEP designs its verification and repair program utilizing these results.

Line monitoring and leak detection is described in the Operations Manual.

Damage criteria for equipment repair or replacement.

Damage criteria for pipelines (which would require action to be taken, such as reducing the maximum operating pressure, pipeline repair or replacement) is included in the Maintenance Manual (and generally follows ASME B31G).

Protection measures for areas subject to flooding.

Certain sections of the pipeline cross streams, rivers and bays. Other areas may be subject to periodic flooding during periods of high rainfall.

During initial pipeline construction, streambed profiles and pipe profiles are designed and installed to withstand or be protected from the effects of flooding. In addition, major waterway crossings are inspected periodically. For example, pipeline crossings are inspected every 5 years. If necessary, rip-rap or other protective covering is installed.

Describe any leak detection, spill prevention safety and alarm systems, devices, equipment or procedures.

(b) (7)(F), (b) (3)

[redacted]

FIGURE 9.1 OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

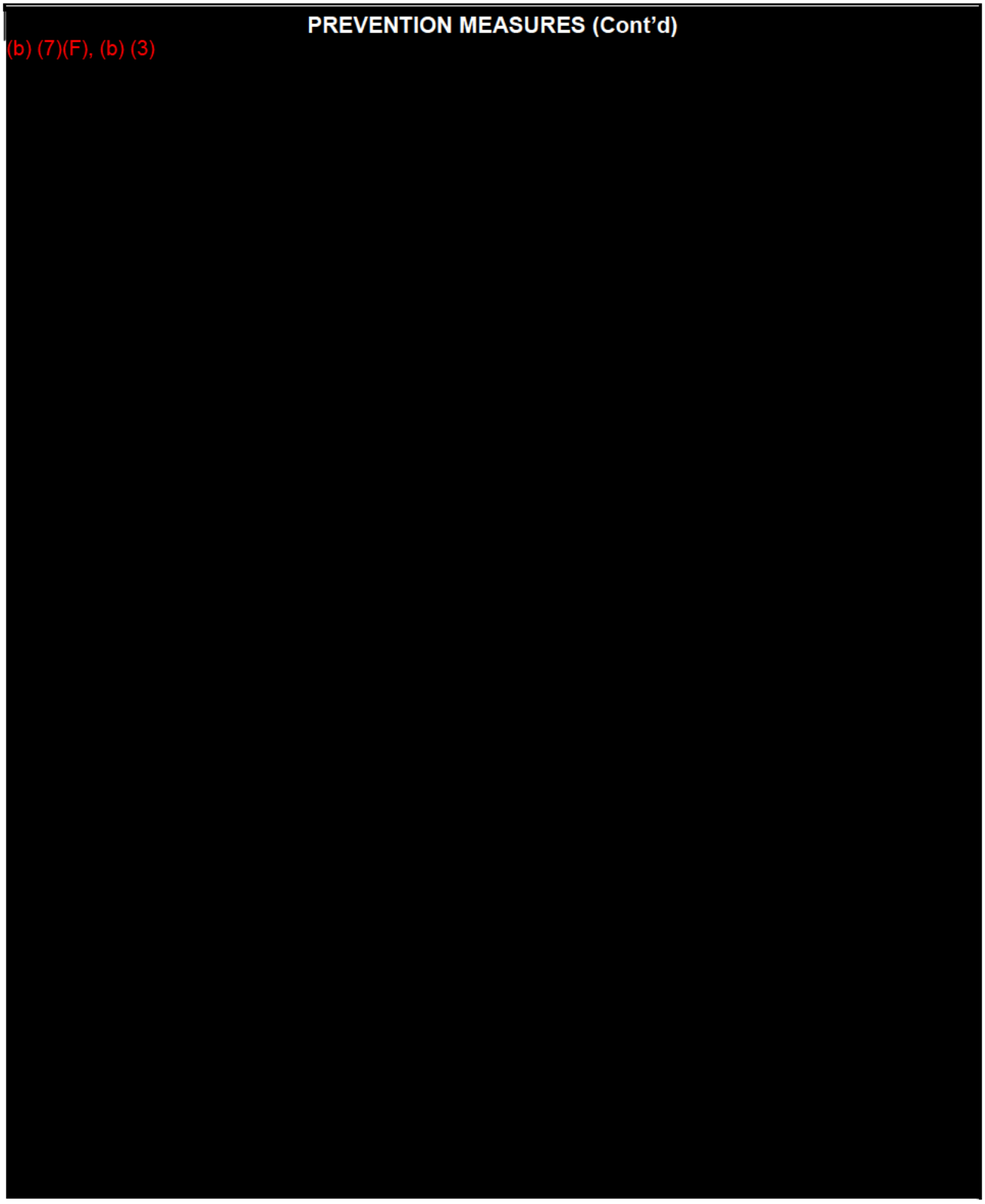


FIGURE 9.2

HCA INDEX MAP

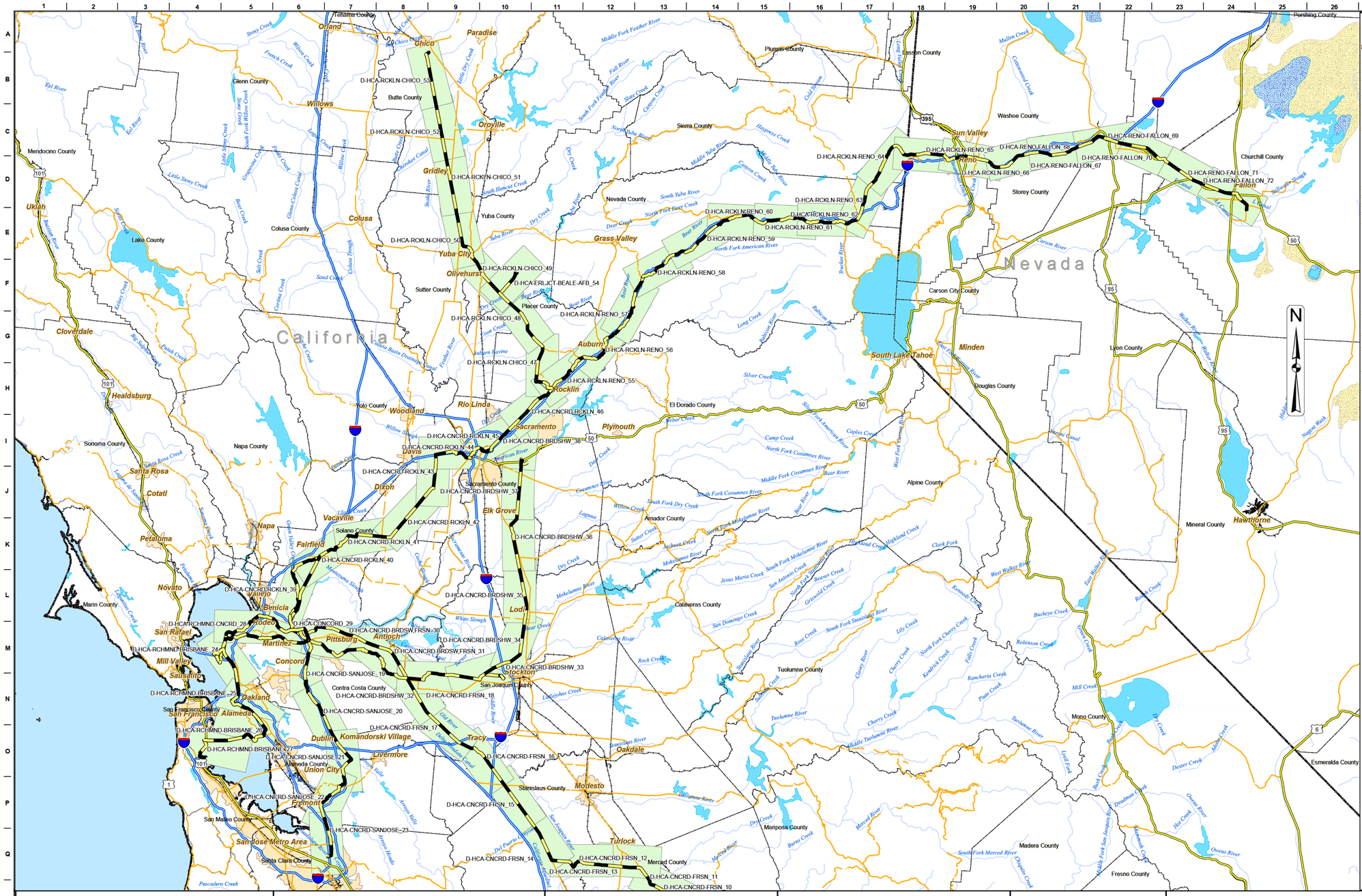
NOTE: The locations of these OSPR jurisdictional line segments are represented on these maps for relative location/informational purposes only. The length of the segments are represented as centered on the water crossing when in fact the actual location of the segment will shift according to slopes, valve location and other RWCS limiting factors.

The following Index Map shows all corresponding Line Segments for Figure 9.2.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA Maps for this region are:

485-D-HCA-SFPP_005.pdf
485-D-HCA-RCHMD-BRISBANE_024.pdf
485-D-HCA-RCHMD-BRISBANE_025.pdf
485-D-HCA-RCHMD-BRISBANE_026.pdf
485-D-HCA-RCHMD-BRISBANE_027.pdf
485-D-HCA-RCHMD-CNCRD_028.pdf
485-D-HCA-CNCRD_029.pdf
485-D-HCA-CNCRD-BRDSW-FRSN_030.pdf
485-D-HCA-CNCRD-BRDSW-FRSN_031.pdf
485-D-HCA-CNCRD-RCKLN_040.pdf
485-D-HCA-CNCRD-RCKLN_041.pdf
485-D-HCA-CNCRD-RCKLN_042.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description	Dwg Name	Line Description
D-HCA-CNCRD-FRSN_012	LS-905090; CONCORD - FRESNO 12"	D-HCA-CNCRD-RCKLN_040	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-FRSN_013	LS-905090; CONCORD - FRESNO 12"		LS-47; 8" X 10" REDUCER - SUISUN JCT 8"
D-HCA-CNCRD-FRSN_014	LS-905090; CONCORD - FRESNO 12"	D-HCA-CNCRD-RCKLN_041	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-FRSN_015	LS-905090; CONCORD - FRESNO 12"	D-HCA-CNCRD-RCKLN_042	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-FRSN_016	LS-905090; CONCORD - FRESNO 12"	D-HCA-CNCRD-RCKLN_043	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-FRSN_017	LS-905090; CONCORD - FRESNO 12"	D-HCA-CNCRD-RCKLN_044	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-FRSN_018	LS-9; CONCORD - BRADSHAW 10"		LS-20; SACRAMENTO - ROCKLIN 12"
	LS-905090; CONCORD - FRESNO 12"		LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10"
D-HCA-CNCRD-SANJOSE_019	LS-130A; CONCORD - WATERFRONT 20"		LS-29; SACRAMENTO - ARCO #1 10"
	LS-14; CONCORD - SAN JOSE 10"		LS-31A; SACRAMENTO - ARCO #1 10"
	LS-27; MARTINEZ - CONCORD 12"		LS-35; SACRAMENTO - SHELL #2 10"
	LS-13; MOCOCO JCT - CONCORD 12"	D-HCA-CNCRD-RCKLN_045	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"
	LS-47; 8" X 10" REDUCER - SUISUN JCT 8"		LS-20; SACRAMENTO - ROCKLIN 12"
	LS-72; RODEO - CONCORD 8"		LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10"
	LS-8; RICHMOND - CONCORD 8"		LS-29; SACRAMENTO - ARCO #1 10"
	LS-9; CONCORD - BRADSHAW 10"		LS-31A; SACRAMENTO - ARCO #1 10"
	LS-905090 ; CONCORD - FRESNO 12"		LS-34; SACRAMENTO - SHELL #1 10"
D-HCA-CNCRD-SANJOSE_020	LS-14; CONCORD - SAN JOSE 10"		LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-SANJOSE_021	LS-14; CONCORD - SAN JOSE 10"	D-HCA-CNCRD-RCKLN_046	LS-11; ROCKLIN - NEW CASTLE 6"/10"
D-HCA-CNCRD-SANJOSE_022	LS-14; CONCORD - SAN JOSE 10"		LS-20; SACRAMENTO - ROCKLIN 12"
D-HCA-CNCRD-SANJOSE_023	LS-14; CONCORD - SAN JOSE 10"		LS-48; LAUNCHER - UPRR 4"
D-HCA-RCHMND-BRISBANE_024	LS-104; CHEVRON REFINERY #2 - RICHMOND 10"		LS-48; ROCKLIN STN - LAUNCHER 4"/8"
	LS-34; RICHMOND STATION - OAKLAND TERMINAL 10/12"	D-HCA-RCKLN-CHICO_047	LS-64; ROCKLIN - CHICO 6"
	LS-37; AMORCO - RICHMOND 12"		LS-11; ROCKLIN - NEW CASTLE 6"/10"
	LS-4641; RICHMOND - BRISBANE 8/10"		LS-20; SACRAMENTO - ROCKLIN 12"
	LS-69; CHEV REFINERY #1 - RICHMOND 8"		LS-48; LAUNCHER - UPRR 4"
	LS-71; LS 89 - RICHMOND 8"		LS-48; ROCKLIN STN - LAUNCHER 4"/8"
	LS-74; RICHMOND - ARCO 8"		LS-64; ROCKLIN - CHICO 6"
	LS-75; IMTT / TIME - RICHMOND 8"	D-HCA-RCKLN-CHICO_048	LS-64; ROCKLIN - CHICO 6"
	LS-77; IMTT / TIME - RICHMOND BY- PASS 3"	D-HCA-RCKLN-CHICO_049	LS-64; ROCKLIN - CHICO 6"
	LS-76; TIME OIL - LS 75/76 JCT 3"		LS-65; ERLE JCT - BEALE AFB 6"
	LS-76; TIME OIL - LS 75/76 JCT 8"	D-HCA-RCKLN-CHICO_050	LS-64; ROCKLIN - CHICO 6"
	LS-8; RICHMOND - CONCORD 8"	D-HCA-RCKLN-CHICO_051	LS-64; ROCKLIN - CHICO 6"
	LS-89; ARCO - LS 71 8"	D-HCA-RCKLN-CHICO_052	LS-64; ROCKLIN - CHICO 6"
	LS-99; CHEVRON REFINERY #3 - RICHMOND 10"	D-HCA-RCKLN-CHICO_053	LS-64; ROCKLIN - CHICO 6"
D-HCA-RCHMND-BRISBANE_025	LS-34; RICHMOND STATION - OAKLAND TERMINAL 10/12"	D-HCA-ERLJCT-BEALE-AFB_054	LS-64; ROCKLIN - CHICO 6"
	LS-42; OAKLAND TERMINAL - BRISBANE TERMINAL 10"		LS-65; ERLE JCT - BEALE AFB 6"
	LS-4641; RICHMOND - BRISBANE 8/10"		
D-HCA-RCHMND-BRISBANE_026	LS-42; OAKLAND TERMINAL - BRISBANE TERMINAL 10"	D-HCA-RCKLN-RENO_055	LS-11; NEW CASTLE - CLIPPER GAP 6"
	LS-4641; RICHMOND - BRISBANE 8/10"		LS-11; ROCKLIN - NEW CASTLE 6"/10"
D-HCA-RCHMND-BRISBANE_027	LS-38; BRISBANE - SFAIRPORT JCT 12"		LS-20; SACRAMENTO - ROCKLIN 12"
	LS-42; OAKLAND TERMINAL - BRISBANE TERMINAL 10"		LS-48; LAUNCHER - UPRR 4"
	LS-4641; RICHMOND - BRISBANE 8/10"		LS-48; ROCKLIN STN - LAUNCHER 4"/8"
D-HCA-RCHMND-CNCRD_028	LS-37; AMORCO - RICHMOND 12"		LS-64; ROCKLIN - CHICO 6"
	LS-72; RODEO - CONCORD 8"	D-HCA-RCKLN-RENO_056	LS-11; CLIPPER GAP - COLFAX 10"
	LS-8; RICHMOND - CONCORD 8"		LS-11; NEW CASTLE - CLIPPER GAP 6"
D-HCA-CONCORD_029	LS-103A; VALERO - N CARQUINEZ 10"		LS-11; ROCKLIN - NEW CASTLE 6"/10"
	LS-103B; CARQUINEZ CROSSING 12"	D-HCA-RCKLN-RENO_057	LS-11; CLIPPER GAP - COLFAX 10"
	LS-105C; SOUTH CARQUINEZ - MOCOCO JCT 10"		LS-11; NEW CASTLE - CLIPPER GAP 6"
	LS-130A; CONCORD - WATERFRONT 20"	D-HCA-RCKLN-RENO_058	LS-11; CLIPPER GAP - COLFAX 10"
	LS-130B; WATERFRONT LAUNCHER - N CARQUINEZ 14"		LS-12; COLFAX - WOODCHOPPER 8"
	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"		
	LS-14; CONCORD - SAN JOSE 10"	D-HCA-RCKLN-RENO_059	LS-12; COLFAX - WOODCHOPPER 8"
	LS-27; MARTINEZ - CONCORD 12"	D-HCA-RCKLN-RENO_060	LS-12; COLFAX - WOODCHOPPER 8"
	LS-13; MOCOCO JCT - CONCORD 12"	D-HCA-RCKLN-RENO_061	LS-12; COLFAX - WOODCHOPPER 8"
	LS-37; AMORCO - RICHMOND 12"	D-HCA-RCKLN-RENO_062	LS-12; COLFAX - WOODCHOPPER 8"
	LS-47; 8" X 10" RED - 8" X 10" REDUCER 10"	D-HCA-RCKLN-RENO_063	LS-12/13; WOODCHOPPER - REDUCER 10"
	LS-47; 8" X 10" REDUCER - SUISUN JCT 8"		LS-12; COLFAX - WOODCHOPPER 8"
	LS-47; CONCORD - 8" X 10" REDUCER 8"		
	LS-72; RODEO - CONCORD 8"		
	LS-8; RICHMOND - CONCORD 8"	D-HCA-RCKLN-RENO_064	LS-12/13; WOODCHOPPER - REDUCER 10"
	LS-9; CONCORD - BRADSHAW 10"	D-HCA-RCKLN-RENO_065	LS-12/13; WOODCHOPPER - REDUCER 10"
	LS-905090; CONCORD - FRESNO 12"		LS-13; 10X8 REDUCER - RENO 6"
	LS-91; VALERO - AMORCO 10"		LS-91; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSWFRSN_030	LS-130A; CONCORD - WATERFRONT 20"	D-HCA-RCKLN-RENO_066	LS-12/13; WOODCHOPPER - REDUCER 10"
	LS-14; CONCORD - SAN JOSE 10"		LS-13; 10X8 REDUCER - RENO 6"
	LS-27; MARTINEZ - CONCORD 12"		LS-55; RENO - FALLON NAS 6"
	LS-13; MOCOCO JCT - CONCORD 12"	D-HCA-RENO-FALLON_067	LS-55; RENO - FALLON NAS 6"
	LS-47; CONCORD - 8" X 10" REDUCER 8"	D-HCA-RENO-FALLON_068	LS-55; RENO - FALLON NAS 6"
	LS-72; RODEO - CONCORD 8"	D-HCA-RENO-FALLON_069	LS-55; RENO - FALLON NAS 6"
	LS-8; RICHMOND - CONCORD 8"	D-HCA-RENO-FALLON_070	LS-55; RENO - FALLON NAS 6"
	LS-9; CONCORD - BRADSHAW 10"	D-HCA-RENO-FALLON_071	LS-55; RENO - FALLON NAS 6"
	LS-905090; CONCORD - FRESNO 12"	D-HCA-RENO-FALLON_072	LS-55; RENO - FALLON NAS 6"
D-HCA-CNCRD-BRDSWFRSN_031	LS-9 ; CONCORD - BRADSHAW 10"		
	LS-905090; CONCORD - FRESNO 12"		
D-HCA-CNCRD-BRDSHW_032	LS-9; CONCORD - BRADSHAW 10"		
	LS-905090; CONCORD - FRESNO 12"		
D-HCA-CNCRD-BRDSHW_033	LS-43; STOCKTON - BP WEST 8"		
	LS-45A; BOUGH & READY JCT - SHELL 8"		
	LS-45B; BOUGH & READY JCT - ST SERVICES 8"		
	LS-45C; STOCKTON - ROUGH & READY JCT 8"/6"		
	LS-42; STOCKTON JCT - STOCK TERM 8/10"		
	LS-9; CONCORD - BRADSHAW 10"		
D-HCA-CNCRD-BRDSHW_034	LS-9; CONCORD - BRADSHAW 10"		
D-HCA-CNCRD-BRDSHW_035	LS-9; CONCORD - BRADSHAW 10"		
D-HCA-CNCRD-BRDSHW_036	LS-9; CONCORD - BRADSHAW 10"		
D-HCA-CNCRD-BRDSHW_037	LS-57A; BRADSHAW - MATHER AIRPORT 4"		
	LS-9; CONCORD - BRADSHAW 10"		
D-HCA-CNCRD-BRDSHW_038	LS-20; SACRAMENTO - ROCKLIN 12"		
	LS-57A; BRADSHAW - MATHER AIRPORT 4"		
	LS-9; CONCORD - BRADSHAW 10"		
D-HCA-CNCRD-RCKLN_039	LS-103A; VALERO - N CARQUINEZ 10"		
	LS-103B; CARQUINEZ CROSSING 12"		
	LS-130B; WATERFRONT LAUNCHER - N CARQUINEZ 14"		
	LS-139C; NORTH CARQUINEZ-SACRAMENTO 20"		
	LS-47; 8" X 10" RED - 8" X 10" REDUCER 10"		
	LS-47; 8" X 10" REDUCER - SUISUN JCT 8"		
	LS-91; VALERO - AMORCO 10"		

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: **07/25/2011**	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Feb, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_005**	

9.3 DISCHARGE SCENARIOS

Reasonable worst case spill (RWCS) volumes were calculated for each OSPR Line Segment to determine the segments which had the largest potential spill volumes and impacts to marine waters. OSPR Line Segments are defined by the valve or control points on either side of drainage crossings. In parallel approaches along marine waters, the segment of the line with the longest distance between valves was used to calculate spill volumes, although in long approaches many valves may be present.

Drain down after a pipeline rupture generally contributes most of the spill volume from a significant pipeline rupture, since computer and operator monitoring normally shuts off all pumping within a reasonably brief time following a release. Precise predictions of drain down volumes is a function of the size of the pipe, topography, elevation of the break, and other variables. Motor operated remote valves and check valves effectively prevent drain down where present. Conservative assumptions were used to calculate reasonable worst case spill volumes.

Note: The quantity associated with "the loss of the entire capacity of all in-line, break-out and portable storage tank(s)…" is excluded from the RWCS volume calculation since these tanks are under SPCC jurisdiction (i.e., tanks are subject to Chapter 6.67 or Chapter 6.7 of Div. 20, CA health and Safety Code and thus, exempt from this calculation.)

The Reasonable Worst Case Spill (RWCS) volumes are consistent with the OSPR criteria as described below.

CALIFORNIA OSPR Discharge Volume Calculation

- **Reasonable Worst Case Spill (RWCS)**
  The largest volume (bbls) at the following:
  - *The pipeline's maximum release time in hours (i.e., the time between pipeline rupture and discovery, plus the maximum shut-down response time in hours based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after a shutdown of the line section(s) in the response zone expressed in barrels. (As used in this subsection: line section means a continuous run of pipe that is contained between adjacent pressure pump stations, between a pressure pump station and a Facility or break-out tank, between a pressure pump station and block valve, or between adjacent block valves; response zone means a geographic area either along a length of pipeline or including multiple pipelines, containing one or more adjacent line sections, for which the operator must plan for the deployment of, and provide spill response capabilities. The size of the zone is determined by the operator after considering available capabilities, resources, and geographic characteristics); or*
  - *The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken.*

OSPR PERSISTENCE FACTORS

Oil Group	Group 1	Group 2	Group 3	Group 4
(b) (7)(F), (b) (3)				

9.3 DISCHARGE SCENARIOS (Cont'd)

OSPR EMULSIFICATION FACTORS				
Oil Group	Group 1	Group 2	Group 3	Group 4
(b) (7)(F), (b) (3)				

OSPR DAILY RECOVERY RATES (Cap) HIGH VOLUME PORTS	
Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

OSPR DAILY RECOVERY RATES (Cap) FACILITY/TRANSFER AREAS AND SANTA BARBARA CHANNEL AREA	
Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

Realistic worst case spill volume based on 3 minute pumping plus 60% of volume between isolation points (EFRDs and/or endpoint block valves). The RWCS for each OSPR Line Segment is referenced in Figure 9.1 and the largest RWCS for this Region is as follows:

- (b) (7)(F), (b) (3)

The planning volumes based on the largest RWCS for the OSPR pipeline segments in this Region are provided below, based on a nearshore/inland environment and an emulsification factor of 1.8 for Group 2 Oil discharges of gasoline, diesel and jet fuel.

OSPR – RESPONSE PLANNING VOLUME CALCULATIONS
(b) (7)(F), (b) (3)

9.4 REPORTABLE OIL DISCHARGE HISTORY

A summary of significant spills that occurred prior to KMEP ownership is provided in Section 9.5. A summary of significant OSPR Line Segment spills that have been recorded in this Region is provided in the following table. (Note: A significant spill is a spill of one barrel or greater reported within control points of each OSPR line segment.)

Line Section	Pipeline Milepost	Date	Volume	Product	Cause
47	4.05	11/07/04	(b) (7)(F), (b) (3)	Jet JP-8	Third party damage
16	8.48	11/09/04		Gasoline	Third party damage
42	13.805	02/07/05		Jet/turbine	Third party damage
95		08/23/99		Jet/turbine	Third party damage

9.5 RISK ANALYSIS SUMMARY

A summary of the Risk Analysis and the Offsite Consequence Analysis developed during October through December 2007 to address updated Company policies and procedures, and account for additional line segments and facilities not considered in previous efforts, is presented on pages 9-15 through 9-38.

A full version of this document is available on request.

9.6 OFFSITE CONSEQUENCE ANALYSIS

Refer to pages 9-15 through 9-38.

OSPR PIPELINE SEGMENTS – RISK ANALYSIS SUMMARY

Risk Analysis Summary

A Risk Analysis was conducted on segments of the Kinder Morgan Pacific Region Pipeline and some fixed facilities within California that are jurisdictional to OSPR regulations. The method used for the Risk Analysis consisted of both a "checklist" and "what if" scenarios. The Risk Analysis team consisted of various Subject Matter Experts (SMEs) as well as others knowledgeable as to the risk analysis process. During numerous SME sessions, the SMEs were asked to provide technical information within their field of knowledge or experience directly relating to specific risk issues. The information gathered from the various SMEs was presented to the Risk Analysis Team during team meetings conducted over an approximate two (2) month period, and compiled to gauge the level of risk facing the OSPR jurisdictional pipeline segments and facilities.

2.0 RISK ANALYSIS TEAM CONSENSUS REPORT

2.1 DIRECT IMPACT ISSUES:

The team has concluded policies, practices and procedures that are currently in place are adequate with respect to those issues having a direct affect on safe pipeline operations.

2.2 INDIRECT IMPACT ISSUES

The team has identified some opportunities for improvement with respect to the following issues in the categories that indirectly impact safe operations:

- Reinforce the procedures that are followed for updating alignment sheets to assure that revision submittals have been completed (Issues AM-1 and AM-2).

- Proceed with the program for "Continuing Risk Analysis to Identify Preventative and Mitigative Measures" (Procedure L-O&M 275) for the OSPR-jurisdictional pipelines in the Pacific Region (Issue AM-9).

- Proceed with the program to complete the Emergency Flow Restriction Device studies for the OSPR-jurisdictional pipelines in the Pacific Region, when those pipeline segments are next integrity inspected (Issue O-6).

- When reviewing some of the forms placed in use in recent months there was some uncertainty as to what data might be needed and what data might not be required under some circumstances. Updated instructions for preparation of these forms have been drafted. All locations should proceed to implement these instructions (Issue M-7).

The above summary of conclusions and the detailed conclusions of the several integrity issues addressed in Section 3.0 of this report represent a consensus of the following Subject Matter Experts participating in the analysis:

Edward (Buzz) Fant
Phil Vasquez
Larry Hosler
Ed Hahn
Bob Cote
Mike Outlaw
Mike Ortiz

3.0 SUBJECT MATTER EXPERT EVALUATIONS

The Risk Analysis Team, upon reviewing the comments by team SMEs developed in both group sessions and one-on-one with the Risk Analysis Coordinator, has reached consensus on the following conclusions and recommendations.

3.1 PIPELINE RISK ISSUES

ADMINISTRATIVE AND MANAGEMENT ISSUES	
The following two issues are related and were reviewed as a single issue by the SMEs.	
AM-1	Maps and drawings accuracy: Do pipeline maps and drawings reflect accurate pipeline and related information? Are pipeline locations based on GPS data? Have the drawings been digitized for reliable database reference?
AM-2	Maps and drawings current: Are procedures in place to insure that maps and drawing have up-to-date information? Are field drawings 'red-lined" pending engineering revisions?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker, Pete Murphy, Grant McClellan

Comments: The current process for maintaining maps and records is reasonably good. Some areas maintain their master set of alignment sheets current by "red-lining" changes until revisions have been completed, while other locations do not. There is currently a substantial delay in getting revisions back, and no current procedure for confirming that revisions submitted by field personnel have been completed.

New procedures implemented in recent months have been reinforced to better assure accuracy and should improve revision turnaround time. The process for managing the preparation of all alignment sheets, which includes having all revision data entered electronically and having all current alignment sheets available to all users on line, is currently a "work-in progress".

Recommendation: There should be a procedure established to follow up on pending revisions to confirm they have been accurately made, and are received back on a timely basis. When the electronic version of the alignment sheet maintenance process has been completed the procedures that guide the process should be reviewed to confirm applicability; and they should include a procedure for the personnel submitting revisions to confirm that the electronic updating has been completed.

The following two issues are related and were reviewed as a single issue by the SMEs.	
AM-3	Qualified personnel for operations: Are all personnel involved in pipeline operations qualified? How is qualification determined?
AM-4	Qualified personnel for maintenance: Are all personnel involved in pipeline maintenance efforts qualified? How is qualification determined?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: The OQ program as set forth in API 1162 is the guidance for this issue. It is monitored on a continuing basis to assure compliance. The SMEs that addressed this issue confirmed that regional personnel having oversight of the OQ program are knowledgeable in the OQ program requirements and follow them when covered tasks are being performed.

Recommendations: None

AM-5	Qualified personnel for line locates: Are all personnel involved in one call responses and line locates familiar with locate requirement, marking, pipe locator usage, documentation and follow-up?

Primary SMEs: Phil Vasquez, Larry Hosler, Buzz Fant
Others offering comments: Steve Marositz, Curtis Parker

Comments: The SMEs that addressed this issue have confirmed that all personnel associated with line locates are qualified under the OQ program and are thoroughly trained in line locate and marking requirements; and are adequately trained in the use of line locate equipment.

Recommendations: None

AM-6	Qualified contractor personnel: Are all contractor personnel involved in pipeline maintenance efforts qualified? How is qualification determined?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker

Comments: We have a firm requirement in our contracts with contractors requiring them to fully comply with OQ guidelines. All contract personnel that may perform covered tasks must be pre-identified by name and must be in the ISNetworld database. The SMEs that addressed this issue confirmed that regional personnel having oversight of contractors performing covered tasks are knowledgeable in the OQ program requirements as they apply to contract personnel, and they follow them when contract work us being performed.

Recommendations: None

AM-7	Contractor supervision: Are all contractor personnel adequately supervised when performing maintenance work on or adjacent to pipeline facilities? Who determines level of supervision required? How is contractor performance verified?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker

Comments: We have a firm requirement in our contracts that require full time supervision of all maintenance personnel by qualified contractor supervisors. The SMEs that addressed this issue confirmed that regional personnel having oversight of contract work are knowledgeable in this requirement. The KM contract inspector assigned to oversee the contract work determines the level of contrast supervision that the work may require. The KM contract inspectors enforce this requirement.

Recommendations: None

AM-8	Relief personnel: What is the source of relief personnel for routine operating and maintenance positions? Is there adequate depth of trained/qualified relief personnel?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: We have adequate qualified personnel to fill in as may be required for routine operations tasks and for maintenance work. Personnel are cross-trained in multiple disciplines so they can back stop any short time gaps that may develop. The SMEs that addressed this issue confirmed that all relief personnel that may be required to perform covered tasks have the requisite qualifications.

Recommendations: None

AM-9	Integrity Management Program (IMP): Has the operator established an Integrity Management Program for the pipeline systems that are subject to the PHMSA IMP program? Is it being followed at all locations where required? Are all elements of the program being adequately documented?

Primary SMEs: Mike Outlaw
Others offering comments: Buzz Fant

Comments: The IMP has been in place as required by the pipeline regulations. The SME that addressed this issue confirmed that baseline integrity assessments have been performed throughout the Pacific Region based on a priority schedule that was identified at the inception of the program. The baseline and follow-up inspections are administered by a risk management person in the Pacific Region.

The SME confirms that they have a program in place to conduct annual reviews of the risks associated with each segment. The follow up throughout the Pacific Region to address any corrective or mitigative efforts that may be required as a result of the annual reviews will be initiated in 2008.

Recommendations: Proceed with the program to follow up on any corrective or mitigative efforts required based on the annual reviews of Pacific Region pipeline segments.

AM-10	Management of Change: Has the operator adopted the "Management of Change" concept or something similar? If so, how has it been conveyed to all personnel? If no, what process is used to convey operating and procedural change information to personnel?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: An extensive MOC procedure is in place and it is used to address all variety of changes. The SMEs that addressed this issue confirmed that regional personnel having responsibility for MOC initiation and processing are knowledgeable in the MOC requirements, and they follow them whenever any applicable change is being considered.

Recommendations: None

The following two issues are related and were reviewed as a single issue by the SMEs.

AM-11	Operations and Maintenance (O/M) Manual: Is the manual complete, used by all, relevant to current operations.
AM-12	Procedure amendments: Is there a process for amending operating and maintenance procedures when needed and conveying these changes to all personnel?

Primary SME: Buzz Fant

Comments: The L-O&M Manual is an extensive compilation of procedures that are relevant to all phases of operations and maintenance. It is accessible on-line for all personnel that have a need to refer to it. It is maintained current by a rigorous amendment process. Changes are made available to all personnel. The SMEs that addressed this issue confirmed that regional personnel are familiar with the on-line set of procedures and have ready access to them whenever necessary.

Recommendations: None

AM-13	Reference materials: Do all locations have copies of applicable regulations, standards, recommended practices that are applicable to those areas of operation? Are personnel sufficiently familiar with those documents?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Curtis Parker, Buzz Fant

Comments: All such references are available on-line. The SMEs that addressed this issue confirmed that regional personnel having a need to access such documents know where to obtain them.

Recommendations: None

OPERATIONS ISSUES

The following two issues are related and were reviewed as a single issue by the SMEs.

O-1	Segment MOP: Has the MOP for each segment of line been determined? Is it recorded and clearly identified for operators and controllers? Is it consistent with the pressure relief and pressure control settings?
O-2	Overpressure relief: Are the overpressure relief systems set at the appropriate level above MOP? Are they adequately sized? Are they tested and tagged as required?

Primary SMEs: Bob Cote

Comments: The MOP for each line segment has been established. It is known by those that have to apply the MOP in operations. (b) (7)(F), (b) (3) [redacted]

The SMEs that addressed this issue confirmed that the controllers and others responsible for pipeline operations understand the MOP and the MAOP of each line segment. The SMEs also confirmed that the relief pressure settings are properly set to assure that the MAOP is never exceeded in any portion of the line segment.

Recommendations: None

O-3	Personnel work hours: Are operator and controller work shifts designed to assure minimization of fatigue?

Primary SMEs: Phil Vasquez, Larry Hosler, Ed Hahn
Others offering comments: Gary Yates, Steve Marositz, Curtis Parker

Comments: The work shifts of all personnel (field personnel, station operators and controllers) are managed in a manner that the fatigue factor is controlled. The SME responsible for controller personnel emphasized that fatigue awareness and fatigue management is emphasized. Actions or incidents that may suggest fatigue could have been a contributing factor are investigated. Job performance is monitored to assure that if it appears to be an impending concern for any individual or group follow-up investigation would be conducted.

Recommendations: None

O-4	Fail-safe operations: Are line segments designed to fail safe in case of communications failure between the segment and the controllers?

Primary SME: Ed Hahn
Others offering comments: Gary Yates

Comments: (b) (7)(F), (b) (3) [redacted]. Once communications has been restored the segment is restarted in accordance with normal start-up procedures.

Recommendations: None

O-5	Backup operations: Are personnel available to staff remote facilities in case of prolonged communications failures or other situations where remote monitoring may be inadequate? Are these personnel sufficiently trained to operate such facilities?

Primary SMEs: Ed Hahn, Phil Vasquez, Larry Hosler

Comments: The SMEs that addressed this issue confirmed that the standard practice is to shut down remotely operated facilities when prolonged communications failures persist, rather than arrange for remote staffing.

Recommendations: None

O-6	Has the EFRD evaluation been conducted on this segment? Were EFRD recommendations implemented? If not, was the rationale for not following the recommendations documented?

Primary SMEs: Mike Outlaw, Mike Ortiz

Comments: The program for EFRD evaluations in conjunction with the Integrity Management Program is currently in progress. It has not yet been initiated for the Pacific Region Pipelines. The SMEs that addressed this issue have confirmed that the EFRD studies are being programmed in conjunction with integrity inspections..

Recommendation: Perform the EFRD analyses for the Pacific Region segments when those segments are next integrity inspected.

MAINTENANCE ISSUES

The following five issues are related and were reviewed as a single issue by the SMEs.

M-1	Rights-of-Way visibility: Does the segment have adequate right-of-way visibility to assure effective aerial patrol surveillance?
M-2	Aerial Markers: Are they adequate, properly spaced, in good condition, visible from air?
M-6	Line marker maintenance: Are all markers maintained in good condition, with current operator information?
P-5	Line marker adequacy: Are line markers located at all appropriate locations (as required by regulations plus other locations where they may be needed to insure location awareness)?
P-6	Line marker alternatives: In areas where typical post type markers cannot be situated or kept, what alternatives are used?

Primary SMEs: Phil Vasquez, Larry Hosler

Comments: All rights-of-way that are covered by aerial patrol are adequately cleared for surveillance. We have a routine program for monitoring the condition of line and aerial markers and replace them as necessary. Where appropriate we have surface markers that can be used in place of post markers.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.	
M-3	Cathodic Protection: Does the line have cathodic protection? If not, what is the rationale?
M-4	Cathodic protection annual surveys: Have annual surveys been done on each line segment? If not, what is the survey frequency? Is the frequency deemed adequate?
M-5	Cathodic protection close interval surveys: Have CIS been done on each segment? What was the rationale for doing or not doing? Are alternatives to CIS being used and if so, what is rationale?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering Comments: CP technicians

Comments: Annual surveys are done regularly and the resulting data is reviewed by NACE certified CP technicians. The SMEs that addressed this issue confirmed that the decision to conduct a CIS would depend on the results of the annual survey; and where warranted a CIS would be performed.

Recommendations: None

M-7	Maintenance records: Are all records (routine and abnormal) that may be required to confirm and support routine maintenance retained and available as may be required by management and regulatory agencies?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: All records required to confirm compliance and to assure continued compliance with the routine maintenance programs are being developed. The SMEs that addressed this issue advised that in recent months several forms that address routine inspection and maintenance information have been updated to include more comprehensive information. Revised procedures for completing the forms have been drafted.

Recommendation: Finalize the draft procedures.

M-8	Safety-related condition reports: Are these records being prepared and retained as may be required to meet agency requirements and to support corrective actions?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: We have a program in place to address conditions that might warrant a safety-related condition report and procedures are in place to support corrective actions.

Recommendations: None

M-9	Pipe integrity discoveries: Are procedures adequate to identify and record instances of potential lack of pipe integrity, to meet agency requirements and to support corrective actions and future review?

Primary SMEs: Mike Outlaw, Mike Ortiz, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: The region SMEs advised that the Risk Management group addressed such issues. The Risk Management Group SMEs confirmed this, and advised that integrity discoveries stemming from the integrity inspections are handled on a timely basis as required by the regulations, and that any discoveries that might require a temporary reduction in segment MAOP or other temporary mitigative measures would be immediately addressed by the project managers that oversee the integrity inspection program.

Recommendations: None

PREVENTION ISSUES

The following two issues are related and were reviewed as a single issue by the SMEs.

P-1	Internal corrosion detection: Does the segment have test coupons for checking internal corrosion rates? Is there a routine monitoring program to confirm effectiveness?
P-2	Internal corrosion inhibition: Are inhibitors being used to prevent internal corrosion? Is there a routine monitoring program to confirm effectiveness?

Issues P-1 and P-2 (continued)	
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: There have been no apparent indications of internal corrosion concerns on the OSPR-jurisdictional systems. If such conditions were to appear as a result of internal inspections, action would be taken to identify and mitigate the problem. Recommendations: None	
P-3	Adjacent utilities awareness: Is operator pro-active in knowing exact location of all adjacent underground utilities in pipeline vicinity?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: To the extent possible these are noted on our alignment sheets. The SMEs that addressed this issue confirmed that our line riders are instructed to be alert to any indication of adjacent utilities, and to arrange to have them included on our alignment sheets when they are discovered. Recommendations: None	
The following two issues are related and were reviewed as a single issue by the SMEs.	
P-4	Foreign excavation monitoring: Is operator representative always present when foreign excavations are made over or near pipelines? How is this requirement conveyed to operator personnel? To excavator personnel?
P-7	Excavation in close proximity to pipeline: Does operator demand hand excavation when opening ditch within close proximity to pipeline? How is this controlled?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: Our personnel are to be on site whenever any subsurface work is being done on or around our lines. We have definite requirements that at any time an excavation is to be within 24 inches of the pipe it must be done by hand only. Recommendations: None	

P-8	Line locating instruments: Are all pipe locators calibrated as required by manufacture? Have all operators been trained in proper use of the instrument and been made aware of performance limitations?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker

Comments: Our personnel are trained in the use of this equipment. The SMEs that addressed this issue advised that the accuracy of the unit is verified at least daily by testing against a known section of buried pipe.

Recommendations: None

P-9	Post-Incident Review: Are such reviews conducted in manner that will identify and trigger corrective measures?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: We have a formal procedure for conducting post-incident reviews, including where appropriate a root cause analysis; and follow through with corrective measures as necessary. The SMEs that addressed this issue advised that there is a rigorous procedure involving several staff personnel to discuss all aspect of the incident.

Recommendations: None

MONITORING AND CONTROL ISSUES

The following three issues are related and were reviewed as a single issue by the SMEs.

MC-1	Aerial patrol familiarity: Are the pilots sufficiently familiar with the exact line locations to insure proper surveillance?
MC-2	Local staff familiarity: Does local staff fly with aerial patrol periodically to insure pilots are adequately familiar with the line locations and to keep local staff familiar with line location and surface conditions?
MC-6	Are pilots directed to observe conditions beyond the pipeline right-of-way that suggest potential pending impact to the right-of-way? How is this information reported?

Issues MC-1; MC-2, MC-6 (Cont'd)

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: Our patrol pilots are familiar with precise line locations; and we confirm this by having local personnel periodically fly with them. Pilots are directed to look beyond the right-of-way and report any signs of potential concern along with their other reporting priorities.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.

MC-3	Aerial patrol priorities: Have pilots been advised on notification priorities? Some may require immediate notice to local staff, while others may permit routine reporting. Do the pilots understand and follow any expedited reporting requirements?
MC-4	Aerial patrol routine notices: Are procedures set up to insure that routine reporting of patrol surveillance information goes to the right personnel? Is a log maintained of this? How is it used to follow up on potential problems?
MC-5	Aerial patrol reporting items: Do the pilots report only abnormal conditions, or do they also advise of the need for routine maintenance work (sign painting, marker repairs etc.)?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: Our reporting priorities are clearly given to the patrol pilots. They have the ability to immediately contact our field personnel as necessary. The SMEs that addressed this issue confirmed that their line coverage records are thorough as to details that they report and this includes any situation where maintenance or potential encroachment should been evaluated.

Recommendations: None

The following four issues are related and were reviewed as a single issue by the SMEs.	
MC-7	Volume balance: Does this segment have adequate volume measurements for effective real time balance data?
MC-8	Volume deviations: Are volume balance deviation limits set to reflect the minimum possible deviations within reliable tolerances?
MC-9	Slack lines: Is the system designed and operated to eliminate slack line conditions for adequate volume balance? It is maintained packed to insure good balance during start-up?
MC-10	(b) (7)(F), (b) (3) [redacted]

Primary SMEs: Ed Hahn, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Gary Yates

Comments: All line segments have volume balance measurements and volume deviation alarm set points. The SMEs that reviewed these issues confirmed that:

- deviation tolerances are set sufficiently close to maximize the controller's ability promptly react to potential adverse conditions.
- Lines are maintained packed when shut down, thus slack line conditions are not experienced.
- (b) (7)(F), (b) (3) [redacted]

Recommendations: None

PUBLIC AWARENESS ISSUES	
The following three issues are related and were reviewed as a single issue by the SMEs.	
PA-1	Public awareness programs, conducted: Does operator have, or contract for an active awareness program?
PA-2	Public awareness programs, active participation: Does operator have local personnel actively participate in public awareness efforts? To what degree?
PA-3	Public awareness, excavator contacts: Is operator pro-active in making system known to excavators (area contractors, other utilities, private back-hoe operators)?

PA-1, PA-2, PA-3 (Cont'd)

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: Our public awareness is consistent with API 1162 guidelines. The region SMEs confirmed that area personnel participate in the programs involving local agencies, excavators and the public in close proximity to our pipelines, and they document this participation.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.

PA-4	One call systems, who are they forwarded to (local personnel or a central location)?
PA-5	One call systems, follow-up: How are calls followed up on by local personnel?
PA-6	Damage prevention program formalized: Is there a written program? Is it clearly conveyed to all applicable personnel? Is it followed by all personnel? Does it have clear support and mandate from upper management?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: All locations participate in one-call programs at the local level. Information typically comes in by computer linkage with the one-call system, and can be followed by fax or phone as necessary. Local personnel follow up on all one call notices and evaluate the potential for impact to our systems. We have an active written damage prevention program with full support of upper management.

Recommendations: None

3.2 FIXED FACILITY RISK ASSESSMENT

Facility: **Richmond Terminal** Date: 12/19/2007

Subject Matter Expert: Mike Sudheimer

Recorder: Vern Grimshaw

Facility Operations:

The terminal handles vegetable oils and some petroleum products. Operations include marine vessel receipts and deliveries; and loading to tank trucks and rail cars. There are no pipeline movements of petroleum products into or out of the facility.

Potential Product Releases:

The two possible sources of a release of petroleum products from the facility would be:

- During marine transfer operations, and
- From facility storage facilities and related piping.

In the event of a product release during vessel transfer operations, or if any release from facility tanks or piping were to escape containment, an Integrated Contingency Plan (ICP) is in place to address the situation. The ICP addresses the potential off-site consequences of a release and the response capabilities of KM and contractor resources.

Marine Transfer Operations:

Vessel transfers typically occur at a maximum flow rate of approximately 1,900 barrels per hour. All transfers are constantly monitored by dock and vessel personnel. In the event of a major transfer line or hose failure the maximum probable worst case discharge has been calculated to be 1,647 barrels.

All vessel transfer operations are performed in accordance with USCG and applicable state regulations. KM personnel responsible for transfer operations are familiar with the Dock Operations Manual and applicable regulations; and are trained in the response requirements of the ICP.

Facility Storage Facilities:

Spill prevention from any of the facility's tanks and related piping is addressed in the facility SPCC plan.

(b) (7)(F), (b) (3)

[redacted]

Facility Storage Facilities (Cont'd):

All petroleum piping within the facility (except dock piping that is utilized during vessel transfer operations) is contained within curbing that would direct piping releases to a controlled area on site.

Surface drainage from areas that have the potential to contain petroleum is controlled on site and checked for potential petroleum contaminants before being released.

There is no buried piping within the facility. The tank bottoms are protected from corrosion by means of a cathodic protection system. There has been no indication of internal corrosion of any of the petroleum piping.

Release History:

There have been no petroleum releases from this facility in the past ten years.

Risk Assessment Conclusions:

Based on the information provided above, it can be concluded that all appropriate preventative and mitigative efforts for spill prevention are in place for this facility.

Facility: **Los Angeles Harbor Terminal** Date: 12/19/2007

Subject Matter Expert: Tom Hosler

Recorder: Vern Grimshaw

Facility Operations:

The terminal handles refined petroleum products and crude oil. Operations include marine vessel receipts and deliveries, loading to tank trucks, and pipeline movements of petroleum products out of the facility.

Potential Product Releases:

The two possible sources of a release of petroleum products from the facility would be:

- During marine transfer operations, and
- from facility storage facilities and related piping.

In the event of a product release during vessel transfer operations, or if any release from facility tanks or piping were to escape containment, an Integrated Contingency Plan (ICP) is in place to address the situation. The ICP addresses the potential off-site consequences of a release and the response capabilities of KM and contractor resources.

Marine Transfer Operations:

Vessel transfers typically occur at maximum flow rates of approximately 10,000 barrels per hour (offloading) and 7,000 barrels per hour (loading). All transfers are constantly monitored by dock and vessel personnel. In the event of a major transfer line or hose failure the maximum probable worst case discharge has been calculated to be (b) (7)(F), [redacted].

All vessel transfer operations are performed in accordance with USCG and applicable state regulations. KM personnel responsible for transfer operations are familiar with the Dock Operations Manual and applicable regulations; and are trained in the response requirements of the ICP.

Facility Storage Facilities:

Spill prevention from any of the facility's tanks and related piping is addressed in the facility SPCC plan.

(b) (7)(F), (b) (3) [redacted]

Facility Storage Facilities (Cont'd):

All above ground petroleum piping within the facility (except dock piping that is utilized during vessel transfer operations) is contained within curbing that would direct piping releases to a controlled area on site.

Surface drainage from areas that have the potential to contain petroleum is controlled on site and checked for potential petroleum contaminants before being released.

The buried piping within the facility and the tank bottoms are protected from corrosion by means of a cathodic protection system. There has been no indication of internal corrosion of any of the petroleum piping.

Release History:

There have been six petroleum releases from this facility in the past ten years:

- A one barrel release was the result of a tank spill-over during an earthquake. This was contained within the tank block.
- A release of less than one gallon that reached the water was the result of a leak in a dock pan drain line.
- Four others, reported as too small to measure (a few drops or less), resulted in minor stains on the ground surface or minor sheens on the water.

All releases were cleaned up in a timely manner.

Risk Assessment Conclusions:

Based on the information provided above, it can be concluded that all appropriate preventative and mitigative efforts for spill prevention are in place for this facility.

Appendix D

(Includes only events with a release amount of at least 42 gallons)

Line Section ID	Event Date	Event Description	Product	Cause	Amount Released (gallons)
95	8/23/1999	Outside Force Damage: Third Party: Cost: A foreign pipeline company was excavating their pipeline, which parallels and is in close proximity to Kinder Morgan's pipeline - L.S. 95. The trench was being backfilled.	Jet/turbine fuel	Excavation	(b) (7)(F), (b) (3)
25	5/17/2000	Failure in original seam defect combined with external corrosion.	Diesel Fuel	Material and Welds	
25	12/12/2000	Approximately 22:58 Concord personnel contacted the ORCC regarding the discovery of product in a slough next to the Carquinez Straight approximately 3.09 miles west of the Concord Station	Gasoline	Other	
	7/27/2001	Approximately 1300, Contra Costa personnel contacted ORCC regarding the release of Diesel. A 10'x10' stain on gravel had a diesel odor. Stain originated at HOV-3.	Diesel Fuel	Other	
45	12/7/2002	Approximately 1104 on 12/7/02 Stockton personnel contacted ORCC regarding a dripping Bypass Valve on the Rough & Ready Manifold.	Mix/Transmix	Equipment and Operations	
25	4/27/2004	At 1832 on 4/27/04 an abnormal operating condition was observed on LS 25 and the line was shut down and field personnel started conducting field surveys. Approximately at 1406 on 04/28/04 the field contacted ORCC confirming that a pipeline release had occurred.	Diesel Fuel	Corrosion	
47	11/7/2004	Approximately 1650 on 11/07/04 Concord personnel contacted ORCC regarding a release that occurred from third party mechanical damage. OES was advised at 1742, case number 04-5795 was given. NRC was contacted at 1750, case number 740716 was assigned.	Jet/turbine fuel	Excavation	
16	11/9/2004	Approximately 1326 on 11/09/04 Concord personnel contacted ORCC regarding a possible line hit on LS 16 between PLMP 7 and 11. Pressure Loss was observed and reports of possible explosion and fire in area of hit. NRC was advised at 1352, case number 740-9	Gasoline	Excavation	

Line Section ID	Event Date	Event Description	Product	Cause	Amount Released (gallons)
42	2/7/2005	On the evening of 02/07/05 PNR personnel contacted ORCC regarding a mysterious sheen and odor in the San Francisco Bay downstream of Oakland Tank that the USCG was investigating and had pre-determined that it was coming from LS 42.	Jet/turbine fuel	Other Outside Force	(b) (7)(F), (b) (3)
	8/2/2005	Approximately 1557 on 08/02/05 Concord personnel contacted ORCC regarding a stain observed near Travis Line. OES, NRC, CUPA, and US BOR were notified.	Jet/turbine fuel		
Richmond Terminal	10/24/2007	Wax Kettle overflowed onto the ground resulting in reportable spill	Wax	Incorrect Operation	
123	6/17/2002	Approximately 1410 on 06/17/02 Mission Valley personnel contacted ORCC regarding a release that occurred from a weeping hole found on MOV 101. Advised OES (case # 02-3331).	Mix/Transmix	Equipment and Operations	
1	7/11/2003	Approximately 1958 on 07/11/03 Watson personnel contacted ORCC regarding a turbine release from third party damage on LS 1. OES and NRC were advised.	Jet/turbine fuel	Other Outside Force	
120	5/2/2005	Approximately 0650 on 05/02/05 Watson personnel contacted ORCC regarding the LA River West Block Valve leaking in valve box within Nursery. OES was advised at 0658, case number 05-2619 was assigned. NRC was advised at 0825, case number 757427 was given.	Diesel Fuel	Material and Welds	
108	12/8/2005	Approximately 0921 on 12/08/05 Carson personnel contacted ORCC regarding a release that occurred. The seal failed on pump 63. OES, NRC, CUPA, and the US BOR were also notified.	Diesel Fuel		

9.7 RISK REDUCTION INCENTIVE PROGRAMS

The Facility participates in an annual safety awareness program which is administered at the Corporate level. The Facility has evaluated workplace hazards and how to prevent or mitigate them under workplace illness and injury prevention guidelines. The Facility conducts monthly safety meetings to discuss conditions, which could cause accidents or spills, and how to mitigate or prevent them from occurring. The Facility (through the Operations Review Committee) also conducts quarterly meetings for continuously improving the quality and effectiveness of operating practices and procedures.

9.8 DRUG AND ALCOHOL POLICIES

Kinder Morgan, Inc. and Kinder Morgan Energy Partners, L.P. Human Resources Policy Manual

Drugs and Alcohol in the Workplace

(Effective 01/01/2000)
(Revised 01/01/2003)

Purpose

The purpose of this Policy is to maintain a safe and productive work environment for all employees, applicants, and the public by ensuring that employees on Company property, while conducting Company business, operating Company property, or during their employment with the Company may not possess or use illegal or unauthorized drugs. The Policy is also intended to promote worker and public safety, to comply with the Drug-Free Workplace Act of 1988, and to provide procedures for workplace-related searches of persons and property and the lawful drug and alcohol testing of employees. Kinder Morgan maintains a "Zero Tolerance" policy.

Scope

This Policy applies to all Company employees, applicants, contract workers, and employees of third-party contractors, including employees and contract workers who perform functions covered by regulations promulgated by the Department of Transportation (DOT). In the event of a contradiction between this Policy and the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan, the Company's Anti- Drug Plan and Alcohol Misuse Prevention Plan shall govern.

This Policy is broader in scope than the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan. For additional information refer to the Anti-Drug Plan and Alcohol Misuse Prevention Plan. This Policy shall be administered in accordance with all applicable federal, state, and local laws and regulations.

Responsibilities and Prohibitions

Employees

All applicants and employees are reminded that the following actions are included as violations of this Policy: (1) use, possession, sale, distribution of illegal or unauthorized drugs on Company property, while operating any Company vehicle or equipment, or while conducting Company business; (2) use, possession, sale, and distribution of alcohol on Company property. while operating any Company vehicle or equipment, or while conducting Company business, with the exception that use and possession of alcohol during Company sponsored business or social functions, where the use of alcohol remains moderate, will not be considered a violation of this Policy; (3) use of any drug, including prescribed drugs, which is unsafe to use while operating Company vehicles or equipment; (4) possession, sale or distribution of paraphernalia and equipment related to illegal or unauthorized drug use; and (5) refusal to test in any testable situation.

As a condition of employment, any employee whose work directly relates to the performance of a federal contract and who is or has been convicted of a criminal drug offense occurring in the workplace during employment must notify his/her supervisor and Human Resources representative in writing within five days of such conviction. Similarly, as a condition of employment, any employee that is required to possess a valid driver's license as a pre-requisite of their position, must notify his/her supervisor and Human Resources representative in writing within five days of either a drug and/or alcohol related criminal offense. Failure to provide notification will result in disciplinary action being taken, up to and including termination.

All employees while operating any Company vehicle or equipment, or while conducting Company business (either during or after regular business hours), cannot refuse to submit to drug and/or alcohol testing administered or ordered by the Company or a lawful authority. Refusal to submit to the testing will result in disciplinary action being taken, up to and including termination.

All employees taking a prescription or over-the-counter medication that could adversely affect performance of job-related functions or pose a direct threat to the health and safety of the employee or others in the workplace are responsible for notifying their supervisor. It is not the intent of the Company to interfere with the use of drugs legitimately prescribed by a physician. The Company's designated physician will be the sole person that the Company uses in making determinations concerning employees' fitness to perform the job.

All employees should notify a supervisor or Human Resources Representative of any behavior of co-workers or contract workers that may indicate a violation of this Policy.

Definitions

"Alcohol" means ethyl alcohol, an intoxicating element in fermented or distilled liquor or in any other compound, or other low molecular weight alcohol, including but not limited to, methyl and isopropyl alcohol, and including without limitation, beer, wine, and distilled liquors.

"Company property" is used in the broadest sense and includes, but is not limited to, all property, equipment, land, onshore and offshore platforms, buildings, structures, installations, facilities, locations, boats, aircraft, and vehicles which are owned, leased, used or operated by or on behalf of the Company for any purpose, or which are located on Company property, and any personal effects or items located thereon or therein. This includes, among other items, desks, lockers, and workstations, as well as privately owned vehicles and other personal belongings located on or in Company property,

"Possess" or "possession" means having any amount of illegal or unauthorized drugs or alcohol on one's person or belongings at any time during employment; on Company property; while conducting Company business; operating Company property; in one's personal belongings or vehicle while on Company property; in a vehicle or any mode of transportation owned or leased, or rented for Company use; or at any location used by the Company to conduct business.

"Drugs" means prescription drugs, inhalants, and other illegal, controlled, or unauthorized substances that may cause addiction and/or affect coordination of memory, or a drug that federal and state law makes illegal to distribute, use or possess.

"Use" with regard to drugs is defined as having any trace amount of drugs in the applicant's or employee's system, or physical consumption of drugs, "Use" with regard to alcohol is defined as the physical consumption of alcohol. "Use" with regard to drugs and alcohol is also defined as being under the influence of drugs or alcohol at any time during working hours.

"Zero Tolerance" means that if an employee tests positive for drugs or alcohol, as defined by this Policy, the resulting disciplinary action will be termination of employment for cause.

Testing for Types of Drugs/Alcohol and their Cutoff Levels

Drug/Alcohol tests will be conducted in a confidential manner according to procedures adopted by the Company and in compliance with applicable law. Below are the examples of illegal and unauthorized drugs for which Kinder Morgan tests and the levels at which an employee will be considered as "testing positive for drugs": Employees who test at a alcohol concentration level of .04 or greater will be considered as "testing positive" for alcohol.

1. Marijuana	15 ng/ml
2. Cocaine	150 ng/ml
3. Amphetamines and Methamphetamines	500 ng/ml
4. Opiates (codeine, heroin, morphine)	2000 ng/ml
5. Phencyclidine (PCP or Angel Dust)	25 ng/ml

Types of Drug and Alcohol Testing

Kinder Morgan conducts the following types of drug and alcohol testing:

Drug Testing	Alcohol Testing
1. Pre-employment	1. Reasonable cause
2. Reasonable cause	2. Random (as permitted by federal and state law)
3. Random (as permitted by federal and state law)	3. Return to duty
4. Return to duty	4. Post-Accident
5. Post-Accident	

Searches and Tests

The Company reserves the right to have authorized personnel conduct searches of our employees, contract workers, and employees of third-party contractors without prior notice to determine if this Policy is being violated. Accordingly, all areas of Company property may be searched, including employee work locations, stations, areas, offices, desks, files, lockers, etc.; employees and their personal belongings, vehicles, etc. may also be searched if on or within Company property. Employee searches will be conducted in compliance with applicable law.

The Company reserves the right, at all times, to have authorized personnel conduct urinalyses, blood tests, or other types of tests of our applicants, employees, contract workers, and employees of third-party contractors for the purposes of determining if any such persons are in violation of this Policy. A urinalysis, blood test, or other type of test may be used in the following situations: (a) pre-employment testing, (b) testing based on reasonable cause or suspicion, (c) random or periodic testing, (d) testing following an accident or incident involving injury or property damage, and (e) testing that is consistent with the enforcement of this Policy.

The Company reserves the right to inspect and search Company property at any time without the presence or consent of any employee. An employee who, as a result of a search, has been found in violation of this Policy or other Company Policy will be subject to corrective action as described in the Corrective Action Policy.

Violations of Policy

Any violation of the Drugs and Alcohol in the Workplace Policy will result in disciplinary action being taken, up to and including termination.

Employee Assistance Program

The Employee Assistance Program (EAP) is available to all Company employees. Employees are encouraged to obtain professional help when needed by using the EAP. Employees may contact their supervisor or Human Resources for information about the EAP. The EAP is strictly confidential and available for use by telephoning:

- Magellan Behavioral Health 1-800-424-5654

Use of the EAP does not exempt or excuse a violation of this Policy.

Voluntary Rehabilitation

Any employee who voluntarily seeks counseling or rehabilitation in advance of failing any of the tests or who would otherwise be in violation of this policy must provide certification, in accordance with any applicable governmental requirements, of the credentials of the attending physician, psychologist, or psychiatrist, who is trained in substance abuse disorders.

When the employee successfully completes or is participating in a supervised substance-abuse or alcohol-related rehabilitation program and is no longer engaging in the use of illegal drugs or unauthorized alcohol, the Company requires certification from the substance abuse professional that the employee is fit to return to duty and perform the essential functions of his or her job.

An employee described in the paragraph above will be tested on a random basis by the Medical Review Officer and/or Substance Abuse Professional to ensure such employee is no longer engaging in the illegal use of drugs or unauthorized alcohol.

Interpretation and Exceptions

Questions regarding this Policy should be referred to the Vice President, Human Resources. Requests for exceptions should be submitted to Human Resources for review by Human Resources and the Legal Department to ensure regulatory requirements and appropriate test protocols and standards are met. The President and Chief Operating Officer must approve all exceptions.

This Policy does not constitute or imply a contract between the Company and its employees. This Policy creates no Company obligation nor any individual obligation, right, privilege, term, or condition of employment not otherwise established by law. The Company has voluntarily adopted this Policy for its sole and exclusive and may amend or withdraw it at any time without prior notice.

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6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Richmond/Brisbane Area Lines	
• Richmond Station - Christi Road 8”	8
• Richmond Station - Oakland Terminal 12”/10”	36
• Amorco Junction - Richmond 12”	37
• Brisbane - SFO Airport Junction 12”	38
• Oakland Terminal - Brisbane Terminal 8”/10”	41
• Oakland Terminal - Brisbane Terminal 12”	42
• Richmond Station - Oakland Terminal 8”/10”	46
• Chevron Refinery #1 – Richmond Station 8”	69
• LS-89 - Richmond Station 8”	71
• Richmond Station - ARCO 8”	74
• IMTT/Plains – Richmond Station 8”	75
• Plains All American - LS-75/76 Junction 8”	76
• ARCO - LS-71 8”	89
• Valero - Amorco 10”	95
• Chevron Refinery #3 - Richmond 10”	99
• Chevron Refinery #2 - Richmond 10”	104
Pipeline Facilities (Non-Storage)	
• Amorco Pump Station (booster)	
• Jefferson Junction – piping manifold only	
• OAK Airport Junction – piping manifold only	
• Richmond Pump Station (booster)	
• SFO Airport Junction - Piping Manifold Only	
• Unit 80 Line Section 37	
• Benecia Refinery - Launcher	

- Figures 6.1a through 6.1p on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in Sections 7 and 8 in this Volume.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

RICHMOND - CHRISTI ROAD 8" (8)		
Pipe and Operational Data		
• Section Length:	14.09 Miles	74,378 Feet
• Line Diameter:	8.625 in., O.D.	8.025 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,600 bph or 62,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Richmond Station on Castro near Richmond Boulevard north to Pinole then generally east through Franklin Canyon to Christi Road near Rodeo Creek.	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

RICHMOND STATION – OAKLAND TERMINAL 12"/10" (36)		
Pipe and Operational Data		
• Section Length:	12.64 Miles	66,729 Feet
• Line Diameter:	12.75 in., O.D. 10.75 in., O.D.	12.312 in., I.D. (note 1) 10.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,550 bph or 85,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Richmond Station generally south adjacent to the San Francisco Bay to Oakland Terminal, near Maritime Street and Navy Roadway, adjacent to Oakland Outer Harbor.	

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

AMORCO – RICHMOND 12" (37)		
Pipe and Operational Data		
• Section Length:	20.79 Miles	109,790 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,000 bph or 96,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	Near Marina Vista Avenue west of I-680 adjacent to Carquinez Strait generally west adjacent to Suisun Bay to Pinole, then south to Richmond Station on Castro near Richmond Boulevard.	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

BRISBANE - SFO AIRPORT JUNCTION 12" (38)		
Pipe and Operational Data		
• Section Length:	5.39 Miles	28,461 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,800 bph or 91,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Mateo, CA	
• Location Description:	From Brisbane Terminal south adjacent to San Francisco Bay to San Francisco Airport Junction adjacent to SFO Airport.	

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

OAKLAND TERMINAL – BRISBANE TERMINAL 10" (41)	
Pipe and Operational Data	
• Section Length:	24.92 Miles 131,578 Feet
• Line Diameter:	10.75 in., O.D. 10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7)(F),
• Maximum flow rate:	2,900 bph or 69,600 bpd
Note 1:	The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.
Note 2:	The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.
Location Description	
• County(s)/State(s) Traversed:	San Mateo, CA Alameda, CA
• Location Description:	From Oakland Terminal near Maritime Street and Navy Roadway, generally parallel to I-880 to the Oakland Airport Junction to the south boundary of Oakland Airport then west across San Francisco Bay to Brisbane Terminal. .

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

OAKLAND TERMINAL – BRISBANE TERMINAL 12" (42)

Pipe and Operational Data

• Section Length:	24.88 Miles	131,424 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)	
• Product types:	CARB ULSD, Gas, Turbine, Ethanol	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,550 bph or 85,200 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections

Location Description

• County(s)/State(s) Traversed:	San Mateo, CA Alameda, CA
• Location Description:	From Oakland Terminal near Maritime Street and Navy Roadway, generally parallel to I-880 to the south boundary of Oakland Airport then west across San Francisco Bay to Brisbane Terminal.

Operational and Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

RICHMOND STATION - OAKLAND TERMINAL 8" / 10" (46)		
Pipe and Operational Data		
• Section Length:	12.51 Miles 1.12 Miles	66,069 Feet 5,888 Feet
• Line Diameter:	8.625 in., O.D. 10.75 in., O.D.	8.125 in., I.D. (note 1) 10.25 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2) 539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,900 bph or 69,600 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA Alameda, CA	
• Location Description:	From Richmond Station generally south adjacent to the San Francisco Bay to Oakland Terminal, near Maritime Street and Navy Roadway, adjacent to Oakland Outer Harbor.	

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

CHEVRON REFINERY #1 – RICHMOND 8" (69)		
Pipe and Operational Data		
• Section Length:	1.28 Miles	6,769 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,600 bph or 62,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Chevron Terminal on Richmond Boulevard near Castro Point generally east to Richmond Station on Castro near Richmond Boulevard.	

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

LS 89 – RICHMOND 8" (71)		
Pipe and Operational Data		
• Section Length:	2.50 Miles	13,186 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	3,300 bph or 79,200 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Contra Costa, CA
• Location Description:	From the Arco Terminal on Canal Street, adjacent to the Santa Fe Channel of the Richmond Inner Harbor generally north to Richmond Station on Castro near Richmond Boulevard.

FIGURE 6.1j

PIPELINE SECTION INFORMATION SUMMARY

ARCO – RICHMOND 8" (74)		
Pipe and Operational Data		
• Section Length:	2.19 Miles	11,563 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,600 bph or 62,400 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Contra Costa, CA
• Location Description:	From the Arco Terminal on Canal Street, adjacent to the Santa Fe Channel of the Richmond Inner Harbor generally north to Richmond Station on Castro near Richmond Boulevard.

FIGURE 6.1k

PIPELINE SECTION INFORMATION SUMMARY

IMTT/PLAINS - RICHMOND 8" (75)		
Pipe and Operational Data		
• Section Length:	1.86 Miles	9,821 Feet
• Line Diameter:	8.625 in., O.D.	8.187 in., I.D. (note 1)
• Line Capacity:	344 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,500 bph or 60,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From IMTT Terminal near 1st and Cutting Boulevard, adjacent to the Santa Fe Channel of the Richmond Inner Harbor generally north and west to Richmond Station near Castro and Richmond Boulevard.	

FIGURE 6.1I

PIPELINE SECTION INFORMATION SUMMARY

PLAINS ALL AMERICAN – LS 75/76 JUNCTION 8" (76)		
Pipe and Operational Data		
• Section Length:	2.21 Miles	11,695 Feet
• Line Diameter:	8.625 in., O.D.	8.187 in., I.D. (note 1)
• Line Capacity:	344 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,500 bph or 60,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Time Terminal near 4th Street and Wright Avenue, adjacent to the Santa Fe Channel of the Richmond Inner Harbor to a connection with Line 75 near 1st Street and Cutting Boulevard.	

FIGURE 6.1m

PIPELINE SECTION INFORMATION SUMMARY

ARCO - LS 71 8" (89)		
Pipe and Operational Data		
• Section Length:	0.39 Miles	2,081 Feet
• Line Diameter:	8.625 in., O.D.	8.071 in., I.D. (note 1)
• Line Capacity:	334 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	3,300 bph or 79,200 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Contra Costa, CA
• Location Description:	From Union Junction on Canal Street to the Arco Terminal on Canal Street.

FIGURE 6.1n

PIPELINE SECTION INFORMATION SUMMARY

VALERO - AMORCO 10" (95)		
Pipe and Operational Data		
• Section Length:	2.72 Miles	14,368 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,000 bph or 96,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Contra Costa, CA
• Location Description:	From Valero Refinery generally south across the Carquinez Strait to Amorco Junction (north of Marina Vista Boulevard, west of I-680).

FIGURE 6.1o

PIPELINE SECTION INFORMATION SUMMARY

CHEVRON REFINERY #3 – RICHMOND 10" (99)		
Pipe and Operational Data		
• Section Length:	1.22 Miles	6,429 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	3,500 bph or 84,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Chevron Terminal on Richmond Boulevard near Castro Point generally east to Richmond Station on Castro near Richmond Boulevard.	

FIGURE 6.1p

PIPELINE SECTION INFORMATION SUMMARY

CHEVRON REFINERY #2 – RICHMOND 10" (104)		
Pipe and Operational Data		
• Section Length:	1.22 Miles	6,429 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,600 bph or 62,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Chevron Terminal on Richmond Boulevard near Castro Point generally east to Richmond Station on Castro near Richmond Boulevard.	

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1p for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_005.pdf

485-D-HCA-RCHMD-BRISBANE_024.pdf

485-D-HCA-RCHMD-BRISBANE_025.pdf

485-D-HCA-RCHMD-BRISBANE_026.pdf

485-D-HCA-RCHMD-BRISBANE_027.pdf

485-D-HCA-RCHMD-CNCRD_028.pdf

485-D-HCA-CNCRD_029.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CNCRD-FRSN_012	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_013	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_014	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_015	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_016	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_017	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_018	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_019	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_020	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_021	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_022	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_023	LS-16; CONCORD - SAN JOSE 10"
D-HCA-RCHMND-BRISBANE_024	LS-104; CHEVRON REFINERY #2 - RICHMOND 10" LS-36/42 Combined LS-37; AMORCO - RICHMOND 12" LS-46/41; RICHMOND - BRISBANE 8/10" LS-69; CHEV REFINERY #1 - RICHMOND 8" LS-71; LS 89 - RICHMOND 8" LS-74; RICHMOND - ARCO 8" LS-75; IMTT / TIME - RICHMOND 8" LS-76; TIME OIL - LS-75/76 JCT. 3" LS-76; TIME OIL - LS-75/76 JCT. 8" LS-8; RICHMOND - CONCORD 8" LS-89; ARCO - LS 71 8" LS-99; CHEVRON REFINERY #3 - RICHMOND 10"
D-HCA-RCHMND-BRISBANE_025	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_026	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_027	LS-36/42 Combined LS-38; BRISBANE - SF AIRPORT JCT. 12" LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-CNCRD_028	LS-37; AMORCO - RICHMOND 12" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8"
D-HCA-CONCORD_029	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-103C; SOUTH CARQUINEZ - MOCOCO JCT. 10" LS-130A; CONCORD-WATERFRONT 20" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; CONCORD - 8" X 10" REDUCER - SUISUN JCT 8" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSHW,FRSN_030	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSHW,FRSN_031	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_032	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_033	LS-43; STOCKTON - BP WEST 8" LS-45A; ROUGH & READY JCT - SHELL 8" LS-45B; ROUGH & READY JCT - ST SERVICES 8" LS-45C; STOCKTON - ROUGH & READY JCT 8/6" LS-82; STOCKTON JCT - STOCK TERM 8/10" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_034	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_035	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_036	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_037	LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_038	LS-20; SACRAMENTO - ROCKLIN 12" LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-ROCKLN_039	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-130D; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-ROCKLN_040	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" REDUCER - SUISUN JCT 8"
D-HCA-CNCRD-ROCKLN_041	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_042	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_043	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_044	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCKLN_045	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCKLN_046	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_047	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_048	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_049	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-CHICO_050	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_051	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_052	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_053	LS-64; ROCKLIN - CHICO 8"
D-HCA-ERLJCT-BEALE-AFB_054	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-RENO_055	LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-RENO_056	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10"
D-HCA-RCKLN-RENO_057	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6"
D-HCA-RCKLN-RENO_058	LS-11; CLIPPER GAP - COLFAX 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_059	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_060	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_061	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_062	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_063	LS-12/13; WOODCHOPPER - REDUCER 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_064	LS-12/13; WOODCHOPPER - REDUCER 10"
D-HCA-RCKLN-RENO_065	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6"
D-HCA-RCKLN-RENO_066	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6" LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_067	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_068	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_069	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_070	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_071	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_072	LS-55; RENO - FALLON NAS 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

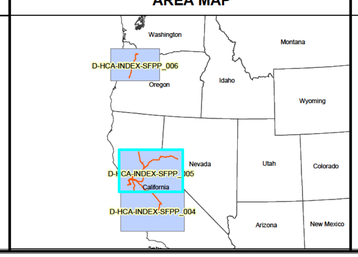
Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS HIGH CONSEQUENCE AREA (HCA) INDEX MAP PACIFIC REGION

Date: **03/28/2012**	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_005**	

6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Concord Incoming Lines	
• Christie Road - Concord 8”	8
• Martinez - Concord 12”	27
• Mococo - Concord 12”	33
• Amorco - Martinez 10”	68
• Union - Concord 8”	72
• Amorco - Benecia 10”	88
• Exxon - Mococo 10”/12”	103
Concord Outgoing Lines	
• Concord - Brentwood Junction 10”	9
• Concord - Dougherty 10”	16
• Stockton - Arco 8”	43
• Rough & Ready Junction 8”	45
• Concord - Suisun 8”	47
(b) (3), (b) (7)(F)	
• Stockton Junction - Stockton 8”	62
•	
Concord - Hay Road 14”/20”	130
• Travis Junction – Travis Station 16”	147
• Travis Station – Travis Terminal 10”	148
Pipeline Facilities (Non-Storage)	
(b) (3), (b) (7)(F)	

6.1 SCOPE (Cont'd)

- Figures 6.1a through 6.1s on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for each this Area is provided under the section entitled "Worst Case Discharge Data" of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

EXXON - MOCOCO 10" (103)		
Pipe and Operational Data		
• Section Length:	3.16 Miles	16,701 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545.42 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	5,200 bph or 124,800 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA Solano, CA	
• Location Description:	From Valero Benecia Refinery to Mococo Junction, Crossing the Carquinez Strait.	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

MOCOCO - CONCORD 12" (33)		
Pipe and Operational Data		
• Section Length:	3.14 Miles	16,601 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	754.18 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	5,200 bph or 124,800 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Martinez to Mococo (Mococo Road and Marina Vista Road).	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

UNION - CONCORD 8" (72)		
Pipe and Operational Data		
• Section Length:	13.08 Miles	69,054 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	338.60 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,000 bph or 72,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Contra Costa, CA
• Location Description:	From Tosco Refinery near Rodeo, generally east along the edge of the Carquinez Strait to the vicinity of Marina Vista Way and I-680, then generally southeast to Concord Station at Solano Way and Highway 4.

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

MARTINEZ - CONCORD 12" (27)		
Pipe and Operational Data		
• Section Length:	5.36 Miles	28,308 Feet
• Line Diameter:	12.75 in., O.D.	12.00 in., I.D. (note 1)
• Line Capacity:	738.59 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,400 bph or 105,600 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Martinez Booster on Marina Vista Way west of I-680, east along Marina Vista Way to Solano Way, then south to Concord Station near Highway 4.	

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

AMORCO - MARTINEZ 8" (68)		
Pipe and Operational Data		
• Section Length:	1.16 Miles	6,125 Feet
• Line Diameter:	10.75 in., O.D.	10.02 in., I.D. (note 1)
• Line Capacity:	514.96 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,350 bph or 56,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Martinez Booster on Marina Vista Way west of I-680, east along Marina Vista Way to Amorco Junction east of I-680.	

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

AMORCO - BENECIA 10" (88)		
Pipe and Operational Data		
• Section Length:	0.38 Miles	2,006 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,350 bph or 56,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Amorco Junction east adjacent to Carquinez Strait to a connection with a Valero Pipeline.	

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

CHRISTI ROAD - CONCORD 8" (8)		
Pipe and Operational Data		
• Section Length:	9.09 Miles	48,010 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,600 bph or 62,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Christi Road in Franklin Canyon east to Concord Station at Solano Way and Highway 4.	

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

CONCORD - TRAVIS 8" (47)		
Pipe and Operational Data		
• Section Length:	20.45 Miles	107,956 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	349.01 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	1,000 bph or 24,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA Solano, CA	
• Location Description:	From Concord Station north across Suisun Bay to near Suisun City, where it connects to a line owned by others for delivery to Travis AFB.	

FIGURE 6.1j

PIPELINE SECTION INFORMATION SUMMARY

CONCORD – SAN JOAQUIN RIVER-WEST BV 10" (9)		
Pipe and Operational Data		
• Section Length:	45.1 Miles	23,831 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	538.88 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	4,250 bph or 102,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Concord Station east through Marsh Creek and the San Joaquin River Lowlands(b) (3), (b) (7)(F)	

FIGURE 6.1k

PIPELINE SECTION INFORMATION SUMMARY

CONCORD – (b) (3), (b) (7)(F))		
Pipe and Operational Data		
• Section Length:	25.89 Miles	136,713 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	777.50 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,500 bph or 108,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Concord Station east along the edge of Carquinez Strait then across the San Joaquin River Lowlands to the Connection with Line 50 in the Brentwood area.	

FIGURE 6.1I

PIPELINE SECTION INFORMATION SUMMARY

CONCORD - DOUGHERTY STATION 10" (16)		
Pipe and Operational Data		
• Section Length:	23.67 Miles	125,009 Feet
• Line Diameter:	10.75 in., O.D.	10.374 in., I.D. (note 1)
• Line Capacity:	551.99 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,500 bph or 108,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Contra Costa, CA
• Location Description:	From Concord Station south to Dougherty Booster Station, in the vicinity of Dublin north of I-580.

FIGURE 6.1m

PIPELINE SECTION INFORMATION SUMMARY

CONCORD – HAY ROAD 14”/20” (130)		
Pipe and Operational Data		
• Section Length:	35.00 Miles	184,800 Feet
• Line Diameter:	14.0 in., O.D. 20.0 in., O.D.	13.25 in., I.D. (note 1) (14,467 ft) 19.25 in., I.D (note 1) (170,333 ft)
• Line Capacity:	2,029 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	8,333 bph or 200,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Contra Costa, CA Solano, CA
• Location Description:	From Concord Station north across the Carquinez Strait then generally northeast along Interstate 80 to Hay Road near Vacaville.

FIGURE 6.1n

PIPELINE SECTION INFORMATION SUMMARY

TRAVIS JUNCTION – TRAVIS SATION 16" (147)		
Pipe and Operational Data		
• Section Length:	1.33 Miles	7,022.4 Feet
• Line Diameter:	16.0 in., O.D.	15.00 to 15.25 in., I.D. (note 1)
• Line Capacity:	1,222 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	8,000 bph or 192,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Solano, CA	
• Location Description:	From Travis Junction generally east southeast along Travis AFB railroad to Travis Station.	

FIGURE 6.1o

PIPELINE SECTION INFORMATION SUMMARY

TRAVIS STATION – TRAVIS TERMINAL 10" (148)		
Pipe and Operational Data		
• Section Length:	0.48 Miles	2,534.4 Feet
• Line Diameter:	10.75 in., O.D.	10.02 in., I.D. (note 1)
• Line Capacity:	551.9 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,000 bph or 48,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Solano, CA	
• Location Description:	From Travis Station north then east and southeast along Hangar Avenue then south to Travis AFB Terminal.	

FIGURE 6.1p

PIPELINE SECTION INFORMATION SUMMARY

STOCKTON JUNCTION – STOCKTON 8" (62)		
Pipe and Operational Data		
• Section Length:	4.11 Miles	21,701 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,000 bph or 96,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Joaquin, CA	
• Location Description:	From Stockton Junction, west of the San Joaquin River in west Stockton, southeast along the River to Stockton terminal, where it connects to lines 43 and 45.	

FIGURE 6.1q

PIPELINE SECTION INFORMATION SUMMARY

(b) (3), (b) (7)(F) – (b) (3), (b) (7)(F))

Pipe and Operational Data

• Section Length:	69.7 Miles 386,016 Feet
• Line Diameter:	12.75 in., O.D. 12.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)
• Product types:	CARB ULSD, Gas, Turbine, Ethanol
• Capacity of entire line section:	(b) (7)(F), (b)
• Maximum flow rate:	4,500 bph or 108,000 bpd

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line

Location Description

• County(s)/State(s) Traversed:	San Joaquin, Stanislaus, Merced, CA
• Location Description:	From the Brentwood Junction connection with line 90, generally southeast parallel to I-5 to Patterson, then east to near Highway 99, then paralleling to Highway 99 to (b) (3), (b) (7)(F)

Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.1r

PIPELINE SECTION INFORMATION SUMMARY

ROUGH & READY JUNCTION 8" (45)		
Pipe and Operational Data		
• Section Length:	0.94 Miles	4,968 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	4,000 bph or 96,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Joaquin, CA	
• Location Description:	From Stockton Terminal west to a pipeline manifold that connects to others pipelines that lead to terminals across the San Joaquin River on Rough and Ready Island.	

FIGURE 6.1s

PIPELINE SECTION INFORMATION SUMMARY

STOCKTON – ARCO 8" (43)		
Pipe and Operational Data		
• Section Length:	0.21 Miles	1,089 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D.
• Line Capacity:	338 bbls/mile	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	4,200 bph or 100,800 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	San Joaquin, CA
• Location Description:	From Stockton Terminal northwest to a connection with an Arco pipeline.

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1s for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_005.pdf

485-D-HCA-CONCORD_29.pdf

485-D-HCA – CNCRD-BRDSW,FRSN_030.pdf

485-D-HCA – CNCRD-BRDSW,FRSN_031.pdf

485-D-HCA – CNCRD-RCKLN_039.pdf

485-D-HCA – CNCRD-RCKLN_040.pdf

485-D-HCA – CNCRD-RCKLN_041.pdf

485-D-HCA – CNCRD-RCKLN_042.pdf

485-D-HCA – CNCRD-SANJOSE_019.pdf

485-D-HCA – CNCRD-SANJOSE_020.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CNCRD-FRSN_012	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_013	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_014	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_015	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_016	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_017	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_018	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_019	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_020	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_021	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_022	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_023	LS-16; CONCORD - SAN JOSE 10"
D-HCA-RCHMND-BRISBANE_024	LS-104; CHEVRON REFINERY #2 - RICHMOND 10" LS-36/42 Combined LS-37; AMORCO - RICHMOND 12" LS-46/41; RICHMOND - BRISBANE 8/10" LS-69; CHEV REFINERY #1 - RICHMOND 8" LS-71; LS 85 - RICHMOND 8" LS-74; RICHMOND - ARCO 8" LS-75; IMTT / TIME - RICHMOND 8" LS-76; TIME OIL - LS-75/76 JCT. 3" LS-76; TIME OIL - LS-75/76 JCT. 8" LS-8; RICHMOND - CONCORD 8" LS-89; ARCO - LS-71 8" LS-99; CHEVRON REFINERY #3 - RICHMOND 10"
D-HCA-RCHMND-BRISBANE_025	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_026	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_027	LS-36/42 Combined LS-38; BRISBANE - SF AIRPORT JCT. 12" LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-CNCRD_028	LS-37; AMORCO - RICHMOND 12" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8"
D-HCA-CONCORD_029	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-103C; SOUTH CARQUINEZ - MOCOCO JCT. 10" LS-130A; CONCORD-WATERFRONT 20" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; 8" X 10" RED - 8" X 10" REDUCER 8" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSHW,FRSN_030	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSHW,FRSN_031	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_032	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_033	LS-43; STOCKTON - BP WEST 8" LS-45A; ROUGH & READY JCT - SHELL 8" LS-45B; ROUGH & READY JCT - ST SERVICES 8" LS-45C; STOCKTON - ROUGH & READY JCT 8/6" LS-82; STOCKTON JCT - STOCK TERM 8/10" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_034	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_035	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_036	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_037	LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_038	LS-20; SACRAMENTO - ROCKLIN 12" LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_039	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-ROCKLN_040	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" REDUCER - SUISUN JCT 8"
D-HCA-CNCRD-ROCKLN_041	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_042	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_043	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_044	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCKLN_045	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCKLN_046	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-CNCRD-CHICO_047	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-CNCRD-CHICO_048	LS-64; ROCKLIN - CHICO 8"
D-HCA-CNCRD-CHICO_049	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-CNCRD-CHICO_050	LS-64; ROCKLIN - CHICO 8"
D-HCA-CNCRD-CHICO_051	LS-64; ROCKLIN - CHICO 8"
D-HCA-CNCRD-CHICO_052	LS-64; ROCKLIN - CHICO 8"
D-HCA-CNCRD-CHICO_053	LS-64; ROCKLIN - CHICO 8"
D-HCA-ERLJCT-BEALE-AFB_054	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-ROCKLN-RENO_055	LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-RENO_056	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10"
D-HCA-ROCKLN-RENO_057	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6"
D-HCA-ROCKLN-RENO_058	LS-11; CLIPPER GAP - COLFAX 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_059	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_060	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_061	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_062	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_063	LS-12/13; WOODCHOPPER - REDUCER 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_064	LS-12/13; WOODCHOPPER - REDUCER 10"
D-HCA-ROCKLN-RENO_065	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6"
D-HCA-ROCKLN-RENO_066	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6" LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_067	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_068	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_069	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_070	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_071	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_072	LS-55; RENO - FALLON NAS 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

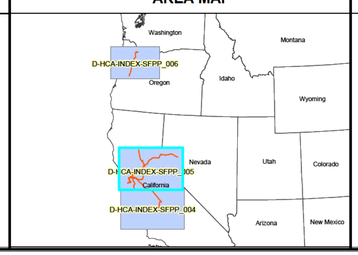
Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: **03/28/2012**	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_005**	

FIGURE 6.3

WALNUT CREEK TACTICAL PLANS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.	WCD (BBLS)
Richmond Incoming Lines		
• TIME 8"	76	(b) (7)(F), (b) (3)
• IMTT 8"	75	
• ARCO - Richmond 8"	74	
• ARCO - Richmond 8"	71	
• Union Junction - ARCO 8"	89	
• Chevron - Richmond 8"	69	
• Chevron - Richmond 10"	104	
• Chevron - Richmond 10"	99	
• Amorco - Richmond 12"	37	
Richmond Outgoing Lines		
• Richmond - Christi Road 8"	8	
• Richmond - Oakland 12"	36	
• Richmond - Oakland 8" / 10"	46	
• Oakland - Brisbane 10"	41	
• Oakland - Airport Junction 12"	42	
Other Richmond Lines		
• Valero - Amorco 10"	95	
Pipeline Facilities (Non-Storage)		
• Amorco Pump Station (booster)		
• Richmond Pump Station (booster)		
• Jefferson Junction – piping manifold only		
• Airport Junction – piping manifold only		

- Figures 6.1a through 6.1o on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for each segment is provided under the section entitled "Operational and Worst Case Discharge Data". The derivation of the WCD, based on a recent third party Integrity Management Program study, is as follows:

  Release volume prior to line shutdown and valve closures:

  - O Full flow release due to rupture. This is computed at the maximum pumping rate for each line segment.
  - O Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of two (2) minutes in the event of a full flow rupture, which would cause an instant alarm.
  - O Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

6.1 SCOPE (Cont'd)

Line drainage following pump shutdown:

- O The Integrity Management Program study computed the maximum potential line drainage between adjacent isolation or check valves and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line.

- The specific information summary for these pipeline sections is provided as follows:

  - O Pipeline Section Information Summary (one per section)
  - O Pipeline High Contingency Area Maps

- Breakout stations or terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

TIME 8" (76)		
Pipe Data		
• Section Length:	2.21 Miles	11,695 Feet
• Line Diameter:	8.625 in., O.D.	8.187 in., I.D. (note 1)
• Line Capacity:	344 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Time Terminal near 4th Street and Wright Avenue, adjacent to the Santa Fe Channel of the Richmond Inner Harbor to a connection with Line 75 near 1st Street and Cutting Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

IMTT 8" (75)		
Pipe Data		
• Section Length:	1.86 Miles	9,821 Feet
• Line Diameter:	8.625 in., O.D.	8.187 in., I.D. (note 1)
• Line Capacity:	344 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From IMTT Terminal near 1st and Cutting Boulevard, adjacent to the Santa Fe Channel of the Richmond Inner Harbor generally north and west to Richmond Station near Castro and Richmond Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

ARCO – RICHMOND 8" (74)		
Pipe Data		
• Section Length:	2.19 Miles	11,563 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From the Arco Terminal on Canal Street, adjacent to the Santa Fe Channel of the Richmond Inner Harbor generally north to Richmond Station on Castro near Richmond Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

ARCO – RICHMOND 8" (71)		
Pipe Data		
• Section Length:	2.50 Miles	13,186 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From the Arco Terminal on Canal Street, adjacent to the Santa Fe Channel of the Richmond Inner Harbor generally north to Richmond Station on Castro near Richmond Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

UNION JUNCTION - ARCO 8" (89)		
Pipe Data		
• Section Length:	0.39 Miles	2,081 Feet
• Line Diameter:	8.625 in., O.D.	8.071 in., I.D. (note 1)
• Line Capacity:	334 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Union Junction on Canal Street to the Arco Terminal on Canal Street.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3) (A)		

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

CHEVRON – RICHMOND 8" (69)		
Pipe Data		
• Section Length:	1.28 Miles	6,769 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Chevron Terminal on Richmond Boulevard near Castro Point generally east to Richmond Station on Castro near Richmond Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

CHEVRON – RICHMOND 10" (104)		
Pipe Data		
• Section Length:	1.22 Miles	6,429 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Chevron Terminal on Richmond Boulevard near Castro Point generally east to Richmond Station on Castro near Richmond Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

CHEVRON – RICHMOND 10" (99)		
Pipe Data		
• Section Length:	1.22 Miles	6,429 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F) (b)	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Chevron Terminal on Richmond Boulevard near Castro Point generally east to Richmond Station on Castro near Richmond Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

AMORCO – RICHMOND 12" (37)		
Pipe Data		
• Section Length:	20.79 Miles	109,790 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	Near Marina Vista Avenue west of I-680 adjacent to Carquinez Strait generally west adjacent to Suisun Bay to Pinole, then south to Richmond Station on Castro near Richmond Boulevard.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1j

PIPELINE SECTION INFORMATION SUMMARY

RICHMOND - CHRISTI ROAD 8" (8)		
Pipe Data		
• Section Length:	14.09 Miles	74,378 Feet
• Line Diameter:	8.625 in., O.D.	8.025 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Richmond Station on Castro near Richmond Boulevard north to Pinole then generally east through Franklin Canyon to Christi Road near Rodeo Creek.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1k

PIPELINE SECTION INFORMATION SUMMARY

RICHMOND - OAKLAND 12" (36)		
Pipe Data		
• Section Length:	12.64 Miles	66,729 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Richmond Station generally south adjacent to the San Francisco Bay to Oakland Terminal, near Maritime Street and Navy Roadway, adjacent to Oakland Outer Harbor.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1I

PIPELINE SECTION INFORMATION SUMMARY

RICHMOND - OAKLAND 8" / 10" (46)		
Pipe Data		
• Section Length:	12.51 Miles 1.12 Miles	66,069 Feet 5,888 Feet
• Line Diameter:	8.625 in., O.D. 10.75 in., O.D.	8.125 in., I.D. (note 1) 10.25 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2) 539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA Alameda, CA	
• Location Description:	From Richmond Station generally south adjacent to the San Francisco Bay to Oakland Terminal, near Maritime Street and Navy Roadway, adjacent to Oakland Outer Harbor.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1m

PIPELINE SECTION INFORMATION SUMMARY

OAKLAND - BRISBANE 10" (41)		
Pipe Data		
• Section Length:	24.92 Miles	131,578 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
Location Description		
• County(s)/State(s) Traversed:	Alameda, CA	
• Location Description:	From Oakland Terminal near Maritime Street and Navy Roadway, generally parallel to I-880 to the south boundary of Oakland Airport then west to the edge of San Francisco Bay.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1n

PIPELINE SECTION INFORMATION SUMMARY

OAKLAND - AIRPORT JUNCTION 12" (42)		
Pipe Data		
• Section Length:	12.17 Miles	64,316 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (note 2)	
• Product types:	CARB ULSD, Gas, Turbine, Ethanol	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,800 bph or 91,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Alameda, CA	
• Location Description:	From Oakland Terminal near Maritime Street and Navy Roadway, generally parallel to I-880 to the south boundary of Oakland Airport then west to the edge of San Francisco Bay.	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1o

PIPELINE SECTION INFORMATION SUMMARY

VALERO - AMORCO 10" (95)		
Pipe Data		
• Section Length:	2.72 Miles	14,368 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
Location Description		
• County(s)/State(s) Traversed:	Contra Costa, CA	
• Location Description:	From Valero Refinery generally south across the Carquinez Strait to Amorco Junction (north of Marina Vista Boulevard, west of I-680).	
Operational and Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1o for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

D-HCA – Index – SFPP_005.pdf

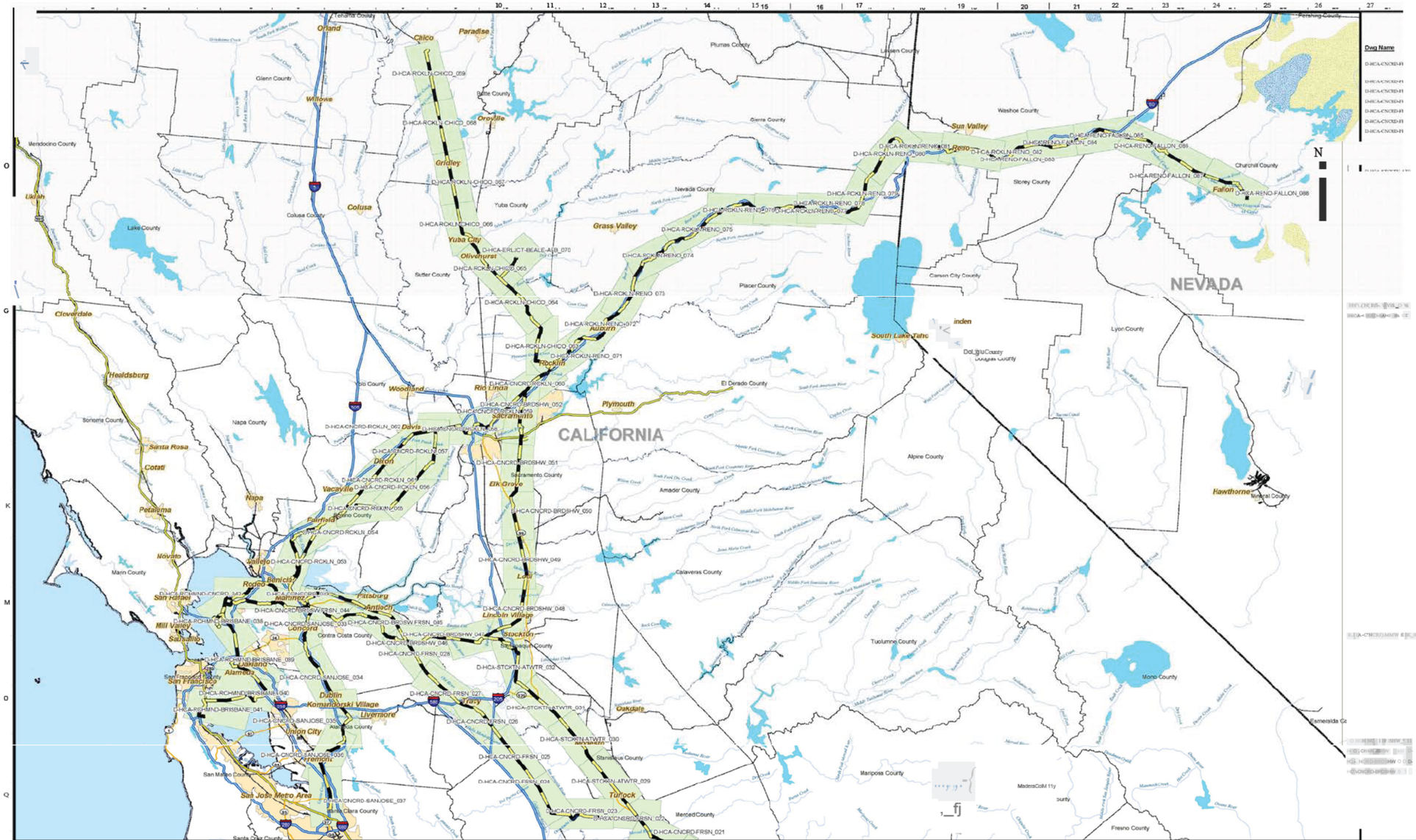
D-HCA – RCHMD-BRISBANE_038.pdf

D-HCA – RCHMD-BRISBANE_039.pdf

D-HCA – RCHMD-BRISBANE_040.pdf

D-HCA – RCHMD-CNCRD_042.pdf

D-HCA – CNCRD_043.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Desc	Line Desc
D-HCA-CNCRD-FI		
D-HCA-CNCRD-FI		
D-HCA-CNCRD-FI		
D-HCA-CNCRD-FI		
D-HCA-CNCRD-FI		
D-HCA-CNCRD-FI		
D-HCA-CNCRD-FI		

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

INDEXSHEETS
- CalNev
- CentFla
- CO2
- Heartland
- KMLT
- KMTP
- MidCon
- Plantation
- SFPP
- Wink

Pipeline
D_HCA_ sheet

VICINITY MAP

AREA MAP

AREA MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 2005-AUG-12	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: 03-18-05	HPA/OPA: Version 2 DW: Version 1
By:		ESA: Version 1 CNW: Version 2
Checked	Dwg Name:	

6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
San Jose Area Lines	
• Concord - San Jose 10"	16
Pipeline Facilities (Non-Storage)	
• Dougherty Pump Station (Booster)	

- Figure 6.1a on the following page provides specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled "Worst Case Discharge Data" of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

DOUGHERTY - SAN JOSE 10" (16)		
Pipe and Operational Data		
• Section Length:	51.38 Miles	271,286 Feet
• Line Diameter:	10.75 in., O.D.	10.374 in., I.D. (note 1)
• Line Capacity:	552 bbls/mile (note 2)	
• Product types:	CARB ULSD, Gas, Turbine, Ethanol	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,500 bph or 108,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections

Location Description	
• County(s)/State(s) Traversed:	Alameda, CA Santa Clara, CA
• Location Description:	From Dougherty Station, north of I-580 in Dublin area, generally south paralleling I-680 to San Jose Terminal.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

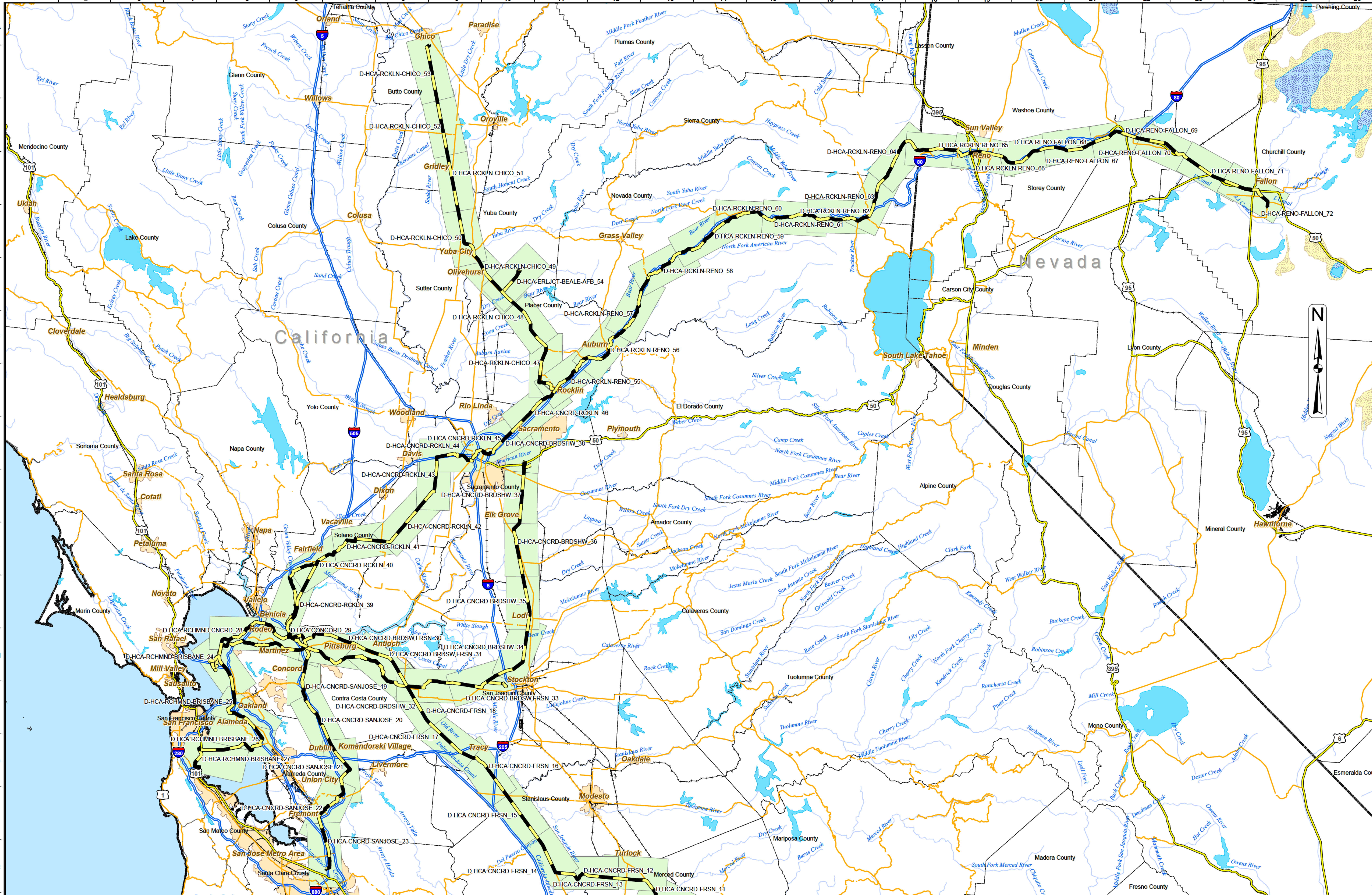
The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_005.pdf

485-D-HCA-CNCRD-SANJOSE_021.pdf

485-D-HCA-CNCRD-SANJOSE_022.pdf

485-D-HCA-CNCRD-SANJOSE_023.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CNCRD-FRSN_012	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_013	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_014	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_015	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_016	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_017	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_018	LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_019	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_020	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_021	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_022	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_023	LS-16; CONCORD - SAN JOSE 10"
D-HCA-RCHMND-BRISBANE_024	LS-104; CHEVRON REFINERY #2 - RICHMOND 10" LS-36/42 Combined LS-37; AMORCO - RICHMOND 12" LS-46/41; RICHMOND - BRISBANE 8/10" LS-69; CHEV REFINERY #1 - RICHMOND 8" LS-71; LS 89 - RICHMOND 8" LS-74; RICHMOND - ARCO 8" LS-75; IMTT / TIME - RICHMOND 8" LS-76; TIME OIL - LS-75/76 JCT. 3" LS-76; TIME OIL - LS-75/76 JCT. 8" LS-8; RICHMOND - CONCORD 8" LS-89; ARCO - LS 71 8" LS-99; CHEVRON REFINERY #3 - RICHMOND 10"
D-HCA-RCHMND-BRISBANE_025	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_026	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_027	LS-36/42 Combined LS-38; BRISBANE - SF AIRPORT JCT.12" LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-CNCRD_028	LS-37; AMORCO - RICHMOND 12" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8"
D-HCA-CONCORD_029	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-103C; SOUTH CARQUINEZ - MOCOCO JCT. 10" LS-130A; CONCORD-WATERFRONT 20" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-37; AMORCO - RICHMOND 12" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSW,FRSN_030	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSW,FRSN_031	LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_032	LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_033	LS-43; STOCKTON - BP WEST 8" LS-45A; ROUGH & READY JCT - SHELL 8" LS-45B; ROUGH & READY JCT - ST SERVICES 8" LS-45C; STOCKTON - ROUGH & READY JCT 8/6" LS-62; STOCKTON JCT - STOCK TERM 8/10" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_034	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_035	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_036	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_037	LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_038	LS-20; SACRAMENTO - ROCKLIN 12" LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-RCKLN_039	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-RCKLN_040	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" REDUCER - SUISUN JCT 8"
D-HCA-CNCRD-RCKLN_041	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-RCKLN_042	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-RCKLN_043	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-RCKLN_044	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-RCKLN_045	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-RCKLN_046	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 4" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_047	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 4" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_048	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_049	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-CHICO_050	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_051	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_052	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_053	LS-64; ROCKLIN - CHICO 8"
D-HCA-ERLJCT-BEALE-AFB_054	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-RENO_055	LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 4" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-RENO_056	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10"
D-HCA-RCKLN-RENO_057	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6"
D-HCA-RCKLN-RENO_058	LS-11; CLIPPER GAP - COLFAX 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_059	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_060	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_061	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_062	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_063	LS-12/13; WOODCHOPPER - REDUCER 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_064	LS-12/13; WOODCHOPPER - REDUCER 10"
D-HCA-RCKLN-RENO_065	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6"
D-HCA-RCKLN-RENO_066	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6" LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_067	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_068	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_069	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_070	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_071	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_072	LS-55; RENO - FALLON NAS 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

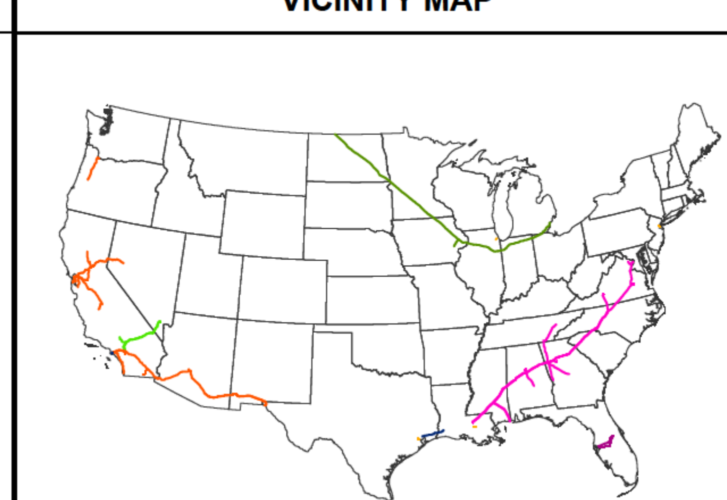
PIPELINES: CalNev, CentFla, Cochin-US, KMLT, WCLT, Cypress, Plantation, SFPP

INDEX SHEETS: CalNev, CentFla, Cochin-US, KMLT, WCLT, Cypress, Plantation, SFPP

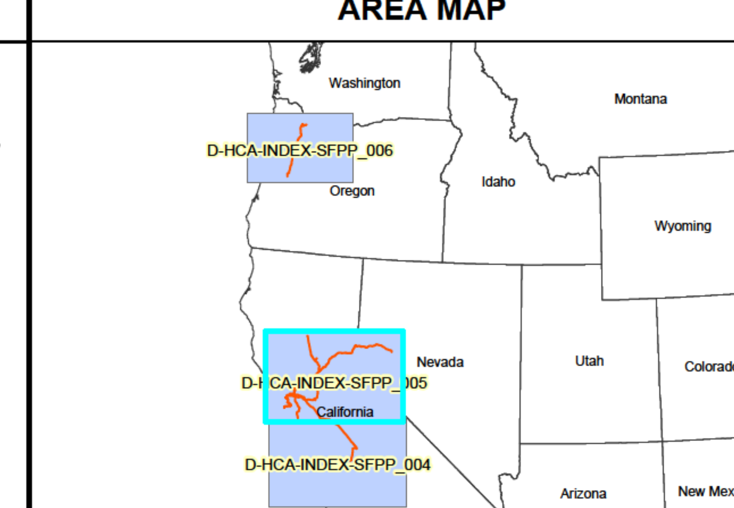
Pipeline

D_HCA_sheet

VICINITY MAP



AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS HIGH CONSEQUENCE AREA (HCA) INDEX MAP PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name: 485-D-HCA-INDEX-SFPP_005	
Approved:		

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations and/or terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Brisbane Terminal	(b) (7)(F), (b) (3)	
Oakland Terminal		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

[redacted]

- The specific information summary for these breakout stations/terminals is provided in this Section as follows:
  - Breakout Station/Terminal Tank Information Summary (one per station)
  - Facility Diagram
- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume.

7.0 BREAKOUT STATIONS/TERMINALS

FIGURE 7.1a

BRISBANE BREAKOUT STATION/TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS)***	**DIAMETER**	**HEIGHT**
BT-06	OOS	(b) (7)(F), (b) (3)		
BT-07	OOS			
BT-08	Transmix			
BT-09	Transmix			
BT-15	Turbine			
BT-18	OOS			

LOCATION DESCRIPTION

- County/State: San Mateo, CA
- Location: Brisbane Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than the calculated number.

7.0 BREAKOUT STATIONS/TERMINALS

FIGURE 7.2a

FACILITY DIAGRAM

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS/TERMINALS

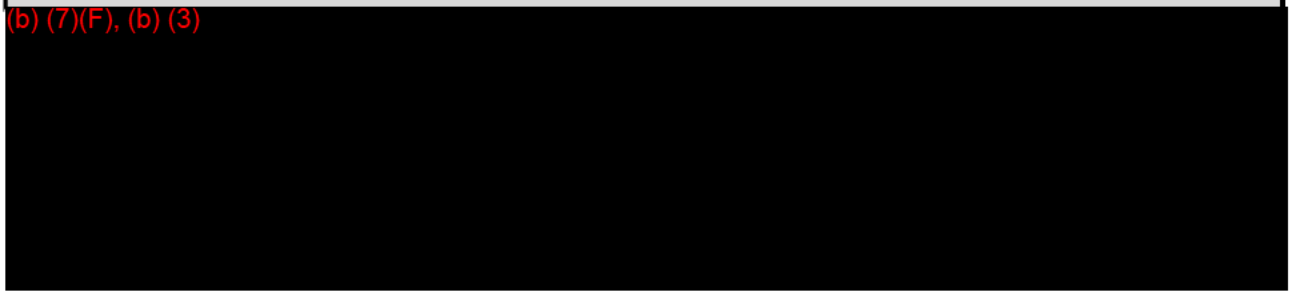
FIGURE 7.1b

OAKLAND TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS)**	**DIAMETER**	**HEIGHT**
OL-1	Diesel	(b) (7)(F), (b) (3)		

LOCATION DESCRIPTION	
• County/State	Alameda, CA
• Location	Near Maritime Street and Navy Roadway, Oakland, CA

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)



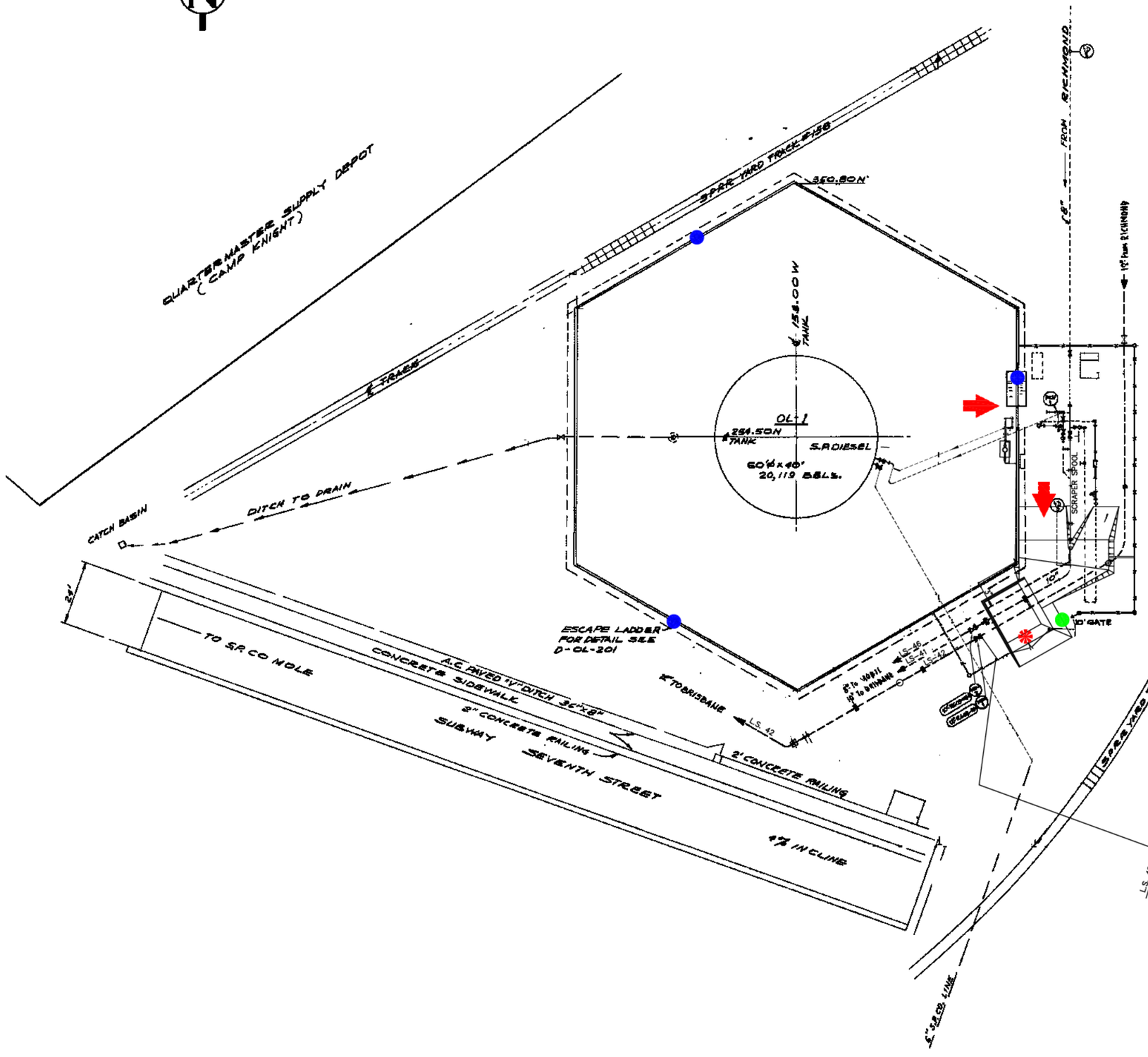
7.0 BREAKOUT STATIONS/TERMINALS

FIGURE 7.2b

FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

EVACUATION PLAN



PRIMARY EMERGENCY RESPONSE COMMAND CENTER

LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
OAKLAND TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-OL	DESIGN SUPT	EVAC-OL
BY: SWH	MGR. SAFETY	
DATE: 03-27-09	AREA SUPR.	

7.0 BREAKOUT STATIONS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Concord Station	(b) (7)(F), (b) (3)	
Travis Station		
Stockton Terminal		

- The largest Worst Case Discharge (WCD) for the breakout stations within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

- The specific information summary for these breakout stations is provided in this Section as follows:
  - Breakout Station Tank Information Summary (one per station)
  - Facility Diagrams

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other sections of this Volume 2.

FIGURE 7.1a

CONCORD AREA
TANK INFORMATION SUMMARY

CONCORD STATION				
TANK #	TYPICAL PRODUCT	MAX. CAPACITY (BBLS) *	DIAMETER	HEIGHT
CC-4	Transmix	(b) (7)(F), (b) (3)		
CC-5	Transmix			
CC-6	Various Products			
CC-7	Jet Fuel			
CC-8	Various Products			
CC-9	Various Products			
CC-10	Various Products			
CC-11	Various Products			
CC-12	Various Products			
CC-13	Various Products			
CC-14	Various Products			
CC-15	Various Products			
CC-16	Various Products			
CC-17	Jet Fuel			
CC-18	Various Products			
CC-19	Various Products			
CC-20	Various Products			
CC-21	Various Products			
CC-22	Various Products			
CC-23	Various Products			
CC-24	Various Products			
CC-25	Various Products			
CC-26	Various Products			

LOCATION DESCRIPTION	
• County/State:	Contra Costa, CA
• Location	Solano Way north of Highway 4, Concord, CA.

WORST CASE DISCHARGE
(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2a

CONCORD STATION
FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

FIGURE 7.1b

TRAVIS STATION
TANK INFORMATION SUMMARY

TRAVIS BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
TB-1	JP-8	(b) (7)(F), (b) (3)		
TB-2	JP-8			
TB-3	JP-8			
LOCATION DESCRIPTION				
• County/State:	Solano, CA			
• Location	South of Hangar Avenue, Travis AFB , CA.			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2b

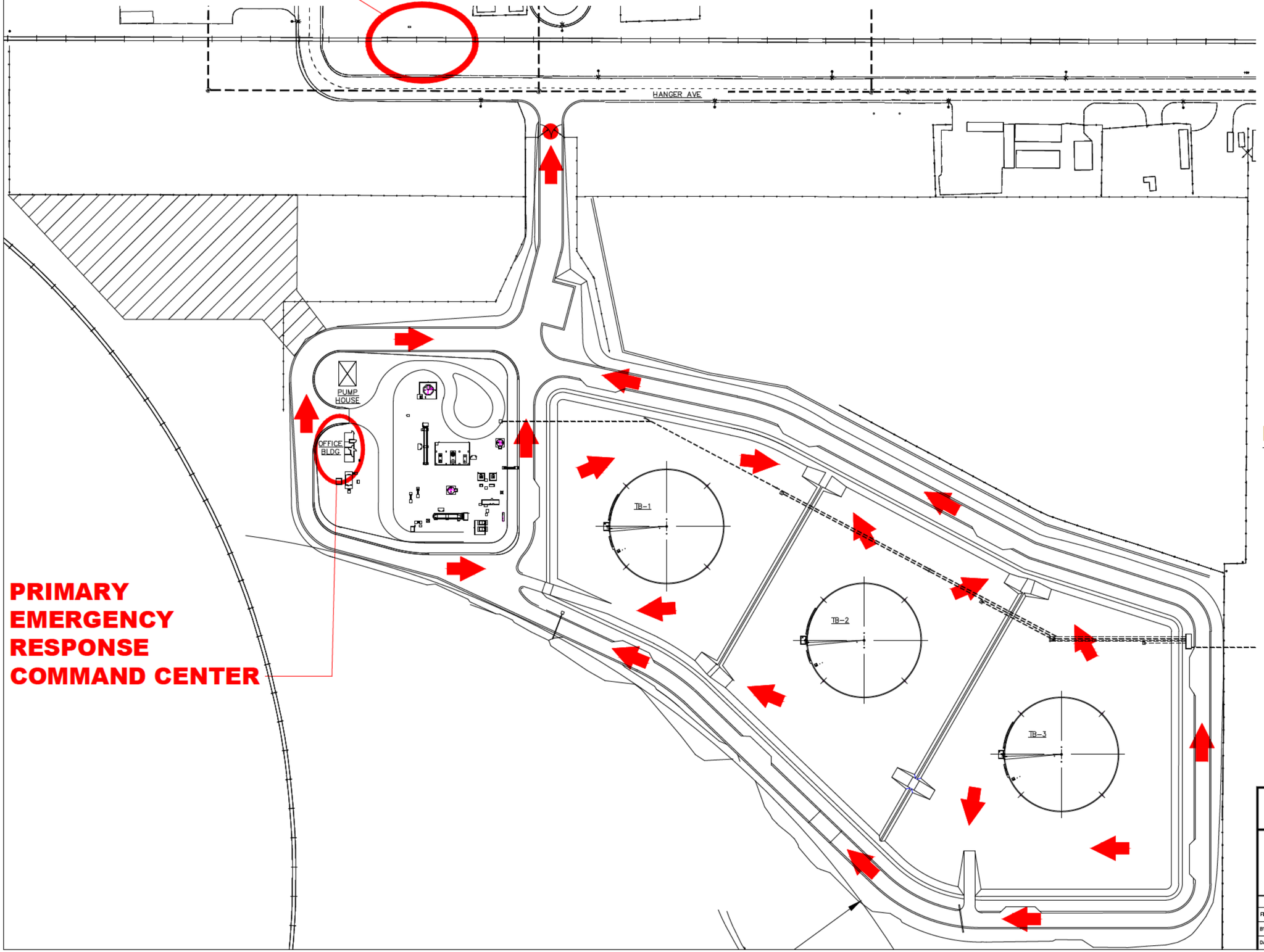
TRAVIS STATION
FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

EVACUATION PLAN

PRIMARY EVACUATION AREA

PRIMARY EMERGENCY RESPONSE COMMAND CENTER



NORTH

LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- SLIDING GATE
- AUTOMATIC SLIDING GATE
- AUTOMATIC SWING GATE
- EMERGENCY PANIC BAR EXIT GATE
- MAIN EXITS
- HEARING PROTECTION REQUIRED

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
TRAVIS BREAKOUT STATION

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-TB	DESIGN SUPT	EVAC-TB
BY: SJS	MGR. SAFETY	
DATE: 09-15-11	AREA SUPR.	

(b) (7)(F), (b) (3)

FIGURE 7.1c

STOCKTON TERMINAL
TANK INFORMATION SUMMARY

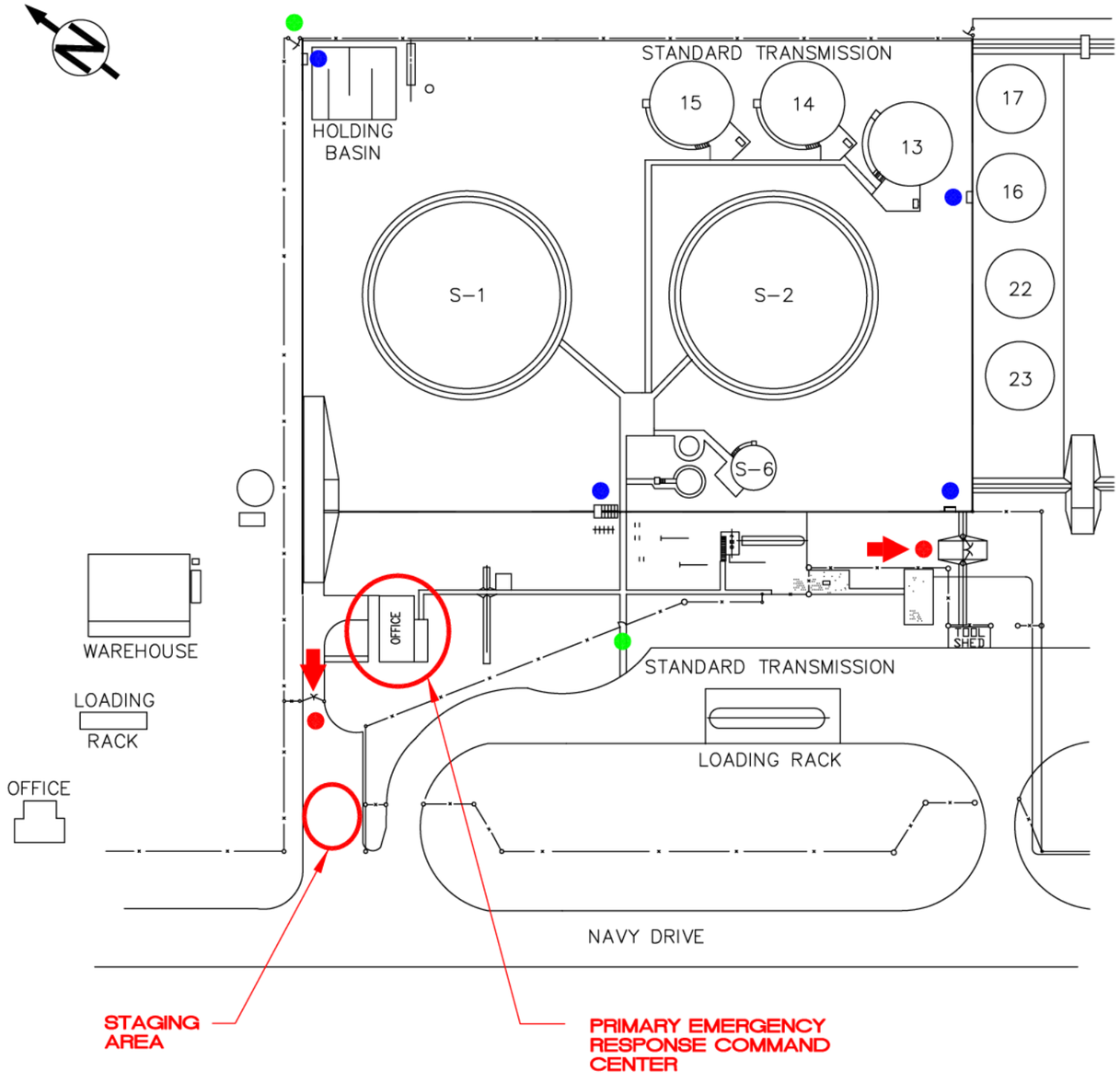
STOCKTON TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY**	**DIAMETER**	**HEIGHT**
SN-6	Transmix (relief tank)	(b) (7)(F), (b) (3) [redacted]		
LOCATION DESCRIPTION				
• County/State	San Joaquin, CA			
• Location	Stockton Breakout Stations			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3) [redacted]				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2c

STOCKTON TERMINAL
FACILITY DIAGRAMS

EVACUATION PLAN



LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

SFPP, L.P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
STOCKTON TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-SN	DESIGN SUPT	EVAC-SN
BY: AKC	MGR. SAFETY	
DATE: 4-6-95	AREA SUPR.	

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Oakland Station	(b) (7)(F), (b) (3)	

- The largest Worst Case Discharge (WCD) for the breakout stations within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

[redacted]

- The specific information summary for these breakout stations is provided in this Section as follows:
  - Breakout Station Tank Information Summary (one per station)
  - Facility Diagram
- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other sections of this Volume 2.

FIGURE 7.1

OAKLAND BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS)**	**DIAMETER**	**HEIGHT**
OL-1	Diesel	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	Alameda, CA			
• Location	Near Maritime Street and Navy Roadway, Oakland, CA			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION/TERMINALS	LARGEST TANK (BBLS)	WCD (BBLS)
San Jose Terminal	(b) (7)(F), (b) (3)	

- The largest Worst Case Discharge (WCD) for the breakout stations/terminal within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

- The specific information summary for these breakout stations/terminals is provided in this Section as follows:
  - Breakout Station/Terminal Tank Information Summary (one per station)
  - Facility Diagram
- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume.

FIGURE 7.1

SAN JOSE TERMINAL				
TANK #	TYPICAL PRODUCT	MAX. CAPACITY (BBLS)	DIAMETER	HEIGHT
SJ-07	Turbine	(b) (7)(F), (b) (3)		
SJ-09	Turbine			
SJ-18	Transmix			
SJ-19	Transmix			
SJ-24	Turbine			
SJ-25	Turbine			
LOCATION DESCRIPTION				
• County/State	Santa Clara, CA			
• Location	San Jose Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

NOTE: This Facility is a multi jurisdiction Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

FIGURE 7.2

SAN JOSE TERMINAL FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

8.10 ADDITIONAL FACILITY DIAGRAMS

The following additional facility diagrams are provided for regulatory reference.

Drawing No.	Description	Notes
SK-D-064-052478-0	Process Flow Diagram	Shows valves, pumps, product types, tanks
SK-D-064-052678-0	General Schematic Arrangement	
93-108-100	GATX Marine Transfer Piping Test Diagram	Shows docks, pipe racks
93-108-101	GATX Marine Transfer Piping Test Diagram-South Tank Farm	Shows valves, piping
93-108-102	GATX Marine Transfer Piping Test Diagram-Central Tank Farm	Shows valves, piping
064-DP-1	Pipelines to Tanker Wharf	Shows piping
E-064-D02-02	Pipelines Tanks	Shows piping
E-064-D2-11973-01	Pipelines to Dock and Dock General Arrangement	Shows valves, piping, drip pans
064-C0-2-10	Air Elim. Piping Arrangement by Tank Car & Tank Truck Loading Rack	Shows valves, piping
064-C0-2-11	Piping Arrangement for Loading Rack	Shows valves, piping
064-C0-13-03	Warehouse Blend Tank Area Piping-General Arrangement	Shows valves, piping
064-C0-13-04	Warehouse Blend Tank Area Piping-Detail & Sections	Shows valves, piping
064-C0-18-01	Fire Foam Piping	
064-C0-19-01	Piping Arrangement for Train Loading Rack	Shows valves, piping
064-C0-19-03	Tank Truck Loading Rack - Sections	Shows valves, piping
FPD – RH	Fire Protection Diagram Richmond Terminal	
064-000-006	Area No. 1 Tank and Pipeline General Arrangement	
D – RH – 00 – 003	Richmond Terminal General Layout	

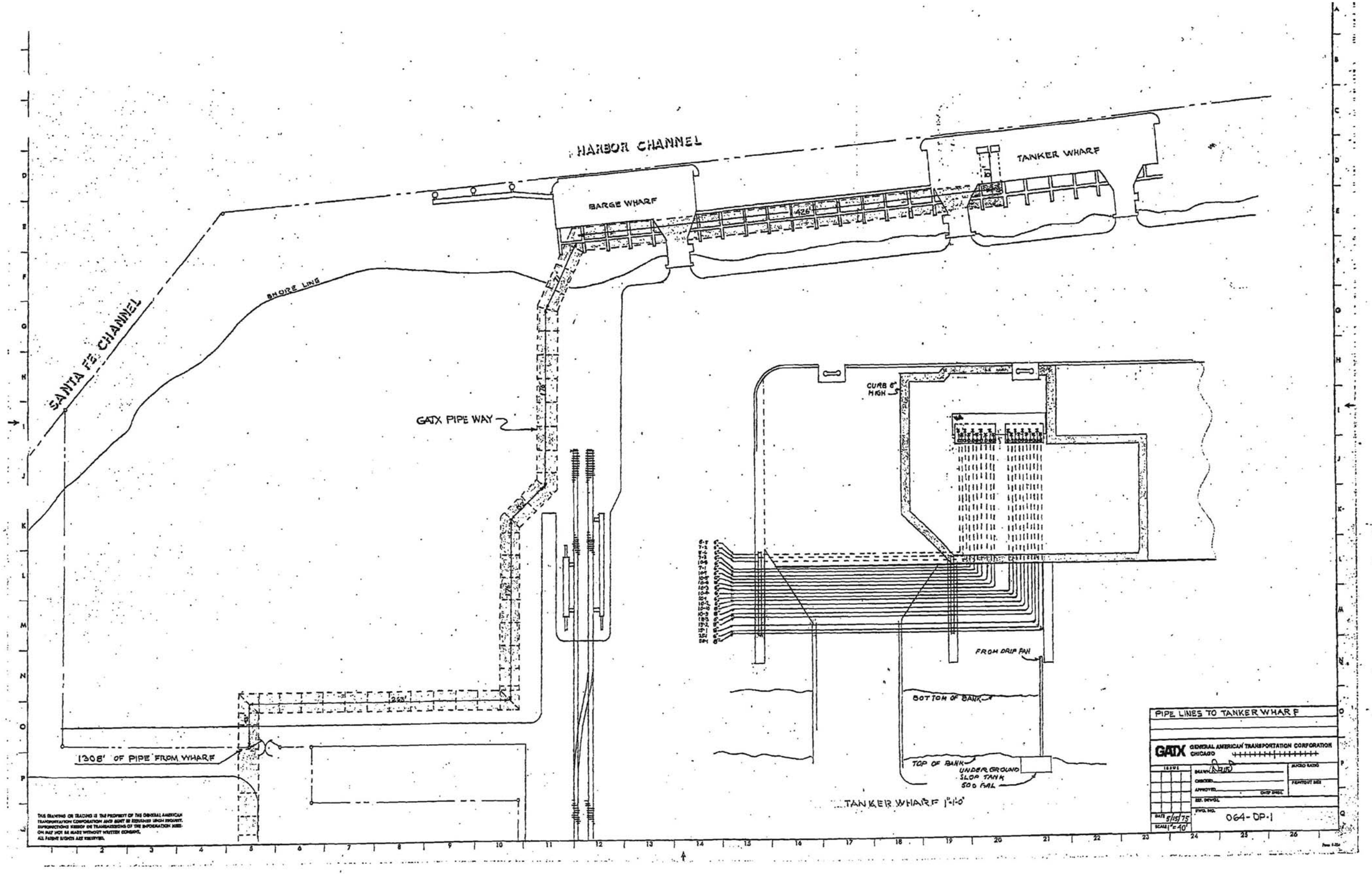
(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

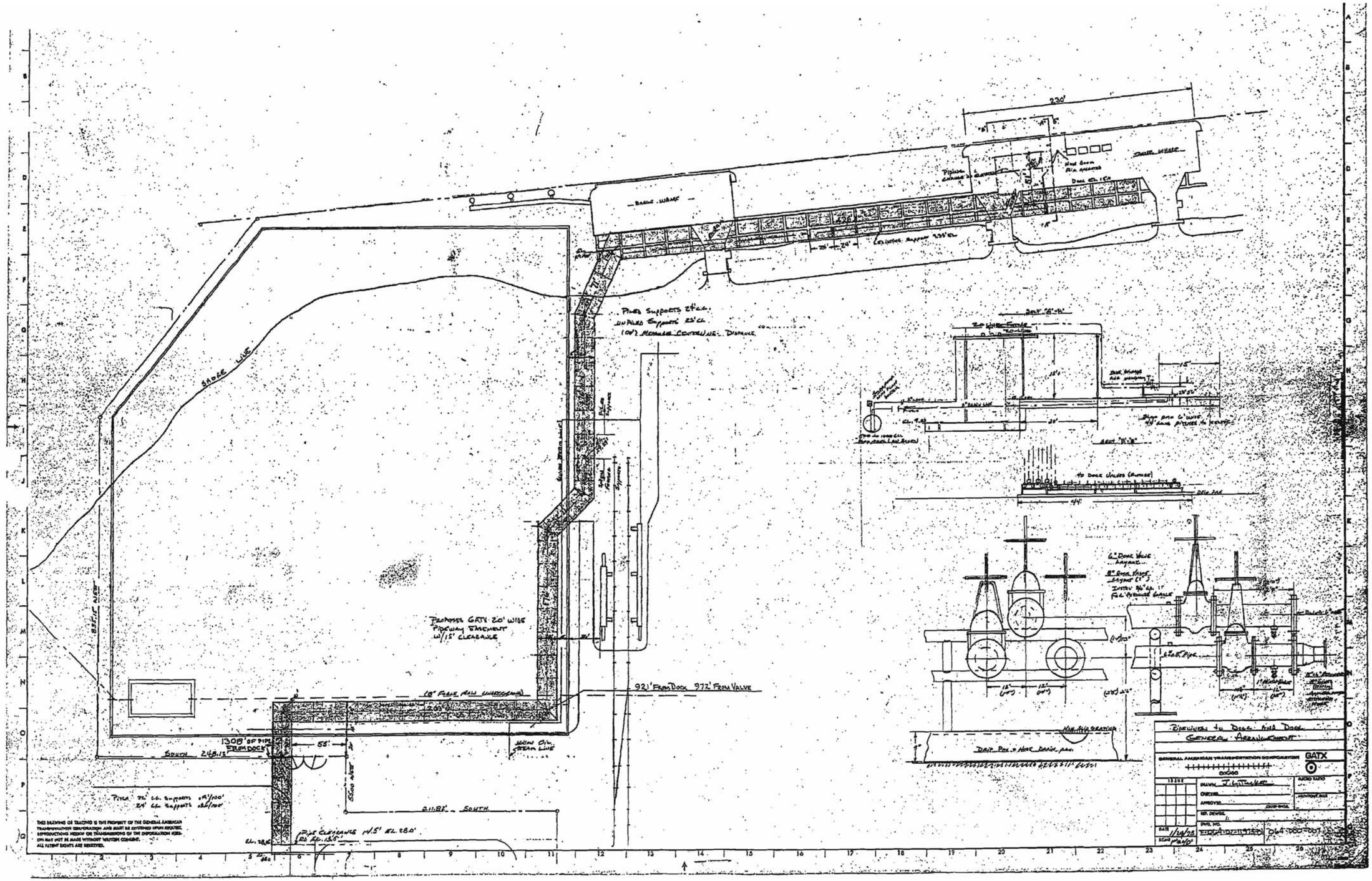
(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)


HARBOR CHANNEL
BARGE WHARF
425'
TANKER WHARF
SHORE LINE
SANTA FE CHANNEL
GATX PIPE WAY
CURB 6" HIGH
FROM DRIP PAN
BOTTOM OF BANK
TOP OF BANK
UNDER GROUND SLOP TANK 500 GAL
1308' OF PIPE FROM WHARF
TANKER WHARF 1"=10'
PIPE LINES TO TANKER WHARF
GATX GENERAL AMERICAN TRANSPORTATION CORPORATION CHICAGO
DRAWN
CHECKED
APPROVED
DWG. NO. 064-DP-1
DATE 5/15/75
SCALE 1"=40'
THIS DRAWING OR TRACING IS THE PROPERTY OF THE GENERAL AMERICAN TRANSPORTATION CORPORATION AND MUST BE RETURNED UPON REQUEST. SUPERIMPOSITIONS MADE ON TRANSMISSIONS OF THE INFORMATION HERE-ON MAY NOT BE MADE WITHOUT WRITTEN CONSENT. ALL PATENT RIGHTS ARE RESERVED.

(b) (7)(F), (b) (3)


230'
BASIC WHARF
PIPELINE CONNECTION TO GATEWAY
NEW GUARD RAIL ASSEMBLY
DOCK EL. 15.0
PILE SUPPORTS 24' c.c.
110 PILED SUPPORTS 25' c.c.
(108') MEASURED CENTERLINE DISTANCE
BASIC LINE
PROPOSED GATX 20' WIDE PIPEWAY EASEMENT W/15' CLEARANCE
18" FUEL OIL UNDERGROUND
921' FROM DOCK 972' FROM VALVE
1308' OF PIPE FROM DOCK
55'
SOUTH 248.12'
WATER LINE
WATER OIL STEAM LINE
2111.82' SOUTH
PIER CLEARANCE 14.5' EL. 28.0'
EL. 28.0
PITCH 72' C.C. SUPPORTS 12.1/100'
24' C.C. SUPPORTS 12.0/100'
40 DOCK UNLOADS (RAILROAD)
6" DOCK VALVE LAYOUT
8" DOCK VALVE LAYOUT
6"ø PIPE
DRIP PAN & HOSE DRAIN ASS'Y
PIPELINES to DOCK AND DOCK GENERAL ARRANGEMENT
GENERAL AMERICAN TRANSPORTATION CORPORATION
GATX
DRAWN
CHECKED
APPROVED
DWG. NO.
DATE 1/14/76
SCALE 1"=40'-0"
THIS DRAWING OR TRACING IS THE PROPERTY OF THE GENERAL AMERICAN TRANSPORTATION CORPORATION AND MUST BE RETURNED UPON REQUEST. REPRODUCTIONS MEDIUM OR TRANSMISSIONS OF THE INFORMATION HERE-ON MAY NOT BE MADE WITHOUT WRITTEN CONSENT. ALL PATENT RIGHTS ARE RESERVED.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.11 Specific Logistical Resources

8.11.1 FIRST AID AND MEDICAL SERVICES

First Aid

First Aid supplies are maintained in the Facility offices. KMEP field emergency responders have received First Aid and CPR training and will provide first response within the limits of their training. After first aid treatment, the injury will be evaluated for reference to, or transport to, medical professionals.

Emergency Medical Care

Emergency medical care will be secured from medical professionals. Possible resources for this service include but are not limited to, these listed above plus the following:

DIAL 911 - REQUEST ASSISTANCE FROM PARAMEDICS

Kaiser Permanente Hospital
901 Nevin Ave.
Richmond, CA 94801
(510) 307-1500

Richmond Health Center
100 38th Street
Richmond, CA 94805
(510) 231-1200

Additional telephone references are provided in Figure 2.2 of this volume.

8.11.2 FIRE SERVICES

Support from fire fighting professionals will be secured as needed. The services will be activated either by a call through 911 or directly to the nearest fire fighting resource. Possible resources for this service include but are not limited to, the following:

Richmond Fire Dept
1401 Marina Way South
Richmond, CA 94804
(510) 307-8031

Contra Costa Fire Dept
2010 Geary Road
Richmond, CA 94801
(510) 215-4450

Additional telephone references are provided in Figure 2.2 of this volume.

8.11.3 LODGING SERVICES

Lodging will be secured for responders as appropriate. The following Figure provides an overview of the lodging services in the immediate vicinity of the Terminal. KM may select these or other Lodging Services as appropriate.

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

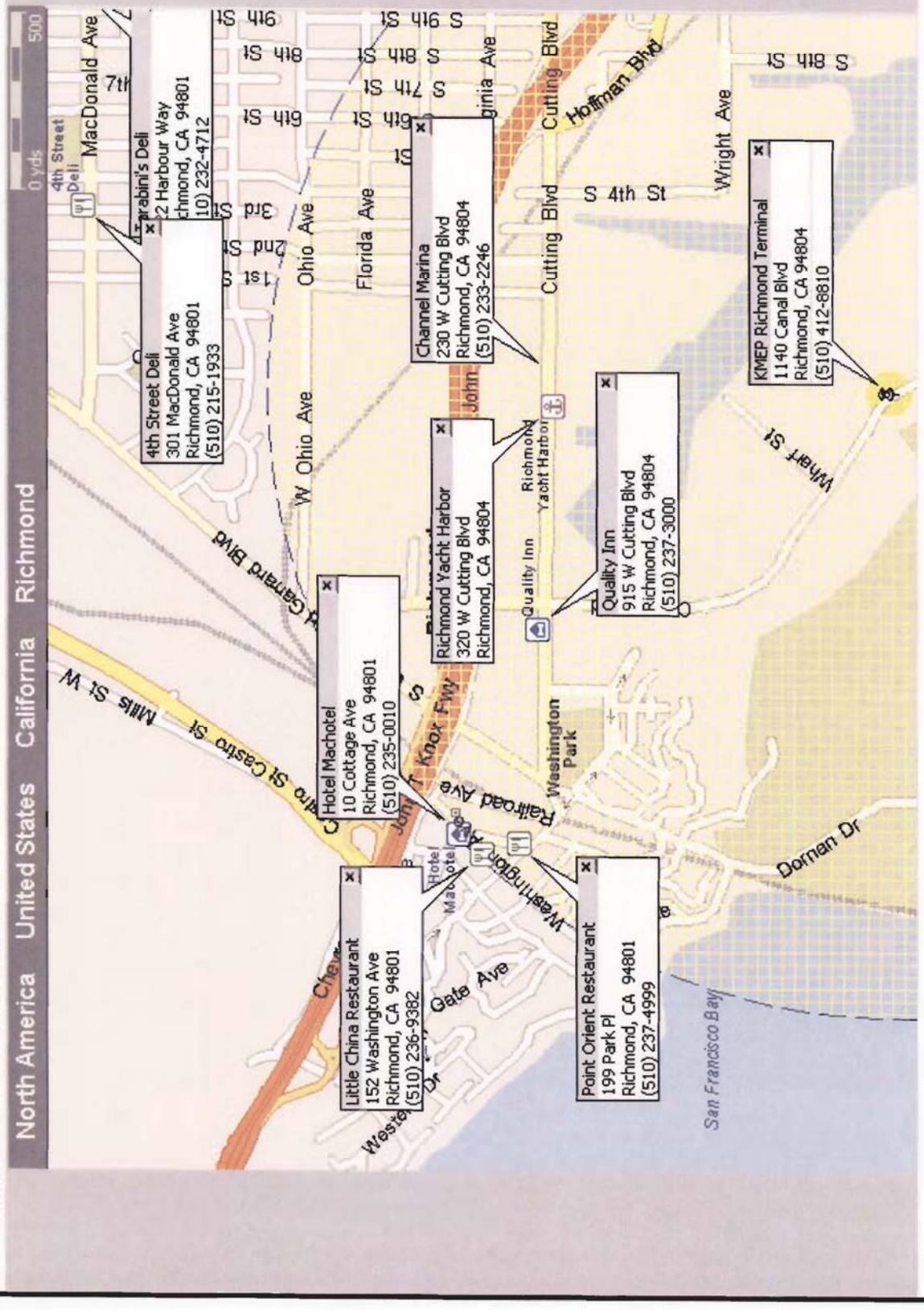
(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

Logistical Resources Map

RICHMOND TERMINAL AREA

North America United States California Richmond



Data Source: Microsoft Streets & Trips 2005

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: SFPP, L.P. Brisbane Terminal
950 Tunnel Avenue
Brisbane, CA 94005

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: _____ Date: 3/4/11

Nicole Stewart, Area Manager

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via the Company's pipelines #41and #42 into above ground storage. The product is transported out of the Facility by tanker trucks. Offloading of products at the Facility occurs infrequently, since essentially all product is received via pipeline. Gasoline additives and ethanol are received via truck into aboveground tanks. The additives are blended into the product as it is loaded into trucks. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Brisbane Terminal 950 Tunnel Avenue Brisbane, CA 94005 (415) 467-8107 (415) 467-6787 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0089
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	February, 1969
Owner/Operator:	Kinder Morgan Energy Partners, LP 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-9454 *(Office)* (713) 495-2713 *(Fax)* Send correspondence to: Chuck Mathis Manager – Emergency Response Programs 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-8530 *(Office)* (713) 369-9215 *(Fax)* charles_mathis@kindermorgan.com *(email)*
Qualified Individual (Emergency Coordinator):	Nicole Stewart Area Manager 950 Tunnel Avenue Brisbane, CA 94005 (415) 467-8107 *(Office)* (b) (6) *(Mobile)* (303) 984-3898 *(Fax)* nicole_stewart@kindermorgan.com *(email)*
Alternate Qualified Individual (Emergency Coordinator):	Pete Murphy Operations Manager 1550 Solano Way Concord, CA 94520 (925) 680-5493 *(Office)* (b) (6) *(Mobile)* (303) 984-3823 *(Fax)* pete_murphy@kindermorgan.com *(email)*

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

GENERAL INFORMATION	
Agent for Service:	CSC - Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume 1.
FACILITY LOCATION	
County:	San Mateo County, CA
Latitude:	(b) (7)(F), (b) (3)
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than one quarter mile
Landside Directions:	At the intersection of San Bruno Avenue and Santa Clara Street, start out going northwest on San Bruno Avenue towards Alvarado Street. Go 0.31 miles and turn slight right onto Old County Road. Proceed 0.30 miles and turn left onto Tunnel Avenue. Go 0.44 miles to the Facility.
Waterside Directions:	There is no water access to this Facility.
Seasonal Weather Conditions:	
Air Temperature:	Ranges from 30° to 95°F
Water Temperature:	Ranges from 52° to 54°F
Winds:	Generally southwest at 15 to 25 mph in afternoons from April to September; calm in other months except during storms.
Rain:	Generally 18 to 20 inches per year during October to May.
Marine Tide/Current:	The tidal range is generally from 0 feet to +5 feet MLLW, with the extremes being -2.5 feet and +7.5 feet. Currents in the Santa Fe Channel are generally about 0.5 knot at flood and ebb, with the maximums somewhat above this.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk storage and distribution facility for refined petroleum products. The stored product arrives through the main Company pipeline to aboveground storage tanks, transfers to fueling racks through pipelines, and moves out of the Facility by tanker trucks. All tanker trucks are owned by other companies.

- The aboveground storage tanks are contained in a bermed secondary containment area that, at a minimum, provides secondary containment for 110 percent of the largest tank. The tanks are filled or drawn down through a system of aboveground and underground pipes that connect this Facility into the Company distribution network.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.

- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Gasoline
- Diesel
- Jet Fuel
- Transmix
- Ethanol
- Additives

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with three (3) loading spots two (2) unloading spots which handle various refined petroleum products.
- A maximum of eight (8) tank trucks may load/unload simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 150 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to a sump & oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in the 1968. In 1970 tanks BT-16 thru BT-21 were added. The maximum capacity of the newer tanks (non-EPA jurisdictional) is also 3,150,000 gallons each.

MAPS AND DIAGRAMS

The following Maps and Diagrams follow:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout Diagram
- Figure 8.4 – Fire Protection Diagram

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 FACILITY EXECUTABILITY STATEMENT

KINDER MORGAN
ENERGY PARTNERS, L.P.

FACILITY EXECUTABILITY STATEMENT

I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this contingency plan is true and correct and that the plan is both feasible and executable.

MICHAEL G. SUDHEIMER
Name

AREA MANAGER
Title

NOVEMBER 18, 2004
Date

The above certification statement, required by California Code of Regulations Title 14, Division 1, subdivision 4, Chapter 3, subchapter 3, §817.02(a)(1)(D), has been signed by an executive within the plan holder's management. The signer has training, knowledge, and experience in the area of oil spill prevention and response, has the authority to fully implement the oil spill contingency plan written within this Integrated Contingency Plan, and will review this Plan for accuracy, feasibility, and executability.

8.1.2 CERTIFICATE OF FINANCIAL RESPONSIBILITY

The following Certificate of Financial Responsibility is presented on the following page:

COFR Number: 2-0044-01-002

CALIFORNIA CERTIFICATE OF FINANCIAL RESPONSIBILITY (CA COFR)

OWNER OR OPERATOR:
KINDER MORGAN LIQUID TERMINALS, LLC
meets the financial responsibility requirements set forth in the Government Code Sections 8670.37.53 as it applies to the operation of

NAME:
RICHMOND MARINE TERMINAL

LOCATION:
1140 CANAL BOULEVARD, RICHMOND, CALIFORNIA

CERTIFICATE: 2-0044-01-002 **CONTROL #:** FB018

ISSUED DATE: April 01, 2013 **EXPIRATION DATE:** March 31, 2015

The holder of this document named above is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act). This certificate holder has provided the necessary evidence of financial responsibility mandated by these requirements.

For the purpose of determining liability pursuant to the Act, this Certificate of Financial Responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specific Marine Facility.

No alterations of this certificate are permitted after issuance by the Administrator of OSPR. If there is a change in the name or ownership of the Marine Facility, the certificate holder must notify the Office of Spill Prevention and Response (OSPR) immediately. If the certificate expires, a new certificate will be required.

This certificate remains valid as long as the current method for demonstrating financial responsibility is maintained (eg. insurance). Any changes in this status must be reported to OSPR immediately.

It is the owner or operator's responsibility to ensure that this certificate number is also included in the owner or operator's marine oil spill contingency plan, which must be submitted to this office for approval, before operating in a location where a spill could impact California marine waters.

If you have any questions, please contact
Farina A. Khan
916-327-9937

Sincerely,
Farina A. Khan

Financial Analyst
Office of Spill Prevention and Response
cacofr-facilities@ospr.dfg.ca.gov

8.1.3 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: Kinder Morgan Liquids Terminals, LLC Richmond Terminal
FACILITY ADDRESS: 1140 Canal Boulevard
Richmond, CA 94804

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 1.3)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes	✓	No	
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes		No	✓
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.	Yes	✓	No	
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes		No	✓
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?	Yes		No	✓

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

Signature

Area Manager
Title

Michael Sudheimer
Name (please type or print)

January 2, 2006
Date

NOTE: The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan. Response Management Associates, Inc. (RMA) provided consulting and plan development services in the preparation of this plan utilizing data provided by the owner/operator and/or the Facility. RMA assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

8.1.4 INTRODUCTION

This Facility is a bulk liquid storage and distribution point for various vegetable oils, petroleum products and chemicals. The Facility contains 124 storage tanks, 59 of which can be served by vessel from Conoco/Phillips' dock facility located south of the Facility and adjacent to the Harbor Channel. The Facility also has the capability to ship and receive products by tank truck and/or railcar. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)
- Risk and Hazard Analysis (Section 8.5)
- Offsite Consequence Analysis (Section 8.6)
- Risk Reduction Incentive Program (Section 8.7)
- Drug and Alcohol Policies (Section 8.8)
- Vessel Loading Procedures (Section 8.9)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Richmond Terminal 1140 Canal Blvd. Richmond, CA 94804 (510) 412-8810 (510) 232-9317 *(Fax)*
NAICS Code:	49319
EPA FRP Number:	FRP09A0137
USCG FRP Number:	SF 000308
OSPR Plan CNTRL Number:	P2-07-0175A
COFR Certificate Number:	20044-01-002
Dun & Bradstreet Number:	079741799
Date of Initial Storage:	1973
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-9454 *(Office)* (713) 495-2713 *(Fax)* Send correspondence to: Chuck Mathis Manager – Emergency Response Programs 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-8530 *(Office)* (713) 369-9215 *(Fax)* charles_mathis@kindermorgan.com *(email)*
Qualified Individual (Emergency Coordinator):	Mike Sudheimer Area Manager 1140 Canal Blvd. Richmond, CA 94804 (510) 412-8819 *(Office)* (b) (6) *(Mobile)* (510) 232-9317 *(Fax)* Mike_Sudheimer@kindermorgan.com *(email)*
Alternate Qualified Individual:	Pete Murphy Operations Manager 1550 Solano Way Concord, CA 94520 (925) 680-5493 *(Office)* (b) (6) *Mobile)* (303) 984-3823 *(Fax)* pete_murphy@kindermorgan.com *(email)*

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

GENERAL INFORMATION (Cont'd)	
Agent for Service:	CSC - Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume 1.
FACILITY LOCATION	
County:	Contra Costa County, CA
Latitude:	(b) (7)(F), (b) (3)
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	The Facility is bounded on the east by the Richmond Inner Harbor Channel.
Landside Directions:	From Interstate 580, take the Canal Boulevard exit. Turn south onto Canal Boulevard and go 0.90 miles to the Facility entrance.
Waterside Directions:	From San Francisco Bay to Richmond Inner Harbor Channel to Conoco/Phillips' Dock.
Seasonal Weather Conditions:	
Air Temperature:	Ranges from 30° to 95°F
Water Temperature:	Ranges from 52° to 54°F
Winds:	Generally southwest at 15 to 25 mph in afternoons from April to September; calm in other months except during storms.
Rain:	Generally 18 to 20 inches per year during October to May.
Marine Tide/Current:	The tidal range is generally from 0 feet to +5 feet MLLW, with the extremes being -2.5 feet and +7.5 feet. Currents in the Santa Fe Channel are generally about 0.5 knot at flood and ebb, with the maximums somewhat above this.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION – GENERAL (Cont'd)

Description of Operation:

- This Facility is a bulk distribution facility for various vegetable oil, petroleum products, and chemicals.

(b) (7)(F), (b) (3)

- Vessels supplying the Facility are third party owned.
- The Facility normally operates Monday 0100 - Saturday 1600 hours, and as required for marine transfers.

The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3)

Products Handled:

- Vegetable Oils
- Petroleum Products
- Chemicals

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION – MARINE OPERATIONS

Description of Operation:

- The Facility operates 23 pipelines at Conoco/Phillips' dock Facility. Five (5) 8" diameter, seventeen 6" diameter, and one (1) 2" diameter pipelines.
- Of the total 134 storage tanks, 59 can be served by vessels from Conoco/Phillips' dock facility located south of the Facility and adjacent to the Harbor Channel.

Type:	Tank Ships:	7,000 - 105,000 DWT
	Barges:	11,000 DWT

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION – MARINE OPERATIONS (Cont'd)		
Tow Quantity:	One (1)	
Length:	Tank Ships:	Maximum 805 ft. length, 37 ft. maximum draft
	Barges:	350 ft.
Average Shipment Size:	25,000 - 35,000 bbls	
Discharging Rates:	Approximately 650 to 1,900 bph	
Amount of Transfer:	30,000 bbls *(typical)*	
Frequency of Transfer:	Five (5) transfers per month *(typical)*	
Duration of Transfer:	12 to 36 Hours *(typical)*	

Discharge Prevention:

- Each transfer at the dock is closely monitored by one (1) TPIC, one (1) operator and one (1) fire watch. Radio communication is maintained between the operators and fire watch to assure a safe product transfer.
- The loading/unloading lines are equipped with drip pans under the pump header connections.

PHYSICAL DESCRIPTION - TRUCK RACK

Description of Operation:

- The Facility is equipped with up to 20 loading spots which handle various products.
- A maximum of 7 tank trucks may load simultaneously.
- The Facility handles an average of 60 trucks per day.

Loading Rate: Up to 450 gpm (*per truck*)

Truck Capacity: 7,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slabs drain directly to a central location on the eastern side of Facility, Tank S-5001.
- Truck drivers and operators that conduct loading/unloading operations are qualified to perform their required tasks.
- Safe operating procedures are posted.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION – RAIL CAR RACK

Description of Operation:

- The Facility is equipped with two (2) rail car racks that have two (2) loading/ unloading spots each.
- The Facility handles an average of 6 tank cars per day.

Loading Rate: 500 gpm *(typical)*

Railcar Capacity: 15,000 - 25,000 gallons

Discharge Prevention:

- The curbed concrete slabs drain directly to a central location on the eastern side of Facility, Tank S-5001.
- Loading and unloading events are only performed by qualified Company personnel.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

1985 Tanks 3011, 4010 through 4013, and 5001 through 5004 were relocated from a GATX facility in San Pedro, CA in 1983.

1987 Tanks 3012 through 3031, 4014 through 4016, 4020 and 4021 were built and Tanks 2001 through 2004, 4018, 4019, 8001, 3-1 through 3-3, 4-1, 5-7 through 5-18, 7-4, 8-1, 10-13 through 10-15, 20-1 through 20-3, 30-1, and S3032 were relocated from former terminals.

1988 Tanks 5-19 through 5-22, 7-5 and 7-6 were erected on site and Tanks 2-1, 3-4, and 3-5 were relocated from former terminals.

1990 Tank 20-1 was demolished and replaced with a new tank.

MAPS AND DIAGRAMS

The following Maps and Diagrams follow:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout Diagram
- Figure 8.4 – Fire Protection Diagram

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: SFPP, L.P. San Jose Terminal
2150 Kruse Drive
San Jose, CA 95131

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: Clay Westlake

Clay Westlake, Area Manager

Date: 2/15/2011

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via the Company's pipeline #16 into aboveground storage tanks. The product is transported out of the Facility by tanker trucks, which are owned and operated by others. Offloading of products at the Facility occurs infrequently, since essentially all product is received via pipeline. Gasoline additives are received via truck into aboveground storage tanks. The additives are blended into the product as it is loaded into trucks. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	San Jose Terminal 2150 Kruse Drive San Jose, CA 95131 (408) 435-7399 (408) 434-0283 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0079
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	August, 1965
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-9454 *(Office)* (713) 495-2713 *(Fax)* Send correspondence to: Chuck Mathis Manager – Emergency Response Programs 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-8530 *(Office)* (713) 369-9215 *(Fax)* charles_mathis@kindermorgan.com *(email)*
Qualified Individual (Emergency Coordinator):	Clay Westlake Area Manager 2150 Kruse Drive San Jose, CA 95131 (408) 435-7399 *(Office)* (b) (6) *(Mobile)* (408) 434-0283 *(Fax)* clay_westlake@kindermorgan.com *(email)*
Alternate Qualified Individual: (Emergency Coordinator):	Pete Murphy Operations Manager 1550 Solano Way Concord, CA 94520 (925) 680-5493 *(Office)* (b) (6) *(Mobile)* (303) 984-3823 *(Fax)* pete_murphy@kindermorgan.com *(email)*
Agent for Service:	CSC – Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

GENERAL INFORMATION (Cont'd)

Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

FACILITY LOCATION

County:	Santa Clara County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than one mile
Landside Directions:	At the intersection of I-880 and Montague Expressway take Montague Expressway southwest 0.78 miles. Turn left onto E. Trimble Road to Junction. Turn left on Junction to Brennan Ave. At Brennan Ave turn left. Brennan will dead end at Kruse Dr. Turn right at Kruse Dr. The Facility is located at the end of Kruse Dr.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk storage and distribution facility for refined petroleum products. The stored product arrives through the main Company pipeline to aboveground storage tanks, transfers to fueling racks through pipelines, and moves out of the Facility by tanker trucks. All tanker trucks are owned by others, as are some of the loading racks located on Company property.

  The aboveground storage tanks are contained in a bermed secondary containment area that, at a minimum, provides secondary containment for 110 percent of the largest tank. The tanks are filled or drawn down through a system of aboveground and underground pipes that connect this Facility into the Company distribution network.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Products Handled:

- Gasoline
- Diesel
- Turbine
- Transmix
- Ethanol
- Additives

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with 12 loading bays which handle various refined petroleum products and two (2) ethanol offloading spots.
- A maximum of 14 tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 550 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in the 1964 - 65. Expansions since then have included the addition of storage tanks: 1967 - 1; 1968 - 5; 1970 - 1, 1972 - 3; 1978 - 2; 1986 - 1; and 1989 - 1.

MAPS AND DIAGRAMS

The following Maps and Diagrams follow:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout Diagram
- Figure 8.4 – Fire Protection Diagram

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

The tank farms are protected with surrounding sealed earthen berms designed to withstand pressure from freestanding product and which is sufficiently impervious to spilled oil. The floors of the tanks have impervious linings. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Container Identification table located in this Section.
- In each tank farm at the Facility, the tanks are located within a secondary containment berm. Product in these tanks includes various grades of gasoline, jet, and diesel fuel. The tanks are uniquely designated by a number preceded by "BT" (Brisbane Terminal).
- Age of tanks as an indicator. The majority of the tanks were constructed in the 1960's with additional tanks added to the Facility, most recently in 1986. As these tanks pass their 30th year of service, the general condition of the tanks is good due to the type of construction and ongoing level of maintenance.
- Tank construction. The tanks were built to API-650 standards. They are all state of the art welded tanks constructed of steel, and have reinforcement around the fittings.
- Tank foundation structure. The tanks were built on 3" pads, with a 3/4" class II aggregate base compacted to 95%. Perforated plastic pipe, placed in the soil under flat bottom tanks are used to detect leaks by allowing fluid to seep to the outer perimeter of the tank.

Loading Rack Containment System

- All loading racks have sufficient containment at the rack and are directly piped to an on-line oil-water separator.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Diked Storage Area Drainage Systems

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas is emptied by gravity.
- Oil is removed from the containment area by piping the contents to a proper holding vessel to be recovered or properly disposed.
- Individually diked areas all drain to a common collection points located in the corner of the tank area through normally closed and locked gate valves.

Undiked Area Drainage

Drainage from undiked areas is controlled as follows:

- Piping located outside the diked areas is contained within the confines of the property by following a natural depression northeast and east of the truck racks where any spill is contained by a new 12" drain valve.
- Surface drainage from undiked areas flows northeast and east into the natural depression.
- There is currently a 12" corrugated drain pipe on the west side of TR# 1W that is open on the south end and no one has any knowledge of its endpoint destination. An implementation schedule has been established to identify the endpoint and take the necessary actions to ensure that it does not compromise the Facility's overall containment capability.
- The Facility has experienced a very significant degree of subsidence east of the rock line. Active programs to alleviate the subsidence are ongoing.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Undiked Area Drainage (Cont'd)

- The majority of the piping is contained within the diked areas except for the section noted on the Potential Spill Sources and Container Identification table in Appendix A. These areas would be contained by a depressed area in an open field, natural topography, a curbed area.

- All undiked piping is located in areas away from vehicular traffic.

- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

Stormwater Drainage Procedures

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- When the containment area requires draining due to accumulation of stormwater, the containment area is examined by the Area Manager or designee to observe for any indications of oil contamination (e.g. oil sheen) to ensure any discharge from the Facility will be in compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR, Part 110. Drainage is completed by manually operating the drain valves or pumped from the containment area.

- Stormwater is drained from the secondary containment areas.

- Water is visually inspected for product and discharged only if no product sheen is visible.

- Facility drainage flows directly into an open watercourse.

- When draining the containment area, water is discharged to a drainage ditch just north of the property, which flows east to the San Francisco Bay one half mile to the east.

- The Facility has a wastewater treatment system and treats water prior to discharge off site. This applies to water originating from tank water drains, loading and additive containment areas only.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Brisbane Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan, which details additional discharge detection measures

Automated Detection Systems

(b) (3), (b) (7)(F)

Detection by Personnel

- Facility personnel conduct daily visual inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds.
- The loading rack is equipped with warning and instruction signs.

Security

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS										
BT-01	Unassigned (62'6" x 48')	(b) (7)(F), (b) (3)		CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	(b) (7)(F), (b) (3)
BT-02	Gasoline (68'6" x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-03	Diesel (39' x 48')			CR	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-04	Gasoline (56' x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-05	Gasoline (68'6" x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-06*	OOS (108' x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	West	
BT-07*	OOS (62'6" x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-08**	Transmix (39' x 32')			CRFP	1968	Leak/Rupture	Instantaneous	None	West	
BT-09**	Transmix (39' x 32')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-10	Gasoline (62'6" x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-11	Ethanol (56' x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-12	Gasoline (79' x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-13	Gasoline (68'6" x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom			
*	=	DOT Jurisdictional Tank	**	=	Complex Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (Cont'd)										
BT-14	Diesel (39' x 48')	(b) (7)(F), (b) (3)		CR	1968	Leak/Rupture	Instantaneous	None	Northeast	(b) (7)(F), (b) (3)
BT-15*	Turbine (108' x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	Northeast	
BT-17	Gasoline (101' x 48')			CRFP	1970	Leak/Rupture	Instantaneous	None	South	
BT-18*	OOS (108' x 48')			CR	1970	Leak/Rupture	Instantaneous	None	South	
BT-19	Diesel (40' x 48')			CRFP	1970	Leak/Rupture	Instantaneous	None	South	
BT-20	Diesel (48' x 48')			CR	1970	Leak/Rupture	Instantaneous	None	South	
BT-21	Gasoline (61'3" x 48')			APCR	1970	Leak/Rupture	Instantaneous	None	South	
	Total									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom			
*	=	DOT Jurisdictional Tank	**	=	Complex Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
BT-1A	Additives	(b) (7)(F), (b) (3)		Horizontal Vessel	Unknown	Leak/Rupture/ Overflow	1750 gpm	None	West then North	(b) (7)(F), (b) (3)
BT-2A	Additives			Horizontal Vessel	Unknown	Leak/Rupture/ Overflow	1750 gpm	None	To drain valves	
BT-6A	Additives			Horizontal Vessel	Unknown	Leak/Rupture/ Overflow	1750 gpm	None	South then North	
BT-8A	Additives			Horizontal Vessel	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	N/A	
BT-9A	Additives			Horizontal Vessel	2002	Leak/Rupture/ Overflow	Instantaneous	None	N/A	
BT-DLA-1	Lubricity			Horizontal Vessel	2005	Leak/Rupture	Instantaneous	None	N/A	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
TRUCK LOADING/UNLOADING RACK							
Ethanol Off Load Station	Ethanol	9,000	Rupture/Leak	300 gpm	None	North and East to a Natural Depression on East Side Offload Rack	Dirt and Asphalt; would not leave property
Additive Off Load Station	Various Additives	9,000	Rupture/Leak	300 gpm	None	West then North into low spot between Loading Rack drive and TF Berm	Dirt; would not leave property
Loading Racks 1,2,3	Oil Products	9,000	Rupture/Leak/ Overflow	150 gpm	None	West to sump	23,986 Curbs and concrete berms (Note 1)
Unloading Rack 4	Oil Products	9,000	Rupture/Leak/ Overflow	150 gpm	None	West to sump	12,348 Curbs and concrete berms (Note 1)
Loading Rack 5	Oil Products	9,000	Rupture/Leak/ Overflow	150 gpm	None	West to sump	12,348 Curbs and concrete berms (Note 1)

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
Undiked Piping near flare	Oil Products	(b) (7)(F), (b) (3)	Piping	Leak/Rupture	Varies	None	North of the property	(b) (7)(F), (b) (3)
Undiked 10" Piping with Nuclear Graviometer	Oil Products		Piping	Leak/Rupture	Varies	None	South through fence to low spot on property owned by the Company	
Terminal Manifold	Oil Products		Pump	Leak/Rupture	2520 gpm	None	South to drain valves	

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
			There are no Underground Storage Tanks at this Facility.						

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS
(Surface Impoundment = natural topographic depression, man-made excavation)

SI Number	Substance Stored)	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Surface Area	Year Built	Failure / Cause *(Record cause and date of any SI failure which has resulted in a loss of SI contents)*
			There are no Surface Impoundments at this Facility.			

8.2.2 FACILITY SELF-INSPECTIONS

Inspections, Tests and Records

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested once a month.
- High level alarms are tested on a monthly basis.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS

Inspections, Tests and Records (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is south of the city of San Francisco, approximately 1/4 mile west of the San Francisco Bay, the closest navigable water body.
- The Facility is connected by pipelines to other Company facilities in northern and central California.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

Schools

(b) (3), (b) (7)(F)

[redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Medical Facilities

No medical facilities were identified within the planning distance.

Residential Areas

Residential areas are located to the north, west and south of the Facility. These areas begin within one mile of the Facility.

Additional detail on the residential areas within the area of the Facility are included on the maps in Section 6.

Businesses

Review of GIS Data determined that the following Businesses are within the planning distance.

Businesses	Distance from Facility
Basin Industrial Park	3.00 miles North
Machinery & Equipment Co., Inc.	0.19 miles
Japan Tv News	0.23 miles
KSTS-Telemundo News	0.23 miles
KTSF Channel 26 Cable Channel 8 Chinese News	0.23 miles

The area surrounding the Facility is for the most part commercialized.

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The coastal area is home for a variety of migratory species during parts of the year. The common coastal inhabitants include shorebirds, wading birds, fish, reptiles, invertebrates, and various plants. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Location
San Francisco Bay, Estuarine & Marine Deepwater, EM Wetland, Riverine.	(b) (7)(F), (b) (3)

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

The following lakes and streams were identified.

Lakes and Streams	Distance from Facility
San Francisco Bay	.25 miles West *(approximate)*

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning

Recreational Areas	Location
Candlestick State Rec Area	0.50 miles North
Oyster Point Park & Marina	2.11 miles South
Point San Bruno Park	2.50 miles South

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Transportation Routes (air, land, and water)

There are various public roadways and waterways which may be potentially effected by a discharge originating from the Facility.

Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
James Lick (101)	Adjacent to Facility
Bay Shore Highway	Adjacent to Facility
San Francisco International Airport	5.00 miles South
Piers 65 to 98	3.00 to 5.00 miles North

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

San Francisco Bay is bordered by various areas of economic importance other than those previously mentioned.

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Sierra Point Marina	1.85 miles South
Oyster Cover Marina	1.85 miles South

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage container at the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

The Company has historical data that defines the probability of seismic activity in the San Francisco / Northern California area; the construction of the Facility has taken the possibility of some seismic activity into consideration, the location of Tank Farms away from slide prone areas, and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

The actions taken to lessen hazards at the Facility petroleum tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

FIGURE 8.7

DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

Venting

- Venting operations do not occur at the Facility.

Piping Repair or Replacement

- These operations occur only after the piping is evacuated and made gas-free, and the piping system is isolated from tankage. The piping system is isolated by closing the block valve at the tank and installing a slip blind at the valve flange to further isolate the tank from the piping. In this manner, a serious discharge involving the tank contents is avoided. The volume of material evacuated from the pipe into the tank before commencing operations would be on the average about 375 gallons (250 feet of 6" pipe).

Valve Maintenance

- Block valves at tanks have minor packing maintenance work done while the tanks are still in service. For more involved maintenance or valve replacement, the tank is taken out of service. Valves within piping systems have minor packing maintenance work done while the piping is still in service. For more involved maintenance or valve replacement, the piping is isolated from the tank as described above, or intermediate valves are closed. A serious discharge involving the tank contents is thereby avoided. The volume of material involved in these types of operations would be similar to that for pipelines, about 375 gallons.

Transfer from Tank to Tank or Tank to Piping

- Transfers of product from tank to tank occur through steel piping systems and rubber hoses. These steel piping systems are flexible, and supported by flexible piping supports, and are thus less vulnerable to rupture during earthquakes.

Transfer from Tank/Pipe to Vessel (Vessel Loading)

- Detailed vessel transfer procedures are provided in the Facility; USCG Dock Operations Manual - An excerpt copy of vessel loading procedure No. 5.9 is provided for reference in this Plan Section 8.9.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table in this Section.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Loading Rack Containment System

- All loading racks have sufficient containment at the rack and drain directly to a central location on the eastern side of the Facility to Tank S5001.

Drainage From the Diked Areas

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment areas.

- Stormwater which does accumulate within the diked areas, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.

- Drainage from diked storage areas is restrained by manually controlled valves.

- Dike drain valves are secured and locked in the closed position when not draining containment areas.

- Flapper-type drain valves are not used to drain diked areas.

- Stormwater from diked areas is emptied by valves and pumps that are manually activated.

- Under normal operating conditions, precipitation accumulating in the secondary containment areas in the Facility is directed by drainage trenches or ground slope to floor drains or catch basins at the low point in each containment area. When sufficient water accumulates in any catch basin, the contents are visually tested for indications of contamination. If the water appears free of contamination it is conveyed by underground piping to a collection sump, then pumped to the 50,000 gallon stormwater receiving Tank No. S5001. Water collection in Tank S5001 is formally tested to confirm that the City of Richmond Sanitary District Sewer Permit requirements have been met. Once the water is confirmed to meet Richmond Sanitary District's requirements, it is pumped through a meter to the sanitary sewer.

- The Facility pumps stormwater from Tank S5001 to the Richmond Sanitary District using a 350 GPM pump located at Tank S5001. Stormwater pumped to Tank S5001 is tested monthly, as rainfall dictates, by an independent laboratory.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas (Cont'd)

- This system will reduce the occasions when the Facility discharges stormwater to the Santa Fe channel under their Stormwater Pollution Prevention Plan. Under this plan, the Facility will discharge stormwater to the Santa Fe Channel only in an extreme storm condition.

- If the water in Tank S5001 is found not to meet the requirements set forth by the Richmond Sanitary District Sewer Permit, the material can be removed by truck to an approved disposal site.

- Secondary Containment Area No. 1 is provided with catch basins leading to underground drain lines at the north and south ends of the area. The discharge block valve from the catch basins to the drain piping is kept closed and locked to prevent precipitation or spills from flowing uncontrolled into the Facility stormwater drainage system. Precipitation accumulating in the catch basin is visually checked to determine if oil is present. If it is, the water is treated and disposed of in an appropriate manner, if oil is not present, the block valves are opened and rainwater is permitted to drain to the Facility stormwater drainage system. After the accumulated water in the containment area has been drained, the valves are closed and locked.

- In Secondary Containment Area No. 2, precipitation collects at four catch basins located, two each, on the north and south ends of the area. These catch basins discharge through underground lines into the Facility stormwater drainage system. Each catch basin discharge is equipped with a block valve that is kept closed. Procedures for transferring rainwater to the Facility stormwater drainage system are identical to those employed for Secondary Containment Area No. 1.

- Secondary Containment Area Nos. 3, 4 and 5, located along the north perimeter of the Facility, are equipped with concrete slabs and drainage trenches. These drainage trenches empty into catch basins located in the northeast corner of Area No. 3, the southwest corner of Area No. 4, and the south side of Area No. 5. Each catch basin is fitted with discharge block valves, normally kept closed and locked, piped to stormwater collection piping. Water collected in the catch basins is visually inspected to be free of oil before the valves are opened, allowing the water to flow to the stormwater drainage system. After water has been drained from any of these three areas, the respective block valve is closed and locked. If visual inspection of the collected water in the catch basins reveals indications of oil contamination, the contents of the catch basin can be pumped to the slop tanks located in the respective areas. From the slop tanks, the contaminated water can be trucked to an approved disposal site.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas (Cont'd)

- Secondary Containment Area No. 6 is equipped with concrete slabs and drainage trenches that direct runoff to a catch basin located on the north perimeter of the containment area. This catch basin is equipped and operated in a fashion identical to Areas 3, 4 and 5 when the collected precipitation is determined to be oil free. When the water is found by visual inspection to be contaminated, a pump transfers the water to the slop tank in Area 5 for storage and disposal.

- The southern part of the Facility, designated Secondary Containment Area No. 7, is fitted with six catch basins distributed, three each, along the northern and southern edges of the enclosure. These catch basins collect surface runoff and pipe it to underground drain lines. Closed block valves in the transfer lines prevent oily water from passing from the containment area to the stormwater drainage system. Only after precipitation within Secondary Containment Area No. 7 has been visually confirmed to be free of oil are the block valves opened to permit transfer to the stormwater drainage system. After the water has been drained, the valves are closed.

- In the northwest corner of the Facility, south of Tank S5001, is Secondary Containment Area No. 8. The drainage in Containment Area No. 8 surface drains to a closed drain valve through the concrete containment wall. The water is visually inspected and, if oil free, the valve is opened allowing the water to drain to the stormwater drainage system.

Drainage From the Undiked Areas

- Drainage from the truck loading/unloading area slab drains directly to a central location on the eastern side of the Facility to Tank S5001.

- Piping located outside the diked areas is contained by the in-plant drainage system, stormwater collection system. Surface drainage from undiked areas on the property below in to catch basins and conveyed by underground piping to a collection sump, then pumped to the 50,000 gallon stormwater receiving Tank S5001. Water collected in Tank S5001 is formally tested to confirm that the City of Richmond Sanitary District Sewer Permit requirements have been met. Once the water is confirmed to meet Richmond Sanitary District's requirements it is pumped through a meter to the sanitary sewer. The entire Facility is curbed and drains toward the east to the low area near Tank S5001.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Undiked Areas (Cont'd)

- The majority of the piping is contained within the diked areas except for the section noted on the Potential Spill Sources and Container Identification table in this Section. These areas would be contained by a curbed area.
- All undiked piping is located in areas away from vehicular traffic.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.
- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

General Drainage

- All water to be drained, including rain water, is collected in containment basins.
- Discharge valves, for the water, are kept chained and locked in the closed position unless water is being discharged.
- Water is inspected before discharging, and then discharged only under direct supervision of Facility operators.
- A record of inspection and drainage is maintained at the Facility.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Richmond Terminal	Seasonal	(b) (7)(F), (b) (3)	

Normal daily throughput via tank trucks and rail cars is about 507,000 gallons. This total can increase or decrease by approximately 100,000 gallons due to daily truck and rail car traffic fluctuations. These fluctuations do not affect the potential release volumes, because the same type of transfer operations is occurring, only in greater or lesser numbers. Marine transfers greatly affect the Facility's daily throughput.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Discharge Detection

The Facility has a discharge detection program which consists of a manual (personnel) detection system. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan, which details additional discharge detection measures.

Detection by Personnel

- Facility personnel conduct daily visual inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

- A card is required to actuate loading facilities for each product offered at rack. Valves at rack and pumps are actuated via authorized cards. The Facility is under continuous operation and always attended by responsible operators.

- The loading rack is equipped with warning and instruction signs.

Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Methods to Reduce Spills During Transfer and Storage Operations

Standard Procedure for Transfers

Pre-Transfer Checklists

The Declaration of Inspection Checklist and Standard Operating Procedures (SOP) describe transfer procedures, verification of storage levels and volumes, inspection of valves, hoses, piping, pumps, and other key transfer components; to be carried out by operations personnel.

Standard Hook-up, Start-up, Shutdown Procedures

The necessary procedures for hook-up, start-up, and shutdown of marine transfers are described in the facility's SOP.

Level of Reduced Loading Rates at the Beginning and End of a Transfer

The facility's SOP require that the initial transfer into any empty storage tank be conducted at a reduced flow rate until the inlet nozzle is submerged, in order to prevent static charge build-up. Flow rate at the end of a transfer is generally not reduced. This is because the tanks have a large enough volume and the flow rate is low enough that stopping the transfer within 1/8" of the specified level can be achieved without flow rate reduction.

Communications Procedures

Two-way radios are provided to assure clear communications. The facility's SOP specify that all communication are in English.

Protection Measures Within the Facility Subject to Flooding

The Facility retains all stormwater on-site. All stormwater is stored and tested prior to release to the Richmond Industrial Sewer Plant. The possibility of a flood occurring at the same time as a pipeline rupture, and the spilled material being carried to marine waters is very remote.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA I										
4010	Empty (15' x 30')	(b) (7)(F), (b) (3)		VFR	1985	Leak/Rupture	Instantaneous	None	Drains to N	(b) (7)(F), (b) (3)
4011	Empty (15' x 30')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
4012	Empty (15' x 30')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
4013	Empty (15' x 30')			VFR	1969	Leak/Rupture	Instantaneous	None	Drains to N	
4020	Empty (15'7" x 30')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
4021	Empty (15'7" x 30')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
5001	Empty (16'9" x 30')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
5002	Canliner (16'9" x 30')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
5003	Canliner (16'9" x 30')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
5004	Canliner (16'9" x 30')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
5-5**	Tropical Oil (35' x 30')			VF	1959	Leak/Rupture	Instantaneous	None	W then N to drain	
5-6**	Tropical Oil (35' x 30')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
7-1**	Tropical Oil (37'6" x 40')			VFR	1968	Leak/Rupture	Instantaneous	None	Drains to N	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	CBW	=	Cinder Block Walls
*	=	DOT Jurisdictional Tank			
**	=	Tank equipped with steam coils			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA I (Cont'd)										
7-2**	Tropical Oil (40' x 36')	(b) (7)(F), (b) (3)		VFR	1967	Leak/Rupture	Instantaneous	None	W then N to drain	(b) (7)(F), (b) (3)
7-3**	Tropical Oil (40' x 36')			VFR	1960	Leak/Rupture	Instantaneous	None	W then N to drain	
10-1	Sodium Bisufite (45' x 36')			IFR	1958	Leak/Rupture	Instantaneous	None	S to drain	
10-2**	Tropical Oil (45' x 36')			VFR	1958	Leak/Rupture	Instantaneous	None	SE to drain	
10-3**	Tropical Oil (45' x 36')			VFR	1959	Leak/Rupture	Instantaneous	None	S to drain	
10-4**	Tropical Oil (45' x 36')			VFR	1959	Leak/Rupture	Instantaneous	None	SE to drain	
10-5**	Tropical Oil (45' x 36')			VFR	1959	Leak/Rupture	Instantaneous	None	SE to drain	
10-6**	Tropical Oil (45' x 36')			VFR	1959	Leak/Rupture	Instantaneous	None	E to drain	
10-7**	Tropical Oil (42' x 40')			VFR	1967	Leak/Rupture	Instantaneous	None	NE to drain	
10-8**	Tropical Oil (42'6" x 40')			VFR	1967	Leak/Rupture	Instantaneous	None	NE to drain	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	CBW	=	Cinder Block Walls
*	=	DOT Jurisdictional Tank			
**	=	Tank equipped with steam coils			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA II										
2-1**	Empty (20' x 35')	(b) (7)(F), (b) (3)		VFR	1958	Leak/Rupture	Instantaneous	None	N to drain	(b) (7)(F), (b) (3)
3-4**	Parraflex 4791 (27' x 30')			VFR	1959	Leak/Rupture	Instantaneous	None	NE to drain	
3-5**	Parrafin Wax (27' x 30')			VFR	1959	Leak/Rupture	Instantaneous	None	NE to drain	
5-1	Parrafin Wax (35' x 30')			VFR	1964	Leak/Rupture	Instantaneous	None	NE to drain	
5-2	Empty (30' x 30')			VFR	1964	Leak/Rupture	Instantaneous	None	NE to drain	
5-3	OGA 72015 (30' x 40')			VFR	1972	Leak/Rupture	Instantaneous	None	E then N to drain	
5-4**	OGA 72015 (30' x 40')			VFR	1972	Leak/Rupture	Instantaneous	None	E then N to drain	
5-19**	Tropical Oil (30' x 40')			VFR	1988	Leak/Rupture	Instantaneous	None	S to drain	
5-20**	Tropical Oil (30' x 40')			VFR	1988	Leak/Rupture	Instantaneous	None	SE to drain	
5-21**	Tropical Oil (30' x 40')			VFR	1988	Leak/Rupture	Instantaneous	None	SE to drain	
5-22**	Tropical Oil (30' x 40')			VFR	1988	Leak/Rupture	Instantaneous	None	SE to drain	
7-5**	Vegetable Oil (37' x 40')			VFR	1989	Leak/Rupture	Instantaneous	None	SE to drain	
7-6**	Empty (37' x 40')			VFR	1989	Leak/Rupture	Instantaneous	None	S to drain	

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom
* = DOT Jurisdictional Tank
** = Tank equipped with steam coils

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks
CBW = Cinder Block Walls

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA II (Cont'd)										
10-9**	Parrafin Wax (49' x 30')	(b) (7)(F), (b) (3)		VFR	1973	Leak/Rupture	Instantaneous	None	N to drain	(b) (7)(F), (b) (3)
10-10	Parrafin Wax (49' x 30')			IFR	1973	Leak/Rupture	Instantaneous	None	N to drain	
10-11	Polymer 560 (50' x 32')			IFR	1973	Leak/Rupture	Instantaneous	None	S to drain	
10-12	Polymer 560 (50' x 32')			IFR	1973	Leak/Rupture	Instantaneous	None	S to drain	
15-1**	Parrafin Wax (60' x 30')			VFR	1973	Leak/Rupture	Instantaneous	None	N to drain	
15-2**	Parrafin Wax (60' x 30')			VFR	1973	Leak/Rupture	Instantaneous	None	NE to drain	
15-3	Parrafin Wax (60' x 30')			VFR	1973	Leak/Rupture	Instantaneous	None	N or S to drain	
S1501	Empty (10'6" x 24')			VFR	1968	Leak/Rupture	Instantaneous	None	Drains to N	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	CBW	=	Cinder Block Walls
*	=	DOT Jurisdictional Tank			
**	=	Tank equipped with steam coils			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA III										
3001	Empty (11'4" x 40')	(b) (7)(F), (b) (3)		VFR	1973	Leak/Rupture	Instantaneous	None	Drains to N	(b) (7)(F), (b) (3)
3002	Empty (11'4" x 40')			VFR	1973	Leak/Rupture	Instantaneous	None	Drains to N	
3003	Vegetable Oil (11'4" x 40')			VFR	1973	Leak/Rupture	Instantaneous	None	Drains to N	
3004	Vegetable Oil (11'4" x 40')			VFR	1973	Leak/Rupture	Instantaneous	None	Drains to N	
4001	Gas Additive (12' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4002	Diesel Additive (13' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4003	Vegetable Oil (13' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4004	Vegetable Oil (13' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4005	Vegetable Oil (13' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4006	Empty (13' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4007	Empty (13' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4008	Empty (13' x 40')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
	TOTAL									

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom
* = DOT Jurisdictional Tank
** = Tank equipped with steam coils

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks
CBW = Cinder Block Walls

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA IV										
2001	Empty (10'7" x 31')	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	(b) (7)(F), (b) (3)
2002	Empty (10'7" x 31')			VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	
2003	Empty (10'7" x 31')			VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	
3005	Empty (12' x 36')			VFR	1968	Leak/Rupture	Instantaneous	None	Drains to N	
3006	Empty (12' x 36')			VFR	1968	Leak/Rupture	Instantaneous	None	Drains to N	
3007	Empty (12' x 36')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
3008	Empty (12' x 36')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
3009	Empty (12' x 36')			VFR	1967	Leak/Rupture	Instantaneous	None	Drains to N	
3010	Empty (12' x 36')			VFR	1969	Leak/Rupture	Instantaneous	None	Drains to N	
3011	Empty (12' x 35'6")			VFR	1969	Leak/Rupture	Instantaneous	None	Drains to N	
4009	Empty (17' x 24')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	CBW	=	Cinder Block Walls
*	=	DOT Jurisdictional Tank			
**	=	Tank equipped with steam coils			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA V										
3012	Empty (12' x 35')	(b) (7)(F), (b) (3)		VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	(b) (7)(F), (b) (3)
3013	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3014	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3015	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3016	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3017	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3018	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3019	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3020	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3021	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3022	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3023	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom
* = DOT Jurisdictional Tank
** = Tank equipped with steam coils

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks
CBW = Cinder Block Walls

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA V (Cont'd)										
3024	Empty (12' x 35')	(b) (7)(F), (b) (3)		VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	(b) (7)(F), (b) (3)
3025	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3026	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3027	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3028	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
S3032	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	CBW	=	Cinder Block Walls
*	=	DOT Jurisdictional Tank			
**	=	Tank equipped with steam coils			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - AREA VI										
2004	Empty (15'7" x 30')	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	(b) (7)(F), (b) (3)
3029	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3030	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3031	Empty (12' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
3-1	Vegetable Oil (27' x 30')			VFR	1959	Leak/Rupture	Instantaneous	None	Drains to N	
3-2	Vegetable Oil (27' x 30')			VFR	1959	Leak/Rupture	Instantaneous	None	Drains to N	
4014	Empty (13' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
4015	Empty (14' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
4016	Empty (14' x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
4017	Empty (13'10" x 35')			VFR	1987	Leak/Rupture	Instantaneous	None	Drains to N	
4018	Empty (15'7" x 30')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
4019	Empty (15'7" x 30')			VFR	1964	Leak/Rupture	Instantaneous	None	Drains to N	
8001	Empty (20'1" x 36'5")			VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	CBW	=	Cinder Block Walls
*	=	DOT Jurisdictional Tank			
**	=	Tank equipped with steam coils			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - AREA VII										
10-13**	Tropical Oil (43' x 45')	(b) (7)(F), (b) (3)		VFR	1984	Leak/Rupture	Instantaneous	None	S to drain	(b) (7)(F), (b) (3)
10-14*	50% Caustic Solution (43' x 45')			VFR	1984	Leak/Rupture	Instantaneous	None	S to drain	
10-15**	Tropical Oil (50' x 45')			VFR	Unknown	Leak/Rupture	Instantaneous	None	S to drain	
20-1**	Tropical Oil (65' x 36')			VFR	1990	Leak/Rupture	Instantaneous	None	N to drain	
20-2**	Tropical Oil (70' x 34')			VFR	Unknown	Leak/Rupture	Instantaneous	None	N to drain	
20-3**	Tropical Oil (70' x 34')			VFR	1958	Leak/Rupture	Instantaneous	None	S to drain	
25-1**	50% Caustic Solution (60' x 48')			VFR	1973	Leak/Rupture	Instantaneous	None	NW to drain	
25-2**	50% Caustic (60' x 48')			VFR	1973	Leak/Rupture	Instantaneous	None	N to drain	
30-1	50% Caustic (68' x 46')			VFR	1977	Leak/Rupture	Instantaneous	None	S to drain	
3-3**	Vegetable Oil (27' x 30')			VFR	1959	Leak/Rupture	Instantaneous	None	S to drain	
4-1**	Vegetable Oil			VFR	1953	Leak/Rupture	Instantaneous	None	S to drain	
5-10	Vegetable Oil (40' x 25')			VFR	Unknown	Leak/Rupture	Instantaneous	None	S to drain	

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom
* = DOT Jurisdictional Tank
** = Tank equipped with steam coils

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks
CBW = Cinder Block Walls

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - AREA VII (Cont'd)										
5-11**	Empty (40' x 25')	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/Rupture	Instantaneous	None	S to drain	(b) (7)(F), (b) (3)
5-12**	Vegetable Oil (40' x 25')			VFR	Unknown	Leak/Rupture	Instantaneous	None	S to drain	
5-13	Vegetable Oil (40' x 25')			VFR	Unknown	Leak/Rupture	Instantaneous	None	S to drain	
5-14**	Vegetable Oil (40' x 25')			VFR	Unknown	Leak/Rupture	Instantaneous	None	S to drain	
5-15**	Tropical Oil (35' x 30')			VFR	1953	Leak/Rupture	Instantaneous	None	S to drain	
5-16**	Tropical Oil (35' x 30')			VFR	1959	Leak/Rupture	Instantaneous	None	S to drain	
5-17**	Tropical Oil (30' x 40')			VFR	1959	Leak/Rupture	Instantaneous	None	Drains to N	
5-18**	Tropical Oil (30' x 40')			VFR	1959	Leak/Rupture	Instantaneous	None	Drains to N	
55-1**	50% Caustic (90' x 48')			VFR	1973	Leak/Rupture	Instantaneous	None	Drains to N	
5-7	Vegetable Oil (40' x 25')			VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	
5-8**	Vegetable Oil (40' x 25')			VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	
5-9**	Empty (40' x 25')			VFR	Unknown	Leak/Rupture	Instantaneous	None	Drains to N	
7-4**	Tropical Oil (35' x 42')			VFR	1959	Leak/Rupture	Instantaneous	None	Drains to N	
8-1**	Empty (40' x 36')			VFR	1953	Leak/Rupture	Instantaneous	None	Drains to N	
	TOTAL									

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks
CBW = Cinder Block Walls

* = DOT Jurisdictional Tank
** = Tank equipped with steam coils

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
TRUCK/RAIL CAR LOADING/UNLOADING RACK AREA							
Loading rack #1	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To small sump	Concrete pad, berms, curbing, 3,318.6 gal.
Loading rack #2	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To small sump	Concrete pad, berms, curbing, 3,318.6 gal.
Loading rack #3	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To small sump	Concrete pad berms, curbing, 1,436.2 gal.
Loading rack #5	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To small sump	Concrete pad berms, curbing, 1,919.8 gal.
Loading rack #6	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To small sump	Concrete pad berms, curbing, 1,919.8 gal.
Loading rack #7	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To catch basins	Then to SW Collection & pumped to S5001
Loading rack #8, 9, 10, 11	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	North to containment for LR 8, 9, 10, 11	To catch basins then to SW collection & pumped to S5001
Loading rack #12	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To catch basins	Then to SW collection & pumped to S5001
Loading rack #13	Oil (Various)	8,000	Rupture/Leak/Overfill	Instantaneous	None	To catch basins	Then to SW collection pumped to S5001
Railcar (28 Spots)	Oil (Various)	22,000	Rupture/Leak/Overfill	Instantaneous	None	To catch basins	Asphalt berms & cinder block walls on sides of RR Track

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
Overhead piping to LR # 1 & 2	Oil	(b) (7)(F), (b) (3)	Piping	Leak/Rupture	350 gpm	None	East to catch basin @ LR #3	(b) (7)(F), (b) (3)
Overhead piping to LR #3	Oil		Piping	Leak/Rupture	350 gpm	None	South to catch basin @ LR #3	
Overhead piping between diked areas 2 & 3	Oil		Piping	Leak/Rupture	350 gpm	None	South & East to catch basins	
Overhead piping to LR # 5 & 6 & RRC Loading	Oil		Piping	Leak/Rupture	350 gpm	None	East to catch basins; RRC west to catch basins	
Overhead piping to OOS Vapor Combuster	Oil		Piping	Leak/Rupture	N/A	None	North to low spot by S5001	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
Overhead piping from tank farm to marine docks	Oil	(b) (7)(F), (b) (3)	Piping	Leak/Rupture	1,330 gpm	None	West to catch basin	(b) (7)(F), (b) (3)
Overhead piping (LR #8, 9, 10, 11) with pump back by S1501	Oil		Piping	Leak/Rupture	350 gpm	None	East to catch basins	
S1501	Diesel Fuel		Own use diesel storage tank	Leak/Rupture	Instantaneous	None	N/A	
Hazardous waste drum	Hazardous waste		Drum Storage	Leak/Rupture	Instantaneous	None	N/A	
Oil Filled Transformer	Transformer		Electrical transformer 2' x 5' x 4.5'	Leak/Rupture	Instantaneous	None	Northwest	

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Tank Number	Substance Stored *(Oil & Haz. Substance)*	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Tank Type *(ie. floating roof, fixed roof, etc.)*	Year Built	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Containment Capacity *(Gallons)*
		There are no Underground Storage Tanks					

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SI)

SI Number	Substance Stored	Quantity Stored (Gallons)	Maximum Capacity (Gallons)	Surface Area	Year Built	Failure / Cause *(Record cause and date of any SI failure which has resulted in the loss of SI contents)*
		There are no Surface Impoundments				

8.2.2 FACILITY SELF-INSPECTIONS

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds in accordance with the SPCC Plan.

- Annual Secondary Containment Inspections are part of the SPCC Plan.

- Tank Inspections are part of the SPCC Plan.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Marine Piping

- All marine pipelines and hoses are pressure tested per USCG regulations from the first valve inside the dike walls to the manifold valve on the dock. Pipelines and tanks are carefully visually examined at least once during transfer operations. All tanks and pipelines are also visually examined quarterly for leaks, external corrosion, improper support, etc. Marine pipelines are pressure tested to 1 ½ times the maximum allowable working pressure (225 psi) annually. Following the pipeline pressurization, all welds, flanges, etc. are inspected for leakage, and the pressure gauge is monitored for pressure loss.

- All marine dock hoses are pressure tested annually in accordance with USCG requirements.

- All marine dock hoses under CSLC jurisdiction are tested every three (3) years per CSLC regulations.

8.2.3 VULNERABILITY ANALYSIS

The Facility is located in an industrial area. The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge. The following sensitivities were identified by utilizing the EPA Planning Distance calculation and researching the location of these downstream sensitivities.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

[redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Residential Areas

Point Richmond is the closest residential area to the Facility. It is located about 1 mile northwest of the Facility. At this distance, none of the materials stored, in the Worst Case Discharge Scenario, would affect this area.

Businesses

The Facility is located in an area of heavy maritime-related industries. It is bounded to the north by National Gypsum, to the south by the Conoco/Phillips Terminal, to the east by the Santa Fe Channel, and to the west by Canal Boulevard. An office complex is located about 3 blocks from the Facility on the west side of Canal Boulevard.

In the event of a combustible material spill, the adjacent National Gypsum, B.P. (Arco) L.A. Chemical and Conoco/Phillips facilities would be immediately notified and cautioned to shut down any ignition sources until the spill was cleaned up and the danger of the fire or explosion ended.

The effects on businesses due to a spill in the Santa Fe and/or Harbor Channels will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

The Facility is located in an area of heavy maritime-related industries. It is bounded by:

Businesses	Distance from Facility
National Gypsum – North	Less than one mile
Conoco/Phillips Terminal – South	Less than one mile
Santa Fe Channel – East	Less than one mile
Canal Boulevard – West	Less than one mile
An office complex	Less than one mile
Moeser Lane Shopping Center	3.3 miles east
El Cerrito Plaza Shopping Center	3.5 miles east

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments

The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Figure 4.1 of this volume for threatened/endangered species.

The Company believes that the arrangements for contracts with oil spill removal organizations made under the USCG OPA 90 Spill Contingency Plan will enable it to contain the largest spill within the narrow Santa Fe and Harbor Channels, thus minimizing the spread of oily types of materials. The Company's strategy after containing the spill within the narrow channels is to corral the spill and keep it away from the channel banks, further minimizing the environmental impact to the area. Referencing the NOAA Study, no biological resources or endangered species exist in the Santa Fe and Harbor Channel areas. There are no wetlands shown in the region of these channels. Shoreline types 5 and 8 are found in this region. These shorelines may provide habitat for barnacles, mussels, limpets, and encrusting organisms. These organisms could be impacted by oil which reached these shorelines.

A review of tank capacities and secondary containment volumes listed in this Plan shows that adequate secondary containment exists for all areas of the Facility. Therefore, no spilled material should reach the Santa Fe Harbor Channels under any of the plan's spill scenarios. In addition, the Facility employs the following strategies in preventing spills from reaching the water:

- Chemical storage tanks close to the water are provided with reserve secondary containment volume, as can be seen for secondary containment areas 1 and 2.

- Chemical storage tanks are generally located as far from the water as possible to take advantage of area grading within the entire Facility as reserve secondary containment.

- The Facility's grading directs flow away from the Santa Fe and Harbor Channels. An asphalt concrete berm exists at the eastern Facility perimeter as a further barrier to spills reaching these waterways.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
Brooks Island, Estuarine Marine	(b) (7)(F), (b) (3)
Pt. Isabel, Estuarine Marine	

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
San Francisco Bay	0.0 miles south

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning

Recreational Areas	Location
Friendship Park	1.4 miles W *(approximate)*
Albany Hill Park	3.6 miles SW *(approximate)*
Washington Park	4.1 miles NW *(approximate)*
Berkley Aquatic Pond	6.0 miles SW *(approximate)*

Additional details on the Recreation Areas within the planning distance may be found on the Area Map, Figure 8.2.

Transportation Routes (air, land, and water)

Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Routes	Location
Canal Blvd.	0.05 miles W *(approximate)*
W. Cutting Blvd.	0.47 miles N *(approximate)*
I-580	0.52 miles NE *(approximate)*
Richmond Inner Harbor, Santa Fe and Harbor Channels	0.0 miles E *(approximate)*

There is no air traffic or air traffic services in the vicinity of the Facility that could be impacted by a spill.

Canal Boulevard is the only surface road in the vicinity of the Facility. It is about three (3) feet higher in elevation than the general elevation of the Facility and is thus not vulnerable to closure in the event of a Worst Case Discharge.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

The Santa Fe and Harbor Channels have tanker, barge, bulk carrier, and vehicle transport ship traffic which serves the various terminals and facilities along these channels. A spill in the Harbor or Santa Fe Channels, and the subsequent containment an/or the water cleanup operations would adversely impact vessel traffic on these navigation channels.

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

The Santa Fe and Harbor Channels areas do not contain terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves. Aquatic environments that are vulnerable to a spill are discussed in the "Wetlands" part of this Section.

Other Areas of Economic Importance	Distance from the Facility
Brooks Island Regional Park	Less than one mile
Santa Fe Channel marinas and a boat ramp	Less than one mile
Richmond Inner Harbor basin Marina	Less than one mile
Richmond Reserve Shipyard	1.0 south
Channel Marina	1.2 miles north
Bayview Branch Richmond Pub Library	2.3 miles north
Richmond Pier	2.6 miles southwest
Municipal Pier	2.6 miles southwest
Brickyard Cove Marina	2.9 miles west
Nobel Station (historical)	3.7 miles east
Highland Station (historical)	3.7 miles east
Golden State Model Railroad Museum	4.0 miles northwest
Golden Gate Fields	3.8 miles southeast
Corbin Station (historical)	4.0 miles southeast
Point Richmond Historical Society Museum	4.0 miles northwest
Jacobs Landing	4.5 miles southeast
Delaware Street Station (historical)	4.6 miles southeast
Long Wharf	5.0 miles northwest
Berkley Marina	5.0 miles southeast

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Plan for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Plan for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

All storage tanks and ancillary piping are fabricated in compliance with rigorous nationally recognized design specifications. The specifications include wind-load allowances and recognition of any applicable seismic considerations. These factors minimize the risk of vulnerability to natural disasters.

In addition to the above referenced factors, it should also be noted that Facility inspection and response drills, as well as Standard Operating Procedures (SOPs) for loading operations and the like, contribute to minimization of spill potential at the Facility.

Other Factors

The area in which the Facility is located is prone to earthquakes.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

Date of Discharge	Location of Discharge	Cause of Discharge	Product Discharged	Amount Discharged	NRC Incident Report #
10/17/89	Richmond Terminal	Earthquake	Unknown	(b) (7)(F), (b) (3)	Not Available
11/29/98	Water Richmond Canal	Backpressure on pipe on ship causing overflow	Paraffin		465638
11/09/99	Water Harbor channel	Line overpressured on ship	Coconut Oil		505252

NOTE: The table above is provided for the purposes of historical documentation and reporting. In 1989, under the former owner, the facility experienced an earthquake that resulted in a spill of approximately 500 gallons that left the property. In addition, two incidents involving vessels alongside occurred in 1998 and 1999. Each involved discharges involving minimal amounts of product during additional vessel operations that did not pertain to the actual Kinder Morgan transfer.

FIGURE 8.7

DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

The tank farms are protected with surrounding sealed earthen berms designed to withstand pressure from freestanding product and which is sufficiently impervious to spilled oil. The floors of the tanks have impervious linings. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

Tanks

- Secondary Containment volumes for all bulk storage tanks are listed in the Potential Spill Sources and Container Identification table in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the loading rack loading and unloading facilities is contained in a depressed area (with curbs). Drainage is through area drains to a sump. The product is then pumped to the oil/water separator and to the product interface tank. Periodically, the interface tank is pumped down and trucked off for processing. The water phase is drained to an oily water sewer. Water is pumped to two (2) 800 lbs. carbon columns before release to the municipal sewer system.
- Drainage from the additive unloading area gravity flows to the oily water separator.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.

- Stormwater which accumulates within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.

- Drainage from diked storage areas is restrained by manually controlled valves.

- Dike drain valves are secured in the closed position when not draining containment areas.

- Flapper-type drain valves are not used to drain diked areas.

- Stormwater from diked areas is emptied by gravity.

- Oil is removed from the containment area by pumping the contents to a proper holding vessel to be recovered or properly disposed. When the containment area requires draining due to accumulation of stormwater, the containment area is examined by the Area Manager or designee for any indications of oil contamination (e.g., oil sheen) to ensure any discharge from the Facility will be in compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR, Part 110. Drainage is completed by manually opening the drain valves, or pumped from the containment area. Forms for recording the drainage of the secondary containment area are included as the Rainwater Inspection and Drainage Report. Adequate records of such events must be kept whenever the secondary containment area is drained.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Piping located outside the diked areas is contained by the confines of Loading Racks #4W, 7W, and 6W in addition to the in-plant drainage and stormwater collection systems.

- Piping located outside the diked areas is contained by the in-plant drainage system, stormwater collection system, and loading rack containment area.

- The majority of the piping is contained within the diked areas except for the sections noted on the Potential Spill Sources and Container Identification table in this Section. These areas would contained by a depressed area in an open field, natural topography or a curbed area.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

***Secondary Containment Volumes* (Cont'd)**

Drainage From the Undiked Areas (Cont'd)

- All undiked piping is located in areas away from vehicular traffic.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.
- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Stormwater is drained from the secondary containment areas.
- When the containment area requires draining due to accumulation of stormwater, the containment area is examined by the Area Manager or designee for any indications of oil contamination (e.g., oil sheen) to ensure any discharge from the Facility will be in compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR, Part 110. Drainage is completed by manually opening the drain valves, or pumped from the containment area. Forms for recording the drainage of the secondary containment area are included as the Rainwater Inspection and Drainage Report. Adequate records of such events must be kept whenever the secondary containment area is drained.
- Water is visually inspected for product and discharged only if no product sheen is visible.
- Facility drainage flows directly into an open watercourse.
- When draining the containment area, water is discharged to a drainage ditch which drains 1 mile to the Guadalupe River.
- The Facility has a wastewater treatment system and treats water prior to discharge off site. Wastewater that emanates from tank water draws, loading and additive containment areas are processed through this system of carbon filter beds prior to discharge.
- All other uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- Adequate records are kept of such drainage events.
- Records of drainage events are maintained at the Facility.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
San Jose Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the following Spill Prevention, Control, and Countermeasure (SPCC) Plan, which details additional discharge measures.

Automated Detection Systems

(b) (3), (b) (7)(F)

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.

Security

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK FARM										
SJ-01	Gasoline (40" x 48')	(b) (7)(F), (b) (3)		CRFP	1965	Leak/Rupture	Instantaneous	None	W	(b) (7)(F), (b) (3)
SJ-02	Gasoline (44'2" x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-03	Diesel (42'6" x 40')			CR	1965	Leak/Rupture	Instantaneous	None	W	
SJ-04	Gasoline (59'2" x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-05	Ethanol (59'2" x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-12	Ethanol (45' x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-13	Gasoline (62'6" x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-14	Transmix (56" x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-15	Diesel (42'6" x 40')			CR	1965	Leak/Rupture	Instantaneous	None	W	
SJ-16	Gasoline (56" x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	

Note 1: "Third-party engineering calculations dated May 31, 2000 were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	CRFP	=	Cone Roof Floating Pan
DB	=	Double Bottom	CR	=	Cone Roof	*	=	DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK FARM (Cont'd)										
SJ-17	Gasoline (62'6" x 48')	(b) (7)(F), (b) (3)		CRFP	1965	Leak/Rupture	Instantaneous	None	W	(b) (7)(F), (b) (3)
SJ-20	Gasoline (62'6" x 48')			CRFP	1967	Leak/Rupture	Instantaneous	None	W	
SJ-28	Gasoline (50' x 48')			CRFP	1978	Leak/Rupture	Instantaneous	None	N, W	
SJ-29	Gasoline (81'6" x 40')			CRFP	1972	Leak/Rupture	Instantaneous	None	N, W	
	TOTAL									
BULK STORAGE CONTAINERS – SOUTH TANK FARM										
SJ-07*	Turbine (88'2" x 48')	(b) (7)(F), (b) (3)		CRFP	1965	Leak/Rupture	Instantaneous	None	W	(b) (7)(F), (b) (3)
SJ-08	Gasoline (75' x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-09*	Turbine (75' x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-10	Gasoline (88'2" x 48')			CRFP	1965	Leak/Rupture	Instantaneous	None	W	
SJ-11	Diesel (80' x 40')			CR	1964	Leak/Rupture	Instantaneous	None	W	
SJ-18*	Transmix (24'6" x 32')			CRFP	1965	Leak/Rupture	Instantaneous	None	N, W	

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
CRFP = Cone Roof Floating Pan
CR = Cone Roof

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
* = DOT Jurisdictional Tank

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK FARM (Cont'd)										
SJ-19*	Transmix (24'6" x 32')	(b) (7)(F), (b) (3)		CRFP	1965	Leak/Rupture	Instantaneous	None	N, W	(b) (7)(F), (b) (3)
SJ-21	Gasoline (62'6" x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	W	
SJ-22	Diesel (67' x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	W	
SJ-23	Gasoline (75' x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	W	
SJ-24*	Turbine (68'6" x 48')			CRFP	1968	Leak/Rupture	Instantaneous	None	N, W	
SJ-25*	Turbine (55' x 48')			CR	1968	Leak/Rupture	Instantaneous	None	N, W	
SJ-27	Gasoline (56' x 48')			CRFP	1970	Leak/Rupture	Instantaneous	None	N, W	
SJ-30	Diesel (110' x 48')			CRFP	1972	Leak/Rupture	Instantaneous	None	N, W	
SJ-31	Gasoline (99' x 48')			CRFP	1972	Leak/Rupture	Instantaneous	None	N, W	
SJ-32	Gasoline (88'6" x 40')			CRFP	1978	Leak/Rupture	Instantaneous	None	N, W	
SJ-33	Gasoline (125' x 48')			CRFP	1986	Leak/Rupture	Instantaneous	None	N, W	
SJ-34	Gasoline (96' x 48')			CRFP	1989	Leak/Rupture	Instantaneous	None	N, W	
	TOTAL									

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
CRFP = Cone Roof Floating Pan
CR = Cone Roof

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
* = DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
SJ-A2	Additive	(b) (7)(F), (b) (3)		Vertical	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	NE	(b) (7)(F), (b) (3)
SJ-A3	Additive			Vertical	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	NE	
SJ-A4	Additive			Horizontal	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	NE	
SJ-A5	Unassigned			Horizontal	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	NE	
SJ-A7	Additive			Horizontal	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	NE	
SJ-A8	Additive			Horizontal	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	N	
SJ-A9	Additive			Horizontal	Unknown	Leak/Rupture/ Overflow	Instantaneous	None	SW	
SJ-A10	UNISOL LIQUID RED BK-50			Tote	Tote	Leak/Rupture/ Overflow	Instantaneous	None	N	
SJ-A3501	Lubricity			Horizontal	2006	Leak/Rupture/ Overflow	Instantaneous	None	NE	
	TOTAL									

Note 1: "Third-party engineering calculations dated May 31, 2000 were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	CRFP	=	Cone Roof Floating Pan
DB	=	Double Bottom	CR	=	Cone Roof	*	=	DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OPERATIONAL EQUIPMENT								
Terminal Manifold	Petroleum Products	(b) (7)(F), (b) (3)	Manifold	Leak/ Rupture	3,080 gpm	None	Northwest	(b) (7)(F), (b) (3)

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
TRUCK LOADING/UNLOADING AREAS							
Ethanol Unloading Bays 7E&W	Ethanol	4,800	Leak/Rupture	200-300 gpm	None	N, W	4,091 Concrete pad w/ curbing Gravity flows to OWS
Loading Rack 1 E&W 2 E&W	All products except Turbine	4,800	Leak/Rupture	600 gpm	None	N, W	3,368.25 Concrete pad w/ curbing Gravity flows to OWS
Loading Rack 6 E&W	All products except Turbine	4,800	Leak/Rupture	600 gpm	None	N, W	4,715.5 Concrete pad w/ curbing Gravity flows to OWS
Loading Rack 5 E&W	All products except Turbine	4,800	Leak/Rupture	600 gpm	None	N, W	3,243.5 gal. Concrete pad w/ curbing Gravity flows to OWS
Loading Rack 3 E&W 4E 4W	All products except Turbine Turbine only	4,800	Leak/Rupture	600 gpm	None	N, W	2,594.8 Concrete pad w/ curbing Gravity flows to OWS
Additive Unload Station	Gasoline Additives	4,800	Leak/Rupture	200 gpm	None	N, W	2,332.8 gal. Asphalt floor w/ asphalt berms Gravity flows to OWS

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
6" & 8" lines to LR4 on W side	Oil Products	(b) (7)(F), (b) (3)	Piping	Leak/Rupture	600 gpm	None	E to LR 4W containment	(b) (7)(F), (b) (3)
6" lines w/ filter, W side of LR4	Oil Products		Piping	Leak/Rupture	600 gpm	None	E to LR 4W containment	
(b) (3), (b) (7)(F)								
Overhead Piping between LR 1E & 6W Additive Pipe	Oil Products		Piping	Leak/Rupture	10-20 gpm	None	Flow to LR6W containment or S then SW	
Overhead piping from Tank A3 to LR 4W	Oil Products		Piping	Leak/Rupture	10-20 gpm	None	NE	
Overhead piping from Tank A4 to LR 3 and 4E	Oil Products		Piping	Leak/Rupture	10-20 gpm	None	NE	
Overhead piping from Tank A7 to LR 1W	Oil Products		Piping	Leak/Rupture	10-20 gpm	None	Flows E to LR1W containment	
Overhead piping from Tank A8 to LR 2W	Oil Products		Piping	Leak/Rupture	10-20 gpm	None	Flows W to LR2 containment	
Overhead piping from Tank A9 to LR 5E	Oil Products		Piping	Leak/Rupture	10-20 gpm	None	Flows E to LR 5E containment	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES									
Hazardous Drum Storage Area	Hazardous waste drums	(b) (7)(F), (b) (3)		55 gal. drums	Leak/Rupture	Instantaneous	None	E, N	(b) (7)(F), (b) (3)
OFT #1	Transformer Oil			Oil-filled Transformer 2'3"x4'6"x5'7" 56.5 ft3	Leak/Rupture	Instantaneous	None	East	

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Tank Number	Substance Stored *(Oil & Haz. Substance)*	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Tank Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Failure/Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Containment Capacity *(Gallons)*
		There are no Underground Storage Tanks					

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SI)

SI Number	Substance Stored	Quantity Stored *(Gallons*	Maximum Capacity *(Gallons)*	Surface Area	Year Built	Failure/Cause *(Record cause and date of any SI failure which has resulted in a loss of SI contents)*
		There are no Surface Impoundments				

8.2.2 FACILITY SELF-INSPECTIONS

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.
- Annual Secondary Containment Inspections are part of the SPCC Plan.
- Tank Inspections are part of the SPCC Plan.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:
  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances
- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.
- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.
- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement
- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located in central San Jose, approximately 4 miles east of the Guadalupe River, the closest navigable water body. Coyote Creek is located approximately 50 yards to the east of the Facility.

- The Facility is connected by pipelines to other Company facilities in northern and central California.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

Medical Facilities

No medical facilities were identified within the planning distance.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Residential Areas

Residential areas are located in all directions from the Facility. These areas begin within one mile of the Facility and continue outward in all directions.

Additional details on the residential areas within the area of the Facility are included on the maps in Section 6.

Businesses

The area surrounding the Facility is for the most part commercialized. Along Coyote Creek there are various businesses and commercial establishments which may be potentially impacted by a discharge.

Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Professional Plastics	0.01 miles *(approximate)*
North American Van Line Agency	0.06 miles *(approximate)*
Western States Oil Company	0.06 miles *(approximate)*
Stone Systems	0.09 miles *(approximate)*
Iron Systems, Inc.	0.10 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
Coyote Creek, Freshwater Forested and Shrub Wetland	(b) (7)(F), (b) (3)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Coyote Creek	0.20 miles W *(approximate)*
Guadalupe River	4 miles W *(approximate)*

Additional details on the lakes, streams, and rivers within the planning distance are identified on the maps in Section 6.

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning

Recreational Areas	Location
San Veron Park	0.10 miles N *(approximate)*

Additional details on the recreation areas within the planning distance may be found on the Area Map, Figure 8.2.

Transportation Routes (air, land, and water)

No transportation routes were identified within the planning distance.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

The San Francisco Bay, Coyote Creek and connecting waterways are bordered by various areas of economic importance other than those previously mentioned.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow west and northwest through the Facility.

Earthquake

The Facility is located in a semi-active earthquake zone with occasional seismic activity. The Company has historical data that defines the probability of seismic activity in the San Francisco / Northern California area. The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of Tank Farms away from slide prone areas and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Other Factors

The actions taken to lessen hazards at Facility petroleum tank farm reduce the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file in the Facility office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

FIGURE 8.7
FACILITY DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Brisbane Terminal is classified as an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation
● **Worst Case Discharge** *100% of the largest single tank* **WCD** = (b) (7)(F),
● **Medium Discharge** *Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD* **MD** = 857 bbls
● **Small Discharge** *Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD* **SD** = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Brisbane Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	50%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	50%
Removal Capacity Planning Volume - Percent Oil Onshore	30%
Emulsification Factor	1.8
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	15%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	25%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	40%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Total Recovery Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack or from leaking piping.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the loading rack can be diverted to the in line oil/water separator.

The closest waterway is the San Francisco Bay, which is east of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the bay or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a Small Discharge with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the San Francisco Bay, which is east of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the bay. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely be routed to the separator system. If a spill of this size escaped the property it could possibly enter the San Francisco Bay. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the San Francisco Bay so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 Bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 6 hours.
- Sufficient quantity of containment boom must arrive within 6 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 6 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 6 hours; Tier 2 = 30 hours; Tier 3 = 54 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 6 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills from diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow east and enter the San Francisco Bay which is located east of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located west of the San Francisco Bay. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. – Richmond Facility is classified as a "Complex Facility" which operates in a High Volume Port Area.

"Complex" means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act (CWA).

Complexes must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. The agency discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

USCG Discharge Volume Calculation

(b) (7)(F), (b) (3)

8.3 DISCHARGE SCENARIOS (Cont'd)

OSPR Discharge Volume Calculation
● **Reasonable Worse Case Spill (RWCS)** *The portion of the total linefill capacity which could be lost during a spill, taking into account the availability and location of the emergency shut-off controls; plus the amount of additional spillage that could reasonably be expected to enter California marine waters during emergency shut-off, transfer or pumping operations if a hose or pipeline ruptures or becomes disconnected, or if some other incident occurs which could cause or increase the size of an oil spill.* *Total Linefill Capacity + Additional Spillage (during Shut Down) = RWCS.*

Discharge Volume Calculations from Marine Operations
USCG Worst Case Discharge (WCD) **OSPR Reasonable Worst Case Spill (RWCS)**
(b) (7)(F), (b) (3)
Maximum Most Probable Discharge Calculations (MMPD)
(b) (7)(F), (b) (3)

Note: The quantity associated with "the loss of the entire capacity of all in-line, break-out and portable storage tank(s)…" is excluded from the RWCS volume calculation since these tanks are under SPCC jurisdiction (i.e., tanks are subject to Chapter 6.67 or Chapter 6.7 of Div. 20, CA health and Safety Code and thus, exempt from this calculation.)

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

	F
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

8.3 DISCHARGE SCENARIOS (Cont'd)

OSPR TABLES
FOR REASONABLE WORST CASE RESPONSE PLANNING VOLUME

PERSISTENCE FACTORS				
Oil Group	Group 1	Group 2	Group 3	Group 4
On-Water Volumes	(b) (7)(F), (b) (3)			

EMULSIFICATION FACTORS				
Oil Group	Group 1	Group 2	Group 3	Group 4
Emulsification	(b) (7)(F), (b) (3)			

DAILY RECOVERY RATES (HIGH VOLUME PORTS)	
Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

DAILY RECOVERY RATES FACILITY/TRANSFER AREAS AND SANTA BARBARA CHANNEL AREA	
Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

Richmond Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	30%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	20%
Removal Capacity Planning Volume - Percent Oil Onshore	50%
Emulsification Factor	2.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	15%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	25%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	40%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Total Recovery Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RICHMOND TERMINAL
OSPR – RESPONSE PLANNING VOLUME CALCULATIONS

On-Water Planning Volume

(b) (7)(F), (b) (3)

[redacted]

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small/Average Most Probable, Medium/Maximum Most Probable, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Vessel loading/unloading operations
- Failure of manifold, mechanical loading arm, other transfer equipment, or hoses
- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1 and Section 2 of Volume 2.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small/Average Most Probable Discharge = 50 bbls

A small/average most probable discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Hose rupture
- Valve leak
- Container rupture
- Storage spill.

The most likely location for a discharge of this size would be at the loading rack.

The most likely spill that could occur with product transfers to and from tank trucks and rail cars is overfilling the truck or rail car compartment. The typical pumping rate for these operations is 350 GPM/hr. It would take about ½ minute to detect and shut down the pumping; thus about 175 gallons would be spilled in this event.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product. All truck loading is done by truck drivers or Company operators who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity.

The closest waterway is the Richmond Inner Harbor Channel which is east of the Facility. The storage tanks, truck and rail loading racks, have adequate secondary containment so it is unlikely that a spill would reach the water. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

Conoco/Phillips would provide the immediate response to a spill at their dock.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small/Average Most Probable Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small/Average Most Probable Discharge. The response resources shall include:

- 1,000' of containment boom (or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater) and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small/Average Most Probable Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small/Average Most Probable Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- Spills at tank truck loading areas LR 1, 2, 3, 5, 6, 8 through 11 will be directed to low point catchbasins. Spills, at tank truck loading areas LR 7, 12, and 13 will be directed to local grading catchbasins which connect to the stormwater collection systems. Spills at the eastern end of the railcar loading areas will be directed to catchbasins, which connect to the stormwater collection system. Spills at the western end of the railcar loading areas, where there are galvanized steel pans will be directed to secondary containment area 5.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack.

Offsite Impact

- The closest waterway is the Richmond Inner Harbor Channel, which is east of the Facility. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small/Average Most Probable Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, ICP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium/Maximum Most Probable Discharge = 857 bbls

A medium/maximum most probable discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of containment and the drainage system located throughout the Facility, it is very unlikely that the discharge would leave Facility property or reach a navigable waterway before spill containment could begin. The spilled material would more than likely collect in the containment area and Facility drainage systems. If a spill of this size escaped the property it could possibly enter the Richmond Inner Harbor Channel. Adverse weather conditions would increase the chances of a discharge entering the bay; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for unloading/loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium/maximum most probable discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility (as necessary) and initiate "immediate response actions".

The closest waterway is the Richmond Inner Harbor Channel so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium/Maximum Most Probable Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium/Maximum Most Probable Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium/Maximum Most Probable Discharge* volume that are capable of arriving on scene within 6 hours.
- Sufficient quantity of containment boom must arrive within 6 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium/Maximum Most Probable Discharge* with a similar response to the Small/Average Most Probable Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 6 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 6 hours; Tier 2 = 30 hours; Tier 3 = 54 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium/Maximum Most Probable Discharge volume) secured from the OSRO(s) will be on scene within 6 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the Richmond Inner Harbor Channel.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, ICP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)).

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spill
- Pipeline manifold rupture.

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). This Facility opened in 1973 and about 60% of the Facility has been built in expansions since 1987. In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tanks ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Calculation of the planning distance for a WCD is provided at the end of this Section.

Severe rain events and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow east and enter the Richmond Inner Harbor Channel which is located east of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located east of the San Francisco Bay, which flows to the Pacific Ocean. The priority during larger spills is to prevent oil from reaching the waterway. Oil spill response organizations (OSROs) are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. There are several locations along the Richmond Inner Harbor Channel that could be used as strategic booming points. Recreation areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small/Average Most Probable or Medium/Maximum Most Probable Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, ICP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

Boom Deployment Strategies (Dock Spill Scenario)

- Deploy the two 1,000-foot lengths of boom located on the dock to contain the spilled product.
- Direction of current and wind will determine which sea curtain will be deployed and anchored first; deploy the second boom to encircle the balance of the spill.

  In the event of a large spill, containment within the Harbor Channel is of prime importance. One or more booms need to be extended across the channel to prevent further spreading of the product. Clean Bay must be contacted to provide additional boom if needed to extend across the channel.
- Due to the relatively small size of the channel, the collection point for the recovered oil would be within the boomed area of the channel. Contracted personnel will perform the cleanup operations.
- OSROs will be contacted for spills, which exceed the capabilities of onsite equipment and/or staff. OSROs will respond and report to the Incident Commander for instructions.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. – San Jose Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = [redacted]

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bpd)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

San Jose Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Total Recovery Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity.

The closest waterway is Coyote Creek, which is east of the Facility. The storage tanks and truck loading racks have adequate secondary containment so it is unlikely that a spill would reach the creek or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is Coyote Creek, which is east of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the creek. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd)
● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes:
● Equipment and manpower resources are detailed in Section 3 of Volume 2.
● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter Coyote Creek. Adverse weather conditions would increase the chances of a discharge entering the creek; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is Coyote Creek so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 6 hours.
- Sufficient quantity of containment boom must arrive within 6 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 6 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 6 hours; Tier 2 = 30 hours; Tier 3 = 54 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 6 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the creek.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed [redacted]

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Source and container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow south and enter Coyote Creek which is located south of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in stormwater ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located west of Coyote Creek. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. <u>(First Responder until Company Personnel (IC) assumes control)</u>

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location:950 Tunnel Avenue
Brisbane, CA 94005
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Southern Pacific Railroad, if applicable.
h. Staging area for Emergency Command Post will be at the entrance to the Facility or where Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. <u>Assembly Area</u>

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary emergency response command center #1 or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. <u>Location of Shelter at the Facility</u>

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility office buildings.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the Brisbane Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have standard guidelines that are followed in the event of an evacuation.

5. Directions to Kaiser Permanente Emergency Medical Center

Start out going south on Tunnel Ave. toward Lagoon Way. Turn left onto Sierra Point Parkway after approximately half a mile, then merge onto US-101 South toward San Francisco. After 2.7 miles take the Grand Ave./Downtown exit, then turn left onto Airport Blvd. The hospital is located at 1200 El Camino Real.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the two main gates located off of Tunnel Avenue.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest at an average speed of 5 to ten (5-10) mph.

FIGURE 8.8

EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). Local law enforcement will coordinate community evacuation activities, if necessary, and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command System.

An evacuation will be initiated under the following circumstances:

- In case of fire. When there is a fire, activation of the fire alarm alerts personnel to evacuate.
- Whenever the Incident Commander or other person acting in good judgment considers evacuation as a means of protecting personnel. This could occur following an earthquake, spill, bomb threat, or other emergency situation.

An evacuation will be signaled by the fire alarm, announcements over the public address system, walkie-talkie, radio, or other means. During evacuation:

- Be aware of potential hazards along the evacuation route, such as downed power lines, ruptured gas lines, vapor clouds, and other barriers.
- Monitor wind direction by looking at flags, or other means.
- Move upwind of the emergency to prevent potential exposure to releases of vapors, gases, or particulates. If it is not possible to move upwind, move at a 90-degree angle from the emergency.

1. First Responder until Emergency Director assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 1140 Canal Boulevard
Richmond, CA 94804
c. Activate the Facility's employee emergency alarm system (siren). (Notifications and announcements to be made to personnel via 2-way radio.)
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility.
h. Establish a Command Center immediately.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

8.4 FACILITY EVACUATION (Cont'd)

2. Non-essential Personnel

a. Proceed to assembly area, evacuate area of assigned workplace in orderly fashion.
b. Account for all personnel, including contractors.
c. Notify Command Center of all missing personnel and last known location.

3. Assist Physically Handicapped

Locate physically handicapped and assist out of Facility.

4. **First Aid Members**

Organize to handle emergencies/injuries. Under no circumstances shall any Company personnel re-enter an evacuated area unless authorized.

5. Assembly Area

a. **Primary Assembly Area** - All employees will report to the designated muster area. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a head count of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves between the incident and the primary assembly area should proceed to the main office or other safe area upwind of the incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

6. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, Control Building, or the north or south staging area.

7. Community Evacuation

Local Law Enforcement provides the means to warn the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

8. Directions to Alta Bates Hospital

Turn right onto Canal Boulevard towards I-580/Oakland. Take the onramp South. Continue South on I-80 (I-580). Turn off onto Ramp towards CA-13/Ashby Avenue. Merge onto SR-13 (Ashby Ave.) East. Arrive 3001 Colby Street, Berkeley, CA 94705

9. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate. If the situation permits, the Facility may also be accessed through the adjacent Conoco/Phillips Terminal.

8.4 FACILITY EVACUATION (Cont'd)

10. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled hazardous materials, and inhalation of vapors associated with spilled hazardous materials. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

11. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest, west northwest at an average speed of eight (8) mph year round.

12. Water Currents

The waterways are tidally influenced.

FIGURE 8.8

EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2150 Kruse Drive
San Jose, CA 95131
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Southern Pacific Railroads, if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in the SPCC Plan in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary emergency response Command Center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Control Building, or the north staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the San Jose Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have standard guidelines that are followed in the event of an evacuation.

5. Directions to O'Connor Hospital (2105 Forest Avenue, San Jose, CA (408) 947-2500)

From the Facility, go northwest for 0.35 miles on Kruse Drive towards Montegue Expressway. Turn right on Montague Expressway and travel 0.39 miles. Take the I-880 S ramp towards San Jose. Merge onto I-880 S and travel for 4.91 miles. Take the Bascom Avenue exit. Keep left at the fork in the ramp. Merge onto N. Bascom Avenue and travel 0.58 miles. Turn right onto Naglee Avenue for 0.11 miles. Turn slight right onto Forest Avenue and travel 0.19 miles to O'Connor Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located off Kruse Avenue.

7. Location of Stored Material & Hazards Imposed by Those Materials

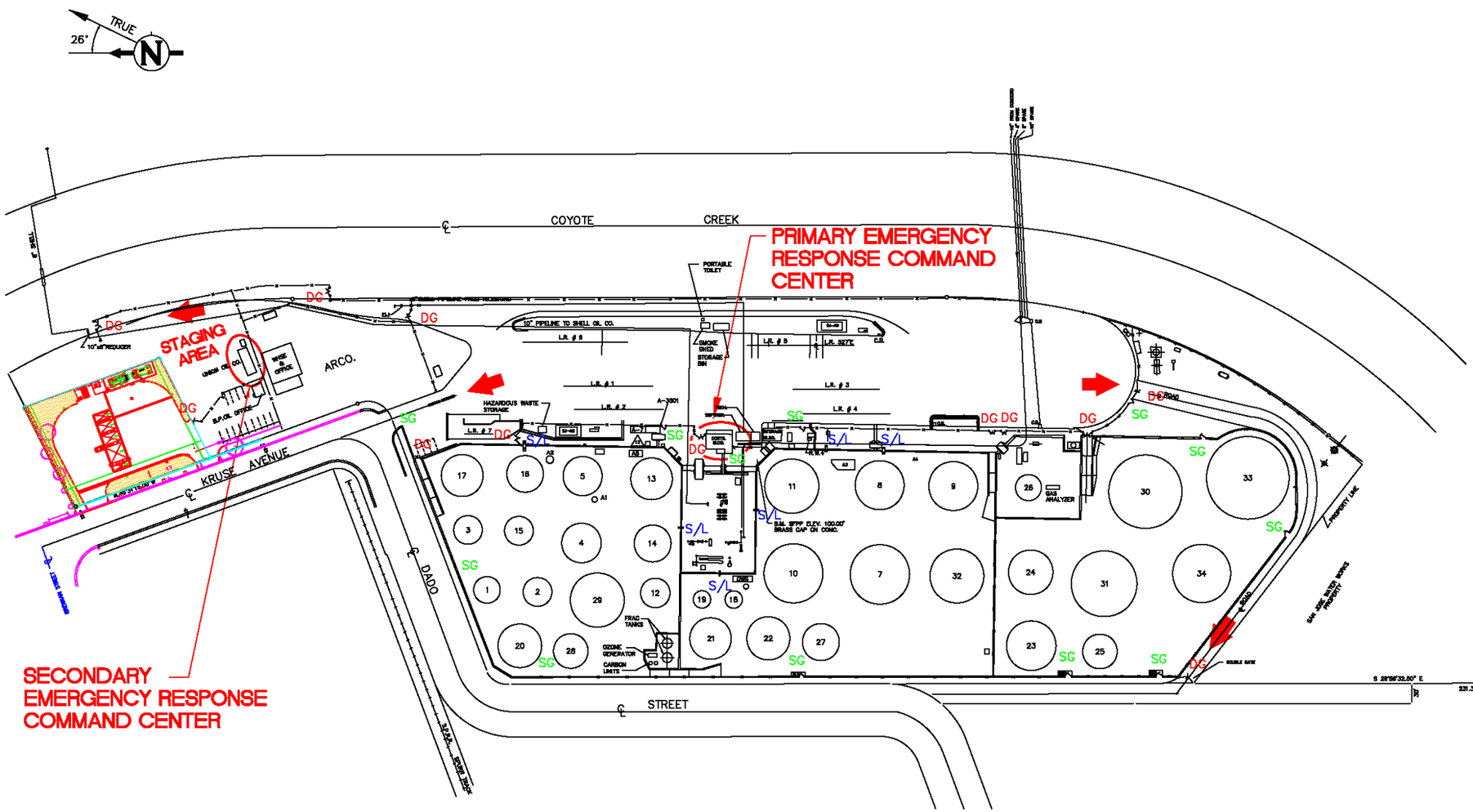
Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest, west northwest at an average speed of eight (8) mph year round.

9. Water Currents

Currents in Coyote Creek are minimal due to the number of dams located along the length of the river.



LEGEND:

SG SINGLE GATE
DG DOUBLE GATE
S/L STAIR/LADDER
MAIN EXITS

EVACUATION DIAGRAM
FIGURE 8.8

S F P P, L.P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
SAN JOSE TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
PLAN	DESIGN SUPT	
BY	MGR. SAFETY	
DATE	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.5 RISK AND HAZARD ANALYSIS

A Risk and Hazard Analysis for the KMEP (former GATX) Richmond Terminal has been prepared to comply with the requirements of 40 CFR 112.20 (f)(4), Hazard Evaluations, and California Code of Regulations Title 14, Division 1, Subdivision 4, Office of Oil Spill Prevention and Response Planning §817.02(c) Risk and Hazard Analysis.

The analysis was conducted by G. Wiley Associates in March 1994. A copy of the Summary of Results from the analysis and a description of the approach are included in this section.

The objectives of the analysis contained herein are to (1) identify potential sources of oil spills from the facility into navigable waters; and (2) establish a matrix to estimate oil spill risk for each potential source. This risk analysis is prepared as a working document based on the readily available information regarding the Richmond Terminal and its operations; the analysis is performed and documented in such a way that it can be updated as new information is required or becomes available.

[Excerpt from the GATX Richmond Terminal – Facility Oil Spill Contingency Plan is attached in the following pages]

Risk and Hazard Analysis
Kinder Morgan Richmond Terminal
(formerly GATX Terminals)

Prepared By:
G. Wiley Associates
3002 Euclid Ave.
Concord, CA 94519
In Conjunction with
GATX Terminals Corporation,
Richmond Terminal

Risk and Hazard Analysis
Kinder Morgan - Richmond Terminal
(formerly GATX Terminals)

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III.	Risk and Hazard Analysis Summary of Results	14-18

1. Statement of method of analysis, and that the analysis is facility specific.
2. Inventory of hazards identified.
3. Analysis of potential oil discharges.
4. Control measures used to mitigate or eliminate the hazards identified.
5. Prediction of potential oil spills after mitigating recommendations are implemented.

Attachment 1: Detailed Hazard Evaluation and Recommendations.

I. Facility History of Significant Spills

1. Cause of the Spill

GATX Terminals Corporation has had one reportable spill event, occurring on October 17, 1989 at 5:04 p.m. At that time, an earthquake measuring 7.1 on the Richter Scale caused sufficient movement of the storage tanks to result in leaks from two tanks. Tank No. 10-4 was damaged when a pump support bracket welded to the tank shell was broken off, resulting in a hole in the shell approximately □" in diameter. Unrefined coconut oil in the tank leaked for a brief period at approximately 3 gallons per minute until the opening was sealed off by facility personnel. A 2" nozzle on Tank No. 10-6 was broken off also, allowing approximately 1400 barrels of unrefined coconut oil to spill before the leak was sealed. Both tanks were located in Secondary Containment Area No. 1, with a containment volume of 923,000 gallons, which contained the majority of the spill.

(b) (7)(F), (b) (3) [redacted]

2. Impact of the Spill

(b) (7)(F), (b) (3) [redacted]

3. Corrective Action Taken in Response to the Spill

Corrective actions at the time of the spill included plugging and repairing the leaks in Tanks 10-4 and 10-6. When the damage to the underground line and the leak to the channel became evident, IT Corporation was called to assist in the containment and cleanup of the (b) (7)(F), (b) (3) spill. It quickly erected booms offshore, containing the coconut oil, which had solidified on the surface of the water. The material was collected using a vacuum truck and placed in a holding tank for disposal. All appropriate agencies, including the Coast Guard, were notified in accordance with facility permits and local regulations.

The pump that broke away from Tank No. 10-4 has been relocated, eliminating the bracket on the tank. The 2" nozzle on Tank No. 10-6 was connected as a water draw, and is unnecessary to the current operation of the tank. The line, therefore, has been deleted and the nozzle removed in order to prevent any possibility of future failure.

Cleanup of material contained in Secondary Containment Area No. 1 was accomplished by pumping the liquid back into tankage. Material that had solidified was collected manually by laborers into drums. The collected material was reprocessed, filtered, and returned to product storage.

The 30" outfall was not in service, and was pumped full of concrete to completely plug it; thus, it no longer represents a potential leakage path.

II. Expertise of the Working Group Responsible for the Analysis

Eric Arnold, Terminal Manager: Mr. Arnold has been the facility's Terminal Manager since January 1993. Prior to this he served as the facility's Terminal Engineer for 5 years. Prior to that position, Mr. Arnold worked for 6 years in several Terminal Management positions at a Bulk Liquid Storage Facility with Marine Transfer Operations in Richmond, California.

Chuck Wagner, Operations Manager: Mr. Wagner has been the facility's Operations Manager since January 1990. Prior to that he served as the facility's Operations Supervisor for 2 years. Prior to this assignment, Mr. Wagner worked for 13 years in Terminal Operations at several other facilities in the San Francisco Bay Area.

Greg Wiley, Consulting Engineer: Mr. Wiley is a licensed Civil Engineer in California, Colorado, and Texas, and has worked in Design and Construction for 20 years. Mr Wiley prepared the OPA 90 Oil Spill Contingency Plans for the GATX Richmond Terminal. He also performed the Risk and Hazard Analysis for the State Oil Spill Contingency Plan for the Time Oil Richmond Terminal.

III. Risk and Hazard Analysis Summary of Results

1. Statement of Method of Analysis, and that the Analysis is Facility Specific

Because the operating systems for the terminal are not complex, the checklist method for hazard evaluation was selected. The AICHE Publication "Guidelines for Hazard Evaluation Procedures", 2nd edition, was used as the principal reference in preparing the analysis. Typically, a risk and hazard analysis will focus on a particular life cycle phase of a facility. This focus would generally be on the design, start up, operational, or shut down phase of a facility's life cycle. Since the terminal is in the operational phase of its life cycle, checklist questions for evaluating hazards were selected from the operations section of appendix B of the principal reference. The scope of the hazard evaluation was limited to events which would produce a marine spill of similar magnitude to the plan's reasonable worst case spill; thus events such as simultaneous failure of tanks and dike walls were not considered as credible scenarios. Most of the products transferred in Marine Operations are vegetable oils and vegetable oil products, which are not subject to OSPR Regulation. The scope of this analysis is limited to the Petroleum Type Oil Products transferred in Marine Operations. This risk and hazard analysis was prepared specifically for the GATX Terminals Corporation, Richmond, California Terminal. The analysis was performed in March 1994.

2. Inventory of Hazards Identified

Because this risk and hazard analysis is to identify hazards associated with the operation of the facility, it focuses on the following general hazard groups:

A. Operator error
B. Equipment failure
C. External events, such as earthquakes, vandalism, social upheaval
D. Use of the facility by various types of vessels.

Scenarios and hazard events which could create a marine spill are considered in the checklist hazard evaluation review.

It should be noted that many of the questions in the hazard evaluations concern secondary factors that influence a general hazard group; e.g. lack of understanding of written procedures or improper training, as explored in questions 4 through 8, could lead to many of the operator errors listed in question 1. This summary of results has analyzed the primary hazard groups in detail. The full hazard evaluation analyzes the secondary influences also.

General Hazard D above, concerns use of the facility by various types of vessels. In the case of the GATX Terminal, this would be barges and tankers. The detailed hazard evaluation showed no scenario for this general hazard which would produce a spill of the general magnitude described in Section 1. above. Therefore this general hazard is not included in this summary of results.

3. Analysis of Potential Oil Discharges

The GATX Terminal stores products in storage tanks located at their facility. GATX shares the dock at the adjacent Unocal Terminal, transferring products from marine vessels at the Unocal dock to storage tanks at the GATX Terminal (and vice versa.), through an above grade pipeline system. This analysis is concerned with marine transfers of petroleum type oil products. These operations are examined for potential oil spills that could reach marine waters. Potential oil spills are evaluated for cause, size, duration, frequency of occurrence, and location of the spill, for each hazard group.

Operator Errors

Checklist item No. 1a. examines operator errors that could cause an explosion or spill. These are summarized as follows:

1a. (1) Because of the low vapor pressure and relatively high flash point of the materials handled, explosion is not considered to be a credible scenario for marine spills.

1a. (2) Item A. describes a condition in which the person-in-charge on the dock has become incapacitated for a number of reasons. The credible worst case scenario is shown in Appendix #8 of the terminal's Oil Spill Contingency Plan, in which 800 barrels are spilled into the Santa Fe Channel. This spill scenario requires 10 minutes to detect and shutdown. An event of this type has not occurred in the 20 plus years of terminal marine transfers. Based on this experience, a credible frequency could be set at once in 25 years, believing that the terminal will not suffer from this event in the next five years.

1a. (2) Items B. and C. describe a condition in which the pipeline or hose becomes overpressurized due to an incorrectly closed valve in the tank farm or a hose hooked to the incorrect manifold valve. Referencing appendix #8 of the terminal's Oil Spill Contingency Plan, this spill scenario could discharge 800 barrels to the Santa Fe Channel in the 10 minutes it would require to detect and shutdown the operation. An event of this type has not occured in the 20 plus year operating history of the terminal. Hence, the frequency of this event could be set at once in 25 years, employing similar reasoning to that used in the P.I.C. incapacitated scenario.

1a. (2) Item D. describes a vessel collision with the dock, when the facility is operating or at standby status. If the collision occurred when the dock is at standby, and all the dock lines were ruptured, no oil would be spilled because the lines are not packed in standby status; thus the worst case is for the collision to occur when the facility is transferring product. This scenario creates the worst case spill event described in appendix #8 of the terminals Oil Spill Contingency Plan, in which 800 barrels of oil are spilled in the 10 minutes it takes to shutdown the operation

after the collision has occured. This would be a rare event, and it has not occured in the 20 plus years of terminal operating experience. Thus, similar reasoning to that for the P.I.C. incapacitated could be used to set the credible frequency for this event at once in 25 years.

1a. (2) Item E. describes a condition in which the marine vessel is overfilled. Referencing appendix #8 of the terminal's Oil Spill Contingency Plan, this condition could spill 800 barrels to the Santa Fe Channel in the 1□ minutes it would take to detect the overfill and shutdown the operation. An event of this type has not occurred in the 20 plus years of operating experience at the facility. Thus, employing similar reasoning to that used for an incapacitated P.I.C. scenario, a credible frequency for this scenario could be set at once in 25 years.

Equipment Failures

Checklist items 9, 12, and 18 examine equipment failures that could cause a spill. These are summarized as follows:

9a. This item examines the materials of the pipeline system, and upset conditions which could cause failure (rupture) of these materials. The worst case scenario for a piping system rupture would be rupture of the system at the dock and residual pipeline drain-out through the rupture point. The consequences of this scenario are analogous to over pressure rupture of the pipeline due to operator error, and described in the section above in items 1a.(2)B. and C. This scenario could result in 800 barrels of oil being spilled into the Santa Fe Channel in the 1 1/2 minutes required to detect and shutdown the discharge. An event of this type has not occurred in the 20 plus years of terminal operating experience. Applying similar reasoning as for the incapacitated P.I.C. Scenario above, this event could be estimated to occur at a frequency of once in 25 years.

12. This item describes a failure of utility systems. Failure of utility systems would not lead to a spill event.

18. This checklist item describes failures of the critical equipment in the transfer operations. This spill scenario is described in appendix #8 of the Terminal's Oil Spill Contingency Plan. The worst case for this scenario would spill 800 barrels of oil into the Santa Fe Channel. It would require 1 1/2 minutes to detect and shutdown this event. A failure of this type has not occurred in the 20 plus years of terminal operating experience. Thus, applying the reasoning used for the incapacitated P.I.C. Scenario, the frequency of this event could be estimated to be once in 25 years.

External Events

External events would include natural disasters such as a earthquake, explosion due to an electrical storm, vandalism, and social upheaval. Checklist items

1a.(1), 18c. and 19 examine these events.

1a.(1) The petroleum type products transferred at the facility have low vapor pressures and relatively high flash points, making explosion from an electrical storm unlikely. To ensure that an explosion never occurs, terminal S.O.P is to suspend operations during an electrical storm.

18c. In a major earthquake, all of the dock pipelines could be simultaneously ruptured. The worst case scenario for this event would be for the pipelines to be in operation, since at standby the lines are not packed. Referencing Appendix #8 of the Oil Spill Contingency Plan, this event could spill 800 barrels of oil to the Santa Fe Channel in the 1 1/2 minutes required to shutdown the operation following the earthquake. The last major earthquake in terminal personnel's memory was the 1989 Loma Prieta earthquake, which caused no damage to the marine pipeline transfer system. Considering that large earthquakes (richter 7 or greater) occur at a frequency of about once every 30 years in this area, a conservative credible frequency of once in 25 years could be assigned for this event. This frequency is conservative considering that the richter magnitude 7.1 Loma Prieta earthquake did not damage the marine pipeline transfer system.

19. This item describes the events of vandalism and social upheaval. Vandalism would have to occur when the terminal was unmanned. Since the pipelines are unpacked in the standby status, a vandal would be unable to discharge oil to marine waters. Social upheaval is difficult to predict the consequences and frequency of. Considering that this event would be resisted by civil authorities, and that transfer operations would be suspended, it is reasonable to believe that oil would not be discharged to marine waters.

4. **Control Measures Used to Mitigate or Eliminate the Hazards Identified**

The detailed hazard evaluation lists control measures used by the terminal in mitigating or eliminating hazards. These control measures are listed in the "Terminal Procedure" section. Where a corrective action or recommendation is required to strengthen or modify existing terminal practice or procedure, it is indicated in the "Corrective Action/Recommendation" section, and fully described in the list of "Recommended Terminal Actions" at the end of the hazard evaluation. A brief overview summary of control measures used, and recommended actions follows. Details of the control measures and recommended terminal actions are fully described in the hazard evaluation, and are not repeated for the sake of brevity. A spreadsheet summary is included which shows time frames for implementing recommendations which cannot be implemented immediately.

Operator Errors

Checklist item 1d. lists control measures used by the terminal to mitigate or prevent hazards, and recommendations for improving the control measure effects.

KM Risk and Hazard Analysis 7 March 1994

5. **Prediction of Potential Oil Spills After Mitigating Recommendations are Implemented**

This terminal has operated for over twenty years with a single reportable spill incident. The spill was due to the strong 1989 Loma Prieta Earthquake, which broke tank nozzles and a pump support, and ruptured an abandoned, previously unknown underground stormwater drain. The small volume of coconut oil spilled to the Santa Fe Channel was quickly contained and cleaned up. The risk and hazard analysis produced only a few recommendations, these being the incorporation of an existing operating practice into terminal S.O.P., incorporation of response procedures to be used in the event of a power failure, and additional fencing to improve security against vandalism. Thus, the facility's spill history and risk and hazard analysis indicate that it has been operated competently and safely in the past as well as the present.

If the terminal continues its operational training, and operational procedures and practices, as well as its inspection and maintenance procedures; it is reasonable to believe that the facility can continue to operate indefinitely without a spill incident.

The hazard of a major earthquake remains as the most significant oil spill threat to the terminal. This is because of the virtual certainty that this event will occur in the future, and because past history at this terminal and others indicates that some structures and pipelines will fail in major earthquakes. Hence, the terminal needs to prepare for the type of spill that will occur if all the dock lines are simultaneously ruptured by an earthquake during a transfer operations. This being the worst case scenario under consideration.

8.6 OFFSITE CONSEQUENCE ANALYSIS

8.6.1 Scope

This Offsite Consequence Analysis (OCA) is intended to supplement the Hazard Analysis to identify the impact area from the Reasonable Worst Case Discharge (RWCD) for the Facility. The Hazard analysis, which is documented separately, focused on the identification of possible hazards that may result in an oil spill from the Facility. Whereas, the goal of the OCA is to identify from a given spill scenario the credible impact area and the potentially impacted sensitive environmental sites over a 72 hour period.

The Offsite Consequence Analysis involved a progressive study of the spill site involving evaluation of the sensitivity of spill trajectories to pessimistic seasonal weather and environmental conditions, 72 hour spill trajectory for the identified pessimistic conditions, identification of the area at risk from a spill and the potential impacted sensitive sites including the weathering effects for the studied materials. This analysis was performed and documented by BlueWater Consultants, Novato, California using the "OILMAP" spill modeling software by ASA.

The results of the trajectory analyses are shown on color maps delineating time contours for the extent and impact of oil discharged from the terminal location. The trajectory plots display the differences with seasonal conditions and types of products. The modeling analyses supports the oil spill contingency planning complying with Federal OPA 90 legislation and State of California (OSPR) regulations.

The impact areas were correlated to the sites identified by the ACP (12/97 ed.) The description of the risk for each site and the planned protection and recovery strategies would follow the recommendations contained in the ACP. The ACP information includes a description of the area, shoreline characteristics, identification of sensitive marine resources, and strategy for deployment of resources

8.6.2 Approach and Spill Model Background

Analysis Approach

The offsite consequence analysis involved a progressive study for each site involving the following tasks:

a. Sensitivity analysis of spill trajectories to seasonal weather and environmental conditions
b. 72 hour spill trajectory for the identified pessimistic conditions
c. Identification of the area at risk from a spill and the potential impacted sensitive sites including the weathering effects for the studied materials.

8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

8.6.2 Approach and Spill Model Background (Cont'd)

Analysis Approach (Cont'd)

The areas at risk from a release at site were evaluated using a trajectory and fates modeling analysis for potential RWCD spill volumes, which may result from oil transfer operations. A sensitivity analysis was performed on these results to evaluate possible seasonal environmental , and weather impacts. This was performed using stochastic evaluation technique for trajectories over each seasonal period. The identified "pessimistic conditions" were used to develop trajectory plots depicting the projected areas of impact over a 72-hour period. These trajectories are based on specific type of products and have incorporated weathering and fates considerations.

The areas at risk of impact from the analysis have been compared to the sites identified in the Area Contingency Plan (12/97 edition). The ACP is developed through a joint effort by California State representatives, USCG representatives, local city and county representatives, environmental groups, and industry representatives. The sites considered through the ACP process include:

- water intakes
- fish and wildlife
- endangered flora and fauna
- wetlands or other environmentally sensitive areas
- other areas of economic importance including
- sensitive terrestrial environments, aquatic environments, and unique habitats
- lakes and streams
- recreational areas

Oil Spill Model

The analyses were completed using oil spill modeling software OILMAP for Windows V2.4 from Applied Science Associates (ASA). Several oil spill modes within OILMAP were applied to the analysis. These modes were configured to address specific types of spill impact including assessment of different response scenarios on the spill fate, spill trajectory and weathering prediction, and statistical probabilities of shoreline impact of the spilled oil.

The oil spill trajectory analysis for support of the Offsite Consequence Analysis involved primarily the Trajectory, Fates, and Stochastic modes summarized below:

Trajectory and Fates Mode

The trajectory and fates mode of operation predicts both the movement and weathering of surface oil. The fate processes simulated are spreading, evaporation, entrainment, emulsification and shoreline stranding.

8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

8.6.2 Approach and Spill Model Background (Cont'd)

Oil Spill Model (Cont'd)

Either instantaneous or continuous spills with a constant oil release rate can be simulated. Each spiller is transported and weathered independently. The oil composition, selected by the user from a library of oil types, is characterized by its boiling point curve. This characterization allows the model to accurately predict the weathering of a variety of crude and refined oil products.

Stochastic Mode

In the stochastic mode, a user-specified number of spill simulations are executed varying only the environmental conditions at the time of the spill. The stochastic model includes all the weathering processes in the trajectory and fate model.

The spill release occurs at random times over a period (by month to over an entire year). Historical wind records from regional meteorological stations can be used, or the model can generate wind time series from zero- or first-order statistical wind distributions. The multiple trajectories predicted by the stochastic model are summarized as probability contours showing the probability of land and water areas being impacted by oil spilled at the specified release site. The probability contours form an envelope showing the direction(s) oil will move from the site and where it will impact land. Simulation results enable the user to assess potential extent of the area at risk for that seasonal period.

8.6.3 Application of OilMap Model to Spill Scenarios

Oil Spill Scenario

The Reasonable Worst Case Discharge (RWCD) scenario identified by the Oil Spill Contingency Plan was used to evaluate the potential impact on the shoreline. The parameters of the spill are summarized below:

Table 8-1 - Oil Spill Modeling Scenario Information

Product:	Group III Oil (Coconut Oil) (Note: Modeled as Fuel Oil with adjustment for lower Specific Gravity and other material factors)
Quantity	460 bbls.
Source Location:	Pipeline between Terminal and Dock
Seasonal Considerations:	Winter and Summer Seasons

In each scenario, the spill was considered instantaneous discharge at the identified location. The model calculation time step was 10 minutes, with a dispersion factor of .75 m2/sec. The simulations were run until all the oil was fully dissipated from either evaporation, dissolution, or grounded on-shore over a period of 72 hours (3 days).

8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

8.6.3 Application of OilMap Model to Spill Scenarios (Cont'd)

Oil Spill Scenario (Cont'd)

A trajectory and fates modeling runs were completed with differing seasonal wind data and at varying times of release in the tidal cycle. The trajectories considered both summer and winter conditions to determine effects of seasonal wind trends on the potential impacted areas.

Environmental Data

Hydrodynamic

Tidal current and river induced flows, providing input to OILMAP for San Francisco Bay, were derived from a two dimensional, depth averaged, finite element hydrodynamic model of San Francisco Bay (King, 1990; Shrestha et al., 1993). The model solves the vertically averaged equations of motion to predict the currents and water surface elevations. Friction losses are approximated using either a Chez or Manning formulation.

The bay was represented by a finite element mesh consisting of two-dimensional (e.g., rectangular, triangular) and one-dimensional elements. The grid covers the entire bay from the entrance at Golden Gate Bridge and both the south and northern branches of the bay. The model was forced by tidal elevation at the open boundary at the Golden Gate Bridge and river and other freshwater flows in the interior.

Wind

Wind data used in the model simulation was based on a regional statistical wind summary. Wind speed and direction time series for the Summer (July - August) and Winter (December - February) were created from summary data taken from the International Station Meteorological Climate Summary (NCDC, 1992) for the nearest recording site.

This wind data was compiled into monthly speed and direction probability tables. The tables are monthly statistical summaries of the probability of wind coming from a particular direction and within a range of speeds. The monthly data records generated are essentially a synthetic time series based on wind probabilities for the selected month.

8.6.4 Results

The Sensitivity Analysis and Trajectory results are summarized on the following maps:

4 Hour through 72 Hour Trajectory Maps
Spill Time Contour Map - Summer Conditions
Spill Time Contour Map - Winter Conditions

8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

8.6.4 Results (Cont'd)

Spill Trajectory Results

The Spill Time Contour maps identifying a spill trajectory for the RWCD volume under specific seasonal conditions identified by sensitivity analysis. Shoreline impacts are identified by red markings , or by the overrun of the time contour across the shoreline. Key geographic and sensitive environmental site references are identified by either name or colored shoreline. A legend of the color key is also provided on each map.

The model has incorporated weathering effects on the oil and partial loss by evaporation, and mixing with the water column. As a conservative factor, the shoreline characteristics have been negated to allow maximum refloating and circulation of the oil particles.

The modeling time period was a maximum of 72 hours. The time required for the oil to reach the shoreline is determined by the tide stage and the speed, direction of the wind, and the amount of material loss to evaporation.

Sensitivity Analysis Results

Seasonal variations impact have been evaluated through the stochastic model. Historical winds for the period were categorized into summer and winter seasons. Wind velocity and direction vectors representative for the seasons were evaluated creating a range of probable spill trajectories.

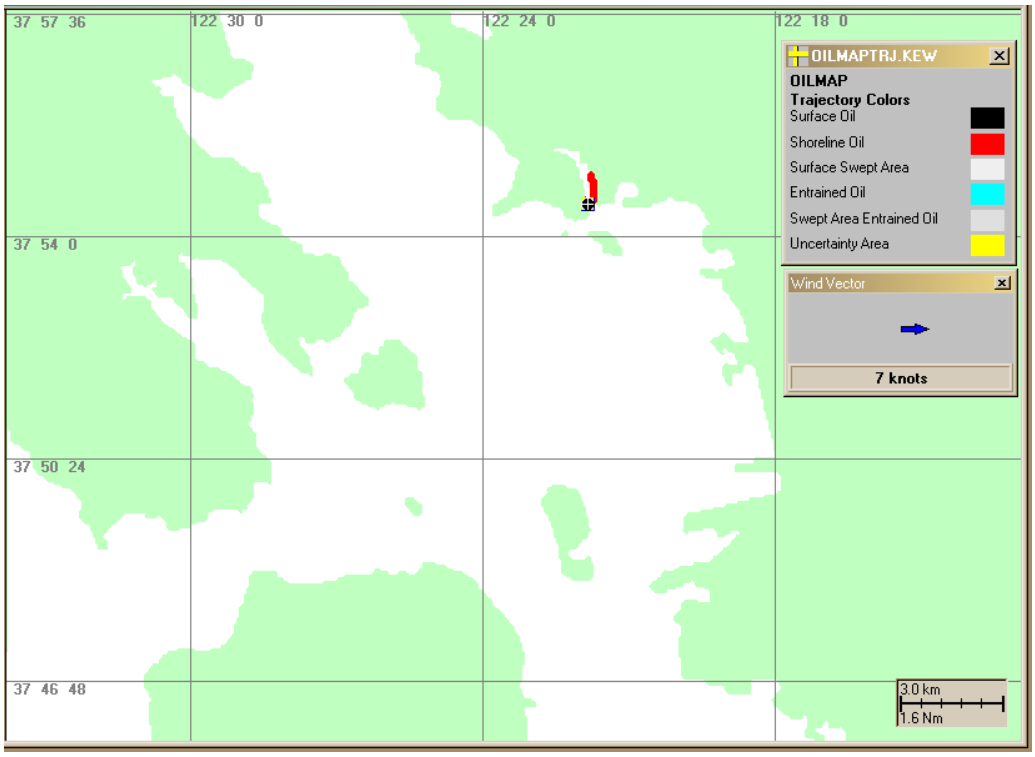
Generally, the regional weather generally has two primary seasonal conditions, summer conditions and winter conditions. In the summer, winds are dominated by the prevailing west wind and the thermal induction from the valley. In the early morning and evening, winds can be light and variable. In the winter or fall, the winds are generally light and variable, with occasional stronger winds representative of passing winter storm systems. Generally, a strong wind cross the tidal flow tends to act as a driving function forcing the spill out of the main tidal flow. This can result in grounding on the shoreline earlier and may result in less travel and shoreline area impact.

The RWCD spill was tested for both summer and winter wind influences on the spill trajectory. The relative impact is illustrated in the Spill Time Contour maps. They present a summary of several iterations of spill trajectories from various states of tidal currents and seasonal environmental factors for each season. These results are depicted on color maps delineating time contours in 1/4 day (6 hour) increments up to 72 hours. A legend to the color scale is provided on each map.

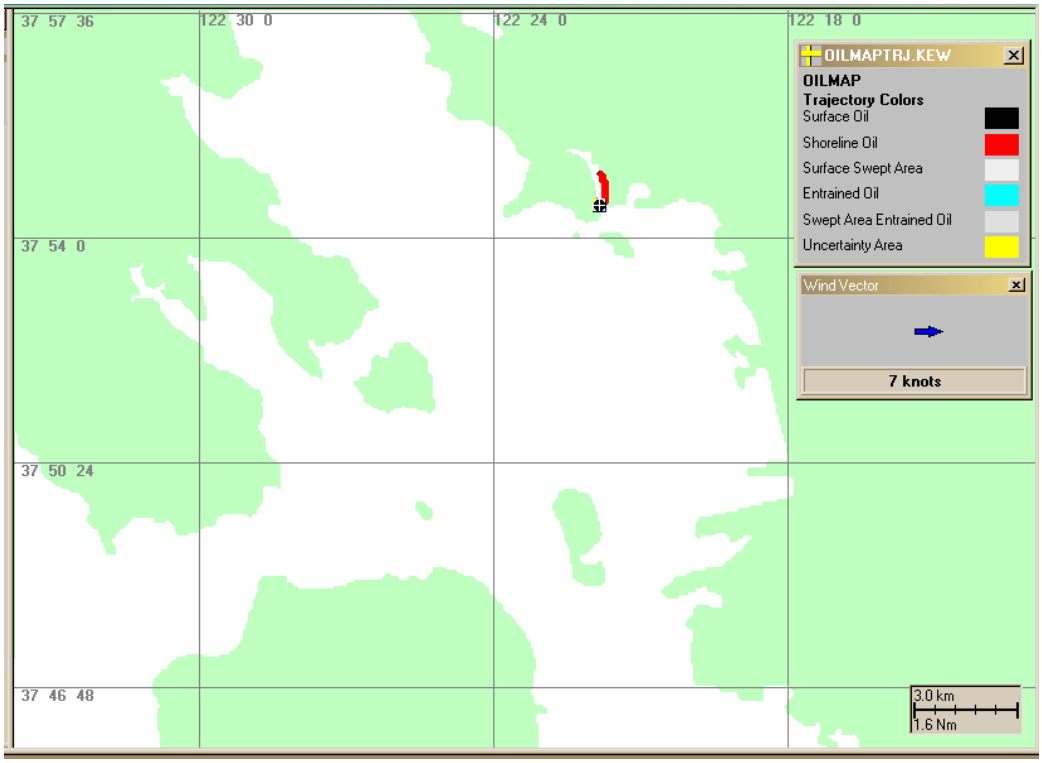
The greatest shoreline impact with the RWCD was determined to be during the winter conditions, and as a result, the 72 hour trajectory is based on the winter seasonal conditions.

8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

SPILL TRAJECTORY HOUR 4

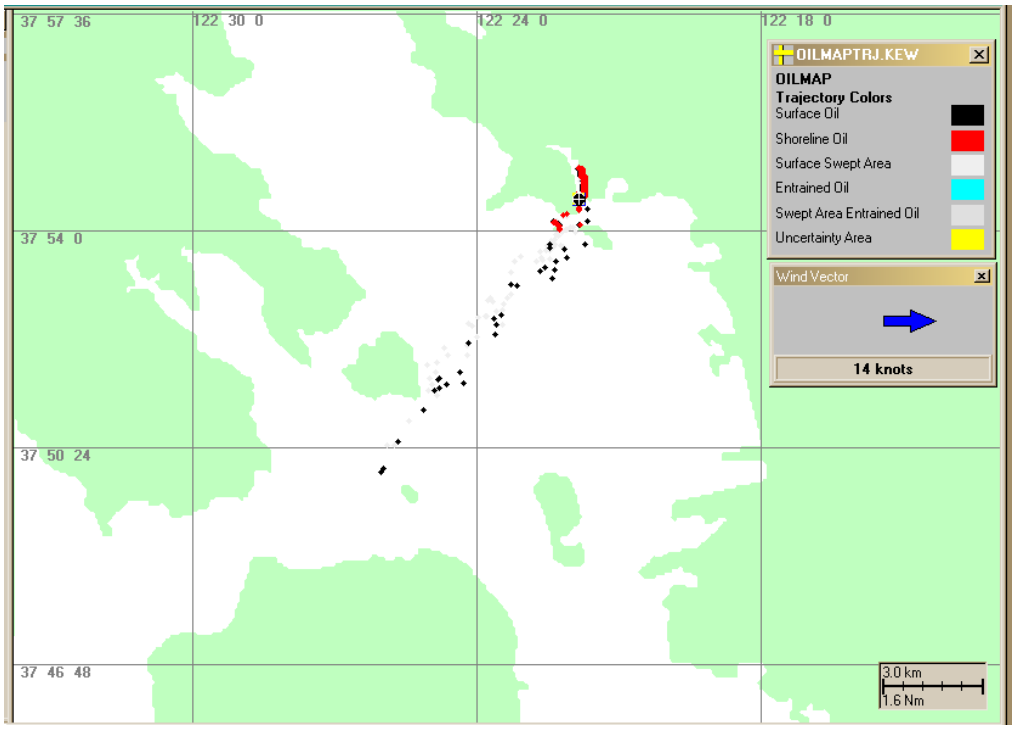


SPILL TRAJECTORY HOUR 6

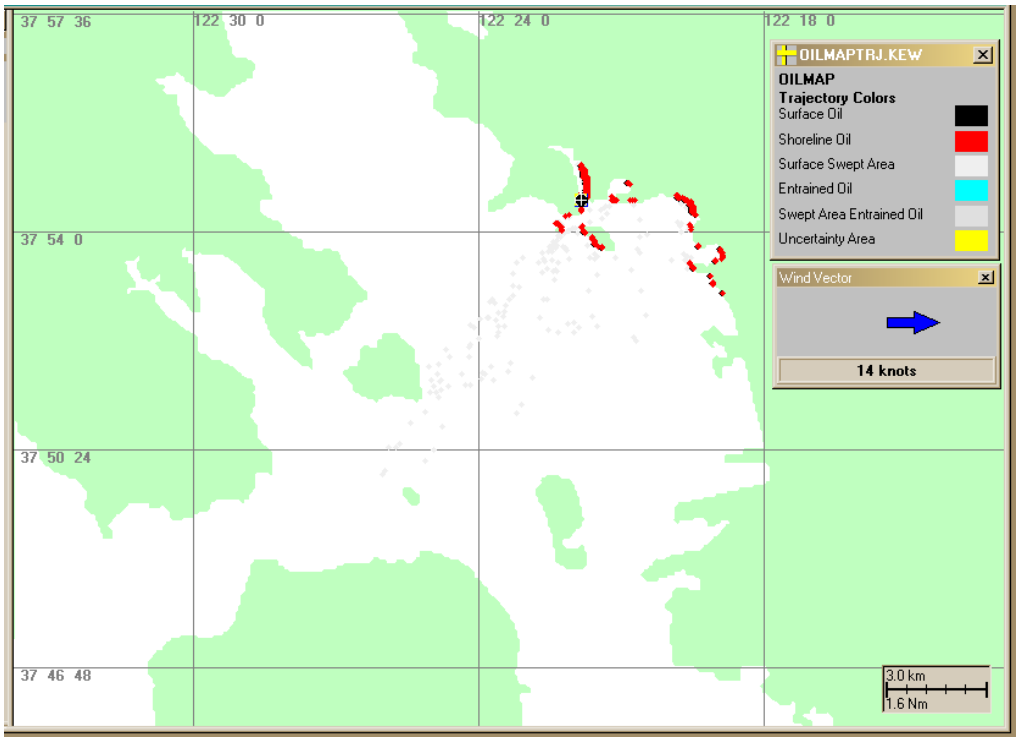


8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

SPILL TRAJECTORY HOUR 12

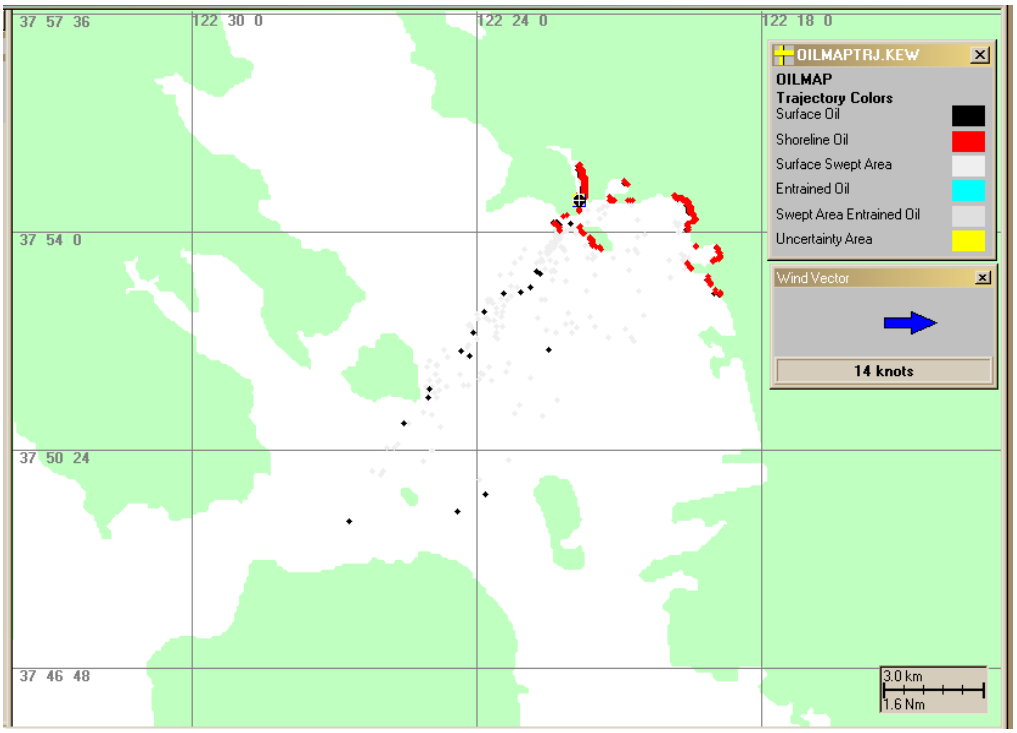


SPILL TRAJECTORY HOUR 18

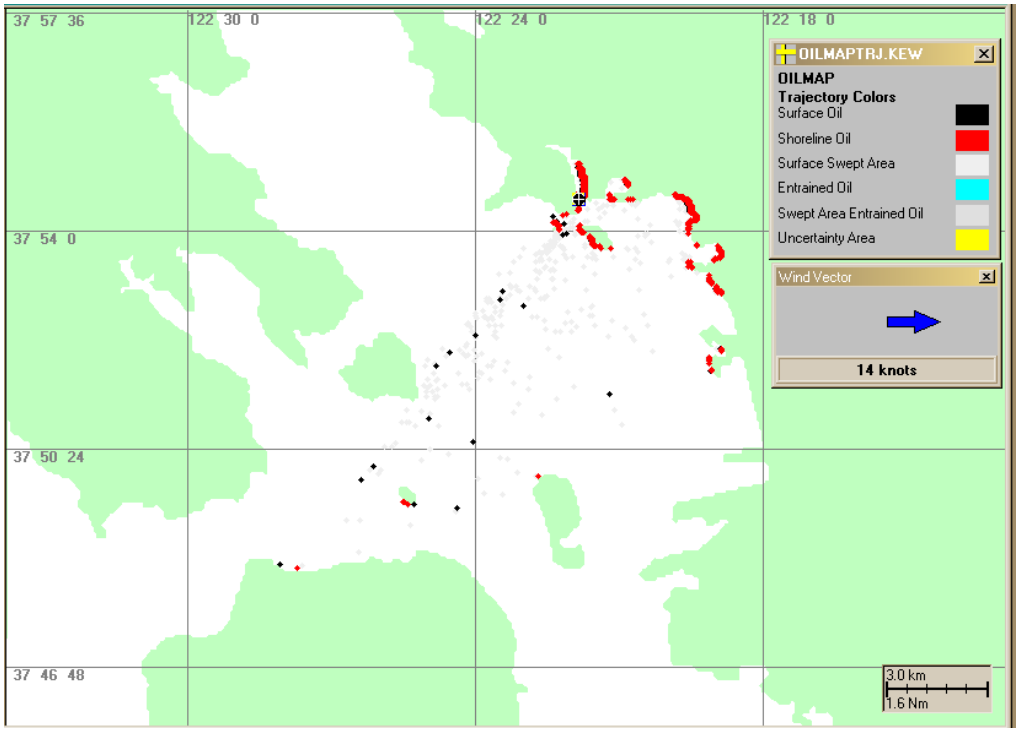


8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

SPILL TRAJECTORY HOUR 24

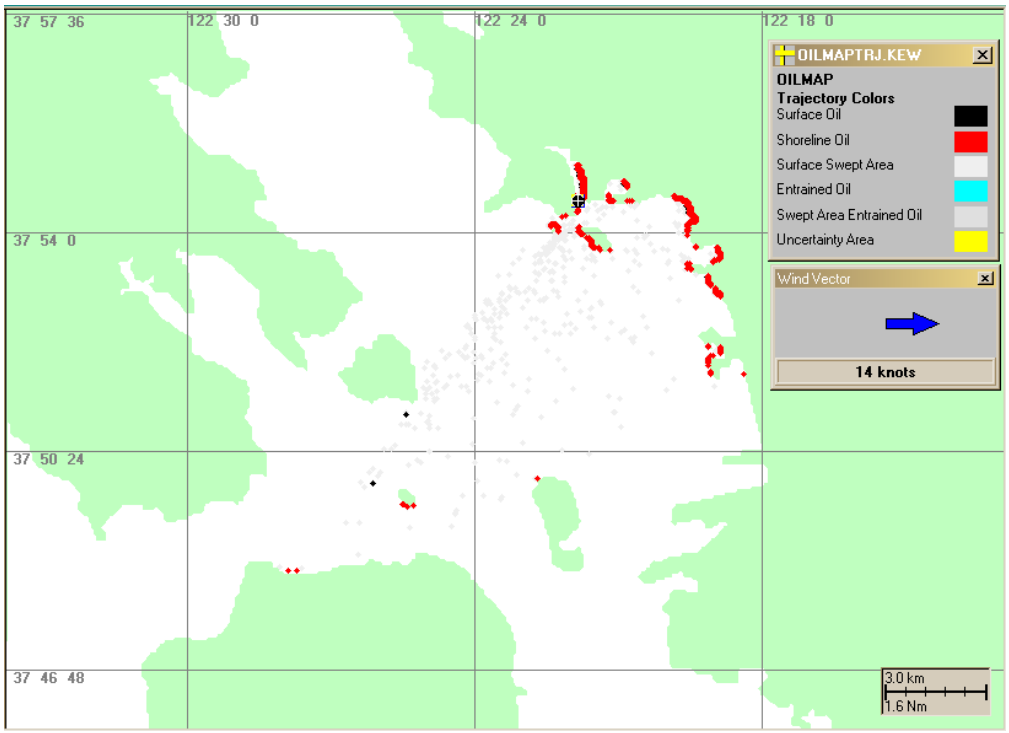


SPILL TRAJECTORY HOUR 36

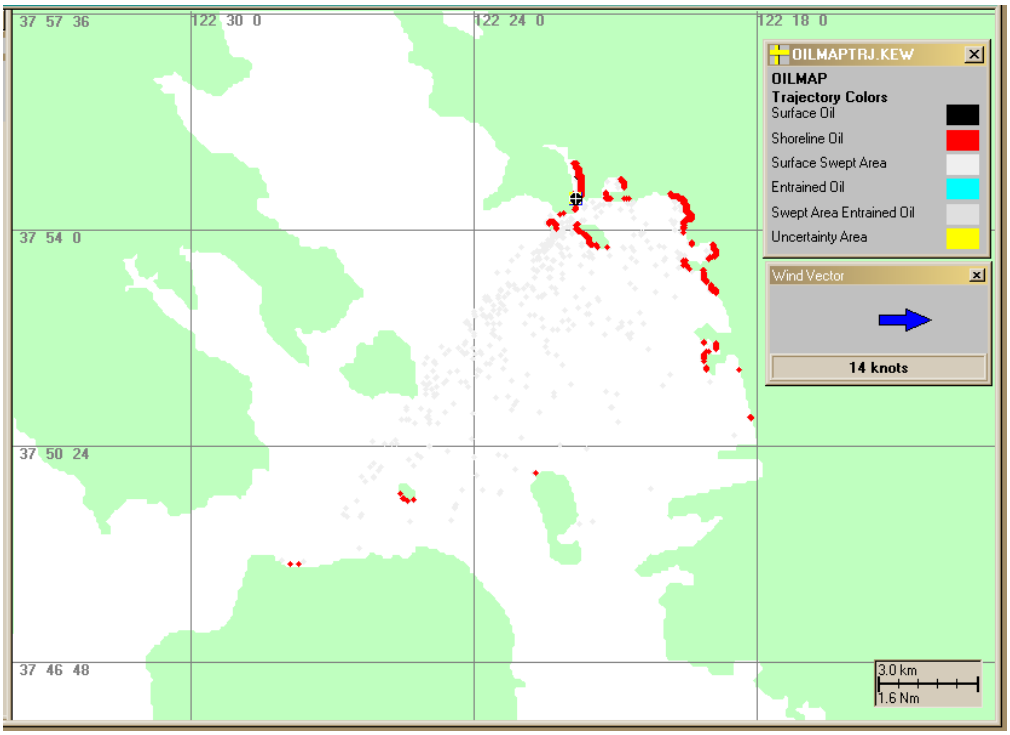


8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

SPILL TRAJECTORY HOUR 48

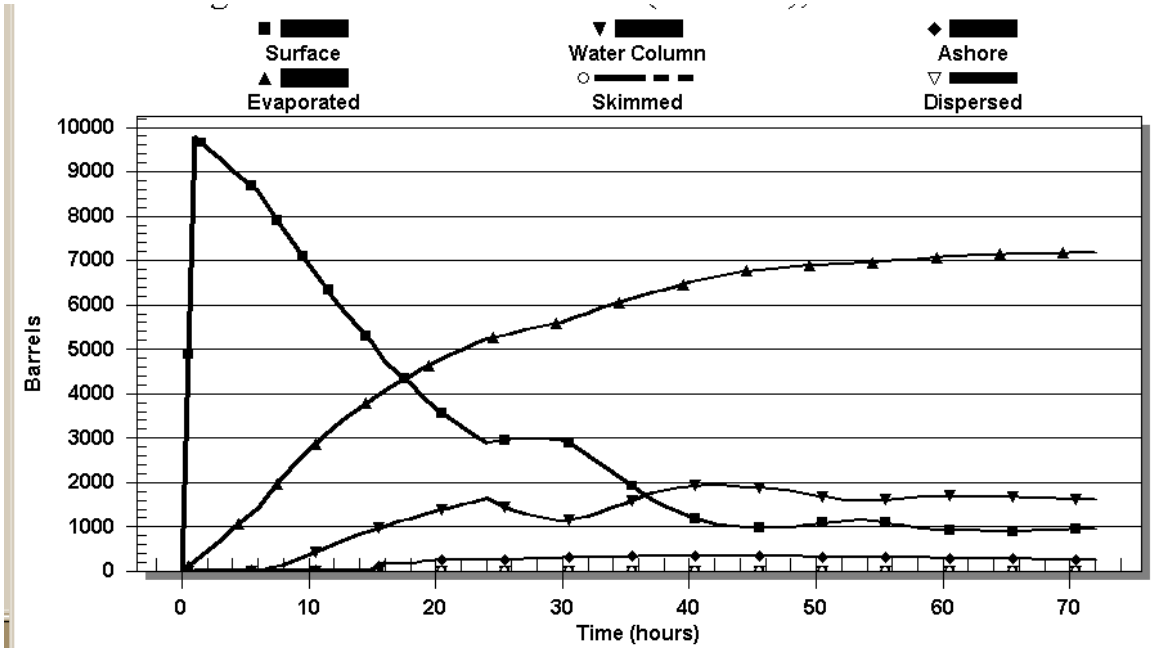


SPILL TRAJECTORY HOUR 72

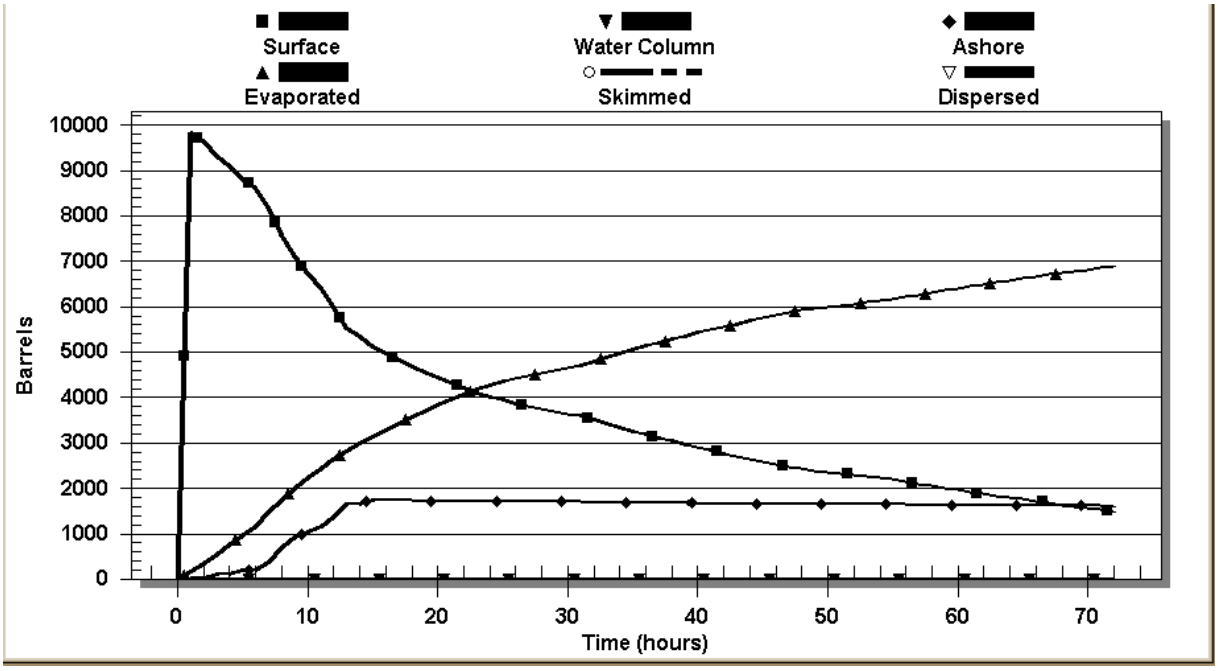


8.6 OFFSITE CONSEQUENCE ANALYSIS (Cont'd)

WEATHERING AND FATES GRAPH – SUMMER



WEATHERING AND FATES GRAPH – WINTER



8.7 RISK REDUCTION INCENTIVE PROGRAMS

The Facility participates in an annual safety awareness program which is administered at the Corporate level. The Facility has evaluated workplace hazards and how to prevent or mitigate them under workplace illness and injury prevention guidelines. The Facility conducts monthly safety meetings to discuss conditions, which could cause accidents or spills, and how to mitigate or prevent them from occurring. The Facility (through the Operations Review Committee) also conducts quarterly meetings for continuously improving the quality and effectiveness of operating practices and procedures.

8.8 DRUG AND ALCOHOL POLICIES

Kinder Morgan, Inc. and Kinder Morgan Energy Partners, L.P.

Human Resources Policy Manual

Drugs and Alcohol in the Workplace

(Effective 01/01/2000)

(Revised 01/01/2003)

Purpose

The purpose of this Policy is to maintain a safe and productive work environment for all employees, applicants, and the public by ensuring that employees on Company property, while conducting Company business, operating Company property, or during their employment with the Company may not possess or use illegal or unauthorized drugs. The Policy is also intended to promote worker and public safety, to comply with the Drug-Free Workplace Act of 1988, and to provide procedures for workplace-related searches of persons and property and the lawful drug and alcohol testing of employees. Kinder Morgan maintains a "Zero Tolerance" policy.

Scope

This Policy applies to all Company employees, applicants, contract workers, and employees of third-party contractors, including employees and contract workers who perform functions covered by regulations promulgated by the Department of Transportation (DOT). In the event of a contradiction between this Policy and the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan, the Company's Anti- Drug Plan and Alcohol Misuse Prevention Plan shall govern.

This Policy is broader in scope than the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan. For additional information refer to the Anti-Drug Plan and Alcohol Misuse Prevention Plan.

This Policy shall be administered in accordance with all applicable federal, state, and local laws and regulations.

Responsibilities and Prohibitions

Employees

All applicants and employees are reminded that the following actions are included as violations of this Policy: (1) use, possession, sale, distribution of illegal or unauthorized drugs on Company property, while operating any Company vehicle or equipment, or while conducting Company business; (2) use, possession, sale, distribution of alcohol on Company property. while operating any Company vehicle or equipment, or while conducting Company business, with the exception that use and possession of alcohol during Company sponsored business or social functions, where the use of alcohol remains moderate, will not be considered a violation of this Policy; (3) use of any drug, including prescribed drugs, which is unsafe to use while operating Company vehicles or equipment; (4) possession, sale or distribution of paraphernalia and equipment related to illegal or unauthorized drug use; and (5) refusal to test in any testable situation.

As a condition of employment, any employee whose work directly relates to the performance of a federal contract and who is or has been convicted of a criminal drug offense occurring in the workplace during employment must notify his/her supervisor and Human Resources representative in writing within five days of such conviction. Similarly, as a condition of employment, any employee that is required to possess a valid driver's license as a pre-requisite of their position, must notify his/her supervisor and Human Resources representative in writing within five days of either a drug and/or alcohol related criminal offense. Failure to provide notification will result in disciplinary action being taken, up to and including termination.

All employees while operating any Company vehicle or equipment, or while conducting Company business (either during or after regular business hours), cannot refuse to submit to drug and/or alcohol testing administered or ordered by the Company or a lawful authority. Refusal to submit to the testing will result in disciplinary action being taken, up to and including termination.

All employees taking a prescription or over-the-counter medication that could adversely affect performance of job-related functions or pose a direct threat to the health and safety of the employee or others in the workplace are responsible for notifying their supervisor. It is not the intent of the Company to interfere with the use of drugs legitimately prescribed by a physician. The Company's designated physician will be the sole person that the Company uses in making determinations concerning employees' fitness to perform the job.

All employees should notify a supervisor or Human Resources Representative of any behavior of co-workers or contract workers that may indicate a violation of this Policy.

Definitions

"Alcohol" means ethyl alcohol, an intoxicating element in fermented or distilled liquor or in any other compound, or other low molecular weight alcohol, including but not limited to, methyl and isopropyl alcohol, and including without limitation, beer, wine, and distilled liquors.

"Company property" is used in the broadest sense and includes, but is not limited to, all property, equipment, land, onshore and offshore platforms, buildings, structures, installations, facilities, locations, boats, aircraft, and vehicles which are owned, leased, used or operated by or on behalf of the Company for any purpose, or which are located on Company property, and any personal effects or items located thereon or therein. This includes, among other items, desks, lockers, and workstations, as well as privately owned vehicles and other personal belongings located on or in Company property,

"Possess" or "possession" means having any amount of illegal or unauthorized drugs or alcohol on one's person or belongings at any time during employment; on Company property; while conducting Company business; operating Company property; in one's personal belongings or vehicle while on Company property; in a vehicle or any mode of transportation owned or leased, or rented for Company use; or at any location used by the Company to conduct business.

"Drugs" means prescription drugs, inhalants, and other illegal, controlled, or unauthorized substances that may cause addiction and/or affect coordination of memory, or a drug that federal and state law makes illegal to distribute, use or possess.

"Use" with regard to drugs is defined as having any trace amount of drugs in the applicant's or employee's system, or physical consumption of drugs, "Use" with regard to alcohol is defined as the physical consumption of alcohol. "Use" with regard to drugs and alcohol is also defined as being under the influence of drugs or alcohol at any time during working hours.

"Zero Tolerance" means that if an employee tests positive for drugs or alcohol, as defined by this Policy, the resulting disciplinary action will be termination of employment for cause.

Testing for Types of Drugs/Alcohol and their Cutoff Levels

Drug/Alcohol tests will be conducted in a confidential manner according to procedures adopted by the Company and in compliance with applicable law. Below are the examples of illegal and unauthorized drugs for which Kinder Morgan tests and the , levels at which an employee will be considered as "testing positive for drugs": Employees who test at a alcohol concentration level of .04 or greater will be considered as "testing positive" for alcohol.

1. Marijuana 15 ng/ml

2. Cocaine 150 ng/ml

3. Amphetamines and Methamphetamines 500 ng/ml

4. Opiates (codeine, heroin, morphine) 2000 ng/ml

5. Phencyclidine (PCP or Angel Dust) 25 ng/ml

Types of Drug and Alcohol Testing

Kinder Morgan conducts the following types of drug and alcohol testing:

Drug Testing	Alcohol Testing
1. Pre-employment	1. Reasonable cause
2. Reasonable cause	2. Random (as permitted by federal and state law)
3. Random (as permitted by federal and state law)	3. Return to duty
4. Return to duty	4. Post-Accident
5. Post-Accident	

Searches and Tests

The Company reserves the right to have authorized personnel conduct searches of our employees, contract workers, and employees of third-party contractors without prior notice to determine if this Policy is being violated. Accordingly, all areas of Company property may be searched, including employee work locations, stations, areas, offices, desks, files, lockers, etc.; employees and their personal belongings, vehicles, etc. may also be searched if on or within Company property. Employee searches will be conducted in compliance with applicable law.

The Company reserves the right, at all times, to have authorized personnel conduct urinalyses, blood tests, or other types of tests of our applicants, employees, contract workers, and employees of third-party contractors for the purposes of determining if any such persons are in violation of this Policy. A urinalysis, blood test, or other type of test may be used in the following situations: (a) pre-employment testing, (b) testing based on reasonable cause or suspicion, (c) random or periodic testing, (d) testing following an accident or incident involving injury or property damage, and (e) testing that is consistent with the enforcement of this Policy.

The Company reserves the right to inspect and search Company property at any time without the presence or consent of any employee. An employee who, as a result of a search, has been found in violation of this Policy or other Company Policy will be subject to corrective action as described in the Corrective Action Policy.

Violations of Policy

Any violation of the Drugs and Alcohol in the Workplace Policy will result in disciplinary action being taken, up to and including termination.

Employee Assistance Program

The Employee Assistance Program (EAP) is available to all Company employees. Employees are encouraged to obtain professional help when needed by using the EAP . Employees may contact their supervisor or Human Resources for information about the EAP. The EAP is strictly confidential and available for use by telephoning:

- Magellan Behavioral Health 1-800-424-5654

Use of the EAP does not exempt or excuse a violation of this Policy.

Voluntary Rehabilitation

Any employee who voluntarily seeks counseling or rehabilitation in advance of failing any of the tests or who would otherwise be in violation of this policy must provide certification, in accordance with any applicable governmental requirements, of the credentials of the attending physician, psychologist, or psychiatrist, who is trained in substance abuse disorders.

When the employee successfully completes or is participating in a supervised substance-abuse or alcohol-related rehabilitation program and is no longer engaging in the use of illegal drugs or unauthorized alcohol, the Company requires certification from the substance abuse professional that the employee is fit to return to duty and perform the essential functions of his or her job.

An employee described in the paragraph above will be tested on a random basis by the Medical Review Officer and/or Substance Abuse Professional to ensure such employee is no longer engaging in the illegal use of drugs or unauthorized alcohol.

Interpretation and Exceptions

Questions regarding this Policy should be referred to the Vice President, Human Resources. Requests for exceptions should be submitted to Human Resources for review by Human Resources and the Legal Department to ensure regulatory requirements and appropriate test protocols and standards are met. The President and Chief Operating Officer must approve all exceptions.

This Policy does not constitute or imply a contract between the Company and its employees. This Policy creates no Company obligation nor any individual obligation, right, privilege, term, or condition of employment not otherwise established by law. The Company has voluntarily adopted this Policy for its sole and exclusive and may amend or withdraw it at any time without prior notice.

8.9 VESSEL LOADING PROCEDURES

[The following document is an excerpt of the Facility; Vessel Loading Procedure No. 5.9 and is included here for regulatory reference only].

Subject: Vessel Loading (Outbound)
Procedure No. 5.9

General Comments

The following operating procedures will be used by Kinder Morgan personnel when loading liquid products to a vessel from a shore tank(s). The following comments are important to achieve a full understanding of the procedures as they include references to procedures which are required for special handling of products such as heated or corrosive products.

1. The terms Kinder Morgan Supervisor and TPIC (Terminal Person-in-Charge) are used interchangeably, and all TPIC's must have received the required USCG training before they can act in this capacity.

2. The Conoco Philips fire-watch and PIC are responsible for the dock and manifold area. The vessel's first mate/tankerman or his/her designee (VPIC) is responsible for the vessel. The Conoco Philips fire-watch will monitor the dock and manifold at the direction of a Kinder Morgan operations supervisor. The Conoco Philips fire-watch has the authority to shut down the operation at any time.

3. Richmond Terminal is not equipped with a marine vapor recovery or incineration system.

4. It is a Kinder Morgan policy for vessels to be scheduled for loading on a "First-Come, First-Served" basis, although we reserve the right to depart from this policy at our discretion.

5. Surveyors may be required to test and approve vessel and shore pipelines and manifolds for some products as determined by customer needs. These special instructions must be included on the Vessel Loading/Unloading Schedule (V .L.U.S.) and must be performed before any transfer operation begins.

6. Products which must be heated (i.e. animal fats, vegetable oil, #6 oil, heat sensitive chemicals, etc.) for pumping require extra caution to be sure the product is heated to the proper temperature prior to pump off and also to be certain the product is not overheated.

a. Prior to pumping, pipelines must be checked to be sure they are not plugged and that heat is applied during the operation if required.

b. After pumping, product lines may have to be pigged or blown to ensure the lines are cleared of product. This prevents product from solidifying in the line, and avoids line problems in the future.

c. Caution must be exercised when gauging heated products that are pumped into tanks which are not completely liquid (i.e. animal fats).

d. Hoses must be cleaned, blown or drained after pumping to prevent blockage.

7. Corrosive products require special personal protective equipment which must be worn during transfer operations, and extra attention must be given to eye and skin protection. Care must be exercised when gauging and sampling corrosive products, and safety showers must be checked to be sure they are in good operating condition.

   a. Special attention is required to be sure the pipelines used during the transfer operation are compatible with the product. Corrosive products can cause violent chemical reactions if they are mixed with other reactive products.

   b. Corrosive products may also require the use of special equipment (i.e. scrubbers, etc.) which must be checked to be sure they are operating properly.

8. These procedures do <u>not</u> assume the availability of product meters; but if meter systems are avail\able, the procedures should be modified accordingly. However, this will not relieve the terminal of the responsibility of complying with the balance of the handling requirements.

9. All Kinder Morgan employees involved in marine transfers are responsible for following these procedures.

Subject: Vessel Loading (Outbound)
Procedure No. 5.9

PRE-LOADING PROCEDURES

1. Kinder Morgan receives notice from a customer , in writing (e.g. facsimile, telex), to load product(s) from tankage to a vessel. This notice should contain at least the following information:

   a. Vessel name, dimensions, and loaded draft (if required).
   b. Name(s) and volume(s) of product(s).
   c. Customer order numbers (if applicable).
   d. Estimated time of arrival.
   e. Shore tank(s) to unload (unless designated by Kinder Morgan).
   f. Special instructions, i.e. independent surveyor, lab testing, blending.

   Depending on the customer's requirements, either Kinder Morgan or the customer will arrange for an independent lab surveyor to survey the vessel and shore tank(s). The customer will normally notify the surveyor of the vessel's ETA, and Kinder Morgan will keep the surveyor updated. as the ETA changes.

   NOTE: Information regarding the above may be obtained from the agent and confirmed with the customer.

2. Kinder Morgan will notify the Conoco Philips Bulk Foreman of the E. T .A. and discuss berth availability. If there is a berth conflict between a Kinder Morgan vessel and a Conoco Philips vessel the first come, first serve rule will apply. Conoco Philips will be informed of the following:

   a. Vessel's name.
   b. Name(s) and volume(s) of the product.
   c. Estimated hours alongside.

3. A Kinder Morgan supervisor will obtain the final ETA from the vessel's agent and confirms the following:

   a. Vessel's name.
   b. ETA.
   c. Product name(s).
   d. Customer.
   e. Transfer direction (inbound/outbound).
   f. Berth congestion (if applicable).
   g. Vessel's loaded draft.

4. Once the vessel's ETA has been finalized it may be necessary to notify regulatory agencies, such as the U. S. Coast Guard, Customs, State Lands Commission, local Port Authority and the Fire Department.

h. 5. Based on the order, Kinder Morgan will check the book and physica1 inventories to verify that there is both enough product(s) available to meet the loading request and that the tank inventory is within acceptable limits, consistent wit11 established

i. inventory control practices. If a problem exists, the inventory will be rechecked and if the problem persists, the Customer Service and the Operations Manager will be notified.

j. NOTE: The tank inventory should be checked as close to the vessel's arriva1 time as possible.

k. NOTE: If the product is to be unloaded from a tank with more than one customer, Kinder Morgan must be sure the transfer does not exceed the amount of product the customer currently has in the tank.

l. 6. A V.L.U.S. and Operating Order or its equivalent must be generated by the supervisor and copies distributed to the Kinder Morgan supervisor(s) responsible for the plant/yard and dock areas. One copy of the V .L. U .S .and Operating Order is

m. maintained in the office for control purposes. The following information will be recorded on the V.L.U.S. & operating order:

n. Customer name.

o. Customer order number (if applicable). c. Date.

p. Kinder Morgan order number . e. Shore tank(s) number(s). f. Product(s) name.

q. g. Tons of product to be triU1sferred. h. Vessel name.

a) Vessel tank(s) number(s).

r. j. Name/initials of Kinder Morgan employee who issued V .L.U.S. & Operating Order.

s. k. Estimates of shore tan1(stop gauge.

t. .I. Special instructions: sampling and testing.

u. m. Name and phone of inspection company and vessel agent.

v. The V .L. U .S. must be signed and approved before being issued. It will also be checked to confirm correctness.

w. 7. If the shore tank(s) listed on the V.L.U.S. are not equipped with dedicated dock lines, a note will be placed under the special instructions section of the V .L.U.8. explaining which common dock line to use. The selection of dock lines must be made and verified by appropriate Kinder Morgan operating personnel.

x. **Required Safety Equipment: At the least a hard hat, life jacket, and rubber work gloves must be worn by all personnel on the dock during line handling. Extra safety equipment may be required for corrosive or heated products. Dock personnel will don additional PPE as required by the product MSDS. Life jackets must be worn if working within three feet of the dock's edge.**

y. After receiving one copy of the V.L.U.S. & Operating Order, the Kinder Morgan supervisor will select the proper hoses to expedite the vessel handling operations. All hoses must be clean and compatible or dedicated to the product being transferred. Special attention is required for the proper selection of hoses to handle chemical products to prevent leaks and contamination.

z.Before the vessel arrives, the Kinder Morgan supervisor will inspect the following at the dock area:

aa. Availability of nitrogen (if needed) .

bb. Availability of compressed air (if needed).

cc. Inspect safety eye/shower washes and be assured they are unobstructed and working properly.

dd. Inspect fire protection equipment and insure it is properly located and working

ee. properly.

ff. Check that the potable water meter is in proper working order (if needed).

gg. Check that pollution containment equipment is in working order and on standby.

hh. Boom boat is on standby with:

ii. Charged batteries.

jj. Full fuel tank.

kk. Safety equipment on board.

ll. Pipeline grounding system working properly.

mm. Personnel safety equipment is ready and available:

i) Life preservers.

ii) Hard hats, rubber gloves, eye goggles. face shields, special protective clothing.

iii) First aid kit.

iv) Respirators (if applicable).

nn. Check that radio and telephones are working.

oo. Dock area exhibits good housekeeping a11d adequate walking and working surfaces.

i) Dock lights in working order .

pp. m. Inspect containment boom, if necessary .

qq. n. Check that the dock drip/spill containment system drains are closed and

rr. manifold containment covers removed. Dock drip/spill containments must be free of standing water.

a) Condition of dock crane.

ss. 9. The Kinder Morgan supervisor must have the following paperwork and documentation available in the dock house before the vessel arrives:

tt. Kinder Morgan Marine Operations Manual (MOM).

uu. Signed Letter of Adequacy from USCG Capt. of the Port. c. Blank Declaration of Inspection.

vv. MSDS for each product being handled (not required for veg oils). e. Vessel Log (on file in operations office).

ww. f. Bill of Lading or customer authorization documents (on file in the operations office).

xx. V.L.U.S. & Operating Order. h. Radio receipt sheet.

yy. Dock safety checklist.

zz. 10. Just prior to the vessel's arrival, a Kinder Morgan operator and independent surveyor

aaa. will <u>independently</u> gauge and sample the appropriate shore tank(s). The gauge(s) will be recorded on a gauge sheet. If required, dock lines will also be sampled and tested. The Kinder Morgan operator will also visually check the following:

bbb. Tank manways are secured - no leaking. b. Tank is grounded.

ccc. Valve setups and pressure relief lines are set correctly (if applicable). d. Dike drains are closed and not breached.

ddd. Operational status of the auto tank gauge (if provided).

eee. Verification that maintenance activity is not being conducted on the tank or in the dike area.

fff. 11. Upon the vessel's arrival:

ggg. The Kinder Morgan supervisor will be out on the dock to be sure the vessel is properly spotted and secured, with the vessel's manifold aligned with the dock manifolds.

hhh. NOTE: The Kinder Morgan supervisor may assist the vessel's crew with the tie-up of the vessel, provided he/she has donned a life jacket.

iii. Insulating flanges are used, the vessel will not require a grounding wire.

jjj. The gangway is lowered and secured.

kkk. A Kinder Morgan supervisor boards the vessel and issues a walkie-talkie to the first mate/tankerman/tankerman or his/her designee. The person receiving the radio must sign a radio receipt sheet and is responsible for its safe return. This sheet will record the following:

i) Name of recipient (printed).

ii) 2. Number of radio.

iii) 3. Date/time.

lll. 4. Signature of recipient and Kinder Morgan supervisor.

mmm. TUG BOATS MUST IMMEDIATELY LEAVE THE Kinder Morgan DOCK AREA (UPWIND IF POSSIBLE) AFTER THE VESSEL IS DOCKED, UNLESS PERMISSION HAS BEEN GRANTED BY THE OPERATIONS MANAGER OR HIS/HER DESIGNEE TO REMAIN AT THE DOCK.

nnn. 12. The Kinder Morgan supervisor adds the following information to the vessel log upon the vessel's arrival:

ooo. Most current ETA date/time.

ppp. Time when vessel arrived off the dock. c. Draft upon arrival - forward, and aft.

qqq. Direction of vessel (port or starboard side to the dock). e. Vessel's name.

rrr. Name of the tug used for the vessel's arrival. g. Outbound movement.

sss. h. Location of vessel's manifold. I. Hose size used.

ttt. .i. Number of moves (number of dock lines needed). k. Tide and weather .

uuu. NOTE: If regulations require vessels to be boomed, the pollution containment

vvv. booms must be deployed before any pumping operations can commence. Conoco Philips will provide these services and the Kinder Morgan

www. ISSUE DATE: 06-01-91 PAGE70F17 REVISION DATE: 12-17-99 LDVESSEL.SOP

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SECTION 8

BRISBANE TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

RICHMOND TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE	
●	**EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.
●	**USCG** - Federal Oil Pollution Act of 1990: US Coast Guard Final Rule for Transportation Related On-Shore Facilities as published in 33 CFR Part 154.
●	**OSPR** - California Oil Spill Prevention and Response, Title 14, Division 1 Subdivision 4, Subchapter 3, Section 815.

I certify that this Integrated Contingency Plan (Plan) fulfills the requirements of 33 CFR Subparts F and H. The information and procedures contained herein are also consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plan (ACP).

Area Manager

SECTION 8

SAN JOSE TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

INTEGRATED CONTINGENCY PLAN

Volume 2

KINDER MORGAN
ENERGY PARTNERS, L.P.

Northern Region – California/ Nevada

Sacramento Area
Reno Area
Chico Rocklin Area

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EMERGENCY RESPONSE ACTION PLAN (ERAP)

The users of this Plan carry and maintain the complete Volume 1 and Volume 2 documents and the Plan has been designed for quick reference. Accordingly, the Emergency Response Action Plan (ERAP) for this Integrated Contingency Plan is addressed by cross-reference as follows:

● Qualified Individual	Volume 1 Figure 2.3; Volume 2 § 8.1.2
● Emergency Notification Phone List	Volume 1 §§ 2.1, 2.2; Volume 2 §§ 2.1, 2.2
● Spill Response Notification Form	Volume 1 Figure 2.2
● Response Equipment List and Location	Volume 2 § 3.1 and Figure 3.2
● Response Equipment Testing and Deployment	Volume 2 §§ 3.1, 3.2, 3.3, Figure 3.4
● Facility Response Team	Volume 1 § 2.0; Volume 2 § 2.0
● Evacuation Plan	Volume 2 § 8.4
● Immediate Actions	Volume 1 § 3.4
● Facility Diagram	Volume 2 § 8.1.2, Figure 8.3

REVISION RECORD

CHANGE DATE	REMOVE PAGE NUMBER(S)	INSERT PAGE NUMBER(S)	DESCRIPTION OF CHANGE(S)
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipeline, GATX Terminals, and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	General Plan Updates; Revisions to Address DOT-RSPA Review
January 2005	Pgs. iii, v, 3-5 thru 3-35, Sacramento - 7-2; Bradshaw – 8.1-4, 8.2-3, 8.2-12, 8.2-18, 8.2-20; Reno 7-2; 8.2-2, 8.2-18; 8.2-19; Chico - 8.2-3, 8.2-20, 8.2-21	Pgs. iii, v, 3-5 thru 3-35, Sacramento - 7-2; Bradshaw – 8.1-4, 8.2-3, 8.2-12, 8.2-18, 8.2-20; Reno 7-2; 8.2-2, 8.2-18; 8.2-19; Chico - 8.2-3, 8.2-20, 8.2-21	Miscellaneous Revisions
June 2005	Pgs. iii, iv; 2-1, 3-21, 4-10; Bradshaw - 8.1-3, 8.2-2; Chico - 8.1-2	Pgs. iii, iv; 2-1, 3-21, 4-10; Bradshaw - 8.1-3, 8.2-2; Chico - 8.1-2	Facility information update and miscellaneous revisions; Revisions to address Notifications and OSPR review.
October 2005	Pgs. iii, 2-12 thru 2-15, 3-23; Sacramento – 6-1, 6-3, 6-4; Chico – 8.2-20	Pgs. iii, 2-12 thru 2-15, 3-23; Sacramento – 6-1, 6-3, 6-4; Chico – 8.2-20;	General Plan Update
December 2005	Pgs. Foreword, Table of Contents, 1-1, 1-2, Section 2, Section 3, 4-10, Sacramento - 6-1, 6-4, Bradshaw - 8.1-1, 8.1-3, Figure 8.3, Figure 8.4, Section 8.2, Figure 8.7, Figure 8.8, Figure 8.8(a), Reno - Figure 7.2, Figure 8.3, Figure 8.4, Section 8.2, Figure 8.7, Figure 8.8, Chico - Figure 7.2(a), Figure 7.2(b), Section 8.2 (See revision packet for specific pages.)	Pgs. Foreword, Table of Contents, 1-1, 1-2, Section 2, Section 3, 4-10, Sacramento - 6-1, 6-4, Bradshaw - 8.1-1, 8.1-3, Figure 8.3, Figure 8.4, Section 8.2, Figure 8.7, Figure 8.8, Figure 8.8(a), Figure 8.9, Reno - Figure 7.2, Figure 8.3, Figure 8.4, Section 8.2, Figure 8.7, Figure 8.8, Figure 8.9, Chico - Figure 7.2(a), Figure 7.2(b), Section 8.2, Figure 8.9 (See revision packet for specific pages.)	General Plan Update

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REVISION RECORD (Cont'd)

CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
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September 2006	Fwd pgs. iv, v, 1-1 thru 1-4, 1-6, 2-1 thru 2-4, 2-6, 2-7, 2-10 thru 2-16, 2-18, 2-19, 3-18, 3-24, Sacramento 6-4, 6-11, 6-12, 7-2, Bradshaw Terminal 8.1-4, 8.2-25, 8.2-28, 8.2-29, Reno 6-2, 6-5, Reno Terminal 8.1-5, 8.2-6, 8.2-7, 8.2-8, 8.2-10, Chico Rocklin 6-1 thru 6-3, 6-9, 6-10, 7-4, 7-7, Chico Terminal Figure 8.3, 8.4, 8.2-2, 8.2-3, 8.2-7, 8.2-8, 8.2-9, 8.2-10, Figure 8.7, 8.3-6, 8.3-7, Figure 8.8	Fwd pgs. iiia, iv, v, 1-1 thru 1-4, 1-6, 1-7, 2-1 thru 2-4, 2-6, 2-7, 2-10 thru 2-16, 2-18, 2-19, 3-18, 3-24 and attachments, Sacramento 6-4, 6-11, 6-12, 7-2, Bradshaw Terminal 8.1-4, 8.2-25, 8.2-28, 8.2-29 Reno 6-2, 6-5, Reno Terminal 8.1-5, 8.2-6, 8.2-7,8.2-8, 8.2-10; Chico Rocklin 6-1 thru 6-3, 6-9, 6-10, 7-4, 7-7 Chico Terminal 8.1-7, 8.1-8, 8.2-1, 8.2-2, 8.2-3, 8.2-7 thru 8.2-10, 8.2-30, 8.3-6, 8.3-7, 8.4-3	
November 2007	Pgs. iiia thru v, TOC (all), 2-1 thru 2-11, 2-19; Sacramento Section 6.0 (all); Bradshaw Terminal 8.2-23, 8.2-25; Reno Terminal Section 6.0 (all), 8.1-1; Chico Rocklin Section 6.0 (all)	Pgs. iv thru vi, TOC (all), 2-1 thru 2-11, 2-19; Sacramento Section 6.0 (all); Bradshaw Terminal 8.2-23, 8.2-25; Reno Terminal Section 6.0 (all), 8.1-1; Chico Rocklin Section 6.0 (all), 7-8 (insert Fire Protection Diagram at the end of the section)	Annual Update
March 2008	Pgs. iv thru vi	Pgs. iv thru vi, TOC-v, Section 9.0 (all)	OSPR Resubmission
November 2008	Pgs. iv, 1-5, 1-9, 2-2, 2-3, 2-15, 3-11, 3-15, 3-17, 3-23 (and Universal Environmental pages following) Bradshaw Terminal 8.2-22, 8.2-26, Reno Area 7-2, 8.2-6, 8.2-23, 8.2-24, Chico Rocklin Area 6-1, 6-3, 6-4, 6-7, 6-8, 7-7, Chico Terminal 8.1-7, 8.1-8, 8.2-8, 8.2-11, 8.2-30, 8.4-1, 8.4-3	Pgs. iv, 1-5, 1-9, 2-2, 2-3, 2-15, 3-11, 3-15, 3-17, 3-23 Bradshaw Terminal 8.2-22, 8.2-26, Reno Area 7-2, 8.2-6, 8.2-23, 8.2-24, Chico Rocklin Area 6-1, 6-3, 6-4, 6-7, 6-8, 7-7, Chico Terminal 8.1-7, 8.1-8, 8.2-8, 8.2-11, 8.2-30, 8.4-1, 8.4-3	Annual Review. Update notification, pipeline, facility, and vulnerability information.

REVISION RECORD (Cont'd)			
CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
January 2009	Pgs. v, vi, 9-3, 9-5	Pgs. v, vi, 9-3, 9-5	Distribution, CA COFR and OSPR Plan CNTRL number updates.
June 2009	Pgs. v, 3-18, 3-24 and Ben's Trucking Contract	Pgs. v, 3-18, 3-24 and Ben's Trucking Contract	Update Ben's Trucking Contract
August 2009	Pgs. v thru vii, 2-15, 2-16, 3-1, 3-4 thru 3-22 and OSRO Contract Documents	Pgs. v thru vii, 2-15, 2-16, 3-1, 3-4 thru 3-20 and Ben's Trucking Contract, 3-21 and Clean Harbors Agreement, 3-22 and MSRC Contract.	Annual Review. Update Distribution and response contractor information.
October 2009	Pgs. v thru vii, 2-2, 2-10	Pgs. v thru vii, 2-2, 2-10	Distribution and notification updates.
December 2009	Pgs. v thru vii, 9-3 and 9-5	Pgs. v thru vii, 9-3 and 9-5	Distribution updates and CA COFR renewal.
January 2010	Pgs. v, TOC-I, 2-12 thru 2-16, 3-12 thru 3-15	Pgs. v, TOC-I, 2-12 thru 2-16, 3-12 thru 3-15	Update OSRO and contractor information.
July 2010	Pgs. v, TOC-i, 2-20 and Open End and On-Call Contracts List, 4-5 through 4-10	Pgs. v, TOC-I, 4-5 through 4-22 and Threatened/Endangered Species Lists	PHMSA Advisory Review. Contact information updates.
December 2010	Pgs. v, TOC-iii, 2-14, 2-19, Reno Area 7-2, 8.1-5, 8.1-6 (Retain Area Map, discard General Layout and Fire Protection Diagrams) 8.2-1, 8.2-3, 8.2-6, 8.2-11 through 8.2-27 (Retain Drainage Diagram), 8.4-3 and Evacuation Diagram	Pgs. v, TOC-iii, 2-14, 2-19, Reno Area 7-2, 8.1-5, 8.1-6 (Area Map follows), General Layout and Fire Protection Diagrams, 8.2-1, 8.2-6, 8.2-11 through 8.2-18 (Drainage Diagram follows), 8.4-3 and Evacuation Diagram	Update Oiled Wildlife Care Network contact information. Reno Terminal rail rack addition and corrected tank information.
January 2012	Pgs. v, vi, Chico-Rocklin Area 6-9 and HCA Index, 7-5; Reno Area 6-5 and HCA Index, Section 7 Facility Diagram, 8.1-1; Sacramento Area 6-16 and HCA Index, 7-3, 7-5, 7-7, 8.1-7 and 8.1-8, 8.4-3 through 8.4-5 (Retain Tactical Plans), 9-3.	Pgs. v, vi, Chico-Rocklin Area 6-9 and HCA Index, 7-5 and Rocklin Station General Layout, Fire Protection and Evacuation Diagrams; Reno Area 6-5 and HCA Index, General Layout Diagram (following 7-2), 8.1-1; Sacramento Area 6-16 and HCA Index, 7-3 and Bradshaw Terminal Diagrams, 7-5 and Sacramento Station Diagrams, 7-7 and Stockton Station Diagrams, 8.1-7 and Bradshaw Terminal Diagrams, 8.4-3, Evacuation Diagrams, 8.4-4, 9-3.	Update HCA Index and HCA Drawing references, update facility diagrams, update CA COFR dates.
June 2012	Pgs. v, 2-12, 2-13, 3-12 thru 3-15, 3-20 and Ben's Trucking Information,9-5	Pgs. v, 2-12, 2-13, 3-12 thru 3-15, 3-20 and NRCES Contract exerpt,9-5	Update Operations Manager and OSRO information.

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2, 21, 22 7	Director of Operations (3) 709 Beck Avenue Fairfield, CA 94533 Operations Manager	C	C	C	C	C
   13 14, 16, 17 18 19, 20	Orange Facilities 1100 Town & Country Road Orange, CA 92868 Crisis Relocation Center Mission Valley Orange Control Center (4) Orange Remediation Group (Environmental Specialist) Orange Engineering (2)	C	C	C	C	C
8	Area Manager (Sacramento Area - Bradshaw Terminal) 2901 Bradshaw Road Sacramento, CA 95827	A	A			A
9 24	Area Manager (Chico Rocklin Area - Chico Terminal) 2570 Hegan Lane Chico, CA 95928 Lead Operator (Chico Terminal)	A			A	
10 25	Area Manager (Reno Area - Reno Terminal) 301 Nugget Avenue Sparks, NV 89431 Lead Operator (Reno/Sparks Terminal)	A		A		

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A = 2.0" Binder
C = 3.0" Binder

1.0 INTRODUCTION AND PLAN CONTENT

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

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1001 Louisiana Street, Suite 1000
Houston, Texas 77002
(713) 369-9454

Qualified Individual:	Doug Schminke Director Operations 707.438.2104 *(Office)* (b) (6) *(Mobile)* doug_schminke@kindermorgan.com
Alternate Qualified Individual:	Steve Osborn Operations Manager 916.624.2431x13 *(Office)* (b) (6) *(Mobile)* osborns@kindermorgan.com
Area Manager – Sacramento, Bradshaw	Ken Yeo 916.369.9772Office (b) (6) Mobile yeok@kindermorgan.com
Area Manager – Reno	Gary Kulaszewski 775.358.6971Office (b) (6) Mobile gary_kulaszewski@kindermorgan.com
Area Manager – Chico, Rocklin	Frank Villalovos II 530.342.6140 Office (b) (6) Mobile villalovosf@kindermorgan.com

1.2 OPERATING ASSETS COVERED BY THIS PLAN

The following tables provide a general information summary for the pipeline sections, pipeline facilities, breakout stations and terminals in each of the Areas in this Region. Specific detail can be located in the following sections for the applicable area.

- Section 6 – Area Pipeline Sections (for DOT jurisdiction)
- Section 7 – Area Breakout Stations (for DOT jurisdiction)
- Section 8 – Area Terminals (for EPA jurisdiction)

SACRAMENTO AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
SACRAMENTO AREA LINES		
Hay Road - Sacramento 20”	130	Yolo, CA
Sacramento - Shell 10”	34	Yolo, CA
Sacramento - Shell 10”	35	Yolo, CA
Sacramento - Arco 10”	29	Yolo, CA
Sacramento - Arco 10”	31	Yolo, CA
Sacramento - River Junction 10”	28	Yolo, Sacramento, CA
Sacramento - Antelope Road 12”	20	Yolo, Sacramento, Placer, CA
BRADSHAW AREA LINES		
Brentwood Junction - Bradshaw 10”	9	San Joaquin, Sacramento, CA
Bradshaw – Mather 4”	57	Sacramento, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

SACRAMENTO AREA (Cont'd)	
PIPELINE FACILITIES (Non-Storage)	
Brentwood Junction - Piping Manifold Only	
Stockton Junction - Piping Manifold Only	
Sacramento River Junction - Piping Manifold Only	
Sacramento Shell Terminal - Manifold Only	
Atwater Terminal - Piping Manifold Only	
Mather Airport - Meter Station Only	
Rough & Ready Junction - Piping Manifold Only	
Sacramento Airport Junction Take-off - Piping Manifold Only	
West Capital - Meter Station Only	
BREAKOUT STATIONS	**COUNTY / STATE**
Sacramento Station	Yolo, CA
Stockton Terminal	San Joaquin, CA
TERMINALS	**COUNTY / STATE**
Bradshaw Terminal	Sacramento, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

RENO AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
RENO AREA LINES		
Donner Summit - State Line 8"/10"	12	Nevada, Sierra, CA
Donner Summit - Reno Terminal 10"/6"	12,13	Washoe, Lyon, NV
Reno - Fallon 6"	55	Washoe, Churchill, NV
PIPELINE FACILITIES (Non-Storage)		
Fallon Terminal – Meter Station Only		
BREAKOUT STATIONS		**COUNTY / STATE**
None		---
TERMINALS		**COUNTY / STATE**
Reno Terminal		Washoe, NV

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

CHICO ROCKLIN AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
CHICO ROCKLIN AREA LINES		
Antelope Road - Rocklin 12"	20	Sacramento, Placer, CA
Rocklin - Chico 8"	64	Placer, Yuba, Butte, Sutter, CA
Erle - Beale 6"	65	Yuba, CA
Rocklin – UPRR 4"	48	Placer, CA
Rocklin – Colfax 10"/6"/10"	11	Placer, CA
Colfax – Donner Summit 8"	12	Placer, Nevada, CA
PIPELINE FACILITIES (Non-Storage)		
UPRR Terminal - Meter Station Only		
Feather Pump Station - Booster		
Colfax Pump Station - Booster		
Cisco Grove Pump Station - Booster		
Erle Junction - Piping Manifold Only		
BREAKOUT STATIONS		**COUNTY / STATE**
Rocklin Station		Sacramento, CA
Beale Terminal		Yuba, CA
TERMINALS		**COUNTY / STATE**
Chico Terminal		Butte, CA

1.3 SUBSTANTIAL HARM

It is Kinder Morgan Energy Partners, L.P.'s (KMEP) goal to respond as quickly as possible to all uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the overbreadth of the definitions provided in each of the applicable regulations, KMEP is compelled to consider all of the Facility's breakout stations, and active line sections listed above in this Section, as capable of a release potentially causing "significant and substantial harm". A summary of the Worst Case Discharge scenarios for these facilities is provided as follows:

NORTHERN REGION – CALIFORNIA/NEVADA WORST CASE DISCHARGE DOT JURISDICTION	
Discharge Scenario	**Planning Volume**
(b) (7)(F), (b) (3)	

* DOT Worst Case Discharge volumes are based on 50% of the tank maximum storage capacity and for pipelines based on an annual Integrity Management Program study, as follows:

Release volume prior to line shutdown and valve closures (Initial Loss):

- Full flow release due to rupture. This is computed at the maximum pumping rate the line segment.
- Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of fifteen (15) minutes in the event of a full flow rupture, which would cause an instant alarm (unless otherwise noted in the line segment information).
- Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

Line drainage following pump shutdown (Stabilization Loss) is computed the maximum potential line drainage between adjacent isolation or check valves, and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line. The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

1.3 SUBSTANTIAL HARM (Cont'd)

NORTHERN REGION – CALIFORNIA/NEVADA WORST CASE DISCHARGE EPA JURISDICTION	
Discharge Scenario	**Planning Volume**
Small Discharge	
• Bradshaw Terminal	50 bbls
• Chico Terminal	50 bbls
• Reno Terminal	50 bbls
Medium Discharge	
• Bradshaw Terminal	857 bbls
• Chico Terminal	857 bbls
• Reno Terminal	857 bbls
Worst Case Discharge*	
(b) (7)(F), (b) (3)	

* EPA Worst Case Discharge is based on the maximum storage capacity of the largest tank at each Facility.

NORTHERN REGION BAY WORST CASE DISCHARGE CALIFORNIA OSPR JURISDICTION
The Reasonable Worst Case Spill (RWCS) for the California OSPR jurisdictional pipeline segments are detailed in Section 9.3.

These Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three-tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. Sections 6, 7, 8 and 9 of this Plan demonstrate a series of calculations and planning volume determinations based on guidance provided by all applicable regulations. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios detailed in the table above.

1.4 FORMAT AND SCOPE OF PLAN

This Volume 2 of the Integrated Contingency Plan (ICP) is intended to guide emergency response activities throughout KMEPs Pacific Operation Northern Region – California/Nevada. This Region is divided into three (3) Areas (see Figure 1.1) each of which has its own tab in this document. These areas are as follows:

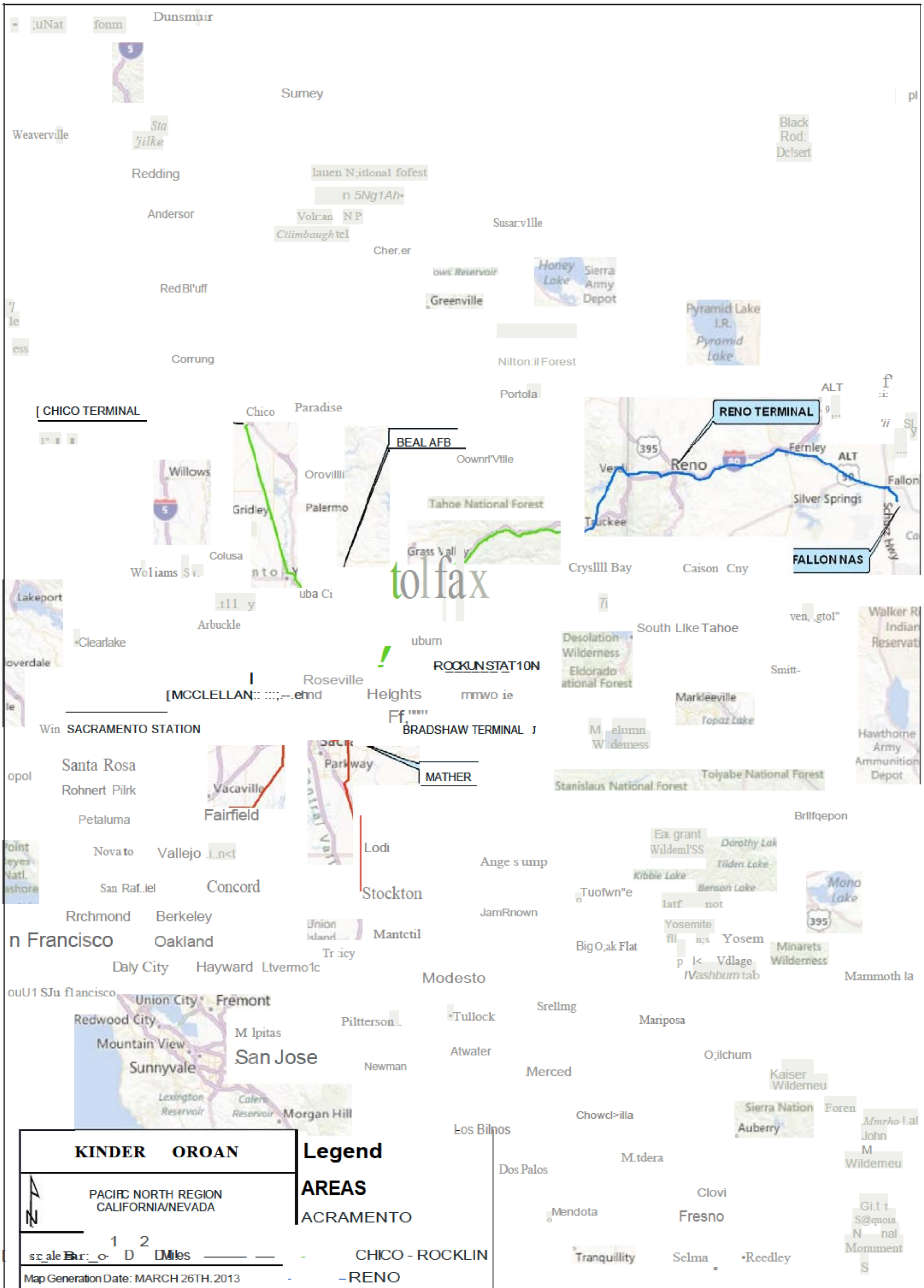
- Sacramento Area
- Reno Area
- Chico Rocklin Area

Each of the Volume 2 plans in this ICP has identical Sections 1 through 5. Section 6 of each Area details the Pipeline Sections in the respective area, Section 7 of each Area details the Breakout Stations/Terminals (DOT-jurisdictional) in the respective area, and Sections 8 of each Area details the Terminals (multi-jurisdictional) in the respective Area. The Areas covered by this particular plan are identified on the front cover of this plan and on the footer of each page and on the maps provided in Figure 1.1.

Volume 1 of the Integrated Contingency Plan provides guidance which is consistent across the Pacific Operations. The two (2) documents are intended to work together as one seamless Integrated Contingency Plan for the various facilities/operations and agency jurisdictions in Pacific Operations.

Figure 1.1

NORTHERN REGION-CALIFORNIA/NEVADA AREA MAP



Dunsmuir
Weaverville
Redding
Cher.er
Greenville
Honey Lake
Sierra Army Depot
Pyramid Lake I.R.
Pyramid Lake
Portola
CHICO TERMINAL
Chico
Paradise
BEAL AFB
RENO TERMINAL
Reno
Fernley
Verdi
Truckee
Silver Springs
Fallon
FALLON NAS
Willows
Gridley
Palermo
Tahoe National Forest
Colusa
Lakeport
Clearlake
Arbuckle
South Lake Tahoe
Desolation Wilderness
Eldorado National Forest
Walker River Indian Reservation
ROCKLIN STATION
Roseville
Heights
Markleeville
Topaz Lake
BRADSHAW TERMINAL
SACRAMENTO STATION
Hawthorne Army Ammunition Depot
Santa Rosa
Rohnert Park
Petaluma
Vacaville
Fairfield
Parkway
MATHER
Stanislaus National Forest
Toiyabe National Forest
Novato
Vallejo
Lodi
Stockton
Dorothy Lake
Tilden Lake
Kibbie Lake
Benson Lake
Mono Lake
San Rafael
Concord
Richmond
Berkeley
Yosemite
Minarets Wilderness
San Francisco
Oakland
Daly City
Hayward
Modesto
Mammoth Lakes
Union City
Fremont
Redwood City
Mountain View
Sunnyvale
San Jose
Newman
Atwater
Merced
Mariposa
Kaiser Wilderness
Lexington Reservoir
Calero Reservoir
Morgan Hill
Los Banos
Sierra National Forest
Auberry
Dos Palos
Madera
Clovis
Mendota
Fresno
Tranquillity
Selma
Reedley
KINDER MORGAN
PACIFIC NORTH REGION
CALIFORNIA/NEVADA
N
Map Generation Date: MARCH 26TH 2013
Legend
AREAS
SACRAMENTO
CHICO - ROCKLIN
RENO

2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific reference to all internal notifications is detailed in **Volume 1** Section 2.1 which provides the following:

- KM Employee or Agent Notification Process - California Only (Figure 2.1a)
- Operator Notification Process - Non-California (Figure 2.1b)
- Company Employee Other Than Operator Notification Process - Non-California (Figure 2.1c)
- Controller - Orange, CA Notification Process - California Only (Figure 2.1d-1)
- Controller - Orange, CA Notification Process - Non-California (Figure 2.1d-2)
- Controller - Houston, TX Notification Process (Figure 2.1e)
- Managers Internal Notification Process (Figure 2.1f)
- Initial Reporting Details Form (Figure 2.2)
- Northern Region Internal Notifications References (Figure 2.3a)
- Southern Region Internal Notifications References (Figure 2.3b)
- Crisis Support Team Internal Notifications References (Figure 2.3c)

2.2 EXTERNAL NOTIFICATIONS

Specific reference to all **"Regulatory Required"** external notifications is detailed in Volume 1, Figure 2.1 and Figure 2.4. **With the exception of notification to 911 and/or local fire/police agencies which are handled by local area operations, the Environmental, Health and Safety (EHS) and/or Compliance, Codes and Standards is responsible for making all regulatory required external notifications in all states other than in California. In California and locations monitoring or controlling, pipeline sections in California, refer to Volume 1, Section 2.2 and Figure 2.4.**

The locally required notifications and additional external notification references which are detailed in the following Volume 2, Figure 2.1 provide for assistance/advisory notifications. Specific notifications for contacting OSRO's is found in Volume 2, Figure, 2.1, "_____ Terminal Response Contractors".

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FIRE DEPARTMENTS		
California		
Capay Valley Fire District	Woodland, CA	(530) 666-8515
Chico Fire Department	Chico, CA	(530) 895-4999
Butte County Fire Department	Oroville, CA	(530) 533-6363
Downieville Fire Department	Downieville, CA	(530) 289-3333
Sutter County Fire Department	Sutter, CA	(530) 822-7307
Sacramento City Fire Department	Sacramento, CA	(916) 228-3035
Sacramento Metropolitan Fire Department	Sacramento, CA	(916) 566-4000
Live Oak Fire Department	Live Oak, CA	(530) 695-3522
Marysville Fire Department	Marysville, CA	(530) 741-6622
Wheatland Fire Department	Wheatland, CA	(530) 633-0861
Lincoln Fire Department	Lincoln, CA	(916) 645-4040
Colfax Fire Department	Colfax, CA	(530) 346-2323
Truckee Fire Department	Truckee, CA	(530) 582-7850 (530) 582-7853
Nevada		
Churchill County Fire Dept.	Fallon, NV	(775) 423-7372
Storey County Fire Dept.	Virginia City, NV	(775) 847-0954
Sparks City Fire Dept.	Sparks, NV	(775) 353-2255 (9-5) (775) 353-2231 (After Hours)
Reno Fire Dept. Admin Office	Reno, NV	(775) 334-2300
Lyon County Fire Dept.	Fernley, NV	(775) 575-3310

* 24 - hours

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS
(outside resources)
NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS

AGENCY	LOCATION	OFFICE/ ALTERNATE
FEDERAL		
U.S. Coast Guard (Recommended Courtesy Call - As Applicable)		
U.S. Coast Guard - Sector San Francisco (*Contra Costa, Sacramento, Butte, Placer, Sutter, Yolo, Yuba, Sierra, Nevada, Solano, Merced, Stanislaus and San Joaquin Counties and Nevada*)	San Francisco, CA	(415) 399-3547 (415) 556-2103*
U.S. Department of the Interior		
U.S. Department of the Interior Bureau of Reclamation (Lahontan Basin Area Office)	Carson City, NV	(775) 882-3436
U.S. Environmental Protection Agency (EPA)		
U.S. Environmental Protection Agency (EPA) Region IX	San Francisco, CA	(415) 947-4400 (800) 300-2193
U.S. Fish and Wildlife Service		
US Fish and Wildlife Service (USFWS) *(California/Nevada)*	Sacramento, CA	(916) 414-6464
CALIFORNIA		
Office of Spill Prevention and Response (OSPR)		
California Department of Fish and Game Office of Spill Prevention and Response (OSPR)	Sacramento, CA	(916) 341-6957 (916) 358-1312 (After Hours)
LEPC		
Local Emergency Planning Committee (LEPC) Region II-*Contra Costa and Solano Counties*	Newark, CA	(510) 286-6740
Local Emergency Planning Committee (LEPC) Region III-*Butte, Sutter, Yuba and Sierra Counties*	Marysville, CA	(530) 749-7520
Local Emergency Planning Committee (LEPC) Region IV-*Sacramento, Placer, San Joaquin, Stanislaus, Yolo and Nevada Counties*	Sacramento, CA	(916) 845-8470
Local Emergency Planning Committee (LEPC) Region V – *Merced County*	Bakersfield, CA	(661) 391-7110
California Department of Transportation (DOT)		
California Department of Transportation/Caltrans	Sacramento, CA	(916) 653-3442

* 24-hour number

NORTHERN REGION-CALNEV

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA (Cont'd)		
Regional Water Quality Control Board		
Regional Water Quality Control Board (Region 2)	Oakland, CA	(510) 622-2300
Regional Water Quality Control Board (Region 5)	Redding, CA Sacramento, CA	(530) 224-4845
Regional Water Quality Control Board (Region 6)	South Lake Tahoe, CA	(530) 542-5400
Air Pollution Control District		
Feather River Air Quality Management District	Marysville, CA	(530) 634-7659
Bay Area Air Quality Management District	San Francisco, CA	(415) 771-6000
Butte County Air Pollution Control District	Chico, CA	(530) 891-2882
Sacramento Metro Air Quality Management District	Sacramento, CA	(916) 874-4800
San Joaquin Valley Air Pollution Control District	Fresno, CA	(559) 230-6000
Northern Sierra Air Quality Management District	Grass Valley, CA	(530) 274-9360
Yolo - Solano Air Quality Management District	Davis, CA	(530) 757-3656
Placer County Air Pollution Control District	Auburn, CA	(530) 745-2330
California Department of Conservation		
California Department of Conservation Division of Oil and Gas	Sacramento, CA	(916) 322-1110
State Lands Commission		
California State Lands Commission No. California Branch	Hercules, CA	(510) 741-4950
Cal/OSHA		
Cal/OSHA		
Sierra, Nevada, Placer and Sacramento Counties	Sacramento, CA	(916) 263-2800
Yolo, Yuba, Sutter and Butte Counties	Redding, CA	(530) 224-4743
Merced, Stanislaus and San Joaquin Counties	Modesto, CA	(209) 576-6260
Solano and Contra Costa Counties	Concord, CA	(925) 602-6517

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CALNEV

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA (Cont'd)		
Native American Heritage Commission		
Native American Heritage Commission	Sacramento, CA	(916) 653-4082
Office of Historic Preservation Dept. Parks and Recreation		
Office of Historic Preservation Dept. Parks and Recreation	Sacramento, CA	(916) 653-6624
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)		
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)	Sacramento, CA	(916) 653-4529 (24-Hour recorder)
Dig Alert		
USA Underground Service Alert	Concord, CA	(800) 642-2444
Fire Marshal		
Office of the State Fire Marshal 3950 Paramount Blvd #210 Lakewood, CA 90712	Lakewood, CA	(562) 497-9100 * (562) 497-9104 FAX
Law Enforcements		
State Police (Highway Patrol)	Chico, CA	(530) 879-1999
State Police (Highway Patrol)	Rancho Cordova, CA	(916) 861-1333
State Police (Highway Patrol)	Newcastle, CA	(916) 663-3344
State Police (Highway Patrol)	Truckee, CA	(530) 582-7500
State Police (Highway Patrol)	Stockton, CA	(209) 943-8600
State Police (Highway Patrol)	Martinez, CA	(925) 646-4980

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CALNEV

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA (Cont'd)		
Law Enforcements (Cont'd)		
State Police (Highway Patrol)	Atwater CA	(209) 356-2900
State Police (Highway Patrol)	Fairfield, CA	(707) 428-2100
Local Water Supply System		
City of Sacramento	Sacramento, CA	(916) 264-5371
City of Chico	Chico, CA	(530) 895-8486
City of Concord	Concord, CA	(925) 688-8044
Truckee/Donner P.U.D	Truckee, CA	(530) 587-3896
Sierra Lakes County Water Dist.	Soda Springs, CA	(530) 426-7800
Weimar Water Co.	Weimar, CA	(530) 637-4441
Placer County Water	Auburn, CA	(530) 823-4850
South Placer Municipal	Loomis, CA	(916) 652-5877
Butte Water Dist.	Gridley, CA	(530) 846-3100
Linda County Water Dist.	Marysville, CA	(530) 743-2043
California Water Service Co.	Dixon, CA	(707) 678-5928
Plain View Water Dist.	Tracey, CA	(209) 835-0375
Central San Joaquin Water Dist.	Stockton, CA	(209) 466-7952
Del Puerto Water Dist.	Patterson, CA	(209) 892-4470
SSJID	Ripon, CA	(209) 599-2642
Franklin County Water Dist.	Merced, CA	(209) 723-1353

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA (Cont'd)		
Weather Report		
Weather Report National Weather Service	Sacramento, CA	(916) 979-3051
Radio / Television		
KCHO – Radio	Chico, CA	(530) 898-5896
KHSL – Radio	Chico, CA	(530) 345-0021
KFSG – Radio	Sacramento, CA	(916) 456-3288
KMYC – Radio	Marysville, CA	(530) 742-5555
KHKK – Radio	Stockton, CA	(209) 937-0104
KSJO – Radio	Concord, CA	(925) 825-9000
KUIC – Radio	Vacaville, CA	(707) 446-0200
KDVS – Radio	Davis, CA	(530) 752-0728
KIID – Radio	Granite Bay, CA	(916) 780-1470
KKCY – Radio	Yuba City, CA	(530) 673-2200
KAHI – Radio	Auburn, CA	(530) 885-5636
KHTN 105 - Radio	Merced, CA	(209) 383-7900
KCRA - TV	Modesto, CA	(209) 491-5170
KMPH - TV	Merced, CA	(209) 722-1700
Auburn Area Access – TV	Auburn, CA	(530) 887-8778
KOVR Channel 13 – TV	Broderick, CA	(916) 374-1313

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA (Cont'd)		
Radio / Television (Cont'd)		
KVIE – TV	Sacramento, CA	(916) 929-5843
KCVU – TV	Chico, CA	(530) 893-1234
KIXE Channel 9 – TV	Chico, CA	(530) 891-5493
News 10 – TV	Stockton, CA	(209) 463-8471
KCSO – TV	Modesto, CA	(209) 529-5100
KFCB Channel 42 – TV	Concord, CA	(925) 825-4242
KOVR Channel 13 – TV	Broderick, CA	(916) 374-1313
Hospitals/Ambulance Service		
Enloe Hospital	Chico, CA	(530) 332-7300
Enloe Health Center	Chico, CA	(530) 332-6890
Mercy Hospital	Sacramento, CA	(916) 453-4545
Kaiser Hospital	Sacramento, CA	(916) 688-2000
Live Oak Manor	Live Oak, CA	(530) 695-8020
Memorial Medical Center	Modesto, CA	(209) 526-4500
Mercy Hospital	Merced, CA	(209) 384-6444
Meadow View Manor	Grass Valley, CA	(530) 272-2273
Community Medical Center	Stockton, CA	(209) 944-4710
Sutter Tracy Community Hospital	Tracy, CA	(209) 835-1500
Mt. Diablo Medical Center	Concord, CA	(925) 682-8200
Rideout Memorial Hospital	Marysville, CA	(530) 749-4300

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA (Cont'd)		
Hospitals / Ambulance Service		
Biggs Gridley Memorial Hospital	Gridley, CA	(530) 846-5671
Tahoe Forest Hospital	Truckee, CA	(530) 587-6011
Sutter Roseville Medical Center	Roseville, CA	(916) 781-1000
Sutter Auburn Faith Hospital	Auburn, CA	(530) 888-4500
Sutter Davis Hospital	Davis, CA	(530) 756-6440
Northbay Medical Center	Fairfield, CA	(707) 429-3600
First Responder EMS, Inc.	Chico, CA	(530) 891-4357
First Responder EMS, Inc.	Sacramento, CA	(916) 381-3780
Riggs Ambulance	Merced, CA	(209) 725-7000
American Medical Response	Modesto, CA	(209) 567-4000
American Medical Response	Colfax, CA	(530) 346-6646
Bay Medic Ambulance	Concord, CA	(925) 689-9000
Sierra Nevada Ambulance Service	Grass Valley, CA	(530) 273-1414

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CALNEV

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
NEVADA		
Nevada Department of Transportation (DOT)		
Nevada Dept. of Transportation	Carson City, NV	(775) 888-7000
Air Quality Management Division		
Washoe County AQMD	Reno, NV	(775) 784-7200
Emergency Management		
Washoe County Emergency Management Reno Fire Dept. Admin. Office	Reno, NV	(775) 337-5898 (775) 334-2300
Dig Alert		
USA Underground Service Alert	Concord, CA	(800) 642-2444
Fire Marshal		
State Fire Marshal	Carson City, NV	(775) 684-7500
Law Enforcements		
Nevada Highway Patrol	Carson City, NV	(775) 687-5300
Fallon City Police Dept./Mayor's Office	Fallon, NV	(775) 423-0167
Sparks City Police Dept.	Sparks, NV	(775) 353-2231
Battalion Chief		(775) 353-2259 (775) 353-2258 (Chief)
Environmental Protection		
Nevada Division of Environmental Protection	Carson City, NV	(775) 687-4670 (0800-1700) (775) 687-5300 (after hours) (775) 687-4240 (775) 688-2830 (after hours)
City of Sparks Environmental	Sparks, NV	(775) 691-9227* (Spill Hotline) (775) 861-4152

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CALNEV

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
NEVADA		
Local Water Supply		
Truckee Meadows Water Authority	Reno, NV	(775) 834-8090
Silver Springs Water Co.	Silver Springs, NV	(775) 577-2223
Washoe Water Co.	Sparks, NV	(775) 825-4426
Parr – Reno Water Co.	Reno, NV	(775) 324-0561
Weather Report		
National Weather Service	Reno, NV	(775) 673-8100 (877) 687-6237
Radio/Television		
KUNR – Radio	Reno, NV	(775) 784-1867
KQLO – Radio	Reno, NV	(775) 322-0847
KVLV – Radio	Fallon, NV	(775) 423-2243
KRNG – Radio	Wadsworth, NV	(775) 575-7722
KTVN Channel 2 – TV	Reno, NV	(775) 858-2222
KREN TV WB	Reno, NV	(775) 786-6666
Ambulance / Hospitals		
WASHOE Medical Center	Reno, NV	(775) 982-4100
St. Mary's Hospital	Reno, NV	(775) 770-3000
Churchill Community Hospital	Fernley, NV	(775) 786-0509
Churchill Community Hospital	Fallon, NV	(775) 423-3151
Northern Nevada Medical Center	Sparks, NV	(775) 331-7000
Care Flight/REMSA	Reno, NV	(775) 858-5700

NORTHERN REGION-CALNEV

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

BRADSHAW TERMINAL RESPONSE CONTRACTORS			
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)			
COMPANY *	SERVICE	LOCATION	OFFICE ALTERNATE
Northern Region-California Nevada – Bradshaw Terminal			
Marine Spill Response Corporation (MSRC) *	Spill Removal Organization	Sacramento, CA	(800) 645-7745* (925) 685-2800*
NRC Environmental Services Company	Spill Removal Organization	Sacramento, CA	(800) 337-7455* (916) 371-7202

Planning Assumptions: On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization - 30 minutes.

* 24 Hour Number

NORTHERN REGION CALIFORNIA NEVADA-BRADSHAW TERMINAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

CHICO TERMINAL RESPONSE CONTRACTORS			
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)			
COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Northern Region-California Nevada – Chico Terminal			
NRC Environmental Services Company	Spill Removal Organization	Chico, CA	(800) 337-7455* (530) 343-5488
Marine Spill Response Corporation (MSRC)	Spill Removal Organization	Sacramento, CA	(800) 645-7745* (925) 685-2800*

Planning Assumptions: On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization - 30 minutes.

* 24 Hour Number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

RENO TERMINAL RESPONSE CONTRACTORS			
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Northern Region-California Nevada – Reno Terminal			
Clean Harbors Environmental, Inc.	Spill Removal Organization	Sparks, NV	(800) 645-8265* (775) 331-9400*
Marine Spill Response Corporation (MSRC)	Spill Removal Organization	Sacramento, CA	(800) 645-7745* (925) 685-2800*
NRC Environmental Services Company	Spill Removal Organization	Sacramento, CA	(800) 337-7455* (530) 343-4356

Planning Assumptions: On-water speed, 5 knots; land speed, 35 miles per hour; notification/ mobilization - 30 minutes.

* 24 Hour Number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS

ADDITIONAL RESPONSE RESOURCES

COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Non-USCG Classified OSRO with Contract Agreement			
Ben's Truck & Equipment, Inc.	Cleanup Contractor Heavy equipment Vac-Truck Service	Red Bluff, CA	(530) 527-5040
Clean Harbors Environmental Services, Inc.	Cleanup Contractor	Sparks, NV	(800) 645-8265* (775) 331-9400*
H2O Environmental	Cleanup Contractor	Sparks, NV	(775) 351-2237
Ecology Control Industries, Inc.	Cleanup Contractor	Richmond, CA Torrance, CA	(800) 321-5479* (510) 235-1393* (310) 320-2555*
PSC Industrial Outsourcing, Inc.	Cleanup Contractor	Benicia, CA	(707) 746-8287* (800) 800-7472*

DISPOSAL FACILITY	LOCATION	MATERIAL	OFFICE/ ALTERNATE	EPA ID#
Royal Tallow	San Francisco, CA	Non-hazardous liquids	(415) 647-4890	CAD 982361016
Republic Services VASCO Road LLC	Livermore, CA	Non-hazardous solids	(925) 447-0491	CAD 982407645
Romic Environmental Technologies Corp.	East Palo Alto, CA	Hazardous solids and liquids	(800) 766-4248	CAD 009452602
Clean Harbors	Buttonwillow, CA	Hazardous landfill	(661) 762-6200	CAD 980675276
General Environmental Management	Rancho Cordova, CA	Hazardous solids and liquids	(916) 351-0980	CAD 980884183

NOTE: Internal Company Numbers are provided in Volume 1.
* 24-hour number

NORTHERN REGION-CALIFIORNIA NEVADA

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL CONTRACTED RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Environmental Consultants			
Witt O'Brien's	SMT Support/Consultants	Slidell, LA Houston, TX	(985) 781-0804* (281) 320-9796*
Pipeline Contractor			
ARB, Inc.	Pipeline Contractor	Pittsburg, CA	(925) 432-3563*
Arizona Pipeline Co.	Pipeline Contractor	Corona, CA	(951) 270-3100
Corey Delta Construction Co.	Pipeline Contractor	Benicia, CA	(707) 747-7500*
Trucking Companies			
Ecology Control Industries, Inc.	Hazardous Waste Transporter	Richmond, CA	(510) 235-1393
X-Ray			
Industrial Tests, Inc.	X-ray	Rancho Cordova, CA	(916) 859-5959

NOTE: Internal Company Numbers are provided in Volume 1.
* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Cleanup Contractor			
Asta Construction Co.	Hazardous Waste & Materials	Rio Vista, CA	(707) 374-6472
Beneto Tank Line	Tank Trucks, Pumps, Hoses, Boom	Fresno, CA	(559) 266-6228
Delta Oilfield Services	Hazardous Waste & Materials	Woodward, CA	(530) 662-2841
Environmental Consultants			
Fluor Daniel	Consultants	Redwood City, CA	(415) 595-6342 595-6244 595-6310
Groundwater Tech.	Consultants	Concord, CA	(510) 671-2387
Kaprealian Engineering	Consultants	Martinez, CA	(510) 676-9100
Woodward/Clyde	Consultants	Oakland, CA San Jose, CA	(510) 444-1256 (408) 297-9585
Heavy Equipment			
Albany Construction Co.	Cranes	Martinez, CA	(925) 228-5400
BL Griffin	Pumps, Hoses	Chico, CA	(530) 342-4391
Cliff Edwards	Backhoe, Dozers, Trucks, Tank Trucks	Colfax, CA	(916) 346-2432
Collins Construction	Backhoe	Clovis, CA	(559) 299-4295 Dennis Collins
Cresco Equipment Rentals	Equipment Rental	Martinez, CA	(925) 228-9811 (800) 649-6629
Crutchfield Const Co.	Backhoe, Side Boom Trucks, Dump Trucks	Stockton, CA	(209) 463-5352 (209) 931-9287 – Linden
Granite Construction	Equipment Rental	Sparks, NV	(775) 358-8792

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES

ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING) (Cont'd)

COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Heavy Equipment (Cont'd)			
Hertz Equipment Rental	Equipment Rental	Concord, CA Fresno, CA	(925) 680-0316 (559) 497-1960
Manson Construction	Group V Oil Cleanup	Richmond, CA	(510) 232-6319
Fredrickson Tank Lines, Inc.	Tank Trucks, Pumps		(775) 358-2730 (916) 371-4655 Ext. 2 (Dispatch)
Parker Diving Service	Group V Oil Cleanup	Forest Knolls, CA	(415) 488-0537*
Paydirt Excavating Co.	Backhoe, Loader, Trucks	Ripon, CA	(209) 599-2347
Philip Services	Vacuum Trucks	Benicia, CA	(702) 358-4435
Placer Tractor Service	Equipment	Loomis, CA	(916) 652-5535
Quinn "Cat" Rental	Heavy Equipment	Fresno, CA	(559) 268-8800
Ramos Environmental	Tank Trucks, Pumps, Hoses, Vacuum Trucks	West Sacramento, CA	(916) 371-5747
Teichert Construction	Excavating Equipment	Truckee, CA Sacramento, CA	(530) 587-3811 (916) 386-6800
Truckee Sanitary Dist	Backhoe, Loaders	Truckee, CA	(530) 587-3804
United Rentals	Equipment Rental	Rocklin, CA Chico, CA Sparks, NV	(916) 624-0641 (530) 894-7799 (775) 359-6660
West Valley Construction Co.	Construction Equipment, Fill Material	Chico, CA	(530) 895-0216 (Day/Night)
W F Landy / Gomes Excavation	Excavation	Rio Vista, CA	(707) 374-2881
Williams Tank Lines, Inc	Tank Trucks, Pumps, Hoses	Stockton, CA	(209) 944-5613
Pipeline Contractor			
W. M. Lyles Co.	Pipeline Contractor	Fresno, CA	(559) 237-2200

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING) (Cont'd)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Vacuum and Tank Trucks			
Asta Construction Co.	Hazwaste	Rio Vista, CA	(530) 686-5223
Beneto Tank Lines	Tank Trucks	Fresno, CA	(916) 371-8241
California Tank Lines	Tank Trucks, Pumps, Hoses	Stockton, CA	(209) 466-3554 (209) 883-2658 (209) 931-1003 (209) 931-3818
Delta Oilfield Services	Hazwaste & Mat'l	Woodward, CA	(916) 662-2841
Teichert Construction	Vacuum Trucks, Tank Trucks	Sacramento, CA	(916) 386-6800 800-287-7383*
Philip Services, Inc.	Vacuum Trucks	Benicia, CA	(707) 746-8287
Wildlife/Rescue			
Oiled Wildlife Care Network	Wildlife Rescue & Rehab.	Davis, CA	(877) 823-6926* (530) 752-4167
International Bird Rescue Research Center	Wildlife Rescue & Rehab.	Fairfield, CA	(707) 207-0380
X-Ray			
Conam Inspection (formerly Pacific Coast Testing)	X-ray	Benicia, CA	(707) 746-5870

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

3.0 RESPONSE RESOURCES

The following sections outline the various response equipment/resources available from the Facility, other Company facilities, and other outside resources.

3.1 AREA RESPONSE EQUIPMENT

This Area of the KMEP operations maintains response equipment readily available for spill response as detailed on the "Facility Response Equipment" lists provided in Figure 3.1 and the "Pipeline Repair Equipment" lists provided in Figure 3.2. The equipment is stored at locations in the Area as detailed on the equipment lists.

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. The equipment will be exercised as semi-annually (Terminal equipment) or annually (pipeline equipment) as required (PREP Guidelines). A sample form for documenting these Equipment Deployment Exercises is provided in Figure 3.4.

KMEP has contracts in place with Oil Spill Removal Organizations and other clean-up and response contractors that are capable of responding to all discharges within the Area and supplementing Area KMEP resources.

The Qualified Individual has the authority to activate these and other KMEP resources or that of private contractors and other experts and consultants as the situation demands.

3.2 OTHER COMPANY RESOURCES

Neighboring KMEP Areas have response resources similar to those provided in this Area (Figures 3.1 and 3.2). These resources as well as additional Company spill response equipment and manpower resources may be available to supplement the response operation.

3.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation. *The Company will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.*

Response resources will be secured from a Company approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Volume provides a quick reference to the OSROs and additional clean-up and response contract organizations. A detailed list of the "Pacific Region Open End and On-Call Contractors" is provided in Figure 2.2. Specific reference to their response capability (UCSG OSRO classification) is provided in Figure 3.3.

These OSRO's have adequate equipment and personnel resources available within the Area to respond to the applicable regulatory planning volumes in the required time frames.

3.3 CONTRACT RESOURCES (Cont'd)

OSROs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. KMEP personnel will oversee and coordinate with the OSRO to ensure their actions conform with overall incident objectives and established incident action plans.

OSROs also have extensive experience in using the Area Contingency Plans (ACPs) as a resource when responding to an incident that has affected a navigable waterway. The KMEP Incident Commander, Planning Officer and Operations Chief will employ the OSRO's experience to integrate applicable local ACPs into the overall incident action plans.

3.4 AREA CONTINGENCY PLANS (ACP)

Area Committees comprised of federal, state and local agencies develop ACP. Response efforts performed within a certain "area" should reference the ACPs for that specific area. ACPs include clean-up strategies and information on environmentally sensitive areas within a particular region. Some of the ACPs include maps, shoreline characteristics and booming strategies for specific areas while other ACPs offer priority lists of environmentally sensitive areas.

ACPs generally contain the following information:

- Physical features
- Seasonal concerns
- Resources of primary concern
- Containment, and cleanup strategies, including recommended techniques
- Equipment considerations
- Incident Command System Roles and Responsibilities (NIMS)

To identify specific spill response and protection strategies for the applicable region/area, ACP and Geographic Response Plan information can be found at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/pacific_icp.html Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-KMEP plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1 (inside front cover) or in a separate folder in electronic copies and is referenced in Figure 4.2.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

3.5 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/mutual aid resources will be utilized when available and/or necessary.

3.6 EXPERTS AND CONSULTANTS

KMEP maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

3.7 VOLUNTEERS

Volunteers will not be utilized by KMEP for the response operations. All volunteers will be referred to the state or Federal On-Scene Coordinator.

3.8 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment / diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between KMEP and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

3.8.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with KMEP emergencies. The notification procedures and telephone contacts documented in Section 2 of Volume 1 and Volume 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and state emergency telephone numbers for the Orange Control Center and emergency response personnel (Volume 1; Section 2).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Volume 2; Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Volume 2; Figure 2.1).

3.8 COMMUNICATIONS (Cont'd)

3.8.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing KMEP communications network. This network will utilize existing radios, telephones, beepers, fax machines, and computers and will be maintained by KMEP personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other KMEP and contract resources as the situation demands.

Each KMEP responder has, at a minimum, a cellular telephone. All KMEP response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the KMEP spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and kept in designated KMEP response trailers. In addition, KMEP also utilizes radio sets provided by contract resources. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain KMEP personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and KMEP personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE 3.1
Facility Response Equipment
(Reserved)

Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3

FIGURE 3.2
Pipeline Repair Equipment

Chico Terminal		
Qty.	**Item**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
7 feet	Absorbent boom	Emergency Trailer
2275	Absorbent Pads	Emergency Trailer
3 x 20 Lb. Bags	Absorbent Material (Kitty Litter)	Emergency Trailer
1	Generator 3500 W	Emergency Trailer
1	Generator 2200 W	Emergency Trailer
8	Drums 55 gal.	Emergency Trailer
50	Drum Liners	Emergency Trailer
2	Drums 30 gal.	Emergency Trailer
6	Light Stands 500W	Emergency Trailer
4	Suction Hose 3”	Emergency Trailer
1	Copus Blower	Emergency Trailer
1	Air Hose 1”	Emergency Trailer
1	Heater Propane	Emergency Trailer
2	Tarp	Emergency Trailer
3	Extension Cords	Emergency Trailer
2	Bonding Cables	Emergency Trailer
1	Hydraulic Jack 12 ton	Emergency Trailer
2	Sleeve Wrenches	Emergency Trailer
2	Hammers Brass 2.5 Lb./6 Lb.	Emergency Trailer
3	Trimming Knives	Emergency Trailer
4	Full T Opening Valves 2”	Emergency Trailer
6	Thread-O-Let 1”	Emergency Trailer
6	Pipe Plugs 1”	Emergency Trailer
1	Air Diaphragm	Emergency Trailer
1	Gas Centrifugal Pump	Emergency Trailer
28	Cutting Wheels	Emergency Trailer
8	Chicago Fittings 1”/3/4”	Emergency Trailer
	Gaskets 3”/4”	Emergency Trailer
16	Batteries D-Cell	Emergency Trailer
25	Tyvec Suits – Yellow	Emergency Trailer
25	Tyvec Suits – White	Emergency Trailer
10	Respirators	Emergency Trailer
3	Rain Suits	Emergency Trailer
5	Caution Tape rolls	Emergency Trailer
14	Orange Pylons	Emergency Trailer
1	Trash Can	Emergency Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be “deployed” for equipment deployment exercise purposes.

FIGURE 3.2
Pipeline Repair Equipment (Cont'd)

Chico Terminal (Cont'd)		
Qty.	**Item**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
1	First Aid Kit	Emergency Trailer/Terminal
2	Fire Extinguishers	Emergency Trailer
3	Safety Harness	Emergency Trailer
1	Ansul Powder	Emergency Trailer
1	6% Foam	Emergency Trailer
4	Emergency Vest	Emergency Trailer
50 sets	Ear Plugs	Emergency Trailer
25 pairs	Rubber Gloves	Emergency Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2
Pipeline Repair Equipment (Cont'd)

Reno Terminal		
Qty.	**Item**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
260 feet	Absorbent boom	Emergency Response Trailer
5 bundles	Absorbent Pads	Emergency Response Trailer
1600 feet	Containment Boom	Emergency Response Trailer
1	Honda 350 Generator	Emergency Response Trailer
2	Utility Light w/Tripod Stand	Emergency Response Trailer
2	Spare 500W Bulb	Emergency Response Trailer
3	Extension Cord #12 AWG	Emergency Response Trailer
2	Electrical 'Y' Cord	Emergency Response Trailer
2	Manhole Cover Steel	Emergency Response Trailer
1	Manhole Cover Gel	Emergency Response Trailer
2	Fire Extinguisher	Emergency Response Trailer
1	Female to Male 2" Hose Fitting	Emergency Response Trailer
2	Saw Horse Small	Emergency Response Trailer
3	Pro Adjustable Height Saw Horse	Emergency Response Trailer
1	First Aid Kit	Emergency Response Trailer
3	Reflectors	Emergency Response Trailer
2	Highway Safety Sign Handles	Emergency Response Trailer
4	Highway Safety Signs Slow/Stop	Emergency Response Trailer
4	No Smoking Signs	Emergency Response Trailer
3	Flashlight	Emergency Response Trailer
2	Flashlight Bulb	Emergency Response Trailer
1	Ice Chest	Emergency Response Trailer
	Coffee Cups	Emergency Response Trailer
	Stir Sticks	Emergency Response Trailer
	Creamer	Emergency Response Trailer
	Sugar	Emergency Response Trailer
2	Igloo Water Jug	Emergency Response Trailer
1 box	Hazardous Disposal Bags	Emergency Response Trailer
1 box	Plastic Trash Bags 45 gal.	Emergency Response Trailer
1 box	Plastic Trash Bags 39 gal.	Emergency Response Trailer
1	Probe	Emergency Response Trailer
4	WD 40	Emergency Response Trailer
2	Hand Cleaner	Emergency Response Trailer
1	Jerry Can w/Spout	Emergency Response Trailer
1	Ground Cable	Emergency Response Trailer
1 pkg	Tie Straps	Emergency Response Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2
Pipeline Repair Equipment (Cont'd)

Reno Terminal (Cont'd)		
Qty.	**Item**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
6	Batteries D-Cell	Emergency Response Trailer
4 rolls	Caution Zone Tape	Emergency Response Trailer
4 rolls	Hot Zone Tape	Emergency Response Trailer
1	Fire Blanket	Emergency Response Trailer
4	Eye Wash Station	Emergency Response Trailer
6	Respirator 3M Dual Cartridge 5301	Emergency Response Trailer
2	Respirator MSA Ultra Twin	Emergency Response Trailer
10	Filter Retainer 3M 501	Emergency Response Trailer
1 box	Pre Filter 5010 3M Dust/Mist/Paint/Pesticide	Emergency Response Trailer
4	Safety Vest	Emergency Response Trailer
3	Firefighter Jacket and Coveralls	Emergency Response Trailer
6	Goggles	Emergency Response Trailer
1	Face Shield	Emergency Response Trailer
1 box	Safety Glasses Shaded	Emergency Response Trailer
1 box	Safety Glasses Clear	Emergency Response Trailer
6 pr	Gloves	Emergency Response Trailer
2 boxes	Gloves Nitrile	Emergency Response Trailer
4 pr	Gloves Heavy Duty Rubber/Nitrile	Emergency Response Trailer
2	Coveralls Nomes	Emergency Response Trailer
9	Coveralls Tyvec	Emergency Response Trailer
12	Hard Hat	Emergency Response Trailer
2	Rain Gear Coveralls Large	Emergency Response Trailer
2	Rain Gear Jackets Extra Large	Emergency Response Trailer
2	Rubber Boots 16" Size 10	Emergency Response Trailer
2	Rubber Boots 16" Size 11	Emergency Response Trailer
2	Rubber Boots Steel Toed Size 10	Emergency Response Trailer
2	Rubber Boots Steel Toed Size 11	Emergency Response Trailer
2	Hip Waders	Emergency Response Trailer
2	Hitches 2"/2 5/16"	Emergency Response Trailer
5 gal	Light Water F/C 200 6% Concentrate	Emergency Response Trailer
1	Easel	Emergency Response Trailer
	Sign Stakes 1"x2"x4'	Emergency Response Trailer
	Small Tacks	Emergency Response Trailer
	Pencil Sharpener	Emergency Response Trailer
1	Wrench 12 Point Striking 2 1/8"	Emergency Response Trailer
1	Wrench 2 1/16"	Emergency Response Trailer
1	Wrench Handle	Emergency Response Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2
Pipeline Repair Equipment (Cont'd)

Reno Terminal (Cont'd)		
Qty.	**Item**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
1	Hammer 2.5 Lb	Emergency Response Trailer
1	Hammer 8 Lb	Emergency Response Trailer
2 rolls	Plastic Sheet 20'x100'	Emergency Response Trailer
1	Rope ½"x100'	Emergency Response Trailer
4	Drum 55 gal	Emergency Response Trailer
1	Half Drum	Emergency Response Trailer
1 bundle	Shop Rags	Emergency Response Trailer
2	Hand Soap	Emergency Response Trailer
50	Burlap Sacks	Emergency Response Trailer
1	Trimming Knife	Emergency Response Trailer
4	Wire Brush	Emergency Response Trailer
1	Shovel	Emergency Response Trailer
2	Hedge Shear and 30" Lopper	Emergency Response Trailer
10	Ice Gripper	Emergency Response Trailer
1 box	Ultra Drain Seal 20"	Emergency Response Trailer
2 boxes	Ultra drain Seal	Emergency Response Trailer
	Assorted Hand Tools	Emergency Response Trailer
1	O2 Meter	Lab
1	Hc Detector	Lab

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2
Pipeline Repair Equipment (Cont'd)

Rocklin Station		
Qty.	**Item**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
300 feet	Absorbent Boom	Medium Response Trailer
2000	Absorbent Pads	Medium Response Trailer
1	Air Diaphram pump – 1" line needed	Large Response Trailer
100 feet	Air hose 1"	Large Response Trailer
1	Backfil tamper – diesel	Large Response Trailer
1	Backfil tamper – pogo stick	Large Response Trailer
12	Chairs – folding	Small Response Trailer
1	Compressor – 200 cfm	Large Response Trailer
1	Compressor – 125 psi	Large Response Trailer
1	Diaphram pump – gas	Chico Terminal
1	Easel – Aluminum	Small Response Trailer
1	Extension Cord – 50'	Small Response Trailer
1	Extension Cord – 25'	Small Response Trailer
1	EZ-UP Canopy 10x10	Small Response Trailer
1	EZ-UP Canopy 10x20	Small Response Trailer
1	File Cabinet 18"	Small Response Trailer
1	High Volume Pump	Large Response Trailer
1	Jack Hammer – 30 lb.	Large Response Trailer
1	Jack Hammer – 60 lb.	Large Response Trailer
1	Ladder – step	Small Response Trailer
2	Lights – 500w	Small Response Trailer
	Pipe cutter – up to 14"	Large Response Trailer
1	Pressure washer	Large Response Trailer
4 pair of each size	Rubber Boots (size 9, 10, 11)	Medium Response Trailer
1	Surge Protector – 6 outlet	Small Response Trailer
3	Tables – folding	Small Response Trailer
	Tools – Misc. concrete finishing	Small Response Trailer
3	Truck – 1 ton (welder) (crane) (cp)	Large Response Trailer
1	Truck – Dodge ½ ton	Large Response Trailer
	Tyvex suites (4xl, 3xl, 2xl)	Medium Response Trailer
1	Welder – spare	Concord Yard
1	Welder – truck mounted	Large Response Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.3
Terminal OSRO Information

AMPD INFORMATION - KMEP Bradshaw Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor	Contract Expiration Date
Marine Spill Response Corporation	12/31/2013[1] Contract Number: 11479
and RAMOS ENVIRONMENTAL (Equipment deployment personnel are located at equipment site.)	(MSRC Stars Contractor)

- **Equipment Address (*1-hour response time):**

  Boom: MSRC Sacramento, Port of Sacramento, 3251 Beacon Blvd., West Sacramento, CA 95691

- **Equipment Address (*2-hour response time):**

  Skimmer: MSRC Crockett, Foot of Port Street, Crockett, CA 94520
  MSRC CONCORD, 2070 Commerce Street, Concord, CA 94520

  Vacuum Trucks: RAMOS ENVIRONMENTAL
  1515 River Road, Sacramento, CA 95691

  Temporary Storage: MSRC CONCORD, 2070 Commerce Street, Concord, CA 94520

  Vacuum Trucks: RAMOS ENVIRONMENTAL
  1515 River Road, Sacramento, CA 95691

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*
Note 1: MSRC membership automatically renews every three (3) years unless cancelled in accordance with the membership agreement.

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation (MSRC)	Contract Number: 11479	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	
		Open Ocean			X	X	
		Offshore			X	X	
		Nearshore			X	X	

FIGURE 3.3
Terminal OSRO Information (Cont'd)

AMPD INFORMATION - KMEP Reno Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor	Contract Expiration Date
Marine Spill Response Corporation	12/31/2013[1] Contract Number: 11479
and Clean Harbors Environmental Services, Inc.	(MSRC Stars Contractor)

- **Equipment Address (*1-hour response time):**

Boom: Clean Harbors Environmental Services, Inc.
1200 Marietta Way, Sparks, NV 89431

- **Equipment Address (*2-hour response time):**

Skimmer: Clean Harbors Environmental Services, Inc.
1200 Marietta Way, Sparks, NV 89431

Temporary Storage: Clean Harbors Environmental Services, Inc.
1200 Marietta Way, Sparks, NV 89431

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*
Note 1: MSRC membership automatically renews every three (3) years unless cancelled in accordance with the membership agreement.

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation (MSRC)	Contract Number: 11479	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	
		Open Ocean			X	X	
		Offshore			X	X	
		Nearshore			X	X	

FIGURE 3.3
Terminal OSRO Information (Cont'd)

AMPD INFORMATION - KMEP Chico Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor
National Response Corporation Environmental Services, Inc. (NRCES)
1111 Marauder Street
Chico, CA 95973

Contract Expiration Date 12/31/2014
Contract Number: 11559

Under Section 3.3 to Appendix E of 40 CFR 112 – *Determination and Evaluation of Required Response Resources for Facility Response Plans*, it states, "The response resources shall, as appropriate, include: 3.3.1 One thousand feet of containment boom…" (59FR34112)

"EPA recognizes that certain other elements may not be applicable in all cases. To provide flexibility for facilities with unique circumstances, certain elements are prefaced by use of the words 'shall, as appropriate' or modified by the use of the words 'or equivalent.'"(59FR34074)

Accordingly, 1,000 ft of containment boom would not be practicable for a response to a discharge from this facility. Based upon the facility's topography, the initial response effort (1 Hour) will be accomplished by using a damming and diversion response strategy, utilizing a system of drainage valves located East of the facility. One valve is used to dam the discharge while the other is used to divert the discharge back to the facility's retention pond.

Valves used for the damming and diversion of an off site discharge shall be maintained, operable and clear of debris.
The manmade trench leading to the retention pond shall be maintained so that debris would not obstruct or restrict flow back to the retention pond.

Recovery capability per the two (2) hour requirement will be provided within two hours by NRCES.

****Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
NRCES	Contract Number: 11559	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	

FIGURE 3.3
Response Zone OSRO Information

Northern Region – California/Nevada

USCG CLASSIFIED-OSRO
Marine Spill Response Corporation (MSRC)

Contract Expiration Date
12/31/2013[1]
Contract Number: 11479

The identified Oil Spill Removal Organization is capable of arriving at the scene of a discharge within the time specified for the applicable response tier, as follows:

	Tier 1	Tier 2	Tier 3
High Volume Areas	6 Hours	30 Hours	54 Hours
All Other Areas	12 Hours	36 Hours	60 Hours

The Northern Region – California/Nevada Response Zone is not in a High Volume Area as defined in 49 CFR 194 Appendix B

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*
Note 1: MSRC membership automatically renews every three (3) years unless cancelled in accordance with the membership agreement.

San Francisco Bay Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation (MSRC)	Contract Number: 11479	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	
		Open Ocean			X	X	
		Offshore			X	X	
		Nearshore			X	X	

FIGURE 3.3

OIL SPILL REMOVAL ORGANIZATIONS (Cont'd)

USCG OSRO Classifications

The USCG has classified OSROs according to their response capabilities, within each COTP zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

FIGURE 3.4

Internal Exercise Documentation Form
Semiannual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Terminal/Response Zone: _____

3. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

4. Deployment location(s):

   _____
   _____
   _____
   _____
   _____
   _____

5. Time started: _____
   Time completed: _____

6. Equipment deployed was:
   - ❑ Facility - owned
   - ❑ Oil spill removal organization - owned if so, which OSRO? _____
   - ❑ Both

7. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:

   _____
   _____
   _____
   _____

8. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):

   _____
   _____
   _____
   _____

9. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's small/average most probable spill?

   _____
   _____

   Was the equipment deployed in its intended operating environment?

   _____
   _____

FIGURE 3.4

Internal Exercise Documentation Form
Semiannual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

10. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

    Was the equipment deployed in its intended operating environment?

11. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

    If so, describe the program: _____

    Date of last equipment inspection: _____

12. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

13. Was all deployed equipment operational? If not, why not?

14. Attach a description of lessons learned, procedures and schedule for implementation, and persons responsible for follow up of corrective measures.

_____ _____

Certifying/Evaluator Signature Date

Retain this form and other documentation related to this exercise for a minimum of 5 years.

California Facilities/Response Zones: Submit this form and supporting documentation to Charlena Haynes at crhaynes@ospr.dfg.ca.gov or FAX (916) 324-9786.

FIGURE 3.5

OSRO CONTRACTS

National Response Corporation Environmental Services

WORK DIRECTIVE

To : NRC ENVIRONMENTAL SERVICES INC

9520 10TH AVE
SUITE 150
SEATTLE, WA 98108
Attention: STEPHANIE BARTON

Phone: 206-730-3990
Fax: 206-607-3001
Email: SBARTON@NRCC.COM

Date: May 1, 2014

Work Directive No.: 402461-81-CONT

Agreement No.: **05ER45064ORG**

Requisition No/ Accounting Information: 289302

This Work Directive is entered pursuant to the terms of the Emergency Response Agreement ("Agreement") dated 06/01/2005 , by and between KINDER MORGAN OPERATING L.P. "D" ("COMPANY") and NRC ENVIRONMENTAL SERVICES INC ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT'S proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued and this Work Directive arising out of or related to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and all other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1.0 **Project Name and Work Location Details:** OSRO COVERAGE – CHICO TERMINAL 2570 HEGAN LANE, CHICO, CA 95928

2.0 **Scope of Work:** The following is a full and complete description of the Work (and goods) to be provided by CONSULTANT including, but not limited to specifications, conditions and referenced bids/proposals.

2.1 SEE ATTACHED SCOPE OF WORK.

2.2 For Questions, contact VILLALOVOS, FRANK at 530-342-6140

3.0 The COMPANY will not furnish any materials to the Work Site(s), unless previously approved by the Designated Representative.

4.0 CONSULTANT shall commence the Work by the 05/02/2014 and shall complete the Work on or before 12/31/2014.

5.0 CONSULTANT offers to complete the Work in accordance with the Agreement for the total Lump Sum Amount of **$14,037.95**, Fourteen Thousand Thirty Seven Dollars and Ninety Five Cents, which shall constitute full and complete payment.

6.0 The parties hereby agree to AMEND Agreement 05ER45064ORG as follows (or if the Agreement has been thus amended previously, to repeat the following sections):

i) Under the Compliance with Laws section, a **new subsection** is hereby added to the Agreement which reads as follows:

CONSULTANT certifies that at the time of execution of this Agreement CONSULTANT is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement CONSULTANT cannot so certify to COMPANY, CONSULTANT shall promptly notify COMPANY as to CONSULTANT'S status.

ii) The following language is hereby added to the Termination section under the termination for default paragraphs:

-- violates any EHS law; or

iii) All other provisions of the Agreement shall continue in full force and effect.

7.0 **Retainage:** Waive 10% retainage.

8.0 CONSULTANT shall submit invoices in duplicate to:

SFPP, L.P.

2570 Hegan Ln

Chico, CA 95928

Attn: VILLALOVOS, FRANK
Phone: 530-342-6140
Fax: 714-560-6633

8.1 Invoices must clearly indicate the Agreement Number, Work Directive Number, and Work Order/ Account Coding, as indicated above.

8.2 For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

9.0 CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Indemnitees at: contractor_safety@kindermorgan.com prior to commencement of any Work.

10.0 Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

11.0 For Work performed within the State of California, CONSULTANT shall certify within three working days of execution hereof that the requirements set forth in Exhibit B to this Work Directive have been satisfied. Failure by CONSULTANT to do so shall constitute a breach under Section 10 [for cause with no notice] of the Agreement.

In the **Agreement**, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware corporation. This change resulted from an internal corporate reorganization. Kinder Morgan, Inc. owns the same assets formerly owned by Kinder Morgan Kansas, Inc.

By signing below, COMPANY and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 402461-81-CONT is by reference hereby made part of Agreement No. 05ER45064ORG .

This Work Directive is hereby agreed to and accepted:

SFPP, L.P.
By: Kinder Morgan Operating L.P. "D", its General Partner By: Kinder Morgan G.P., Inc., its General Partner By: Kinder Morgan Management, LLC, the Delegate of the General Partner

Michael Martinez
Signature

MARTINEZ, MICHAEL
Name

AUTHORIZED SIGNATORY
Title

May 1, 2014
Date

NRC ENVIRONMENTAL SERVICES INC

Stephanie Barton
Signature

Stephanie Barton
Name

Director, Emergency Response Programs
Title

5/1/14
Date

Please return executed Work Directive to:

SFPP, L.P.
1100 Town & Country Rd
Suite 700
Orange, CA 92868
Attention: MARTINEZ, MICHAEL
Phone: 714-560-4694
Fax: 714-560-6531
Email: michael_martinez@kindermorgan.com

The following Exhibits shall be provided by COMPANY:

X	Exhibit WD_A	- Scope of Work
X	Exhibit WD_B	- Revised Release Reporting Criteria (California only)
___	Exhibit WD_C	- Work Directive Specific Schedule of Values/Rates
___	Exhibit WD_D	- Operator Qualification Form (as provided by the Designated Representative via electronic or hardcopy submission)

EXHIBIT WD_A – SCOPE OF WORK

Scope of Work or Services:

a. Environmental emergency response
b. Hauling of treated contact water

OSRO coverage would include the equipment and personnel necessary to perform the described response strategies. In order to facilitate the deployment of the required resources at an initial response strategy site, NRCES proposes to pre-position equipment and supplies, including boom, sorbent boom and sand bags at the Chico Terminal.

To provide initial response, NRCES would dispatch personnel from its Chico office to retrieve the pre-positioned equipment at the Terminal and commence initial deployment of boom and/or sand bags as needed. NRCES Chico can also provide trained equipment operators to perform earth moving strategies with heavy equipment as described as additional response strategies. NRCES will also maintain 24-hour access to owned and vendor heavy equipment in the local area.

These resources need to meet the EPA mandated response time of "within one hour response personnel from NRC will be on site and within two hours equipment will be on site.

In addition to meeting the Chico Terminal's initial response requirements, NRC can also meet its state and federal response planning requirements, including MMPD and WCD Tiers 1, 2, and 3. In addition to the equipment and personnel available from the NRCES Chico office, NRCES can also rapidly cascade response resources from its other offices located throughout Northern California and the balance of the West Coast as needed for the Terminal's WCD of 60,000 barrels and above.

NRC proposed to provide the above OSRO coverage under a Work Directive similar to those currently issues under the existing contract between NRC and KM. As discussed, NRC provided a proposal in 2009 to provide OSRO coverage to the Chico Terminal. NRC proposes to provide the currently proposed OSRO coverage, including the pre-positioned equipment, at the ~~same annual~~ retainer fee of ~~$20,848.44~~ $14,031.95 for 5/1/14 - 12/31/14. In addition to the OSRO coverage, the retainer would also include participation of two NRCES response personnel in Chico Terminal's annual tabletop drill.

5-1-14 MKM 5-7-14

5-1-14 MKM 5-7-14

EXHIBIT WD_B – REVISED RELEASE REPORTING CRITERIA

1.0 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT'S activities in the performance of the Work:

1.1 are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

1.2 understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT'S employees, agents and subcontractors' employees who will be performing at such a site.

1.3 Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT'S employees, agents and subcontractors' employees will be trained relative to COMPANY'S revised release reporting criteria.

1.4 For purposes of this Exhibit "Hazardous Material(s)" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any EHS Law. "EHS Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

CONSULTANT shall certify its compliance with this training requirement upon COMPANY request.

Acknowledged, agreed and accepted this day of , 20___

NRC ENVIRONMENTAL SERVICES INC ("CONSULTANT")

Officer Name and Title (please print)

Officer Signature

ORIGINAL

KM REVISION 11-22-05

AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES

NUMBER: 05-ER-45-064-ORG

COMMENCES: JUNE 1, 2005

BETWEEN

KINDER MORGAN OPERATING L.P. "D"

AND

NATIONAL RESPONSE CORPORATION

AGREEMENT SUMMARY

KINDER MORGAN COMPANY:	**Kinder Morgan Operating L.P. "D"**
Principal Place of Business	**Houston, Texas**
AGREEMENT:	
Title	**Agreement For Professional Emergency Response Services**
Number	**05-ER-45-064-ORG**
Type	
Made as of Date	**22nd day of November , 2005**
Effective Date	**June 1, 2005**
Termination Date	**December 31, 2008**
Agreement Value	**As Limited in Section 5 of each applicable Work Directive**
ADMINISTRATION:	
Contracts Administrator	**Sherry Z. Clifford**
Phone Number	**714-560-4915**
FAX Number	**714-560-6593**
E-Mail Address	**sherry_clifford@kindermorgan.com**
NOTICES:	
Designated Representative	**Sherry Z. Clifford**
Address, City, State Zip Code	**1100 Town & Country Orange, California 92868**
Phone Number / FAX Number	**714-560-4915 714-560-6593**
E-Mail Address	**sherry_clifford@kindermorgan.com**
TECHNICAL:	
Designated Representative	**Steve Marositz**
Address, City, State Zip Code	**2319 S Riverside Avenue Bloomington, California 92316**
Phone Number / FAX Number	**909-873-5146 x 146 303-984-3620**
E-Mail Address	**Steve_Marositz@kindermorgan.com**
BILLING:	
Designated Representative	**As specified in Section 6 of each Work Directive released**
Address, City, State Zip Code	
Phone Number / FAX Number	
CONSULTANT:	
Federal Tax I.D. Number	**11-3087170**
Consulting Firm	**National Response Corporation**
Address 1	**3500 Sunrise Highway**
Address (P.O. Box) 2	
City, State, Zip code	**Great River, NY 11739**
Designated Representative	**Barry McFarland, Local Contact (Operations)**
Phone Number	**310-345-0407**
FAX Number	**562-432-1826**
E-Mail Address	**bmcfarland@nrces.com**
Corporate Representative	**James J. Godfrey, JR. Vice President**
Phone Number	**631-224-9141 ext 130**
Fax Number	**631-224-9082**
E-Mail Address	**jgodfrey@nrces.com**
PROJECT / SERVICES DESCRIPTION:	**Emergency Response Services**

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AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES

Agreement Number: 05-ER-45-064-ORG

THIS AGREEMENT is made as of the **22nd day of November , 2005**, by and between **Kinder Morgan Operating L.P. "D"** a Delaware Limited Partnership, and, to the extent of any Work Directive executed by any of its affiliates or subsidiaries, those affiliates and subsidiaries, respectively, acting as agent for Kinder Morgan and its affiliates and subsidiaries who are requiring such work as set forth in this Agreement and/or in **Exhibit A-1** (Work Directive) and who will be releasing payments for such work, with its principal place of business in **Houston, Texas**, hereinafter referred to as "**COMPANY**", and **National Response Corporation**, a Delaware corporation having its principal office at 3500 Sunrise Highway, Great River, New York 11739 hereinafter referred to as "**CONSULTANT**".

WITNESSETH:

WHEREAS, COMPANY desires the services of CONSULTANT and a network of subcontractors and/or Local Contractors (as defined in **Section 2.2** below), including NRC Environmental Services Inc., to provide OSRO Coverage Services and be available to provide Emergency Response Services for the containment and cleanup of oil, discharge of hazardous material and non-hazardous materials, and

WHEREAS, CONSULTANT represents that it is qualified and desires to provide OSRO Coverage Services and to perform such Emergency Response Service (as defined in **Section 2.4** below) for COMPANY.

NOW, THEREFORE, in consideration of the promises and mutual covenants contained herein, the parties do hereby agree as follows:

1.0 TERM

1.1 This Agreement becomes effective upon the date first above written and shall continue until December 31, 2008; (unless earlier terminated pursuant to Section 14.1 or 14.2 below); provided however this Agreement may be extended by agreement of the parties upon COMPANY's written notice given at least ninety (90) days prior to expiration of the then current term; and further provided that if a Work Directive issued under this Agreement is continuing beyond the expiration date, the term of this Agreement shall be extended automatically for ninety (90) days or until that Work Directive has been completed, whichever occurs first. All rates and fees under this agreement shall be subject to adjustment on an annual basis.

2.0 CONTRACT DOCUMENTS, SCOPE OF WORK AND ADMINISTRATION

2.1 This Agreement shall consist of the Contract Documents itemized below. In the event of a conflict between or among the provisions of the Contract Documents, the more or most specific provision shall control:

2.1.1 Agreement Number **05-ER-45-064-ORG**

2.1.2 **Exhibit A** Work Directive(s) as may be issued from time to time (including Scope of Work)

2.1.3 **Exhibit B** Schedule of Values

2.1.4 **Exhibit C** Certificate of Insurance

2.1.5 **Exhibit D** (1) United States Environmental Protection Agency Title III, List of Lists, Consolidated List of Chemicals Subject to the Emergency Planning and Community Right To Know Act (EPCRA) and Section 112(r) of the Clean Air Act, published April 1995, as amended

2.1.6 **Exhibit E** Project Scope Change Order

2.1.7 **Exhibit F** INTENTIONALLY OMITTED

2.1.8 **Exhibit G** Kinder Morgan Contractor Safety Rules & Regulations

2.1.9 **Exhibit H** Parent Guaranty

Note that any references to "CONTRACTOR" in an Exhibit, apply to CONSULTANT.

2.2 Definitions:

2.2.1 ""**Best Endeavors**" means, with respect to either party, the performance in good faith to the extent of its total capabilities;

2.2.2 "**Classification**" means classification or other governmental approval required or available under Federal Law and State Law for an Oil Spill Removal Organization to be designated as such in the Response Plan;

2.2.3 "**Contract Documents**" means all relevant documents described in **Section 2.1** of this Agreement.

2.2.4 ""**Day**" or "**Week**" means, respectively, a calendar day or seven (7) calendar days.

2.2.5 "**Designated Representative**" means the person identified as COMPANY'S Designated Representative in **Section 2.8** of this Agreement.

2.2.6 "**Discharge**" means any emission (other than natural seepage), including, but not limited to, spilling, leaking, pumping, pouring, emitting, emptying or dumping of Oil;

2.2.7 "**Drills**" means any drills, exercises, practices or other preparatory or simulated activities in connection with which the COMPANY has requested the CONSULTANT to mobilize or deploy Response Resources or to provide other services;

2.2.8 **"Emergency Response Services"** shall have the meaning given in **Section 2.4** below.

2.2.9 **"Environmental Law"** means any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment, including the United States Oil Pollution Act (33 U.S.C. 2701, et seq.) ("OPA") and the Federal Water Pollution Control Act (33 U.S.C. 1321, et seq.) ("FWPCA") and any other laws regarding a Discharge and Emergency Response Services and regulations promulgated pursuant thereto;

2.2.10 "**Force Majeure**" has the meaning given in **Section 18.1** below.

2.2.11 "**Hazardous Material**" means (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any Environmental Laws; (b) any "hazardous waste," "hazardous substance" (including , but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," pollutant" or "contaminant", each as defined under any Environmental Laws and (c) oil of any kind or in any form when it is classified as a hazardous substance under any applicable State or Federal Law, including any and all substances defined or identified as oil under OPA.

2.2.12 "**Hereunder**," "**herein**" and words of similar import shall refer to this Agreement as a whole, rather than to a single provision.

2.2.13 "**Local Contractors**" means independent oil spill removal companies located near the Areas of Services, including NRC Environmental Services Inc., with whom the CONSULTANT has contracted to maintain and provide Response Resources in fulfillment of the CONSULTANT's obligations hereunder;

2.2.14 "**Oil**" means oil of any kind or in any form, including any and all substances defined or identified as oil under OPA, but shall not include substances defined or identified as Hazardous Substances;

2.2.15 "**Oil Spill Removal Organization**" means an entity established in a given geographic area to provide the personnel, equipment, supplies and other capability necessary to conduct Emergency Response Services;

2.2.16 "**Qualified Individual**" means an English-speaking shore-based representative of the COMPANY located in the United States, available on a 24-hour basis, familiar with implementation of the Response Plan and trained in his or her responsibilities under the plan, with full written authority to implement Emergency Response Services and to engage the CONSULTANT for services hereunder;

2.2.17 "**Removal Costs**" means the charges of the CONSULTANT for deploying Response Resources to a Discharge or threatened Discharge, including the charges for mobilization and demobilization of personnel, equipment and supplies; and containment, removal and storage of discharged Oil;

2.2.18 "**Responder Immunity Law**" means Federal Law or applicable State Law which provides immunity from liability to those who respond to Discharges for the purpose of attempting to contain and remove Oil from the water, beaches or shoreline;

2.2.19 "**Response Plan**" means any contingency plan or response plan regarding Discharges covering the Facility prepared by or on behalf of the COMPANY pursuant to Federal Law or State Law;

2.2.20 "**Response Resources**" means the trained personnel, equipment, supplies and other capability named in a Response Plan or mobilized to perform Emergency Response Services pursuant to Federal Law and State Law, other than personnel, equipment, supplies and other capability required to be stored at the Facility;

2.2.21 "**Site**" or "**Area of Service**" "**Facility**" or shall mean any, facility, pipeline, or other real property identified in an executed Work Directive on which CONSULTANT will be performing Work pursuant to the terms of the Contract Documents, whether or not owned by COMPANY.

2.2.22 "**Waste**" shall mean any form of material identified or determined by the COMPANY as having no beneficial value and is either a by-product of the COMPANY's operations or is generated during investigation and remediation activities (e.g. soils, debris) and includes personal or real property contaminated as a result of a Discharge.

2.2.23 "**Work**" or "**Services**", shall mean, collectively, any and all obligations, duties and responsibilities necessary to the successful completion of the project assigned to or undertaken by CONSULTANT under the Contract Documents, including the furnishing of all labor, services, materials, equipment and other incidentals necessary to perform Emergency Response Services.

2.3 CONSULTANT agrees to render **OSRO Coverage Services**, as more specifically defined in each applicable Work Directive executed by the COMPANY affiliate or subsidiary to whom the service will be provided and by CONSULTANT, in exchange for the Fee contained in the applicable Work Directive.

2.3.1 In performing OSRO Coverage Services, CONSULTANT shall:

2.3.1.1 obtain and maintain Classification as an Oil Spill Removal Organization as provided under Federal Law and State Law;

2.3.1.1.1 In the event Classification is not available, CONSULTANT warrants that it and its Local Contractors shall have sufficient Response Resources to enable the Client to meet the mandated levels of response capacity under Federal Law and State Law.

2.3.1.2 Subject to the California release notification requirements set forth in **Article 10.0** hereunder, provide sufficient Response Resources to enable the COMPANY to meet the requirements of Federal Law and State Law for precontracting for availability of Response Resources, except as provided in **Section 2.14**;

2.3.1.3 provide the training of the CONSULTANT's and Local Contractors' response personnel, in compliance with Federal Law and State Law requirements for Oil Spill Removal Organization Classification, and maintenance of records of such training;

2.3.1.4 ensure compliance by the CONSULTANT and Local Contractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar State Laws and standards; and

2.3.1.5 provide all information regarding the CONSULTANT's and the Local Contractors' Response Resources which must be included in the Response Plan(s) of the Facility(ies) or to be filed with the U.S. Coast Guard or EPA or appropriate State authorities to obtain Classification, including any equipment that is out of service that would diminish CONSULTANT's Classification as an Oil Spill Removal Organization.

2.4 CONSULTANT agrees to render **Emergency Response Services,** as more specifically defined in each applicable Work Directive executed by the COMPANY affiliate or subsidiary to whom the service will be provided and by CONSULTANT, in exchange for the payment of Removal Costs as provided for in **Section 3.1**.

2.4.1 CONSULTANT agrees to provide or cause to be provided an on-call team of personnel and equipment (Response Resources) to perform Emergency Response Services in the location(s) designated on the applicable Work Directive and as directed by the Designated Representative (or his or her designee). Emergency Response Services may include: 1) containment, characterization, handling, transportation, treatment, processing, recovery, repackaging, removal, storage and transportation for disposal of oil (in accordance with **Section 19.8** hereunder), hazardous material and non-hazardous material; 2) site evaluation, decontamination and restoration; 3) technical services, including sampling, laboratory services, analysis, and other related services; 4) training and mock spill deployments; and 5) coordination with COMPANY'S Designated Representative or his or her designee. Specific description of the Emergency Response Services shall be set forth in the applicable Work Directive. When CONSULTANT needs specific clarification pertaining to the Work, it shall request the same from the Designated Representative.

2.4.2 It is understood and agreed that provision of Response Resources by CONSULTANT under this Agreement is incidental to the performance of the Services hereunder and are subject to CONSULTANT's continuing supervision, direction and control. All Response Resources utilized by CONSULTANT in performance of the Work as directed by the applicable Work Directive, shall be paid for by COMPANY in accordance with the terms, conditions and rates in Exhibit B.

CONSULTANT shall provide, supervise, direct, control and pay for all personnel provided hereunder, including, but not limited to, permanent or temporary personnel of CONSULTANT, and "Subcontractors" of CONSULTANT, including but not limited to, employees of third parties who are assigned to perform services for CONSULTANT on a contract basis, or employees of Local Contractors. CONSULTANT shall not be responsible for, and shall not be required to supervise, direct or control any personnel provided by COMPANY or temporary personnel hired by COMPANY to perform emergency response services unless agreed to in writing between the parties and specified in the applicable Work Directive. Similarly, all equipment utilized by CONSULTANT in the performance of the Work, whether owned, rented or under subcontract, including but not limited to all vessels, boom, and skimmers, shall be installed, operated, monitored, maintained, demobilized and decontaminated by CONSULTANT personnel, employees, agents, subcontractors or Local Contractors. Such equipment, and the labor hours associated with installing, operating, monitoring, maintaining, demobilizing and decontaminating the equipment, shall be paid for by COMPANY in accordance with Exhibit B.

2.5 COMPANY is responsible under this Agreement to:

2.5.1 designate an On-site Representative and provide CONSULTANT with the name, address, twenty four (24) hours-a-day telephone number and telefacsimile number of the Qualified Individual/On-site Representative, and shall amend or update this information as necessary;

2.5.2 deliver, or caused to be delivered, to the CONSULTANT such information concerning the Facility as the CONSULTANT may reasonably request for the performance of the Work;

2.5.3 pay for services and Removal Costs of the CONSULTANT in accordance with **Section 3.0**;

2.5.4 be responsible for deciding which Response Resources shall be requested from the CONSULTANT to conduct Emergency Response Services;

2.5.5 be responsible for coordinating and directing overall Emergency Response Services;

2.5.6 be responsible for disposal of all Oil,Hazardous Materals and Waste collected by the CONSULTANT;

2.5.7 give notice to the CONSULTANT of any significant increase in the volume of Oil movements or any significant changes in operation of the Facility;

2.5.8 obtain and provide CONSULTANT with the COMPANY'S Environmental Protection Agency identification number or other such authorization required by law for any Discharge or threatened Discharge classified as a Hazardous Material, or similar designation, prior to the CONSULTANT providing services hereunder.

2.5.9 Provide a Parent Guaranty to CONSULTANT in accordance with **Section 6.5**.

2.6 Notwithstanding this Agreement, COMPANY shall not be required to utilize CONSULTANT to deploy Response Resources for Emergency Response Services and may arrange for the supply and deployment of Response Resources for Emergency Response Services in the Area of Service by any other person.

2.7 Emergency Response Services Procedure.

2.7.1 COMPANY may initiate a request for the deployment of resources to perform Emergency Response Services by a direct telephone call to the CONSULTANT's Local Representative at (562) 432-1304 or 1-(800) 334-4755, and such telephone

Kinder Morgan Operating L.P. "D"

February 17, 2012

Agreement No. 11559
Amendment No. 8

NRC ENVIRONMENTAL SERVICES COMPANY
Attention: Stephanie Barton
3500 Sunrise Highway, Suite T103
Great River, NY 11739
Email: sbarton@nrces.com

Re: Amendment to Term & Rates

Dear Stephanie Barton:

Pursuant to the terms and conditions of Agreement No. **11559** effective **June 1, 2005**, by and between **KINDER MORGAN OPERATING L.P. "D"** and **NRC ENVIRONMENTAL SERVICES COMPANY**, which Agreement is made a part hereof by reference, the same as if set forth herein in full, you are hereby requested to amend the Agreement to include the following:

Section 1.0 **TERM**

Replace "shall continue until February 18, 2012"

With "shall continue until February 18, 2013"

EXHIBIT B **SCHEDULE OF VALUES**

Section 5.0 Replace previous Price List with new Price List Effective February 18, 2012

All other terms and conditions of Agreement No. **11559,** as amended by prior contract amendments (if any), which are not changed by this amendment will continue in full force and effect.

This amendment now forms an integral part of this Agreement. Confirm your acceptance by signing on the line provided and return to COMPANY'S Contract Administrator as listed below:

KINDER MORGAN OPERATING L.P. "D"
Attention: **Michael Martinez**
1100 Town And Country Road
7th Floor
Orange, CA 92868

This Amendment is effective as of February 19, 2012.

COMPANY:

KINDER MORGAN OPERATING L.P. "D"
By: Kinder Morgan G.P., Inc.,
its General Partner
By: Kinder Morgan Management, LLC,
the Delegate of the General Partner

SIGNATURE

Michael Martinez
NAME (Please Print)

Purchasing Supervisor
TITLE (Please Print)

February 17, 2012
DATE

CONTRACTOR:

NRC ENVIRONMENTAL SERVICES COMPANY

Stephanie Barton
SIGNATURE

Stephanie Barton
NAME (Please Print)

Director, Emergency Response Programs
TITLE (Please Print)

2/17/12
DATE

NRC ENVIRONMENTAL SERVICES

PRICE LIST

Effective February 18, 2012

Price List Terms: Customer's request for NRC Environmental Services Inc. (NRCES) to perform services constitutes an agreement to pay for those services under the Personnel, Equipment and Material Terms of this Price List, regardless of any estimates provided by NRCES. Charges will be based on the most current published Price List. Surcharges to current published rates may apply in non-local areas. Surcharges may also apply to cover unanticipated cost increases for items, including but not limited to fuel and insurance, resulting from circumstances beyond the control of NRCES. Rates are based upon net 10 payment terms unless otherwise agreed by prior written contract with NRCES. Balances outstanding more than ten (10) days after the invoice date shall be deemed delinquent and shall earn interest at the rate of 1.5 % per month. Customers without a pre-existing NRCES contract are subject to a minimum charge of $3,500.00 to be paid at time of call out for emergency response services and any charges for services estimated to exceed the minimum are also payable in advance. All prices are in U.S. dollars.

PERSONNEL

ITEM #	DESCRIPTION	HOURLY RATE
SP	Senior Project Manager	135.00
CH	Certified Industrial Hygienist (NRCES only)	125.00
PM	Project Manager	110.00
IH	Industrial Hygienist (non-CIH)	100.00
SU	Superintendent	90.00
AM	Assistant Project Manager (Operations, Planning, Logistics, Finance)	90.00
HS	Health & Safety / Training Manager	85.00
SA	Senior Accountant	85.00
SM	Support Manager (Purchasing, Communications, Transportation, Decon, Disposal)	80.00
PS	Project Scientist / Field Chemist	75.00
PR	Purchaser / Subcontracts Administrator	65.00
AS	Administrative Support / Accountant	50.00
FS	Field Supervisor	70.00
MC	Mechanic / Welder	70.00
EO	Equipment Operator	60.00
DR	Driver (Commercial)	55.00
SF	Site Foreman	55.00
RT	Confined Space / Rescue Technician	50.00
LO	Licensed Vessel Operator	75.00
VO	Vessel Operator	55.00
DH	Deckhand	45.00
TE	Technician – HAZWOPER	45.00
ST	Support Technician (Warehouseman, Personnel, Resource Coordinator)	45.00

Personnel Terms:

1. Minimum call out is 4 hours per person, except for projects over 50 miles from office location require 8-hour daily minimum.
2. Rates for FS, MC, EO, DR, RT, SF, LO, VO, DH, TE, SA, AS and ST are subject to the following: a) Weekdays: 0700 to 1500 hours charged at Straight Time (ST = Hourly Rate); 1500 to 1900 hours charged at Overtime (OT = 1½ times the Hourly Rate); 1900 to 0700 hours charged at Double Time (DT = 2 times the Hourly Rate). Changes to start times for Weekday ST, OT and DT may be requested by Client and may be approved by NRCES on a case-by-case basis for longer projects. b) Saturday: First 8 hours charged at OT; hours over first 8 hours charged at DT.. c) Sundays and Holidays: All time charged at DT. d) The following are included holidays: New Years Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving and Christmas Day. Other holidays may apply when employing certain union personnel, including but not limited to: Martin Luther King, Jr. Day, Cesar Chavez's Birthday, Veterans Day, day before Christmas and day after Christmas. e) The above Rates are applied regardless of the number of hours worked for any Client on any particular day. Rates for hours subsequent to a break of less than 8 hours are charged at the appropriate OT or PT rate continuous to hours prior to break.
3. All project specific personnel, including accounting, administrative, personnel support, logistics and management, whether on site, at NRCES offices, or at support locations, are chargeable. All personnel are charged according to the above rates, regardless of full-time, part-time or third party labor source status, unless provided as part of a specified subcontracted service. Surcharges apply for remote sites and prevailing-wage projects.
4. Time charges begin with equipment and personnel mobilization activities and terminate at the conclusion of the services, including transportation of equipment and personnel back to operations centers and any necessary demobilization activities. Personnel time is charged in half-hour increments for all personnel. All hourly rates will be charged Portal-to-Portal from the location of personnel when dispatched, including but not limited to NRCES office, personnel home, hotel or other jobsite as applicable. Personnel on standby for Customer will be charged at 8 hours per 24-hour period.
5. Transportation and any incidental costs for all emergency response personnel, both on site, at support locations and traveling to and from the site or support locations, are charged at cost plus 20%. Per Diem charges for food in metropolitan areas are $50.00 per person per day. Typical per diem rates for lodging, based on double occupancy, are $100.00 per person per day. Rates for premium areas and remote sites determined at time of service.

EQUIPMENT

CATEGORY	ITEM #	DESCRIPTION	UNIT	RATE
BOOM	1001/1002	Anchor Gear / Boom Mooring Light	Day/Each	30.00/13.00
	1003	Contractor Boom, up to 21"	Ft/Day	1.75
	1004	Petro Barrier, up to 24"	Ft/Day	2.50
	1005	Ocean Boom, up to 42"	Ft/Day	6.75
RECOVERY / SKIMMERS	2001	Air Conveyor, VS-50	Day	3,000.00
	2002	Belt Skimmer, Marco Class XI-C	Day	4,000.00
	2003	Belt Skimmer Vessel, JBF DIP 3001	Hour	350.00
	2004	Belt Skimmer Vessel, Marco I C	Hour	375.00
	2005	Brush Skimmer, Lamor	Day	3,600.00
	2006	Brush Skimmer, Aquaguard RBS-40	Day	2,500.00
	2007	Brush Skimmer, Aquaguard RBS-25 or 10 Twin	Day	2,000.00
	2008	Brush/Drum/Disc Skimmer, Aquaguard RBS-05	Day	850.00
	2009	Disc Skimmer, MI-30, Komara 12K	Day	1,800.00
	2010	Disc Skimmer, Vikoma Sea Skimmer	Day	2,000.00
	2011	Drum Skimmer, Roto 70	Day	3,500.00
	2012	Drum Skimmer, Action Petroleum Model 60	Day	1,400.00
	2013	Drum Skimmer, Action Petroleum Model 36	Day	1,200.00
	2014	Drum Skimmer, Action Petroleum Model 24	Day	800.00
	2015	Rope Mop Skimmer, II-9	Day	800.00
	2016	Rope Mop Skimmer, I-4, II-4, II-6	Day	600.00
	2017	Rope Mop Skimmer, extra rope, 100'	Day	110.00
	2018	Vacuum/Transfer Unit (VTU)	Day	1,800.00
	2019	Weir Skimmer, Desmi 250	Day	3,500.00
	2020	Weir Skimmer, Foilex, vacuum	Day	1,500.00
	2021	Weir Skimmer, Foilex, hydraulic	Day	2,500.00
	2022	Weir, Cascade LP 3000 or Vikoma Fastflowec	Day	1,600.00
	2023	Weir Skimmer, Skimpak or Oleo, 2" or 3"	Day	300.00
TEMPORARY STORAGE	3001	Bladder Tank, 24 barrel	Day	250.00
	3002	Bladder Tank, 25 - 100 barrel	Day	500.00
	3003	Bladder Tank, 101 - 240 barrel	Day	1,000.00
	3004/3005	Container, Intermodal or Connex Storage, 20' / 40'	Day	22.00/44.00
	3006/3007	Roll-off Bins, up to 20 cu. yd. / 30-40 cu. yd.	Day	22.00/44.00
	3008	Storage Tank, 500 to 2,499 gal	Day	20.00
	3009	Storage Tank, 2,500 to 4,499 gal	Day	25.00
	3010	Storage Tank, 4,500 to 6,000 gal	Day	35.00
	3011	Tank Barge, up to 210 bbls (NRCES only)	Day	1,500.00
	3014	Tank Barge, Pebble Beach	Day	9750.00
	3012	Tote Tank, DOT approved, 275 to 300 gal	Day	80.00
	3013	Vacuum Box, up to 25 cu. yd.	Day	80.00
VESSELS / SUPPORT	4001	Deck Barge, up to 110'	Day	500.00
	4002	Response Vessel, 65'	Hour	375.00
	4003	Response Vessel, 35' - 55'	Hour	225.00
	4004	Response Vessel, 30' - 34'	Hour	160.00
	4005	Response Vessel, 25' - 29'	Hour	125.00
	4006	Response Vessel, 16'- 24'	Hour	100.00
	4007	Skiffs w/outboard, 15' or less	Hour	50.00
	4008	Skiffs w/o outboard	Hour	25.00
EXCAVATION	5001	Backhoe, 710 or equivalent	Day	375.00
	5002	Backhoe, 580 or equivalent	Day	325.00
	5003/5004	Backhoe Attachment, Breaker / Compactor	Each/Day	220.00/125.00
	5006	Dump Bed, Morooka 5-10 cu. yd.	Day	350.00

CATEGORY	ITEM #	DESCRIPTION	UNIT	RATE
	5021	Dump Truck, 5 cu. Yd, w/ Plow & Sander	Hour	175.00
	5007	Excavator, Mini	Day	325.00
	5008	Excavator, up to 37,000 lb	Day	850.00
	5009	Excavator, 38,000 to 53,000 lb	Day	1,050.00
	5010	Excavator, over 53,000 lb	Day	1,500.00
	5017	Excavator, over 100,000 lb	Hour	250.00
	5011/5012	Excavator Attachment, Thumb or Wheel / Hammer	Each/Day	350.00/550.00
	5013	Loader, Bobcat, Skidsteer or equivalent	Day	350.00
	5014	Loader Attachment, Breaker, Compactor, Grapple	Each/Day	175.00
	5015	Loader, up to 4 yds.	Day	650.00
TRAILERS	6001	Trailer, Confined Space Entry/Rescue	Day	2,000.00
	6002	Trailer, Decon, up to 24'	Day	350.00
	6003	Trailer, Dump, 7,000 lb	Day	250.00
	6004	Trailer, Dump, Side/End, 18 yd.	Hour	35.00
	6005	Trailer, Emergency Response, up to 24'	Day	350.00
	6006	Trailer, Emergency Response, 40'- 48'	Day	500.00
	6007/6008	Trailer, Equipment, Utility, 1-2 ton / 3-10 ton	Day	100.00/250.00
	6009	Trailer, Flatbed, up to 48'	Day	250.00
	6010	Trailer, Incident Command Center, 24'	Day	650.00
	6011	Trailer, Incident Command Center, 48'	Day	1,500.00
	6012	Trailer, Low Boy	Day	300.00
	6013	Trailer, MTR (boom, boat, skimmer add'l if deployed)	Day	350.00
	6014	Trailer, Office	Day	200.00
	6015	Trailer, Rocket (Roll Off) Launcher	Hour	40.00
	6016	Trailer, Side Dump, 3 axle	Day	600.00
	6017	Trailer, Tilt Top, 26 ton	Day	250.00
	6018	Trailer, Van, up to 48'	Day	350.00
	6019	Trailer, Water Buffalo (up to 500 gallons, with pump)	Day	200.00
	6020	Trailer, Wildlife Response and Rehab (supplies add'l)	Day	2,500.00
	6021	Trailer, Wildlife Search & Collection	Day	1,000.00
	6022	Trailer, Wildlife Support	Day	350.00
TRUCKS	7001	Tractor, Diesel	Hour	45.00
	7002	Truck, Camera	Hour	125.00
	7003	Truck, Crane, 1 ton - 6 ton	Hour	65.00
	7004	Truck, Crane, 7 ton - 10 ton	Hour	75.00
	7005	Truck, Crane, 10 ton - 18 ton	Hour	95.00
	7006	Truck, Crane, 40 ton	Hour	140.00
	7007	Truck, Dump, up to 10 yard	Hour	60.00
	7008/7009	Truck, Dump, over 10 yard / with pup	Hour	65.00/70.00
	7016	Truck, Flatbed or Van, 2-Axle, up to 24'	Hour	45.00
	7010	Truck, Gear, less than 1 ton	Day	125.00
	7012	Truck, Gear, 1 ton	Day	150.00
	7014	Truck, Gear, 2 ton - 5 ton	Day	225.00
	7017	Truck, Hazmat Response, up to 24'	Hour	75.00
	7018	Truck, Marine Response	Hour	50.00
	7019/7020	Truck, Roll Off, bobtail / with trailer	Hour	70.00/80.00
	7021	Truck, Water, up to 3000 gallons	Hour	110.00
VACUUM	8001	Guzzler/Air Mover (filters add'l)	Hour	150.00
TRUCKS /	8002	Vactor/Jetter - Combo Unit (attachments add'l)	Hour	185.00
TRAILERS	8003/8004	Vacuum Trailer, 120 -130 bbl, black iron/ stainless	Hour	30.00/45.00
	8005/8006	Vacuum Truck, less than 35 bbl / 35 - 70 bbl	Hour	50.00/60.00
	8007	Vacuum Trailer, less than 50 bbl	Hour	25.00
VEHICLES	9001/9002	All Terrain Vehicle / cargo carrying	Day	240.00/375.00
	9003	Auto, Personnel or Support	Day	100.00

CATEGORY	ITEM #	DESCRIPTION	UNIT	RATE
	9004	Van, MTR (boom, boat, skimmer add'l if deployed)	Day	400.00
	9005	Van, Maintenance, Personnel or Support	Day	150.00
	9006	Wildlife Transport-Care Vehicle	Day	600.00
BLOWERS / COMPRESSORS	1101	Air Compressor, up to 100 CFM	Day	150.00
	1102	Air Compressor, 100 to 185 CFM	Day	225.00
	1103	Air Compressor, 210 to 375 CFM	Day	325.00
	1104	Blower, Coppus, Electric/Pneumatic	Day	100.00
	1105/1106	Blower, Negative Air Exhaust, 6" / 12" (consumables add'l)	Day	75.00/110.00
	1107	Blower, Venturi, Horn	Day	30.00
	1109	Corken Compressor (291T / Corrosive Compatible)	Day	750.00
	1110	Corken Compressor (490T / Corrosive Compatible)	Day	1000.00
	1108	Exhaust Duct, 25' x 6", 10" or 12"	Day	25.00
PRESSURE WASHERS	1202	Hydroblaster, 6,000 psi	Hour	50.00
	1203	Hydroblaster, 10,000 psi	Hour	70.00
	1204	Hydroblaster, 20,000 psi	Hour	180.00
	1209	Jetter Trailer	Hour	95.00
	1206	Pipeline Lancing Nozzle, w/ Hose & Foot Pedal	Day	75.00
	1207/1210	Pressure Washer, up to 3,000 psi, single / dual w/ tank	Day	250.00/600.00
	1208	Pressure Washer, 3,000 to 5,000 psi	Day	350.00
	1205	Remote Tank Cleaning (Gamajet) Head	Day	275.00
	1201	Specialty Nozzles, Roto Jet or Butterworth or equivalent	Day	45.00
PUMPS	1311	Air Conveyor, Vac-U-Max	Day	150.00
	1301/1302	Pump, up to 1", Petroleum / Chemical	Day	60.00/95.00
	1313	Pump, 1" or 2", Jet (Gas Eductor)	Day	$250.00
	1303/1304	Pump, 2", Petroleum / Chemical	Day	85.00/195.00
	1305	Pump, 2", Chemical Peristaltic	Day	350.00
	1306/1307	Pump, 3", Petroleum / Chemical	Day	100.00/295.00
	1312	Pump, 3", Hydraulic (Archimedes/MT30) w/power pack	Day	1,500.00
	1308/1309	Pump, 4", Petroleum / Petro-Submersible	Day	175.00/325.00
	1310	Pump, 5"- 6", Petroleum	Day	400.00
	1314	Pump, Blackmer Stainless Steel Sliding Vane	Day	650.00
	1315	Pump, Corken, Coro Vane or Equivalent	Day	650.00
	1316	Pump, Double Diaphragm, stainless steel, 1" / 2"	Day	200.00/300.00
HOSES / PIPES FITTINGS	1405	Guzzler/Air Mover Vacuum Breaker	Day	30.00
	1406	Guzzler/Air Mover/Jetter Fittings (elbows, tees, etc.)	Day/Each	8.00
	1423	Hose, Chlorine Transfer, certified	Ft/Day	45.00
	1415/1416	Hose, Discharge (lay flat) 2" / 3"	50 ft/Day	10.00/12.00
	1417/1418	Hose, Discharge (lay flat) 4" / 6"	50 ft Day	15.00/25.00
	1401/1402	Hose, Fire, 1.5" / 2.5"	50 Ft/Day	15.00/17.50
	1403/1404	Hose, Guzzler/Air Mover, Flex or Pipe, 4" / 6"	Ft/Day	3.50/4.00
	1420	Hose, Hydraulic, 1"	Ft/Day	25.00
	1421/1422	Hose, LPG/NH_3, 1" Vapor / 2" Liquid Transfer	Ft/Day	10.00/20.00
	1407	Hose, Pneumatic	50 Ft/Day	10.00
	1425	Hose, Stainless Steel	Ft/Day	35.00
	1408/1409	Hose, Suction & Discharge, 2", Petro / Chemical	25 Ft/Day	15.00/30.00
	1410/1411	Hose, Suction & Discharge, 3", Petro / Chemical	25 Ft/Day	25.00/40.00
	1412/1413	Hose, Suction & Discharge, 4", Petro / Chemical	25 Ft/Day	35.00/60.00
	1414	Hose, Suction & Discharge, 6", Petro	25 Ft/Day	45.00
	1424	Hose, Teflon, 1" Rubber Jacketed or 2" Stainless Braid	Ft/Day	35.00
	1419	Hose, Wash, up to 1"	50 ft/Day	10.00
	1426	Stinger, 2", CPVC/SS/Carbon	Day	100.00
	1427	Transfer Fittings (gauges, nipples, risers, etc,)	Transfer	250.00
SUPPORT	1501	Air Knife	Day	150.00
	1554	Airless Sprayer	Day	85.00

CATEGORY	ITEM #	DESCRIPTION	UNIT	RATE
SUPPORT (cont.)	1555/1502	Bag Filter System, Single / Dual Pod (bag filters add'l)	Day	60.00/75.00
	1567/1568	Banding Equipment, 2-inch	Hour/Day	30.00/240.00
	1503	Carbon Filtration System, 55 gal drum	Each	350.00
	1504	Chipping Gun, Pneumatic	Day	40.00
	1505	Compactor, Hand Operated	Day	150.00
	1506	Decon Cleaning Pool, Portable 10' x 15'	Day	125.00
	1507	Decon Cleaning Pool, Portable 10' x 30'	Day	200.00
	1508	Decon Cleaning Pool, Portable 20' x 100'	Day	550.00
	1509	Decon Cleaning Pool, Portable 25' x 50'	Day	275.00
	1510/1553	Decon Station, Personnel 2 / 3 Stage (supplies add'l)	Day	50.00/75.00
	1511	Electrical Accessories (cords, GFI, adaptors)	Day	14.00
	1559/1560	Flare, Ground Set 2" / 3"	Day	200.00/300.00
	1561	Flare, Stack, 2"	Day	100.00
	1562	Flow Meter, 2", Stainless Steel	Day	150.00
	1512/1513	Forklift, 5K to 10K lb / Attachment	Day	275.00/100.00
	1514	Generator, less than 4 kW	Day	50.00
	1515	Generator, 4 kW to less than 7.5 kW	Day	115.00
	1516	Generator, 7.5 kW to 12.5 kW	Day	165.00
	1517	Handheld Pipeline Locator System	Day	150.00
	1518	Jackhammer	Day	150.00
	1519	Ladder, Extension & Folding	Day	40.00
	1557/1558	Laser Level Kit, 1/16" x 100' / ¼" x 100'	Day	55.00/15.00
	1520	Light Tower, Trailer Mounted	Day	175.00
	1521	Light, Explosion-Proof	Day	44.00
	1522/1523	Light, Stand, Regular, 500W / 1000W	Day	16.00/60.00
	1524	Office Space (for command post at NRCES as available)	Day	1,500.00
	1525	Pipe Plug 4" to 18" (includes 20' air line hose)	Day	95.00
	1526	Pipe Plug 18" to 24" (includes 20' air line hose)	Day	155.00
	1527	Pipe Plug 24" to 36" (includes 20' air line hose)	Day	175.00
	1528	Pipe Plug 36" to 48" (includes 20' air line hose)	Day	215.00
	1529	Pipe Plug 48" to 60" (includes 20' air line hose)	Day	350.00
	1563	Portable Breathing Air Compressor	Day	375.00
	1530	Power Pack, Hydraulic, 1 hp (<0.75 kW)	Day	50.00
	1531	Power Pack, Hydraulic, 16 hp (0.75 kW < 12 kW)	Day	138.00
	1532	Power Pack, Hydraulic, 40 hp (12 kW < 30 kW)	Day	275.00
	1533	Power Pack, Hydraulic, 60 hp (30 kW < 45 kW)	Day	500.00
	1564	Power Pack, Hydraulic, 75 hp (45 kW - 56 kW)	Day	750.00
	1534	Road Closure Signs, reflective	Day/Each	50.00
	1535	Road Closure, Barricades, Cones, Delineators	Day/Each	5.00
	1536	Sand & Floor Dry Spreader Attachment	Day	95.00
	1537/1538	Saw, Chain / Cutoff	Day	60.00/125.00
	1539	Soil Sampler, Hollow Stem	Day	50.00
	1556	Surf Rake, Model 600 HD	Day	750.00
	1540	Tools, Hand (brooms, shovels, etc.)	Each/Day	5.00
	1541	Tools, Mechanical Set	Each/Day	50.00
	1542	Tools, Non-Sparking	Each/day	15.00
	1543	Tools, Power, small (drills, sawzall etc.)	Each/Day	35.00
	1565	Trident Magnetic Patch	Day	1,000.00
	1544	Truck Ramps	Day	150.00
	1545/1546	Vacuum, HEPA / Shop (filters add'l)	Day	250.00/50.00
	1547	Vactor/Jetter Attachment (hydro-exca, Drum-It Head, nozzles)	Day/Each	95.00
	1566	Vapor Extraction System, portable	Day	350.00
	1548	Welding Unit / Torch Set, Portable	Day	85.00
	1549	Wildlife Rehabilitation Pool	Day	200.00
	1550	Wildlife Shelter, 19' x 35'	Day	2,000.00
	1551	Wildlife Shelter, 20' x 20'	Day	750.00

CATEGORY	ITEM #	DESCRIPTION	UNIT	RATE
	1552	Yokohama Fenders, 8' diameter	Day	175.00
COMMS	1601	Base Station	Day	75.00
	1602	Cellular Phone (airtime over $10 per day add'l)	Day	35.00
	1603	Computer and/or Printer	Day	95.00
	1604	GPS Unit	Day	50.00
	1605	High Power Repeater System w/Generator	Day	300.00
	1606	Radio, UHF or VHF, Portable	Day	25.00
	1607	Satellite Phone (includes 20 minutes airtime per day)	Day	75.00
	1608	Satellite Dish for HS Internet	Day	125.00
SAFETY	1701	Air Sampling Kit (tubes add'l)	Day	40.00
	1702	Chest or Hip Waders, Insulated Cooling Vests	Day	25.00
	1703	Chlorine A/B/C Response Kits (gaskets add'l)	Day	500.00
	1726	Cylinder Containment Device	Day	2,000.00
	1727	Complete Turnout/Bunker Gear	Day	275.00
	1704	Eyewash Station	Day	35.00
	1705	Drager CMS Meter	Day	200.00
	1706	Floatation Work Suit	Day	50.00
	1707	Floatation Work Vest, PFD	Day	10.00
	1710	Harness/Lanyard/Safety Line	Day	25.00
	1711	Meter, 4EC Radiation	Day	350.00
	1712	Meter, LEL/O2/H2S/CO	Day	150.00
	1725	Meter, LEL/O2/H2S/CO/PID	Day	250.00
	1713	Meter, Jerome Mercury	Day	600.00
	1723	Meter, Lumex Mercury	Day	850.00
	1714	Meter, Personal / Gillian, Single/4-gas	Each/Day	35.00
	1715	Meter, Personal / Particulate Monitoring	Day	150.00
	1716	Meter, PID/HNU/OVA	Day	200.00
	1717	Mercury Vacuum (consumables add'l)	Day	750.00
	1728	Midland Capping Kit	Day	1,000.00
	1724	Remote Drum Drilling Unit	Day	600.00
	1708/1709	Respirator, Full Face / Half Face (cartridges add'l)	Day	25.00/20.00
	1718	Salvage Cylinder/Coffin	Day	1,500.00
	1719/1729	SCBA or Egress Bottles w/ lines / Refill	Day/Each	125.00/25.00
	1720	Six Pack / Regulated Air Supply (includes up to 300' airline)	Day	300.00
	1721	Tripod and Winch	Day	250.00
	1722	Truck Rollover/Cylinder Drill Kit/Betts Valve	Day	400.00

Equipment Terms:

1. NRCES does not rent equipment in a bare condition. All equipment shall be operated and controlled by NRCES Personnel only. All equipment sent to site by NRCES shall be in a basic operating condition. Additional components charged to customer include, but are not limited to, multiple hose lengths, blast shields, specialty tips or fittings, specialty connections, noise abatement, catalytic converters, etc. Equipment prices do not include fuel, operator or mobilization unless otherwise stated. Fuel consumed in non-mileage related operation of equipment, including vehicle and non-vehicle equipment and vessels, will be charged at cost plus 20%. Vacuum truck washouts will be charged at cost plus 20%. Regulatory permits and environmental fees (HP Fees, BTU Fees, etc) shall be assessed at cost plus 20% based upon the equipment and duration of such unit.
2. Time charges are calculated portal to portal, including any demurrage beginning with equipment mobilization activities from the NRCES office or operations center unless otherwise specified, including all time at the site. Time charges terminate at the conclusion of the operation, which includes transportation of equipment back to NRCES office or operations center and completion of any necessary demobilization activities, including disposal, cleaning, repair, replacement and/or delivery to NRCES of restored equipment.
3. Day rates are based on 8 hours of operation. Equipment will be charged in half-day increments for additional hours over 8, up to a total of 3 days charge during a 24-hour period. Minimum charge for daily rate equipment is daily charge per day. Minimum call out for hourly equipment is four hours per day for local projects and eight hours per day for projects over 50 miles from mobilization site. Customers will be charged for unused requested equipment until released and returned to service per Note 2.
4. Equipment not specified on the Price List will be charged at cost (including rental, insurance, freight, fuel, etc.) plus 20%.
5. In addition to payment of rental charges, Customer agrees to pay NRCES, in accordance with rates contained in this Price List, for any cleaning or repairs necessary to return all equipment to the same condition as at the commencement of services (with the exception of normal wear and tear). Customer is also responsible for the payment of all transportation and disposal charges for any waste generated during cleaning. Only NRCES or its subcontractors shall perform any cleaning and decontamination operations on all equipment owned, rented or subcontracted by NRCES. If NRCES determines that equipment cannot be returned to the condition it was in at the commencement of the services, Customer shall pay for all costs at cost plus 20%, including freight and other expenses incurred by NRCES to replace this equipment. All boom, whether new or used, that is damaged beyond repair shall be replaced by NRCES with new boom at Customer's expense at cost plus 20%, including freight and other expenses.

MATERIALS AND SUPPLIES

CATEGORY	ITEM #	DESCRIPTION	UNIT	RATE
BAGS/SHEETING	M100	Bulk Bag, 1 yard	Each	22.00
	M101	Plastic Bag, 36" x 60", 6 mil, 50/roll or box	Roll/Box	95.00
	M102	Plastic Bag, 36" x 60" (drum liner)	Each	3.00
	M103	Roll Off Box Liner	Each	35.00
	M104	Sheeting, 20' to 32' x 100', 10 mil	Roll	155.00
	M105	Sheeting, 20' to 32' x 100', 6 mil	Roll	115.00
CLEANERS	M205/M200	Cleaner, Hand, 14 oz tub / 1 gallon	Each	4.00/30.00
	M201	Cleaner, Marine/Industrial (Simple Green or equivalent)	Gallon	25.00
	M202	Disinfectant (bleach, A-33, or equivalent)	Gallon	3.00
	M204	Decon Solvent (HD Citrus Degreaser, BioSolve, PES-51)	Gallon	77.00
	M207	Mercury Cleaning Solution	Gallon	65.00
	M206	Mercury Vapor Suppressant	Pound	34.00
CONTAINERS	M318	1 Gallon, Poly Pail	Each	10.00
	M301/M313	5 Gallon, Bucket w/ Lid / Plastic Carboy	Each	18.00/20.00
	M302	10 Gallon, Open Top, Steel	Each	95.00
	M319	15 Gallon, Open Top, Poly	Each	61.00
	M303	20 Gallon, Open Top, Steel	Each	65.00
	M304	30 Gallon, Open or Close Top, Refurbished	Each	56.00
	M305/M314	55 Gallon, Close Top, Steel, Refurbished / New	Each	60.00/90.00
	M306/M315	55 Gallon, Open Top, Steel, Refurbished / New	Each	60.00/90.00
	M316/M307	55 Gallon, Open or Close Top, Poly, Refurb / New	Each	71.00/90.00
	M308	85 Gallon, Overpack, Unlined, Black	Each	225.00
	M309	85 Gallon, Overpack, Lined, Yellow	Each	255.00
	M310	95 Gallon, Overpack, Poly	Each	265.00
	M317/M311	275-300 Gallon, Liquid Tote, DOT, Recon / New	Each	225.00/450.00
	M312	Triwall Box, Cubic Yard, DOT Approved	Each	125.00
SAFETY	M400	Acid Suit, 1 Piece	Each	90.00
	M401	Boot, Steel Toed, PVC/Nitrile	Pair	28.00
	M442	Face Shield	Each	10.00
	M402	Glove, Brown Jersey	Pair	3.00
	M403	Glove, Inner, Cotton, Latex or Nitrile	Pair/Box	1.00
	M404	Glove, Inner, Cotton, Latex or Nitrile	50/Box	30.00
	M405	Glove, Silver Shield	Pair	4.50
	M406	Glove, Heavy Duty, PVC,Green, PVC 14"	Pair	4.00
	M407	Glove, Heavy Duty, Black	Pair	8.00
	M408	Glove, Heavy Duty, Butyl Rubber	Pair	30.00
	M409	Hard Hat	Each	25.00
	M410	Overboot, Disposable	Pair	5.00
	M425	Protective Gear Level A	Each	1,400.00
	M426/M427	Protective Gear Level B	Each/Change	450.00/300.00
	M428/M429	Protective Gear Level C	Each/Change	85.00/55.00
	M430/M431	Protective Gear Level D	Each/Change	35.00/20.00
	M432	Rain Gear, 2 Piece	Set	20.00
	M433	Respirator, Cartridge, Single, OV, Acid Gas, P100	Pair	25.00
	M443	Respirator Cartridges, Combo	Pair	33.00
	M434	Respirator, Cartridge, Mercury/chlorine	Pair	50.00
	M436	Safety Eyewear	Each	7.00
	M438	Safety Vest	Each	25.00
	M444	Thermo Pro	Each	450.00
	M439	Tyvek Suit, Coated, Saranex	Each	30.00
	M440	Tyvek Suit, Disposable	Each	12.00
	M441	Tyvek Suit, Poly-Coated	Each	13.00

CATEGORY	ITEM #	DESCRIPTION	UNIT	RATE
SORBENTS	M500	Absorbent, Chemical Stabilizer, 35 lb	Bag	130.00
	M501	Absorbent, Absorb X	Bag	17.50
	M512	Chemical pads, 15" x 9", 100/Bale	Bale	90.00
	M502	Floor Dry 25 lb	Bag	10.50
	M503	Neutralizer (citric acid, soda ash or bicarbonate)	Bag	65.00
	M504	Oil Snare on Rope, 50 ft/Bag	Bag	135.00
	M505	Oil Snare, 30/Carton	Carton	110.00
	M513	Orange Construction Fence, 4'x100'	Roll	45.00
	M506	Sorbent Boom 5" x 10', 4/Bale	Bale	100.00
	M507	Sorbent Boom 8" x 10', 4/Bale	Bale	185.00
	M508	Sorbent Roll, SXT 638, 38" x 144' x 3/8"	Roll	175.00
	M509	Sorbent Sheet 17" x 19" x 3/8", 100/Bale	Bale	75.00
	M510	Sorbent Sweep 17" x 100' x 3/8"	Each	130.00
	M514	Straw Waddles, 25 ft/Roll	Roll	30.00
	M511	Vermiculite, 4 cu.ft. /Bag	Bag	28.00
MISCELLANEOUS	M621	Air Mover Dry Filter Sock	Each	18.00
	M600	Banner Tape, 3"	Roll	20.00
	M619	Catch Basin Filter	Each	53.00
	M601	Cotton Rags, 25 lb Box/Bale	Each	50.00
	M602	Decon Pool, Small Personnel	Each	30.00
	M603	Sample Supplies (pogo pump, jars, brass tubes, caps)	Each	7.00
	M604	Duct Tape, 2"	Roll	7.50
	M605	HazCat Kit (each fingerprint)	Per Test	25.00
	M622/M623	HEPA Vacuum Consumables, Standard / Complete	Each	50.00/450.00
	M606	Mercury Vacuum Consumables Change Out	Each	75.00
	M620	Negative Air Exhaust Consumables Change Out	Each	170.00
	M607	Petro Flag Test Kit	Per Test	35.00
	M612	Photo Documentation, Disposable or Digital	Each	35.00
	M613	Poly Rope, 600', up to 1/2"	Roll	90.00
	M614	Sand Bags, Filled	Each	8.50
	M616	Sprayer, Hand Held (Hudson), 3 gal.	Each	55.00
	M801	Water, Drinking, 24/case	Case	14.00
	M850	Mileage for Car (M850 + Eq Item#)	Mile	0.65
	M851	Mileage for Trucks/Vans (M851 + Eq Item#)	Mile	0.75
	M852	Mileage for Commercial Trucks (M852 + Eq Item#)	Mile	0.95
	M860	Equipment Fuel (Gasoline) (M860 + Eq Item#)	Gallon	4.50
	M870	Equipment Fuel (Diesel) (M870 + Eq Item#)	Gallon	5.00
	M901/M902	Transportation to TSDF, Triwalls / Drums	Each	160.00/45.00
	D903	Disposal of Non-Haz Liquid Waste at NRCES	Gallon	0.35

Materials and Supplies Terms:

1. All materials and supplies utilized, whether listed in daily reports or not, are chargeable. Any materials or supplies not listed on Price List, including Wildlife Trailer supplies and expendables and third-party invoices for services, charged at cost plus 20%.
2. Quotes for waste disposal are based on meeting approved profiles. NRCES will assist Customer in identifying disposal facility options and provide price quotes. However, this does not constitute a referral and it is the sole responsibility of the Customer to designate the disposal facility. NRCES will not take title to any wastes: dangerous, hazardous or non-hazardous.
3. The number of change-outs of Personal Protective Equipment (PPE) are based on conditions occurring in the work area. PPE shall be changed at a frequency that conforms to safety practices to prevent exposure to employees during the work activity. PPE categories:
   - Level D: Coveralls/Uniform, Steel Toe Boots, Safety Glasses, Work Gloves, Hard Hat and Safety Vest as applicable;
   - Level C: Level D plus, Disposable Tyvek, Full Face or Half Face Respirator (excluding cartridges) ;
   - Level B: Level C plus supplied air and egress air bottle or SBCA (Supplied air equipment includes mask, 100' air supply hose, supplied air, bottle manifold and egress bottle or SBCA);
   - Level A: Quoted per Price List for specific project requests and requirements
4. Petroleum based products prices subject to change at any time based on increased manufacturing costs.
5. NRCES reserves the right to substitute products or equal quality and construction without affecting the performance. NRCES applies the Brand Name of a product as a reference only, and reserves the right to substitute the product for similar and or equivalent products as it deems necessary.
6. NRCES use of facility-directed or customer-directed decontamination products, including but not limited to degreasing agents, cleaners, strippers, conditioners, cutter stock, etc , shall be done at the facility's or customer's risk.
7. A surcharges of $0.15 per mile will be added to Mileage rates for every $0.50 over $4.00 cost per gallon of diesel. A surcharge of $0.25 per gallon will be added to Equipment Fuel rates for every $0.20 over $3.75 cost per gallon of gasoline and $4.00 cost per gallon of diesel. Fuel cost data will be based on fuel prices in the local NRCES office area at time of service per U.S. Energy Information Administration statistics available at www.eia.gov.

Clean Harbor Environmental Services

Clean Harbors Environmental Services, Inc.
55 Silicon Drive
McCarran, NV. 89434

www.cleanharbors.com

August 19, 2009

Kinder Morgan
301 Nugget Avenue
Sparks, NV. 89431
ATTN: Mr. Mr. Stevenson

RE: EMERGENCY RESPONE INFORMATION

Dear Mr. Stevenson,

Clean Harbors Environmental Services (CHES) effective response area (1-2 hours) would be approximately 50 miles from Benicia, CA. This would encompass Stockton to the East, Rancho Cordova to the Northeast and Contra Costa, Alameda and Solano counties. Additional coverage would be for Stanislaus, San Joaquin, Sacramento, Marin, Sonoma, Napa and Lake Counties.

CHES' Sparks, NV effective response area (1-2 hours) would be approximately 50 miles from Sparks, NV. This would mean that CHES could respond for the Kinder Morgan Reno Terminal in 2 hours or less in the event of a release. This also covers Sierra, Modoc, Nevada, Placer, Lassen, Plumas, Modoc and Butte counties in California. This would also cover Washoe, Churchill, Douglas and Storey counties in Nevada. We also maintain a network of Field Service offices across the Nation to assist with more remote locations, and can travel as far as required to service our customer's interests. CHES has the ability to mobilize as much equipment and personal needed from other areas in the event of a catastrophic release.

CHES provides support to MSRC for spills involving navigable waters and is a current subcontractor for them. In areas where MSRC does not operate, CHES will provide Emergency Response and boom support as well as shoreline clean-up. For land-based events, CHES will provide a required resources including; soil removal, transportation, disposal services, site restoration, etc.

CHES is currently a United States Coast Guard classified OSRO and has a rating in each of the USCG COTP regions i is area. Please check the attached USCG rating for your area. Additionally we have a current BOA contract with the Coast Guard and several offices in CA have an OSRO rating with the CA Fish and Game and the Department of Oil Spill Prevention and Response. In addition, please see the attached list of personnel and equipment currently at each of our local offices. This will include amount, size of boom and deployment equipment at each location.

CHES has Certificate of Owners Financial Responsibility (COFR) certificates from the USCG and the CA Department of Fish and Game for marine over-the-water transfer of petroleum products.

If you have any questions or need further information, please feel free to contact me at (408) 210-3393.

Sincerely,

Lee Barfield
National Emergency Response Manager
4101 Industrial Way
Benicia, CA. 94510-0996
707-747-6699 – Office
(b) (6) - Cell

SPARKS SERVICE CENTER **24-Hr. # 775.331.9400**
1200 Marietta Way **24-Hr. # 800.645.8265**
Sparks, NV 89431 **Fax # 775.331.9403**

Leif Hammond, General Manager EPA / Federal ID #: N/A

Personnel Authorized to release equipment / materials / manpower, etc:

Leif Hammond
David Walizer

40-Hour OSHA Trained Personnel:

Supervisor	3
Foreman	2
Equipment Operator	4
Field Technician	10

Equipment List Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
(1) Vessels & Marine Support Equipment							
Power Workboat, Alweld	Sparks	16', 25 HP, NV 2440 KX, V312	1	Y	Y	N	N
(2) Motor Vehicles & Vacuum Equipment							
Vacuum Truck, Straight	Sparks	3000 Gal	3	Y	Y	N	N
Gap Vac, Volvo	Sparks		2	Y	Y	N	N
Stake Body/Utility Truck, Ford	Sparks	Ford	3	Y	Y	N	N
Crew Cab Pickup	Sparks	F-250	9	Y	Y	N	N
High Powered Vacum tanker	Sparks	5000 G Press Vacs - Stainless	1	Y	Y	N	N
Tractors - 3 axle	Sparks	Whites and Peterbulit	5	Y	Y	N	N
Straight Roll Off Trucks	Sparks	Peterbuilt	1	Y	Y	N	N
Roll Off trailors	Sparks	Fontan and Ace	2	Y	Y	N	N
Truck and Trailor combo	Sparks	Transfer rig with dump beds	1	Y	Y	N	N
(3) Pumps and Pressure Equipment							
Pressure Washer, Alkota	Sparks	Hotsy, 2500 psi	2	Y	Y	N	N
Hydro Blaster	Sparks	10K	1	Y	Y	N	N
Trash Pump	Sparks	2"	1	Y	Y	N	N
Trash Pump	Sparks	3"	2	Y	Y	N	N
Double Diaphragm Pump	Sparks	2", Chemical	1	Y	Y	N	N
Double Diaphragm - steel	Sparks	2", Steel	2	Y	Y	N	N
Double Diaphragm - steel	Sparks	3", Steel	2	Y	Y	N	N
(4) Oil Spill Containment Booms							
Oil Containment Boom	Sparks	18", American Marine, On Trailer	1500	Y	Y	N	Y
(5) Environmental Monitoring Equipment							
5-Gas Meter	Sparks	MSA Sirius w/ Automated Calibration	2	Y	Y	N	N
4-Gas Meter	Sparks	MSA/Gastech	2	Y	Y	N	N
(6) Recovery Equipment							

(7) Beach or Earth Cleaning and Excavating Equipment							
Bobcat	Sparks	1/4 yard bucket	1	Y	Y	N	N
(8) Generators / Compressors / Light Towers							
Air Compressor	Sparks	185 CFM	1	Y	Y	N	N
Air Compressor	Sparks	165 CFM	1	Y	Y	N	N
Equipment List Cont. **Item Description / Manufacturer**	**Location**	**Capacity / Size / Key Features**	**# of Units**	**A**	**T**	**P**	**D**
(9) Health and Safety Equipment							
SCBA Units	Sparks	MSA	6	Y	Y	N	N
4 Man Breathing System	Sparks	MSA	1	Y	Y	N	N
(10) Communications							
Satellite Phone		Iridium 9505A	2	Y	Y	N	N
(11) Miscellaneous							
Coppus Blower	Sparks	Pneumatic	2	Y	Y	N	N
14' Boom Trailer	Sparks		1	Y	Y	N	N
35' Emergency Response Trailer	Sparks		1	Y	Y	N	N
21`Emergency Response Trailer	Sparks	Wells cargo	1	Y	Y	N	N

Marine Spill Response Corporation (MSRC)

03-CK-20291-ORa

AMENDMENT ONE
TO
MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT
FOR CB TRANSITIONAL MEMBERS

The MSRC SERVICE AGREEMENT FOR CB TRANSITIONAL MEMBERS by and between Kinder Morgan (the "COMPANY") and MARINE SPILL RESPONSE CORPORATION ("MSRC"), a standard form of agreement dated as of December 31, 2003 (the "Agreement"), is hereby amended as follows:

1. Section 2.01(a) is hereby amended in its entirety as follows:

2.01(a). Oil Spill Event outside Northern California Operational Area or Not Involving a Covered Facility or Covered Vessel. MSRC will not provide any Resources for a Spill Event occurring outside the Northern California Operational Area (which for the purposes of this Section 2.01(a) includes the area of California inland from the Northern California Operational Area) or not involving a Covered Facility or Covered Vessel. However, if MSRC becomes involved in a response outside the Northern California Operational Area (due to spill migration or any other reason), or involving a non-Covered Facility or non-Covered Vessel, that response will be governed by the terms and conditions of this Agreement.

2. The parties agree this Amendment shall be effective December 31, 2003.

3. Any MSRC response in inland areas of the Northern California Operational Area shall be subject to and in accordance with an Inland (Non-Responder Immunity) Addendum to the Agreement to be executed and maintained by the COMPANY.

IN WITNESS WHEREOF, the parties hereto each have caused this Amendment to be duly executed and effective as set forth above.

Kinder Morgan Energy Partners L.P.
COMPANY

By: _____
Name: Eugene G. Braunwarth
Title: Director

MARINE SPILL RESPONSE CORPORATION:

By: _____
~~Judith Rees Norell~~
~~Marketing & Customer Service Manager~~
~~220 Spring Street, Suite 500~~
~~Herndon, VA 20170~~
STEPHEN D. RICKS
VICE PRESIDENT, CALIFORNIA REGION

03-CK-20-291-ORA

ADDENDUM
SERVICE AGREEMENT
(NON-RESPONDER IMMUNITY OIL SPILL RESPONSE)

THIS ADDENDUM TO SERVICE AGREEMENT (this "Addendum"), entered into as of December 31, 2003 modifies and supplements the Service Agreement (the "Service Agreement") by and between Marine Spill Response Corporation ("MSRC") and Kinder Morgan Energy Partners ("Kinder Morgan"), as set forth below. Notwithstanding anything to the contrary set forth in the Service Agreement, this Addendum shall control in the event of a conflict between any provision of this Addendum and any other provision of the Service Agreement.

In consideration of the promises and the mutual covenants of this Addendum, MSRC and Kinder Morgan agree as follows:

1. Kinder Morgan has requested Resources for a Spill Events in a state (California) which has not adopted Responder Immunity.

2. Kinder Morgan and MSRC acknowledge and agree that the lack of Responder Immunity potentially exposes MSRC to additional liabilities. In other states with Responder Immunity, MSRC would not have this exposure, but rather this potential liability would be transferred to the responsible party by the Responder Immunity statute. The intent of this Addendum is to place MSRC and Kinder Morgan in the same respective positions they would be had [state] adopted Responder Immunity.

3. Section 9.03(b) of the Service Agreement is hereby amended in its entirety as follows for this Such Spill Events (with changes underlined):

10/19/04

9.03(b) COVER INDEMNIFICATION. SUBJECT TO THE PROVISIONS OF SECTIONS 9.03(d) AND (e) BELOW, IT IS AGREED THAT THE COVERED ENTITY (Kinder Morgan) WILL DEFEND, INDEMNIFY AND HOLD HARMLESS THE INDEMNITEES AND EACH OF THEM, AGAINST AND FROM ANY AND ALL LOSSES, LIABILITIES, DAMAGES, COSTS AND EXPENSES OF ANY SUCH INDEMNITEES RELATED TO ANY CLAIM ARISING OUT OF, OR IN ANY MANNER CONNECTED WITH, MSRC'S PERFORMANCE OF OR ALLEGED FAILURE TO PERFORM ITS OBLIGATIONS UNDER THIS AGREEMENT AS A RESULT OF A SPILL EVENT WHERE THE INDEMNITEE DEMONSTRATES THAT THE COMPANY, OR ANY APPLICABLE COVERED ENTITY, COULD HAVE BEEN LIABLE IF SUED DIRECTLY OR DID OR DOES HAVE A LIABILITY FOR OR WITH RESPECT TO SUCH CLAIM UNDER OPA OR ANY OTHER APPLICABLE FOREIGN, FEDERAL, STATE OR LOCAL LAW (WHETHER STATUTORY OR COMMON) (OR WOULD HAVE HAD SUCH LIABILITY IF [STATE] HAD ADOPTED RESPONDER IMMUNITY) AND IRRESPECTIVE AS TO WHETHER SUCH LIABILITY WOULD BE CONSIDERED DIRECT, INDIRECT, CONCURRENT, JOINT, PRIMARY, SECONDARY, VICARIOUS OR DERIVATIVE

OF THE LIABILITY OF ANY INDEMNITEE WITH RESPECT TO SUCH CLAIM. IF THE COVERED ENTITY PROVIDING AN INITIAL CALL-OUT NOTICE IS NOT THE "RESPONSIBLE PARTY" FOR THE APPLICABLE DISCHARGE AS DEFINED IN OPA, THE LIABILITY OF THE COVERED ENTITY FOR THE PURPOSES OF THIS SECTION 9.03(b) SHALL INCLUDE THE LIABILITY OF SUCH "RESPONSIBLE PARTY".

4. Section 9.03(d) of the Service Agreement is hereby amended in its entirety as follows for this Such Spill Event (with changes underlined):

9.03(d) Excluded Obligations. The obligations of the Covered Entity under Sections 9.03(b) and (c) shall not include and shall not apply to:

(i) the extent (but only to the extent) that applicable law would render such indemnity or hold harmless agreement void or unenforceable;

(ii) the extent that any Claim is caused by any Indemnitee's gross negligence or willful, reckless, or criminal misconduct;

(iii) the portion of any Claim for which an insurer of MSRC recognizes or otherwise has an obligation to pay under the applicable policy or cover;

(iv) any portion of a Claim arising from or related to services or equipment provided by MSRC to a Spill Event other than pursuant to this Agreement including services or equipment provided by MSRC to a Spill Event after the Covered Entity has, pursuant to this Agreement, terminated the services of MSRC under this Agreement at such Spill Event;

(v) any Claim for personal injury or wrongful death of Persons who are employees of MSRC or MSRC Integral Subcontractors;

(vi) any portion of a Claim with respect to a Spill Event where the payment of such portion of the Claim would cause the aggregate of (i) the amount of any payments actually made by or on behalf of the COMPANY or the Covered Entity to or on behalf of any Indemnitees under this Agreement or any MSRC Subcontractors pursuant to Section 9.03(i) with respect to such Spill Event and (ii) the amount of any payments made by or on behalf of the COMPANY or the Covered Entity for removal costs or damages under OPA with respect to such Spill Event, to exceed the Cap with respect to such Spill Event, whether or not under OPA or any other applicable law or regulation or in any proceeding the Cap can be maintained by the COMPANY or the Covered Entity; provided that the restrictions of this Section 9.03(d)(vi) shall not apply to any Claim for which (A) the COMPANY or the Covered Entity has previously assumed the defense of such Claim under Section 9.03(e), or (B) the Indemnitee would have been entitled to immunity if [state] had in effect Responder Immunity; or

(vii) any portion of a Claim with respect to which an Indemnitee has successfully maintained an immunity from liability under any applicable provision of OPA or other foreign, Federal or state law; provided, however, that the exclusion under this Section 9.03(d)(vii) shall not apply to costs (including attorneys' fees) incurred by the Indemnitee in asserting said immunity.

IN WITNESS WHEREOF, the undersigned have executed this Addendum as of the date first above written.

Kinder Morgan Energy Partners, L.P.

By: _____ 10/7/04

Name: Eugene G. Braithwaite

Title: Director
Its duly authorized representative

MARINE SPILL RESPONSE CORPORATION

By: _____

Name: STEPHEN D. RICKS

Title: VICE PRESIDENT, CALIFORNIA REGION
Its duly authorized representative

4.0 SPILL IMPACT CONSIDERATIONS

4.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil. The Federal, state, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY
● Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species. ● Areas which consist of vegetated low banks, freshwater/saltwater marshes, swamps, scrub-shrub wetlands and impact to threatened/endangered species.

MODERATE SENSITIVITY
● Areas of moderate productivity, somewhat resistant to the effects of oiling. ● Areas which consist of mixed sand, gravel beaches, bars, gently sloping banks, and no impact to threatened/endangered species.

LOW SENSITIVITY
● Areas of low productivity, man-made structures, and/or high energy. ● Areas which consist of gravel, sand, or clay material, barren/rocky shores or banks, man-made structures, concrete/compacted earthen drainage ditches and no impact to threatened/endangered species.

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans (see CD affixed to inside front cover of Volume 1 and the CD Navigation Summary in Figure 4.2)
- Other industry and private experts

The environmental and socio-economic sensitivities in the area have been broken down into specific categories and identified in this section.

4.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

4.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 4.1.

4.3.2 Wildlife Rescue

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

4.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

4.3.2 Wildlife Rescue (Cont'd)

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
  - Use of capture and relocation.

4.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife on their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
  - Outside rehabilitation organizations
  - Local regulatory agencies
  - Other resources

4.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

4.5 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

FIGURE 4.1a

ENDANGERED/THREATENED SPECIES LISTING
Butte County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1b

ENDANGERED/THREATENED SPECIES LISTING
Churchill County, NV

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Arctic peregrine Falcon (Falco		Recovery			
Fishes	Moapa dace (Moapa coriacea)		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Rare	Final Revision 1
Fishes	Pahrump poolfish		Endangered	Nevada Fish And Wildlife Office	Pahrump Killifish Recovery Plan	Final
Fishes	Devils Hole pupfish (Cyprinodon		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Pahranagat roundtail chub (Gila		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Aquatic	Final
Fishes	Warm Springs pupfish		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Clover Valley speckled dace		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Independence Valley speckled		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Churchill Narrows buckwheat		Candidate	Nevada Fish And Wildlife Office		
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Snails	Elongate mud meadows		Candidate	Nevada Fish And Wildlife Office		

FIGURE 4.1c

ENDANGERED/THREATENED SPECIES LISTING
Contra Costa County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Delta smelt (Hypomesus		Threatened	San Francisco Bay - Delta Fish	Recovery Plan for the	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Contra Costa wallflower		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Antioch Dunes evening-		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Alameda whipsnake (=striped		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1d

ENDANGERED/THREATENED SPECIES LISTING
Lyon County, NV

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Arctic peregrine Falcon (Falco		Recovery			
Fishes	Moapa dace (Moapa coriacea)		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Rare	Final Revision 1
Fishes	Pahrump poolfish		Endangered	Nevada Fish And Wildlife Office	Pahrump Killifish Recovery Plan	Final
Fishes	Devils Hole pupfish (Cyprinodon		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Pahranagat roundtail chub (Gila		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Aquatic	Final
Fishes	Warm Springs pupfish		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Clover Valley speckled dace		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Independence Valley speckled		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Churchill Narrows buckwheat		Candidate	Nevada Fish And Wildlife Office		
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Snails	Elongate mud meadows		Candidate	Nevada Fish And Wildlife Office		

FIGURE 4.1e

ENDANGERED/THREATENED SPECIES LISTING
Merced County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1f

ENDANGERED/THREATENED SPECIES LISTING
Nevada County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1g

ENDANGERED/THREATENED SPECIES LISTING
Placer County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1h

ENDANGERED/THREATENED SPECIES LISTING
Sacramento County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Delta smelt (Hypomesus		Threatened	San Francisco Bay - Delta Fish	Recovery Plan for the	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Valley elderberry longhorn		Threatened	Sacramento Fish And Wildlife	Valley Elderberry Longhorn	Final
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1i

ENDANGERED/THREATENED SPECIES LISTING
San Joaquin County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Delta smelt (Hypomesus		Threatened	San Francisco Bay - Delta Fish	Recovery Plan for the	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Large-flowered fiddleneck		Endangered	Sacramento Fish And Wildlife	Large-flowered Fiddleneck	Final
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Alameda whipsnake (=striped		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1j

ENDANGERED/THREATENED SPECIES LISTING
Sierra County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Webber Ivesia (Ivesia webberi)		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1k

ENDANGERED/THREATENED SPECIES LISTING
Solano County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Delta smelt (Hypomesus		Threatened	San Francisco Bay - Delta Fish	Recovery Plan for the	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delta green ground beetle		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1l

ENDANGERED/THREATENED SPECIES LISTING
Stanislaus County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1m

ENDANGERED/THREATENED SPECIES LISTING
Storey County, NV

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Arctic peregrine Falcon (Falco		Recovery			
Fishes	Moapa dace (Moapa coriacea)		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Rare	Final Revision 1
Fishes	Pahrump poolfish		Endangered	Nevada Fish And Wildlife Office	Pahrump Killifish Recovery Plan	Final
Fishes	Devils Hole pupfish (Cyprinodon		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Pahranagat roundtail chub (Gila		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Aquatic	Final
Fishes	Warm Springs pupfish		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Clover Valley speckled dace		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Independence Valley speckled		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Churchill Narrows buckwheat		Candidate	Nevada Fish And Wildlife Office		
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Snails	Elongate mud meadows		Candidate	Nevada Fish And Wildlife Office		

FIGURE 4.1m

ENDANGERED/THREATENED SPECIES LISTING
Sutter County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1n

ENDANGERED/THREATENED SPECIES LISTING
Washoe County, NV

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Arctic peregrine Falcon (Falco		Recovery			
Fishes	Cui-ui (Chasmistes cujus)		Endangered	Nevada Fish And Wildlife Office	Cui-ui (Chasmistes cujus)	Final Revision 2
Fishes	Moapa dace (Moapa coriacea)		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Rare	Final Revision 1
Fishes	Pahrump poolfish		Endangered	Nevada Fish And Wildlife Office	Pahrump Killifish Recovery Plan	Final
Fishes	Devils Hole pupfish (Cyprinodon		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Pahranagat roundtail chub (Gila		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Aquatic	Final
Fishes	Warm Springs pupfish		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Clover Valley speckled dace		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Independence Valley speckled		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Steamboat buckwheat		Endangered	Nevada Fish And Wildlife Office	Steamboat Buckwheat	Final
Flowering Plants	Webber Ivesia (Ivesia webberi)		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Churchill Narrows buckwheat		Candidate	Nevada Fish And Wildlife Office		
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Snails	Elongate mud meadows		Candidate	Nevada Fish And Wildlife Office		

FIGURE 4.1o

ENDANGERED/THREATENED SPECIES LISTING
Yolo County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Delta smelt (Hypomesus		Threatened	San Francisco Bay - Delta Fish	Recovery Plan for the	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1p

ENDANGERED/THREATENED SPECIES LISTING
Yuba County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.2

ACP/GRP CD
NAVIGATION INSTRUCTIONS
(Excerpt from CD affixed to inside front cover of Volume 1)

KINDER MORGAN

The information contained herein is provided to identify specific spill response and protection strategies for the applicable Kinder Morgan Pacific Operations Regions. Navigating through the bookmark links provided on the CD will take you to the Environmentally Sensitive Sites and the Economically Significant Sites provided in the applicable Area Contingency Plans and Geographic Response Plans.

INSTRUCTIONS FOR USE

1. From the screen on the left, click on region of interest. The different regions are identified by the red font.
2. Once the appropriate region is accessed, click on the "+" to the left of the region name to display the various areas within each region. These are identified with blue font.
3. Once the appropriate area is accessed, the links to the Environmentally Sensitive Sites and the Economically Significant Sites will be available for selection.
   - ➢ It is important to note that once each Environmentally Sensitive Site and Economically Significant Site is accessed, the user will have to scroll to the desired location.
   - ➢ Use the zoom icon to zoom into each page for easier reading.

NOTES:

1. In those areas where the statement "No ACP Information Available" is made, it indicates that there is no ACP or GRP information which is specific to the particular region or area of interest.
2. EPA REGION IX: For areas without specific ACP/GRP information, the Region IX Contingency Plan (RCP) is used as the response guidance; however, this RCP is currently in revision.
3. EPA REGION X: Region X is covered by the Northwest Area Contingency Plan; however, inland facilities are not addressed.
4. Thus, the following areas are covered by specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Linnton-Willbridge, Washington Area
   - Northern Region—Bay: Brisbane, Concord, Richmond, San Jose
   - Southern Region—West: Carson, Mission Valley, Watson
5. And, the following areas do not have specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Oregon Pipelines (inland)
   - Northern Region—Central: Fresno
   - Northern Region—CalNev: Sacramento, Rocklin, Reno
   - Southern Region—East: Imperial, Phoenix, Tucson
   - Southern Region—Central: Colton, Barstow, Las Vegas

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5.0 DISPOSAL PLAN

5.1 OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Manager or their designee to manage the following:

- Coordinate waste disposal activities;
- Identify appropriate interim storage methods and locations;
- Coordinate permitting activities needed to ensure proper disposal; and
- Document compliance with appropriate local, State, and Federal handling of hazardous materials and/or wastes.

Material will be containerized or stored in a manner complying with applicable environmental regulations pertaining to the known or suspected materials characteristics. Upon characterization, waste, recyclable materials, or contaminated materials will be treated on-site, recycled, or transported and disposed of at an appropriate KMEP approved facility after appropriate regulatory approval.

5.2 WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Solid Wastes

A solid waste is defined as any discarded material provided that it is not specifically excluded under the regulations. These exclusions cover materials such as domestic sewage and mixtures of sewage discharged through a sewer system or industrial wastewater point source discharges.

A discarded material is any material which is abandoned (disposed of, burned or incinerated) or accumulated, stored or treated prior to being abandoned. A discarded material is also any material recycled or any material considered inherently wastelike. Recycled material is considered solid waste when used in a manner constituting disposal, placed on land or burned for energy recovery.

5.2 WASTE CLASSIFICATION (Cont'd)

Solid Wastes (Cont'd)

A solid waste may be considered a hazardous waste. A solid waste, as defined above, may be a hazardous waste if it is not excluded from regulation and is either a listed hazardous waste or exhibits the characteristics of a hazardous waste. A solid waste exhibits the characteristics of a hazardous waste if it exceeds the thresholds established in determining the following:

1) ignitability
2) corrosivity
3) reactivity
4) toxicity

A solid waste may also become a hazardous waste if it is mixed with a listed hazardous waste or, in the case of any other waste (including mixtures), when the waste exhibits any of the characteristics identified above.

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

5.3 WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

Safety Considerations

Care would be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes would wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles would be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste would be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

5.3 WASTE HANDLING (Cont'd)

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.

- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure 5.1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

5.4 WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure 5.2. The majority of these options can be used either onshore or offshore.

If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.
- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Access.
- Public contact.

5.4 WASTE STORAGE (Cont'd)

Temporary storage sites should use the best available technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 mils or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least three (3) meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

5.5 WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the Facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

During an oil spill incident, KMEP would consult with the Federal and state On Scene Coordinator to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. KMEP maintains a list of approved disposal sites that satisfy local, state, and Federal regulations and KMEP requirements. This identification of suitable waste treatment and disposal sites would be prepared by the Environmental Manager or their designee in the form of an Incident Disposal Plan which must be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

5.5 WASTE DISPOSAL (Cont'd)

Techniques for Disposal of Recovered Oil (Cont'd)

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure 5.3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Environmental Manager or their designee is responsible for ensuring that all waste materials be disposed of at an internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

5.5 WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning

As a general rule, *in situ* burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at Company-approved disposal facilities. The Environmental Manager or their designee is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Environmental Manager or their designee prior to sending any waste to such a facility.

FIGURE 5.1

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

A. Normally require remote power sources, thus are safe around flammable fluids.
B. Should have a relief valve in the outlet line to prevent bursting hoses.
C. Air powered units tend to freeze up in sub-freezing temperatures.
D. Units with work ball valves are difficult to prime.
E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
F. Can also pump air at low pressure.
G. Transfer is batch-wise rather than continuous.
H. Waste must be in separate container for efficient transfer.
I. Transportable with its own prime mover.
J. High shear action tends to emulsify oil and water mixtures.

FIGURE 5.2

TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

FIGURE 5.3

OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

SECTION 9

NORTHERN REGION – CALIFORNIA NEVADA
OSPR-JURISDICTIONAL PIPELINE SEGMENTS

REGULATORY COMPLIANCE
● **OSPR** - California Oil Spill Prevention and Response, Title 14, Division 1 Subdivision 4, Subchapter 3, Section 815.

9.1.1 FACILITY EXECUTABILITY STATEMENT

KINDER MORGAN
ENERGY PARTNERS, L.P.

FACILITY EXECUTABILITY STATEMENT

I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this contingency plan is true and correct and that the plan is both feasible and executable.

Kenneth W. Yee
Signature

AREA MANAGER
Title

3/31/08
Date

The above certification statement, required by California Code of Regulations Title 14, Division 1, subdivision 4, Chapter 3, subchapter 3, §817.02(a)(1)(D), has been signed by an executive within the plan holder's management. The signer has training, knowledge, and experience in the area of oil spill prevention and response, has the authority to fully implement the oil spill contingency plan written within this Integrated Contingency Plan, and will review this Plan for accuracy, feasibility, and executability.

9.1.2 CERTIFICATE OF FINANCIAL RESPONSIBILITY

COFR INFORMATION	
Line Number:	LS 9
COFR Number:	20310-00-014
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013
Line Number:	LS 20
COFR Number:	20310-00-015
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013
Line Number:	LS 28
COFR Number:	20310-00-016
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013
Line Number:	LS 29
COFR Number:	20310-00-017
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013
Line Number:	LS 31
COFR Number:	20310-00-018
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013
Line Number:	LS 34
COFR Number:	20310-00-019
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013
Line Number:	LS 35
COFR Number:	20310-00-020
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013
Line Number:	LS 130
COFR Number:	20310-00-012
Issue Date:	January 1, 2012
Expiration Date:	December 31, 2013

These Certificates of Financial Responsibility are available for review at the Bradshaw Terminal, 2910 Bradshaw Road, Sacramento, CA 95827.

9.1.3 INTRODUCTION

KMEP, in compliance with CCR Title 14, Division 1, Sections 815-819, has elected to substitute its approved DOT Oil Spill Response Plan for a blanket California OSPR Contingency Plan supplemented by this section. A complete Cross Reference of OSPR regulations to this substitute plan is included in Volume 1.

This OSPR section for the Northern Region – California Nevada Areas provides additional spill planning and response information appropriate for use along identified OSPR line segments of the KMEP pipeline system in these Areas.

The line segments referenced in Figure 9.1 have been identified as subject to OSPR jurisdiction based on the likelihood of a worst case pipeline rupture potentially resulting in impact to California marine waters. Figure 9.1 lists valve or control point locations, distances to marine waters, and reasonable worst case spill (RCWS) volumes.

This Section 9 is provided in order to document the following OSPR pipeline segment-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- OSPR Pipeline Segment Information (Figure 9.1)
- HCA Index Map (Figure 9.2)
- Discharge Scenarios (Section 9.3)
- Reportable Oil Discharge History (Section 9.4)
- Risk Analysis Summary (Section 9.5)
- Offsite Consequence Analysis (Section 9.6)
- Risk Reduction Incentive Programs (Section 9.7)
- Drug and Alcohol Policies (Section 9.8)

9.2 OSPR LINE SEGMENTS

The pipeline segments identified in Figure 9.1 for this area have been identified as subject to OSPR contingency plan requirements. The segments were selected based on the likelihood of a worst case pipeline release potentially resulting in impacts to California marine waters. Some minor ephemeral drainages crossed at substantial distances from coastal waters are not included due to the sufficient time to respond and avoid marine water impacts.

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	100 Cement Hill Road Fairfield, CA 94533 (707) 424-6080 (707) 424-6089 (Fax)
OSPR Plan CNTRL Number:	P2-07-0175A
COFR Certificate Number:	Refer to Section 9.1.2
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-9454 *(Office)* (713) 495-2713 *(Fax)* Send correspondence to: Chuck Mathis Manager – Emergency Response Programs 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-8530 *(Office)* (713) 495-2884 *(Fax)* Charles_Mathis@kindermorgan.com *(email)*
Qualified Individual (Emergency Coordinator):	Steve Osborn Operations Manager 6050A Pacific Street, "B" Rocklin, CA 95677 (916) 624-2431 ext 13 *(Office)* (b) (6) *(Mobile)* osborns@kindermorgan.com *(email)*
Alternate Qualified Individual:	Ken Yeo Area Manager 2901 Bradshaw Road Sacramento, CA 95827 (916) 369-9772 *(Office)* (916) 369-0335 *(Fax)* YeoK@kindermorgan.com *(email)*
Agent for Service:	CSC - Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*
Design Details:	The design details of these line segments are provided on large-scale, alignment sheets which are revised and updated as needed. Detailed procedures for operating the pipeline system are contained within KMEP's Operations Manuals.
Products Handled:	Gasoline, Diesel and Jet Fuel

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

GENERAL INFORMATION (Cont'd)	
Seasonal Weather Conditions:	
Air Temperature:	Ranges from 30° to 95°F
Water Temperature:	Ranges from 40° to 76°F
Winds:	Generally southwest at 15 to 25 mph in afternoons from April to September; calm in other months except during storms.
Rain:	Generally 16 to 20 inches per year during October to May.
River Stage/Tidal Range:	Sacramento River – generally from 0 to 3 feet with extremes being – 0.9 feet and +3.6 feet. San Joaquin River – generally from 0 to 4 feet with extremes being – 0.7 feet and + 4.9 feet.
Site Descriptions:	
Sacramento Area:	The Sacramento area is located within the Sacramento Valley, at the northern end of the broad, flat California Central Valley. The region consists of mostly flat, fertile terrain, as well as the Sacramento – San Joaquin River Delta, which is tidally influenced by the San Francisco Bay. This region is dependant on its levee system to control the waters of the delta.
Stockton Area:	The Stockton area is located on the San Joaquin River south of Sacramento. The region is located within the broad, flat California Central Valley and consists of flat, fertile terrain, as well as the vast Sacramento – San Joaquin River Delta, which is tidally influenced by the San Francisco Bay. The region is heavily dependant of its levee system to control the waters of the delta.

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

LINE NO.	SIZE (*inch*)	OSPR LINE SEGMENT	CONTROL POINTS (M.P.)[1]	DISTANCE TO MARINE WATER (*miles*)	VALVE TYPES[2]
SACRAMENTO / STOCKTON AREA PIPELINE SEGMENTS					
9	10	San Joaquin River Crossing Area	(b) (3), (b) (7)(F)		
20	12	Sacramento River Crossing			
28	10	Sacramento River Crossing			
29	10	Sacramento River Crossing			
31	10	Sacramento River Crossing			
34	10	Sacramento River Crossing			
35	10	Sacramento River Crossing			
130	20	Port of Sacramento/Sacramento River			

Reasonable Worst Case Spill Volume[3]: (b) (7)(F), (b) (3)

Note[1]: This identifies the location of the segment of line within OSPR jurisdiction.

Note[2]: B = Block Valve, M = MOV, A = Automatic Pressure Valve, C = Check Valve.

Note[3]: Reasonable worst case spill volume based on annual Liquid Volume Release Modeling which takes into account maximum pumping rate, discovery/shutdown times and drainage volumes based on elevation changes between isolation points (EFRDs and/or endpoint block valves).

FIGURE 9.1 OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

PREVENTION MEASURES

KMEP Operations and Maintenance Manuals

KMEP facilities are built and maintained in accordance with all applicable codes and regulations as well as relevant API (American Petroleum Institute) standards. Pipelines are coated and cathodically protected. Any abnormalities found by periodic maintenance inspections and/or internal inspections are promptly repaired. The Company's operating practices meet or exceed industry standards.

KMEP Operations and Maintenance Manuals have been developed in accordance with DOT 49 CFR 195 and various of the operations, inspection, and maintenance procedures have been summarized below for reference. The design and installation details of KMEP's pipelines are provided on large-scale alignment sheets which are revised and updated as needed.

Integrity testing of pipelines and leak detection equipment.

Pipelines are hydrostatically pressure tested, in accordance with DOT Part 195 when installed. In addition, KMEP performs integrity testing of OSPR pipelines by utilizing internal inspection tools or pressure test every five years. The internal inspection log produces data which is read and interpreted by third party experts and KMEP designs its verification and repair program utilizing these results.

Line monitoring and leak detection is described in the Operations Manual.

Damage criteria for equipment repair or replacement.

Damage criteria for pipelines (which would require action to be taken, such as reducing the maximum operating pressure, pipeline repair or replacement) is included in the Maintenance Manual (and generally follows ASME B31G).

Protection measures for areas subject to flooding.

Certain sections of the pipeline cross streams, rivers and bays. Other areas may be subject to periodic flooding during periods of high rainfall.

During initial pipeline construction, streambed profiles and pipe profiles are designed and installed to withstand or be protected from the effects of flooding. In addition, major waterway crossings are inspected periodically. For example, pipeline crossings are inspected every 5 years. If necessary, rip-rap or other protective covering is installed.

Describe any leak detection, spill prevention safety and alarm systems, devices, equipment or procedures.

(b) (7)(F), (b) (3)

[redacted]

FIGURE 9.1 OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

PREVENTION MEASURES (Cont'd)

(b) (7)(F), (b) (3)

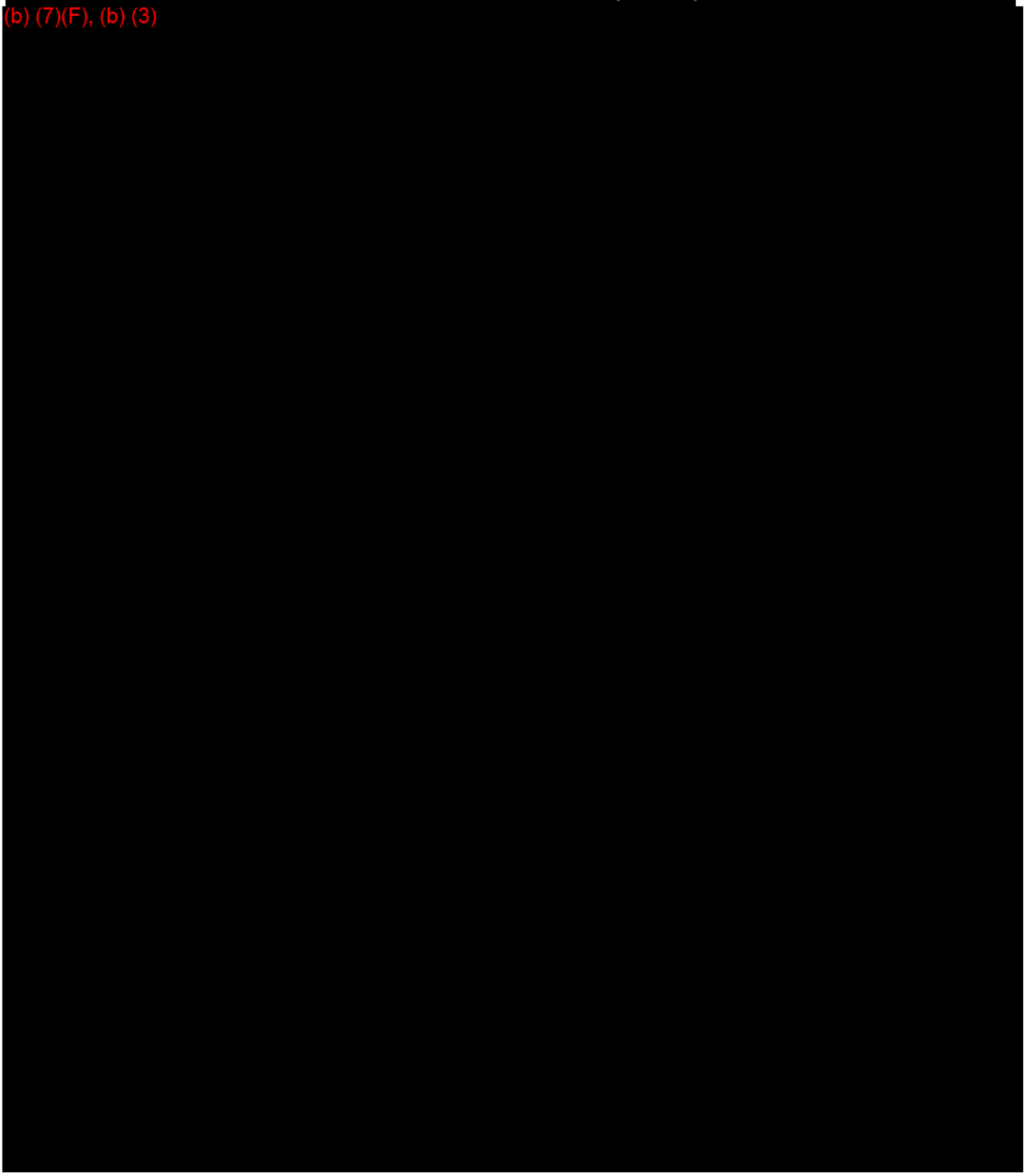


FIGURE 9.2

HCA INDEX MAP

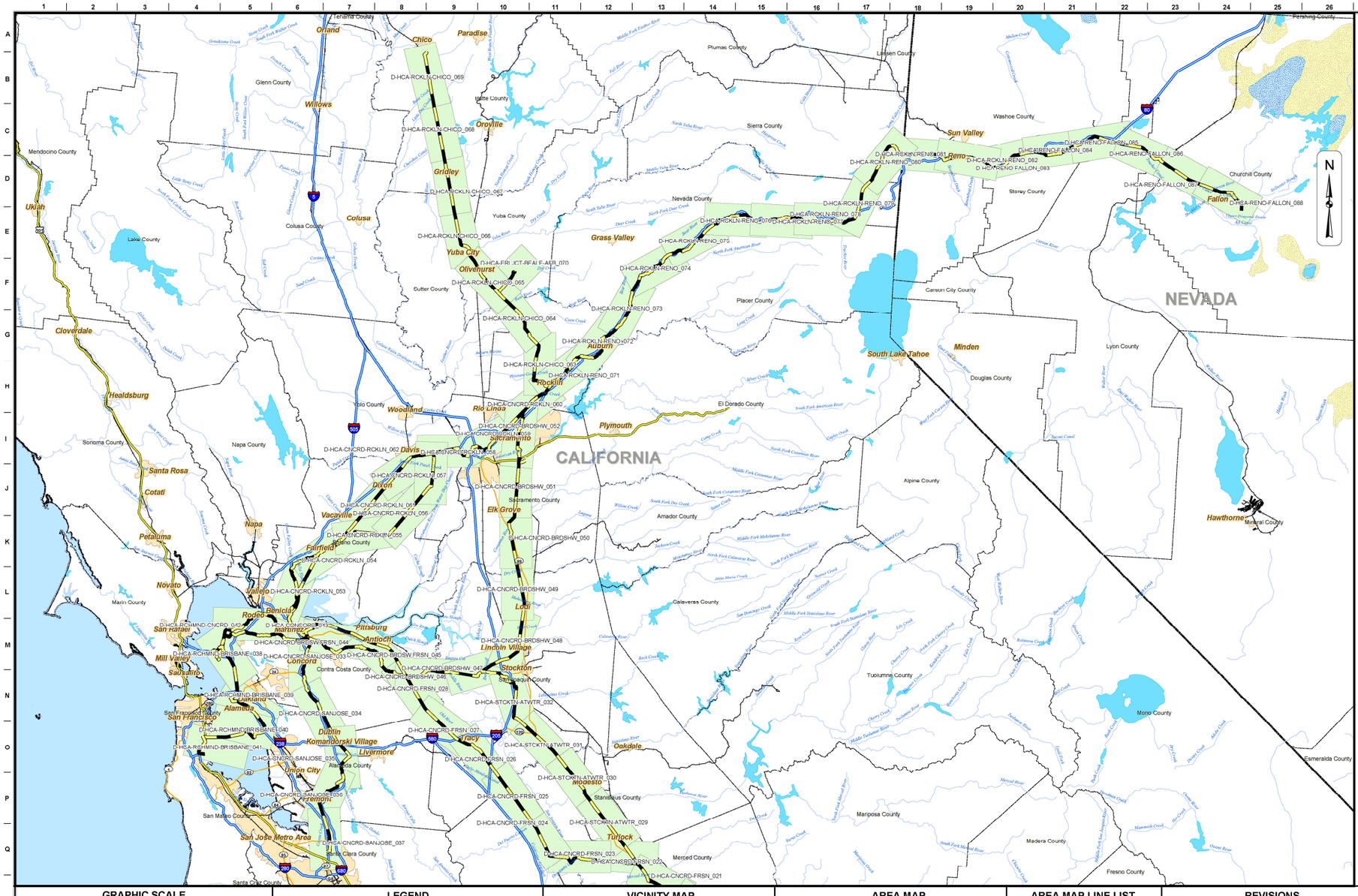
NOTE: The locations of these OSPR jurisdictional line segments are represented on these maps for relative location/informational purposes only. The length of the segments are represented as centered on the water crossing when in fact the actual location of the segment will shift according to slopes, valve location and other RWCS limiting factors.

The following Index Map shows all corresponding Line Segments for Figure 9.2.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA Maps for this region are:

D-HCA-SFPP_005.pdf
D-HCA-CNCRD-RCKLN_058.pdf
D-HCA-CNCRD-RCKLN_059.pdf
D-HCA-CNCRD-BRDSHW_047.pdf
D-HCA-CNCRD-BRDSHW_048.pdf
D-HCA-STCKTN-ATWTR_032.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description	Dwg Name	Line Description
D-HCA-CNCRD-FRSN_022	LS-62; Stockton - Atwater 8" -NIS LS-90/50/60; Concord - Fresno 12"	D-HCA-CNCRD-RCKLN_053	LS-103; Exxon - Mococo 10" LS-130B 14" LS-130C 20"
D-HCA-CNCRD-FRSN_023	LS-90/50/60; Concord - Fresno 12"		LS-25; Concord - Sacramento 14" - NIS
D-HCA-CNCRD-FRSN_024	LS-90/50/60; Concord - Fresno 12"		LS-47; Concord - Travis 8"
D-HCA-CNCRD-FRSN_025	LS-90/50/60; Concord - Fresno 12"		LS-95; Valero - Amoroo 10"
D-HCA-CNCRD-FRSN_026	LS-90/50/60; Concord - Fresno 12"	D-HCA-CNCRD-RCKLN_054	LS-130C 20"
D-HCA-CNCRD-FRSN_027	LS-90/50/60; Concord - Fresno 12"		LS-25; Concord - Sacramento 14" - NIS
D-HCA-CNCRD-FRSN_028	LS-9; Concord - Bradshaw 10" LS-90/50/60; Concord - Fresno 12"		LS-47; Concord - Travis 8"
D-HCA-STCKTN-ATWTR_029	LS-62; Stockton - Atwater 8" -NIS	D-HCA-CNCRD-RCKLN_055	LS-130C 20" LS-25; Concord - Sacramento 14" - NIS
D-HCA-STCKTN-ATWTR_030	LS-62; Stockton - Atwater 8" -NIS	D-HCA-CNCRD-RCKLN_056	LS-130C 20"
D-HCA-STCKTN-ATWTR_031	LS-62; Stockton - Atwater 8" -NIS	D-HCA-CNCRD-RCKLN_057	LS-130C 20" LS-25; Concord - Sacramento 14" - NIS
D-HCA-STCKTN-ATWTR_032	LS-43; Stockton - British Petroleum W LS-45; Stockton - Shell/ST Services LS-62; Stockton - Atwater 8" -NIS LS-62; Stockton Jct. - Stockton 8"	D-HCA-CNCRD-RCKLN_058	LS-130C 20" LS-20; Sacramento - Rocklin 12" LS-25; Concord - Sacramento 14" - NIS LS-28; Sacramento - Sac River Jct LS-29; Sacramento - Arco No 1 10" LS-31; Sacramento - Arco No 2 10" LS-34; Sacramento - Shell 10" LS-35; Sacramento - Shell 10"
D-HCA-CNCRD-SANJOSE_033	LS-130A 20" LS-16; Concord - San Jose 10" LS-25; Concord - Sacramento 14" - NIS LS-27; Martinez - Concord 12" LS-33; Mococo - Concord 12" LS-47; Concord - Travis 8" LS-72; Rodeo - Concord 8" LS-73; Tosco - Concord 8" LS-8; Richmond - Concord 8" LS-9; Concord - Bradshaw 10" LS-90/50/60; Concord - Fresno 12"	D-HCA-CNCRD-RCKLN_059	LS-20; Sacramento - Rocklin 12" LS-9; Bradshaw - Rocklin 10" -NIS
		D-HCA-CNCRD-RCKLN_060	LS-11; Rocklin - Newcastle 10" LS-20; Sacramento - Rocklin 12" LS-48; Rocklin - UPRR 4" LS-64; Rocklin - Chico 8 " LS-9; Bradshaw - Rocklin 10" -NIS
D-HCA-CNCRD-SANJOSE_034	LS-16; Concord - San Jose 10"		
D-HCA-CNCRD-SANJOSE_035	LS-16; Concord - San Jose 10"	D-HCA-CNCRD-RCKLN_061	LS-130C 20" LS-25; Concord - Sacramento 14" - NIS
D-HCA-CNCRD-SANJOSE_036	LS-16; Concord - San Jose 10"		
D-HCA-CNCRD-SANJOSE_037	LS-16; Concord - San Jose 10"	D-HCA-CNCRD-RCKLN_062	LS-25; Concord - Sacramento 14" - NIS
D-HCA-RCHMND-BRISBANE_038	LS-104; Chevron - Richmond 10" LS-36/42; Richmond - Brisbane 12" LS-37; Amoco - Richmond 12" LS-46/41; Richmond - Brisbane 10/8" LS-69; Chevron - Richmond 8" LS-71; LS-89 - Richmond 8" LS-74; Richmond - Arco 8" LS-75; IMTT - Richmond 8" LS-76; ST Services - LS-75 LS-8; Richmond - Concord 8" LS-89; Arco - Richmond 8" LS-99; Chevron - Richmond 10"	D-HCA-CNCRD-RCKLN_063	LS-11; Rocklin - Newcastle 10" LS-20; Sacramento - Rocklin 12" LS-48; Rocklin - UPRR 4" LS-64; Rocklin - Chico 8 " LS-9; Bradshaw - Rocklin 10" -NIS
D-HCA-RCHMND-BRISBANE_039	LS-36/42; Richmond - Brisbane 12" LS-46/41; Richmond - Brisbane 10/8"	D-HCA-RCKLN-CHICO_064	LS-64; Rocklin - Chico 8 "
D-HCA-RCHMND-BRISBANE_040	LS-36/42; Richmond - Brisbane 12" LS-46/41; Richmond - Brisbane 10/8"	D-HCA-RCKLN-CHICO_065	LS-64; Rocklin - Chico 8 " LS-65; Erle Jct - Beale AFB 6"
D-HCA-RCHMND-BRISBANE_041	LS-36/42; Richmond - Brisbane 12" LS-38; Brisbane - S.F. Airport 12" LS-46/41; Richmond - Brisbane 10/8"	D-HCA-RCKLN-CHICO_066	LS-64; Rocklin - Chico 8 "
		D-HCA-RCKLN-CHICO_067	LS-64; Rocklin - Chico 8 "
D-HCA-RCHMND-CNCRD_042	LS-37; Amoco - Richmond 12" LS-72; Rodeo - Concord 8" LS-8; Richmond - Concord 8"	D-HCA-RCKLN-CHICO_068	LS-64; Rocklin - Chico 8 "
		D-HCA-RCKLN-CHICO_069	LS-64; Rocklin - Chico 8 "
D-HCA-CONCORD_043	LS-103; Exxon - Mococo 10" LS-130A 20" LS-130B 14" LS-130C 20" LS-16; Concord - San Jose 10" LS-25; Concord - Sacramento 14" - NIS LS-27; Martinez - Concord 12" LS-33; Mococo - Concord 12" LS-37; Amoco - Richmond 12" LS-47; Concord - Travis 8" LS-68/88; Martinez - Amoco Jct 10 LS-72; Rodeo - Concord 8" LS-73; Tosco - Concord 8" LS-8; Richmond - Concord 8" LS-9; Concord - Bradshaw 10" LS-90/50/60; Concord - Fresno 12" LS-95; Valero - Amoco 10" LS-96; Amoco - Tosco 8"/14" -NIS ?	D-HCA-RCKLN-CHICO_070	LS-64; Rocklin - Chico 8 " LS-65; Erle Jct - Beale AFB 6"
		D-HCA-RCKLN-RENO_071	LS-11; Newcastle - Clipper Gap 6" LS-11; Rocklin - Newcastle 10" LS-20; Sacramento - Rocklin 12" LS-48; Rocklin - UPRR 4" LS-64; Rocklin - Chico 8 " LS-9; Bradshaw - Rocklin 10" -NIS
		D-HCA-RCKLN-RENO_072	LS-11; Clipper Gap - Colfax 10" LS-11; Newcastle - Clipper Gap 6"
		D-HCA-RCKLN-RENO_073	LS-11; Clipper Gap - Colfax 10" LS-11; Newcastle - Clipper Gap 6"
		D-HCA-RCKLN-RENO_074	LS-11; Clipper Gap - Colfax 10" LS-12; Colfax - Woodchopper Spgs 8"
		D-HCA-RCKLN-RENO_075	LS-12; Colfax - Woodchopper Spgs 8"
		D-HCA-RCKLN-RENO_076	LS-12; Colfax - Woodchopper Spgs 8"
		D-HCA-RCKLN-RENO_077	LS-12; Colfax - Woodchopper Spgs 8"
		D-HCA-RCKLN-RENO_078	LS-12; Colfax - Woodchopper Spgs 8"
		D-HCA-RCKLN-RENO_079	LS-12/13; Woodchopper - 10x6 Red 10" LS-12; Colfax - Woodchopper Spgs 8"
		D-HCA-RCKLN-RENO_080	LS-12/13; Woodchopper - 10x6 Red 10"
		D-HCA-RCKLN-RENO_081	LS-12/13; Woodchopper - 10x6 Red 10" LS-13; 10x6 Reducer - Reno 6"
D-HCA-CNCRD-BRDSW_FRSN_044	LS-16; Concord - San Jose 10" LS-9; Concord - Bradshaw 10" LS-90/50/60; Concord - Fresno 12"	D-HCA-RCKLN-RENO_082	LS-13; 10x6 Reducer - Reno 6" LS-55; Reno - Fallon NAS 6"
		D-HCA-RENO-FALLON_083	LS-55; Reno - Fallon NAS 6"
D-HCA-CNCRD-BRDSW_FRSN_045	LS-9; Concord - Bradshaw 10" LS-90/50/60; Concord - Fresno 12"	D-HCA-RENO-FALLON_084	LS-55; Reno - Fallon NAS 6"
		D-HCA-RENO-FALLON_085	LS-55; Reno - Fallon NAS 6"
D-HCA-CNCRD-BRDSHW_046	LS-9; Concord - Bradshaw 10" LS-90/50/60; Concord - Fresno 12"	D-HCA-RENO-FALLON_086	LS-55; Reno - Fallon NAS 6"
		D-HCA-RENO-FALLON_087	LS-55; Reno - Fallon NAS 6"
D-HCA-CNCRD-BRDSHW_047	LS-43; Stockton - British Petroleum W LS-45; Stockton - Shell/ST Services LS-62; Stockton - Atwater 8" -NIS LS-62; Stockton Jct. - Stockton 8" LS-9; Concord - Bradshaw 10"	D-HCA-RENO-FALLON_088	LS-55; Reno - Fallon NAS 6"
D-HCA-CNCRD-BRDSHW_048	LS-9; Concord - Bradshaw 10"		
D-HCA-CNCRD-BRDSHW_049	LS-9; Concord - Bradshaw 10"		
D-HCA-CNCRD-BRDSHW_050	LS-9; Concord - Bradshaw 10"		
D-HCA-CNCRD-BRDSHW_051	LS-57; Bradshaw - Mather AFB 4" -N LS-9; Bradshaw - Rocklin 10" -NIS LS-9; Concord - Bradshaw 10"		
D-HCA-CNCRD-BRDSHW_052	LS-20; Sacramento - Rocklin 12" LS-57; Bradshaw - Mather AFB 4" -N LS-9; Bradshaw - Rocklin 10" -NIS LS-9; Concord - Bradshaw 10"		

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

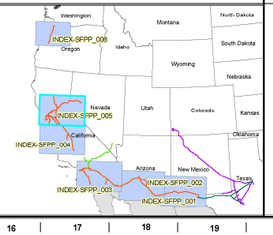
Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	Centrla	D_HCA_ sheet
CO2	CO2	
Heartland	Heartland	
KMLT	KMLT	
KMTP	KMTP	
MidCon	MidCon	
Plantation	Plantation	
SFPP	SFPP	
Wink	Wink	

VICINITY MAP

AREA MAP



AREA MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 2005-AUG-12	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: 03-18-05	HPA/OPA: Version 2 DW: Version 1
By:		ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_005	

9.3 DISCHARGE SCENARIOS

Reasonable worst case spill (RWCS) volumes were calculated for each OSPR Line Segment to determine the segments which had the largest potential spill volumes and impacts to marine waters. OSPR Line Segments are defined by the valve or control points on either side of drainage crossings. In parallel approaches along marine waters, the segment of the line with the longest distance between valves was used to calculate spill volumes, although in long approaches many valves may be present.

Drain down after a pipeline rupture generally contributes most of the spill volume from a significant pipeline rupture, since computer and operator monitoring normally shuts off all pumping within a reasonably brief time following a release. Precise predictions of drain down volumes is a function of the size of the pipe, topography, elevation of the break, and other variables. Motor operated remote valves and check valves effectively prevent drain down where present. Conservative assumptions were used to calculate reasonable worst case spill volumes.

Note: The quantity associated with "the loss of the entire capacity of all in-line, break-out and portable storage tank(s)…" is excluded from the RWCS volume calculation since these tanks are under SPCC jurisdiction (i.e., tanks are subject to Chapter 6.67 or Chapter 6.7 of Div. 20, CA health and Safety Code and thus, exempt from this calculation.)

The Reasonable Worst Case Spill (RWCS) volumes are consistent with the OSPR criteria as described below.

CALIFORNIA OSPR Discharge Volume Calculation

- **Reasonable Worst Case Spill (RWCS)**
  The largest volume (bbls) at the following:
  - *The pipeline's maximum release time in hours (i.e., the time between pipeline rupture and discovery, plus the maximum shut-down response time in hours based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after a shutdown of the line section(s) in the response zone expressed in barrels. (As used in this subsection: line section means a continuous run of pipe that is contained between adjacent pressure pump stations, between a pressure pump station and a Facility or break-out tank, between a pressure pump station and block valve, or between adjacent block valves; response zone means a geographic area either along a length of pipeline or including multiple pipelines, containing one or more adjacent line sections, for which the operator must plan for the deployment of, and provide spill response capabilities. The size of the zone is determined by the operator after considering available capabilities, resources, and geographic characteristics); or*
  - *The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken.*

OSPR PERSISTENCE FACTORS

Oil Group	Group 1	Group 2	Group 3	Group 4
On-Water Volumes	(b) (7)(F), (b) (3)			

9.3 DISCHARGE SCENARIOS (Cont'd)

OSPR EMULSIFICATION FACTORS				
Oil Group	Group 1	Group 2	Group 3	Group 4
Emulsification	(b) (7)(F), (b) (3)			

OSPR DAILY RECOVERY RATES (Cap) HIGH VOLUME PORTS				
Delivery Time (Hrs)	6	24	36	60
Bbls/Day Capability	(b) (7)(F), (b) (3)			

OSPR DAILY RECOVERY RATES (Cap) FACILITY/TRANSFER AREAS AND SANTA BARBARA CHANNEL AREA			
Delivery Time (Hrs)	12	36	60
Bbls/Day Capability	(b) (7)(F), (b) (3)		

Realistic worst case spill volume based on 3 minute pumping plus 60% of volume between isolation points (EFRDs and/or endpoint block valves). The RWCS for each OSPR Line Segment is referenced in Figure 9.1 and the largest RWCS for this Region is as follows:

- Largest RWCS in Region = (b) (7)(F),

The planning volumes based on the largest RWCS for the OSPR pipeline segments in this Region are provided below, based on a nearshore/inland environment and an emulsification factor of 1.8 for Group 2 Oil discharges of gasoline, diesel and jet fuel.

OSPR – RESPONSE PLANNING VOLUME CALCULATIONS

(b) (7)(F), (b) (3)

9.4 REPORTABLE OIL DISCHARGE HISTORY

A summary of significant spills that occurred prior to KMEP ownership is provided in Section 9.5. A summary of significant OSPR Line Segment spills that have been recorded in this Region is provided in the following table. (Note: A significant spill is a spill of one barrel or greater reported within control points of each OSPR line segment.)

Line Section	Pipeline Milepost	Date	Volume	Product	Cause
45		12/7/02	(b) (7)(F), (b) (3)	Mix/Transmix	Equipment and operators

9.5 RISK ANALYSIS SUMMARY

A summary of the Risk Analysis and the Offsite Consequence Analysis developed during October through December 2007 to address updated Company policies and procedures, and account for additional line segments and facilities not considered in previous efforts, is presented on pages 9-14 through 9-37.

A full version of this document is available on request.

9.6 OFFSITE CONSEQUENCE ANALYSIS

Refer to pages 9-14 through 9-37.

OSPR PIPELINE SEGMENTS – RISK ANALYSIS SUMMARY

Risk Analysis Summary

A Risk Analysis was conducted on segments of the Kinder Morgan Pacific Region Pipeline and some fixed facilities within California that are jurisdictional to OSPR regulations. The method used for the Risk Analysis consisted of both a "checklist" and "what if" scenarios. The Risk Analysis team consisted of various Subject Matter Experts (SMEs) as well as others knowledgeable as to the risk analysis process. During numerous SME sessions, the SMEs were asked to provide technical information within their field of knowledge or experience directly relating to specific risk issues. The information gathered from the various SMEs was presented to the Risk Analysis Team during team meetings conducted over an approximate two (2) month period, and compiled to gauge the level of risk facing the OSPR jurisdictional pipeline segments and facilities.

2.0 RISK ANALYSIS TEAM CONSENSUS REPORT

2.1 DIRECT IMPACT ISSUES:

The team has concluded policies, practices and procedures that are currently in place are adequate with respect to those issues having a direct affect on safe pipeline operations.

2.2 INDIRECT IMPACT ISSUES

The team has identified some opportunities for improvement with respect to the following issues in the categories that indirectly impact safe operations:

- Reinforce the procedures that are followed for updating alignment sheets to assure that revision submittals have been completed (Issues AM-1 and AM-2).

- Proceed with the program for "Continuing Risk Analysis to Identify Preventative and Mitigative Measures" (Procedure L-O&M 275) for the OSPR-jurisdictional pipelines in the Pacific Region (Issue AM-9).

- Proceed with the program to complete the Emergency Flow Restriction Device studies for the OSPR-jurisdictional pipelines in the Pacific Region, when those pipeline segments are next integrity inspected (Issue O-6).

- When reviewing some of the forms placed in use in recent months there was some uncertainty as to what data might be needed and what data might not be required under some circumstances. Updated instructions for preparation of these forms have been drafted. All locations should proceed to implement these instructions (Issue M-7).

The above summary of conclusions and the detailed conclusions of the several integrity issues addressed in Section 3.0 of this report represent a consensus of the following Subject Matter Experts participating in the analysis:

Edward (Buzz) Fant
Phil Vasquez
Larry Hosler
Ed Hahn
Bob Cote
Mike Outlaw
Mike Ortiz

3.0 SUBJECT MATTER EXPERT EVALUATIONS

The Risk Analysis Team, upon reviewing the comments by team SMEs developed in both group sessions and one-on-one with the Risk Analysis Coordinator, has reached consensus on the following conclusions and recommendations.

3.1 PIPELINE RISK ISSUES

ADMINISTRATIVE AND MANAGEMENT ISSUES	
The following two issues are related and were reviewed as a single issue by the SMEs.	
AM-1	Maps and drawings accuracy: Do pipeline maps and drawings reflect accurate pipeline and related information? Are pipeline locations based on GPS data? Have the drawings been digitized for reliable database reference?
AM-2	Maps and drawings current: Are procedures in place to insure that maps and drawing have up-to-date information? Are field drawings 'red-lined" pending engineering revisions?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker, Pete Murphy, Grant McClellan

Comments: The current process for maintaining maps and records is reasonably good. Some areas maintain their master set of alignment sheets current by "red-lining" changes until revisions have been completed, while other locations do not. There is currently a substantial delay in getting revisions back, and no current procedure for confirming that revisions submitted by field personnel have been completed.

New procedures implemented in recent months have been reinforced to better assure accuracy and should improve revision turnaround time. The process for managing the preparation of all alignment sheets, which includes having all revision data entered electronically and having all current alignment sheets available to all users on line, is currently a "work-in progress".

Recommendation: There should be a procedure established to follow up on pending revisions to confirm they have been accurately made, and are received back on a timely basis. When the electronic version of the alignment sheet maintenance process has been completed the procedures that guide the process should be reviewed to confirm applicability; and they should include a procedure for the personnel submitting revisions to confirm that the electronic updating has been completed.

The following two issues are related and were reviewed as a single issue by the SMEs.	
AM-3	Qualified personnel for operations: Are all personnel involved in pipeline operations qualified? How is qualification determined?
AM-4	Qualified personnel for maintenance: Are all personnel involved in pipeline maintenance efforts qualified? How is qualification determined?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: The OQ program as set forth in API 1162 is the guidance for this issue. It is monitored on a continuing basis to assure compliance. The SMEs that addressed this issue confirmed that regional personnel having oversight of the OQ program are knowledgeable in the OQ program requirements and follow them when covered tasks are being performed.

Recommendations: None

AM-5	Qualified personnel for line locates: Are all personnel involved in one call responses and line locates familiar with locate requirement, marking, pipe locator usage, documentation and follow-up?

Primary SMEs: Phil Vasquez, Larry Hosler, Buzz Fant
Others offering comments: Steve Marositz, Curtis Parker

Comments: The SMEs that addressed this issue have confirmed that all personnel associated with line locates are qualified under the OQ program and are thoroughly trained in line locate and marking requirements; and are adequately trained in the use of line locate equipment.

Recommendations: None

AM-6	Qualified contractor personnel: Are all contractor personnel involved in pipeline maintenance efforts qualified? How is qualification determined?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker

Comments: We have a firm requirement in our contracts with contractors requiring them to fully comply with OQ guidelines. All contract personnel that may perform covered tasks must be pre-identified by name and must be in the ISNetworld database. The SMEs that addressed this issue confirmed that regional personnel having oversight of contractors performing covered tasks are knowledgeable in the OQ program requirements as they apply to contract personnel, and they follow them when contract work us being performed.

Recommendations: None

AM-7	Contractor supervision: Are all contractor personnel adequately supervised when performing maintenance work on or adjacent to pipeline facilities? Who determines level of supervision required? How is contractor performance verified?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker

Comments: We have a firm requirement in our contracts that require full time supervision of all maintenance personnel by qualified contractor supervisors. The SMEs that addressed this issue confirmed that regional personnel having oversight of contract work are knowledgeable in this requirement. The KM contract inspector assigned to oversee the contract work determines the level of contrast supervision that the work may require. The KM contract inspectors enforce this requirement.

Recommendations: None

AM-8	Relief personnel: What is the source of relief personnel for routine operating and maintenance positions? Is there adequate depth of trained/qualified relief personnel?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: We have adequate qualified personnel to fill in as may be required for routine operations tasks and for maintenance work. Personnel are cross-trained in multiple disciplines so they can back stop any short time gaps that may develop. The SMEs that addressed this issue confirmed that all relief personnel that may be required to perform covered tasks have the requisite qualifications.

Recommendations: None

AM-9	Integrity Management Program (IMP): Has the operator established an Integrity Management Program for the pipeline systems that are subject to the PHMSA IMP program? Is it being followed at all locations where required? Are all elements of the program being adequately documented?

Primary SMEs: Mike Outlaw
Others offering comments: Buzz Fant

Comments: The IMP has been in place as required by the pipeline regulations. The SME that addressed this issue confirmed that baseline integrity assessments have been performed throughout the Pacific Region based on a priority schedule that was identified at the inception of the program. The baseline and follow-up inspections are administered by a risk management person in the Pacific Region.

The SME confirms that they have a program in place to conduct annual reviews of the risks associated with each segment. The follow up throughout the Pacific Region to address any corrective or mitigative efforts that may be required as a result of the annual reviews will be initiated in 2008.

Recommendations: Proceed with the program to follow up on any corrective or mitigative efforts required based on the annual reviews of Pacific Region pipeline segments.

AM-10	Management of Change: Has the operator adopted the "Management of Change" concept or something similar? If so, how has it been conveyed to all personnel? If no, what process is used to convey operating and procedural change information to personnel?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: An extensive MOC procedure is in place and it is used to address all variety of changes. The SMEs that addressed this issue confirmed that regional personnel having responsibility for MOC initiation and processing are knowledgeable in the MOC requirements, and they follow them whenever any applicable change is being considered.

Recommendations: None

The following two issues are related and were reviewed as a single issue by the SMEs.

AM-11	Operations and Maintenance (O/M) Manual: Is the manual complete, used by all, relevant to current operations.
AM-12	Procedure amendments: Is there a process for amending operating and maintenance procedures when needed and conveying these changes to all personnel?

Primary SME: Buzz Fant

Comments: The L-O&M Manual is an extensive compilation of procedures that are relevant to all phases of operations and maintenance. It is accessible on-line for all personnel that have a need to refer to it. It is maintained current by a rigorous amendment process. Changes are made available to all personnel. The SMEs that addressed this issue confirmed that regional personnel are familiar with the on-line set of procedures and have ready access to them whenever necessary.

Recommendations: None

AM-13	Reference materials: Do all locations have copies of applicable regulations, standards, recommended practices that are applicable to those areas of operation? Are personnel sufficiently familiar with those documents?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Curtis Parker, Buzz Fant

Comments: All such references are available on-line. The SMEs that addressed this issue confirmed that regional personnel having a need to access such documents know where to obtain them.

Recommendations: None

OPERATIONS ISSUES

The following two issues are related and were reviewed as a single issue by the SMEs.

O-1	Segment MOP: Has the MOP for each segment of line been determined? Is it recorded and clearly identified for operators and controllers? Is it consistent with the pressure relief and pressure control settings?
O-2	Overpressure relief: Are the overpressure relief systems set at the appropriate level above MOP? Are they adequately sized? Are they tested and tagged as required?

Primary SMEs: Bob Cote

Comments: The MOP for each line segment has been established. It is known by those that have to apply the MOP in operations. (b) (7)(F), (b) (3) [redacted].

The SMEs that addressed this issue confirmed that the controllers and others responsible for pipeline operations understand the MOP and the MAOP of each line segment. The SMEs also confirmed that the relief pressure settings are properly set to assure that the MAOP is never exceeded in any portion of the line segment.

Recommendations: None

O-3	Personnel work hours: Are operator and controller work shifts designed to assure minimization of fatigue?

Primary SMEs: Phil Vasquez, Larry Hosler, Ed Hahn
Others offering comments: Gary Yates, Steve Marositz, Curtis Parker

Comments: The work shifts of all personnel (field personnel, station operators and controllers) are managed in a manner that the fatigue factor is controlled. The SME responsible for controller personnel emphasized that fatigue awareness and fatigue management is emphasized. Actions or incidents that may suggest fatigue could have been a contributing factor are investigated. Job performance is monitored to assure that if it appears to be an impending concern for any individual or group follow-up investigation would be conducted.

Recommendations: None

O-4	Fail-safe operations: Are line segments designed to fail safe in case of communications failure between the segment and the controllers?

Primary SME: Ed Hahn
Others offering comments: Gary Yates

Comments: (b) (7)(F), (b) (3) [redacted]

Recommendations: None

O-5	Backup operations: Are personnel available to staff remote facilities in case of prolonged communications failures or other situations where remote monitoring may be inadequate? Are these personnel sufficiently trained to operate such facilities?

Primary SMEs: Ed Hahn, Phil Vasquez, Larry Hosler

Comments: The SMEs that addressed this issue confirmed that the standard practice is to shut down remotely operated facilities when prolonged communications failures persist, rather than arrange for remote staffing.

Recommendations: None

O-6	Has the EFRD evaluation been conducted on this segment? Were EFRD recommendations implemented? If not, was the rationale for not following the recommendations documented?

Primary SMEs: Mike Outlaw, Mike Ortiz

Comments: The program for EFRD evaluations in conjunction with the Integrity Management Program is currently in progress. It has not yet been initiated for the Pacific Region Pipelines. The SMEs that addressed this issue have confirmed that the EFRD studies are being programmed in conjunction with integrity inspections..

Recommendation: Perform the EFRD analyses for the Pacific Region segments when those segments are next integrity inspected.

MAINTENANCE ISSUES

The following five issues are related and were reviewed as a single issue by the SMEs.

M-1	Rights-of-Way visibility: Does the segment have adequate right-of-way visibility to assure effective aerial patrol surveillance?
M-2	Aerial Markers: Are they adequate, properly spaced, in good condition, visible from air?
M-6	Line marker maintenance: Are all markers maintained in good condition, with current operator information?
P-5	Line marker adequacy: Are line markers located at all appropriate locations (as required by regulations plus other locations where they may be needed to insure location awareness)?
P-6	Line marker alternatives: In areas where typical post type markers cannot be situated or kept, what alternatives are used?

Primary SMEs: Phil Vasquez, Larry Hosler

Comments: All rights-of-way that are covered by aerial patrol are adequately cleared for surveillance. We have a routine program for monitoring the condition of line and aerial markers and replace them as necessary. Where appropriate we have surface markers that can be used in place of post markers.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.	
M-3	Cathodic Protection: Does the line have cathodic protection? If not, what is the rationale?
M-4	Cathodic protection annual surveys: Have annual surveys been done on each line segment? If not, what is the survey frequency? Is the frequency deemed adequate?
M-5	Cathodic protection close interval surveys: Have CIS been done on each segment? What was the rationale for doing or not doing? Are alternatives to CIS being used and if so, what is rationale?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering Comments: CP technicians Comments: Annual surveys are done regularly and the resulting data is reviewed by NACE certified CP technicians. The SMEs that addressed this issue confirmed that the decision to conduct a CIS would depend on the results of the annual survey; and where warranted a CIS would be performed. Recommendations: None	
M-7	Maintenance records: Are all records (routine and abnormal) that may be required to confirm and support routine maintenance retained and available as may be required by management and regulatory agencies?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant Comments: All records required to confirm compliance and to assure continued compliance with the routine maintenance programs are being developed. The SMEs that addressed this issue advised that in recent months several forms that address routine inspection and maintenance information have been updated to include more comprehensive information. Revised procedures for completing the forms have been drafted. Recommendation: Finalize the draft procedures.	

M-8	Safety-related condition reports: Are these records being prepared and retained as may be required to meet agency requirements and to support corrective actions?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: We have a program in place to address conditions that might warrant a safety-related condition report and procedures are in place to support corrective actions.

Recommendations: None

M-9	Pipe integrity discoveries: Are procedures adequate to identify and record instances of potential lack of pipe integrity, to meet agency requirements and to support corrective actions and future review?

Primary SMEs: Mike Outlaw, Mike Ortiz, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: The region SMEs advised that the Risk Management group addressed such issues. The Risk Management Group SMEs confirmed this, and advised that integrity discoveries stemming from the integrity inspections are handled on a timely basis as required by the regulations, and that any discoveries that might require a temporary reduction in segment MAOP or other temporary mitigative measures would be immediately addressed by the project managers that oversee the integrity inspection program.

Recommendations: None

PREVENTION ISSUES

The following two issues are related and were reviewed as a single issue by the SMEs.

P-1	Internal corrosion detection: Does the segment have test coupons for checking internal corrosion rates? Is there a routine monitoring program to confirm effectiveness?
P-2	Internal corrosion inhibition: Are inhibitors being used to prevent internal corrosion? Is there a routine monitoring program to confirm effectiveness?

Issues P-1 and P-2 (continued)	
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: There have been no apparent indications of internal corrosion concerns on the OSPR-jurisdictional systems. If such conditions were to appear as a result of internal inspections, action would be taken to identify and mitigate the problem. Recommendations: None	
P-3	Adjacent utilities awareness: Is operator pro-active in knowing exact location of all adjacent underground utilities in pipeline vicinity?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: To the extent possible these are noted on our alignment sheets. The SMEs that addressed this issue confirmed that our line riders are instructed to be alert to any indication of adjacent utilities, and to arrange to have them included on our alignment sheets when they are discovered. Recommendations: None	
The following two issues are related and were reviewed as a single issue by the SMEs.	
P-4	Foreign excavation monitoring: Is operator representative always present when foreign excavations are made over or near pipelines? How is this requirement conveyed to operator personnel? To excavator personnel?
P-7	Excavation in close proximity to pipeline: Does operator demand hand excavation when opening ditch within close proximity to pipeline? How is this controlled?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: Our personnel are to be on site whenever any subsurface work is being done on or around our lines. We have definite requirements that at any time an excavation is to be within 24 inches of the pipe it must be done by hand only. Recommendations: None	

P-8	Line locating instruments: Are all pipe locators calibrated as required by manufacture? Have all operators been trained in proper use of the instrument and been made aware of performance limitations?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker

Comments: Our personnel are trained in the use of this equipment. The SMEs that addressed this issue advised that the accuracy of the unit is verified at least daily by testing against a known section of buried pipe.

Recommendations: None

P-9	Post-Incident Review: Are such reviews conducted in manner that will identify and trigger corrective measures?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: We have a formal procedure for conducting post-incident reviews, including where appropriate a root cause analysis; and follow through with corrective measures as necessary. The SMEs that addressed this issue advised that there is a rigorous procedure involving several staff personnel to discuss all aspect of the incident.

Recommendations: None

MONITORING AND CONTROL ISSUES

The following three issues are related and were reviewed as a single issue by the SMEs.

MC-1	Aerial patrol familiarity: Are the pilots sufficiently familiar with the exact line locations to insure proper surveillance?
MC-2	Local staff familiarity: Does local staff fly with aerial patrol periodically to insure pilots are adequately familiar with the line locations and to keep local staff familiar with line location and surface conditions?
MC-6	Are pilots directed to observe conditions beyond the pipeline right-of-way that suggest potential pending impact to the right-of-way? How is this information reported?

Issues MC-1; MC-2, MC-6 (Cont'd)	
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant Comments: Our patrol pilots are familiar with precise line locations; and we confirm this by having local personnel periodically fly with them. Pilots are directed to look beyond the right-of-way and report any signs of potential concern along with their other reporting priorities. Recommendations: None	
The following three issues are related and were reviewed as a single issue by the SMEs.	
MC-3	Aerial patrol priorities: Have pilots been advised on notification priorities? Some may require immediate notice to local staff, while others may permit routine reporting. Do the pilots understand and follow any expedited reporting requirements?
MC-4	Aerial patrol routine notices: Are procedures set up to insure that routine reporting of patrol surveillance information goes to the right personnel? Is a log maintained of this? How is it used to follow up on potential problems?
MC-5	Aerial patrol reporting items: Do the pilots report only abnormal conditions, or do they also advise of the need for routine maintenance work (sign painting, marker repairs etc.)?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant Comments: Our reporting priorities are clearly given to the patrol pilots. They have the ability to immediately contact our field personnel as necessary. The SMEs that addressed this issue confirmed that their line coverage records are thorough as to details that they report and this includes any situation where maintenance or potential encroachment should been evaluated. Recommendations: None	

The following four issues are related and were reviewed as a single issue by the SMEs.	
MC-7	Volume balance: Does this segment have adequate volume measurements for effective real time balance data?
MC-8	Volume deviations: Are volume balance deviation limits set to reflect the minimum possible deviations within reliable tolerances?
MC-9	Slack lines: Is the system designed and operated to eliminate slack line conditions for adequate volume balance? It is maintained packed to insure good balance during start-up?
MC-10	(b) (7)(F), (b) (3) [redacted]

Primary SMEs: Ed Hahn, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Gary Yates

Comments: All line segments have volume balance measurements and volume deviation alarm set points. The SMEs that reviewed these issues confirmed that:

- Deviation tolerances are set sufficiently close to maximize the controller's ability promptly react to potential adverse conditions.
- Lines are maintained packed when shut down, thus slack line conditions are not experienced.
- (b) (7)(F), (b) (3) [redacted]

Recommendations: None

PUBLIC AWARENESS ISSUES

The following three issues are related and were reviewed as a single issue by the SMEs.	
PA-1	Public awareness programs, conducted: Does operator have, or contract for an active awareness program?
PA-2	Public awareness programs, active participation: Does operator have local personnel actively participate in public awareness efforts? To what degree?
PA-3	Public awareness, excavator contacts: Is operator pro-active in making system known to excavators (area contractors, other utilities, private back-hoe operators)?

PA-1, PA-2, PA-3 (Cont'd)

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: Our public awareness is consistent with API 1162 guidelines. The region SMEs confirmed that area personnel participate in the programs involving local agencies, excavators and the public in close proximity to our pipelines, and they document this participation.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.

PA-4	One call systems, who are they forwarded to (local personnel or a central location)?
PA-5	One call systems, follow-up: How are calls followed up on by local personnel?
PA-6	Damage prevention program formalized: Is there a written program? Is it clearly conveyed to all applicable personnel? Is it followed by all personnel? Does it have clear support and mandate from upper management?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: All locations participate in one-call programs at the local level. Information typically comes in by computer linkage with the one-call system, and can be followed by fax or phone as necessary. Local personnel follow up on all one call notices and evaluate the potential for impact to our systems. We have an active written damage prevention program with full support of upper management.

Recommendations: None

3.2 FIXED FACILITY RISK ASSESSMENT

Facility: **Richmond Terminal** Date: 12/19/2007

Subject Matter Expert: Mike Sudheimer

Recorder: Vern Grimshaw

Facility Operations:

The terminal handles vegetable oils and some petroleum products. Operations include marine vessel receipts and deliveries; and loading to tank trucks and rail cars. There are no pipeline movements of petroleum products into or out of the facility.

Potential Product Releases:

The two possible sources of a release of petroleum products from the facility would be:

- During marine transfer operations, and
- From facility storage facilities and related piping.

In the event of a product release during vessel transfer operations, or if any release from facility tanks or piping were to escape containment, an Integrated Contingency Plan (ICP) is in place to address the situation. The ICP addresses the potential off-site consequences of a release and the response capabilities of KM and contractor resources.

Marine Transfer Operations:

Vessel transfers typically occur at a maximum flow rate of approximately 1,900 barrels per hour. All transfers are constantly monitored by dock and vessel personnel. In the event of a major transfer line or hose failure the maximum probable worst case discharge has been calculated to be (b) (7)(F), (b) .

All vessel transfer operations are performed in accordance with USCG and applicable state regulations. KM personnel responsible for transfer operations are familiar with the Dock Operations Manual and applicable regulations; and are trained in the response requirements of the ICP.

Facility Storage Facilities:

Spill prevention from any of the facility's tanks and related piping is addressed in the facility SPCC plan.

(b) (7)(F), (b) (3)

Facility Storage Facilities (Cont'd):

All petroleum piping within the facility (except dock piping that is utilized during vessel transfer operations) is contained within curbing that would direct piping releases to a controlled area on site.

Surface drainage from areas that have the potential to contain petroleum is controlled on site and checked for potential petroleum contaminants before being released.

There is no buried piping within the facility. The tank bottoms are protected from corrosion by means of a cathodic protection system. There has been no indication of internal corrosion of any of the petroleum piping.

Release History:

There have been no petroleum releases from this facility in the past ten years.

Risk Assessment Conclusions:

Based on the information provided above, it can be concluded that all appropriate preventative and mitigative efforts for spill prevention are in place for this facility.

Facility: **Los Angeles Harbor Terminal** Date: 12/19/2007

Subject Matter Expert: Tom Hosler

Recorder: Vern Grimshaw

Facility Operations:

The terminal handles refined petroleum products and crude oil. Operations include marine vessel receipts and deliveries, loading to tank trucks, and pipeline movements of petroleum products out of the facility.

Potential Product Releases:

The two possible sources of a release of petroleum products from the facility would be:

- During marine transfer operations, and
- From facility storage facilities and related piping.

In the event of a product release during vessel transfer operations, or if any release from facility tanks or piping were to escape containment, an Integrated Contingency Plan (ICP) is in place to address the situation. The ICP addresses the potential off-site consequences of a release and the response capabilities of KM and contractor resources.

Marine Transfer Operations:

Vessel transfers typically occur at maximum flow rates of approximately 10,000 barrels per hour (offloading) and 7,000 barrels per hour (loading). All transfers are constantly monitored by dock and vessel personnel. In the event of a major transfer line or hose failure the maximum probable worst case discharge has been calculated to be (b) (7)(F), (b) .

All vessel transfer operations are performed in accordance with USCG and applicable state regulations. KM personnel responsible for transfer operations are familiar with the Dock Operations Manual and applicable regulations; and are trained in the response requirements of the ICP.

Facility Storage Facilities:

Spill prevention from any of the facility's tanks and related piping is addressed in the facility SPCC plan.

(b) (7)(F), (b) (3)

[redacted]

Facility Storage Facilities (Cont'd):

All above ground petroleum piping within the facility (except dock piping that is utilized during vessel transfer operations) is contained within curbing that would direct piping releases to a controlled area on site.

Surface drainage from areas that have the potential to contain petroleum is controlled on site and checked for potential petroleum contaminants before being released.

The buried piping within the facility and the tank bottoms are protected from corrosion by means of a cathodic protection system. There has been no indication of internal corrosion of any of the petroleum piping.

Release History:

There have been six petroleum releases from this facility in the past ten years:

- A one barrel release was the result of a tank spill-over during an earthquake. This was contained within the tank block.
- A release of less than one gallon that reached the water was the result of a leak in a dock pan drain line.
- Four others, reported as too small to measure (a few drops or less), resulted in minor stains on the ground surface or minor sheens on the water.

All releases were cleaned up in a timely manner.

Risk Assessment Conclusions:

Based on the information provided above, it can be concluded that all appropriate preventative and mitigative efforts for spill prevention are in place for this facility.

Appendix D

(Includes only events with a release amount of at least 42 gallons)

Line Section ID	Event Date	Event Description	Product	Cause	Amount Released (gallons)
95	8/23/1999	Outside Force Damage: Third Party: Cost: A foreign pipeline company was excavating their pipeline, which parallels and is in close proximity to Kinder Morgan's pipeline - L.S. 95. The trench was being backfilled.	Jet/turbine fuel	Excavation	(b) (7)(F), (b) (3)
25	5/17/2000	Failure in original seam defect combined with external corrosion.	Diesel Fuel	Material and Welds	
25	12/12/2000	Approximately 22:58 Concord personnel contacted the ORCC regarding the discovery of product in a slough next to the Carquinez Straight approximately 3.09 miles west of the Concord Station	Gasoline	Other	
	7/27/2001	Approximately 1300, Contra Costa personnel contacted ORCC regarding the release of Diesel. A 10'x10' stain on gravel had a diesel odor. Stain originated at HOV-3.	Diesel Fuel	Other	
45	12/7/2002	Approximately 1104 on 12/7/02 Stockton personnel contacted ORCC regarding a dripping Bypass Valve on the Rough & Ready Manifold.	Mix/Transmix	Equipment and Operations	
25	4/27/2004	At 1832 on 4/27/04 an abnormal operating condition was observed on LS 25 and the line was shut down and field personnel started conducting field surveys. Approximately at 1406 on 04/28/04 the field contacted ORCC confirming that a pipeline release had occurred.	Diesel Fuel	Corrosion	
47	11/7/2004	Approximately 1650 on 11/07/04 Concord personnel contacted ORCC regarding a release that occurred from third party mechanical damage. OES was advised at 1742, case number 04-5795 was given. NRC was contacted at 1750, case number 740716 was assigned.	Jet/turbine fuel	Excavation	
16	11/9/2004	Approximately 1326 on 11/09/04 Concord personnel contacted ORCC regarding a possible line hit on LS 16 between PLMP 7 and 11. Pressure Loss was observed and reports of possible explosion and fire in area of hit. NRC was advised at 1352, case number 740-9	Gasoline	Excavation	

Line Section ID	Event Date	Event Description	Product	Cause	Amount Released (gallons)
42	2/7/2005	On the evening of 02/07/05 PNR personnel contacted ORCC regarding a mysterious sheen and odor in the San Francisco Bay downstream of Oakland Tank that the USCG was investigating and had pre-determined that it was coming from LS 42.	Jet/turbine fuel	Other Outside Force	(b) (7)(F), (b) (3) [redacted]
	8/2/2005	Approximately 1557 on 08/02/05 Concord personnel contacted ORCC regarding a stain observed near Travis Line. OES, NRC, CUPA, and US BOR were notified.	Jet/turbine fuel		
Richmond Terminal	10/24/2007	Wax Kettle overflowed onto the ground resulting in reportable spill	Wax	Incorrect Operation	
123	6/17/2002	Approximately 1410 on 06/17/02 Mission Valley personnel contacted ORCC regarding a release that occurred from a weeping hole found on MOV 101. Advised OES (case # 02-3331).	Mix/Transmix	Equipment and Operations	
1	7/11/2003	Approximately 1958 on 07/11/03 Watson personnel contacted ORCC regarding a turbine release from third party damage on LS 1. OES and NRC were advised.	Jet/turbine fuel	Other Outside Force	
120	5/2/2005	Approximately 0650 on 05/02/05 Watson personnel contacted ORCC regarding the LA River West Block Valve leaking in valve box within Nursery. OES was advised at 0658, case number 05-2619 was assigned. NRC was advised at 0825, case number 757427 was given.	Diesel Fuel	Material and Welds	
108	12/8/2005	Approximately 0921 on 12/08/05 Carson personnel contacted ORCC regarding a release that occurred the seal failed on pump 63. OES, NRC, CUPA, and the US BOR were also notified.	Diesel Fuel		

9.7 RISK REDUCTION INCENTIVE PROGRAMS

The Facility participates in an annual safety awareness program which is administered at the Corporate level. The Facility has evaluated workplace hazards and how to prevent or mitigate them under workplace illness and injury prevention guidelines. The Facility conducts monthly safety meetings to discuss conditions, which could cause accidents or spills, and how to mitigate or prevent them from occurring. The Facility (through the Operations Review Committee) also conducts quarterly meetings for continuously improving the quality and effectiveness of operating practices and procedures.

9.8 DRUG AND ALCOHOL POLICIES

Kinder Morgan, Inc. and Kinder Morgan Energy Partners, L.P. Human Resources Policy Manual

Drugs and Alcohol in the Workplace

(Effective 01/01/2000)
(Revised 01/01/2003)

Purpose

The purpose of this Policy is to maintain a safe and productive work environment for all employees, applicants, and the public by ensuring that employees on Company property, while conducting Company business, operating Company property, or during their employment with the Company may not possess or use illegal or unauthorized drugs. The Policy is also intended to promote worker and public safety, to comply with the Drug-Free Workplace Act of 1988, and to provide procedures for workplace-related searches of persons and property and the lawful drug and alcohol testing of employees. Kinder Morgan maintains a "Zero Tolerance" policy.

Scope

This Policy applies to all Company employees, applicants, contract workers, and employees of third-party contractors, including employees and contract workers who perform functions covered by regulations promulgated by the Department of Transportation (DOT). In the event of a contradiction between this Policy and the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan, the Company's Anti- Drug Plan and Alcohol Misuse Prevention Plan shall govern.

This Policy is broader in scope than the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan. For additional information refer to the Anti-Drug Plan and Alcohol Misuse Prevention Plan. This Policy shall be administered in accordance with all applicable federal, state, and local laws and regulations.

Responsibilities and Prohibitions

Employees

All applicants and employees are reminded that the following actions are included as violations of this Policy: (1) use, possession, sale, distribution of illegal or unauthorized drugs on Company property, while operating any Company vehicle or equipment, or while conducting Company business; (2) use, possession, sale, or distribution of alcohol on Company property. while operating any Company vehicle or equipment, or while conducting Company business, with the exception that use and possession of alcohol during Company sponsored business or social functions, where the use of alcohol remains moderate, will not be considered a violation of this Policy; (3) use of any drug, including prescribed drugs, which is unsafe to use while operating Company vehicles or equipment; (4) possession, sale or distribution of paraphernalia and equipment related to illegal or unauthorized drug use; and (5) refusal to test in any testable situation.

As a condition of employment, any employee whose work directly relates to the performance of a federal contract and who is or has been convicted of a criminal drug offense occurring in the workplace during employment must notify his/her supervisor and Human Resources representative in writing within five days of such conviction. Similarly, as a condition of employment, any employee that is required to possess a valid driver's license as a pre-requisite of their position, must notify his/her supervisor and Human Resources representative in writing within five days of either a drug and/or alcohol related criminal offense. Failure to provide notification will result in disciplinary action being taken, up to and including termination.

All employees while operating any Company vehicle or equipment, or while conducting Company business (either during or after regular business hours), cannot refuse to submit to drug and/or alcohol testing administered or ordered by the Company or a lawful authority. Refusal to submit to the testing will result in disciplinary action being taken, up to and including termination.

All employees taking a prescription or over-the-counter medication that could adversely affect performance of job-related functions or pose a direct threat to the health and safety of the employee or others in the workplace are responsible for notifying their supervisor. It is not the intent of the Company to interfere with the use of drugs legitimately prescribed by a physician. The Company's designated physician will be the sole person that the Company uses in making determinations concerning employees' fitness to perform the job.

All employees should notify a supervisor or Human Resources Representative of any behavior of co-workers or contract workers that may indicate a violation of this Policy.

Definitions

"Alcohol" means ethyl alcohol, an intoxicating element in fermented or distilled liquor or in any other compound, or other low molecular weight alcohol, including but not limited to, methyl and isopropyl alcohol, and including without limitation, beer, wine, and distilled liquors.

"Company property" is used in the broadest sense and includes, but is not limited to, all property, equipment, land, onshore and offshore platforms, buildings, structures, installations, facilities, locations, boats, aircraft, and vehicles which are owned, leased, used or operated by or on behalf of the Company for any purpose, or which are located on Company property, and any personal effects or items located thereon or therein. This includes, among other items, desks, lockers, and workstations, as well as privately owned vehicles and other personal belongings located on or in Company property,

"Possess" or "possession" means having any amount of illegal or unauthorized drugs or alcohol on one's person or belongings at any time during employment; on Company property; while conducting Company business; operating Company property; in one's personal belongings or vehicle while on Company property; in a vehicle or any mode of transportation owned or leased, or rented for Company use; or at any location used by the Company to conduct business.

"Drugs" means prescription drugs, inhalants, and other illegal, controlled, or unauthorized substances that may cause addiction and/or affect coordination of memory, or a drug that federal and state law makes illegal to distribute, use or possess.

"Use" with regard to drugs is defined as having any trace amount of drugs in the applicant's or employee's system, or physical consumption of drugs, "Use" with regard to alcohol is defined as the physical consumption of alcohol. "Use" with regard to drugs and alcohol is also defined as being under the influence of drugs or alcohol at any time during working hours.

"Zero Tolerance" means that if an employee tests positive for drugs or alcohol, as defined by this Policy, the resulting disciplinary action will be termination of employment for cause.

Testing for Types of Drugs/Alcohol and their Cutoff Levels

Drug/Alcohol tests will be conducted in a confidential manner according to procedures adopted by the Company and in compliance with applicable law. Below are the examples of illegal and unauthorized drugs for which Kinder Morgan tests and the levels at which an employee will be considered as "testing positive for drugs": Employees who test at a alcohol concentration level of .04 or greater will be considered as "testing positive" for alcohol.

1. Marijuana	15 ng/ml
2. Cocaine	150 ng/ml
3. Amphetamines and Methamphetamines	500 ng/ml
4. Opiates (codeine, heroin, morphine)	2000 ng/ml
5. Phencyclidine (PCP or Angel Dust)	25 ng/ml

Types of Drug and Alcohol Testing

Kinder Morgan conducts the following types of drug and alcohol testing:

Drug Testing	Alcohol Testing
1. Pre-employment	1. Reasonable cause
2. Reasonable cause	2. Random (as permitted by federal and state law)
3. Random (as permitted by federal and state law)	3. Return to duty
4. Return to duty	4. Post-Accident
5. Post-Accident	

Searches and Tests

The Company reserves the right to have authorized personnel conduct searches of our employees, contract workers, and employees of third-party contractors without prior notice to determine if this Policy is being violated. Accordingly, all areas of Company property may be searched, including employee work locations, stations, areas, offices, desks, files, lockers, etc.; employees and their personal belongings, vehicles, etc. may also be searched if on or within Company property. Employee searches will be conducted in compliance with applicable law.

The Company reserves the right, at all times, to have authorized personnel conduct urinalyses, blood tests, or other types of tests of our applicants, employees, contract workers, and employees of third-party contractors for the purposes of determining if any such persons are in violation of this Policy. A urinalysis, blood test, or other type of test may be used in the following situations: (a) pre-employment testing, (b) testing based on reasonable cause or suspicion, (c) random or periodic testing, (d) testing following an accident or incident involving injury or property damage, and (e) testing that is consistent with the enforcement of this Policy.

The Company reserves the right to inspect and search Company property at any time without the presence or consent of any employee. An employee who, as a result of a search, has been found in violation of this Policy or other Company Policy will be subject to corrective action as described in the Corrective Action Policy.

Violations of Policy

Any violation of the Drugs and Alcohol in the Workplace Policy will result in disciplinary action being taken, up to and including termination.

Employee Assistance Program

The Employee Assistance Program (EAP) is available to all Company employees. Employees are encouraged to obtain professional help when needed by using the EAP . Employees may contact their supervisor or Human Resources for information about the EAP. The EAP is strictly confidential and available for use by telephoning:

- Magellan Behavioral Health 1-800-424-5654

Use of the EAP does not exempt or excuse a violation of this Policy.

Voluntary Rehabilitation

Any employee who voluntarily seeks counseling or rehabilitation in advance of failing any of the tests or who would otherwise be in violation of this policy must provide certification, in accordance with any applicable governmental requirements, of the credentials of the attending physician, psychologist, or psychiatrist, who is trained in substance abuse disorders.

When the employee successfully completes or is participating in a supervised substance-abuse or alcohol-related rehabilitation program and is no longer engaging in the use of illegal drugs or unauthorized alcohol, the Company requires certification from the substance abuse professional that the employee is fit to return to duty and perform the essential functions of his or her job.

An employee described in the paragraph above will be tested on a random basis by the Medical Review Officer and/or Substance Abuse Professional to ensure such employee is no longer engaging in the illegal use of drugs or unauthorized alcohol.

Interpretation and Exceptions

Questions regarding this Policy should be referred to the Vice President, Human Resources. Requests for exceptions should be submitted to Human Resources for review by Human Resources and the Legal Department to ensure regulatory requirements and appropriate test protocols and standards are met. The President and Chief Operating Officer must approve all exceptions.

This Policy does not constitute or imply a contract between the Company and its employees. This Policy creates no Company obligation nor any individual obligation, right, privilege, term, or condition of employment not otherwise established by law. The Company has voluntarily adopted this Policy for its sole and exclusive and may amend or withdraw it at any time without prior notice.

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6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Reno Area Lines:	
• (b) (3), (b) (7)(F) Line 8"/10"	12
• State Line – Reno 10"/6"	13
• Reno – Fallon 6"	55
Pipeline Facilities (Non-Storage)	
• Fallon Terminal – meter station only	

- Figures 6.1a through 6.1c on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled "Worst Case Discharge Data" of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

(b) (3), (b) (7)(F) – STATE LINE 8"/10" (12)

Pipe and Operational Data

• Section Length:	12.70 Miles	67,044 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D.
• Section Length:	15.08 Miles	79,602 Feet
• Product types:	EPA & CARB ULSD, Conventional Gas, Turbine, JP-8, Ethanol	
• Line Diameter:	10.75 in., O.D.	10.02 in., I.D.
• Line Capacity:	515 bbls/mile in 10 in. size 339 bbls/mile in. 8 in. size	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,400 bph or 57,600 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

- County(s)/State(s) Traversed: Nevada County, Sierra County, CA
- Location Description: (b) (3), (b) (7)(F) Truckee, generally parallel to the Union Pacific Railroad east of Truckee. The pipeline then heads northeast under Highway 80, under Prosser Lake and through Dog Valley to the Nevada State line in Verdi.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

STATE LINE – RENO 10"/6"/10" (13)		
Pipe and Operational Data		
• Section Length:	7.88 Miles	41,590 Feet
• Line Diameter:	10.75 in., O.D.	10.02 in., I.D. (note 1)
• Section Length:	7.24 Miles	38,232 Feet
• Line Diameter:	6.625 in., O.D.	6.065 in., I.D. (note 1)
• Line Capacity:	515 bbls/mile in 10 in. size (note 2) 189 bbls/mile in. 6 in. size (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,400 bph or 57,600 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Washoe, NV	
• Location Description:	From the California State Line, generally parallel to the Southern Pacific Railroad east to Reno Terminal.	

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

RENO – FALLON 6" (55)		
Pipe and Operational Data		
• Section Length:	63.33 Miles	334,382 Feet
• Line Diameter:	6.625 in., O.D.	6.125 in., I.D. (note 1)
• Line Capacity:	192 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	425 bbls/hr or 10,200 bbls/day	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Washoe, Churchill, Lyon, Storey, NV	
• Location Description:	From Reno Terminal east, generally parallel to the Southern Pacific Railroad to Ferneey, then southeast to Fallon.	

FIGURE 6.2

HCA INDEX

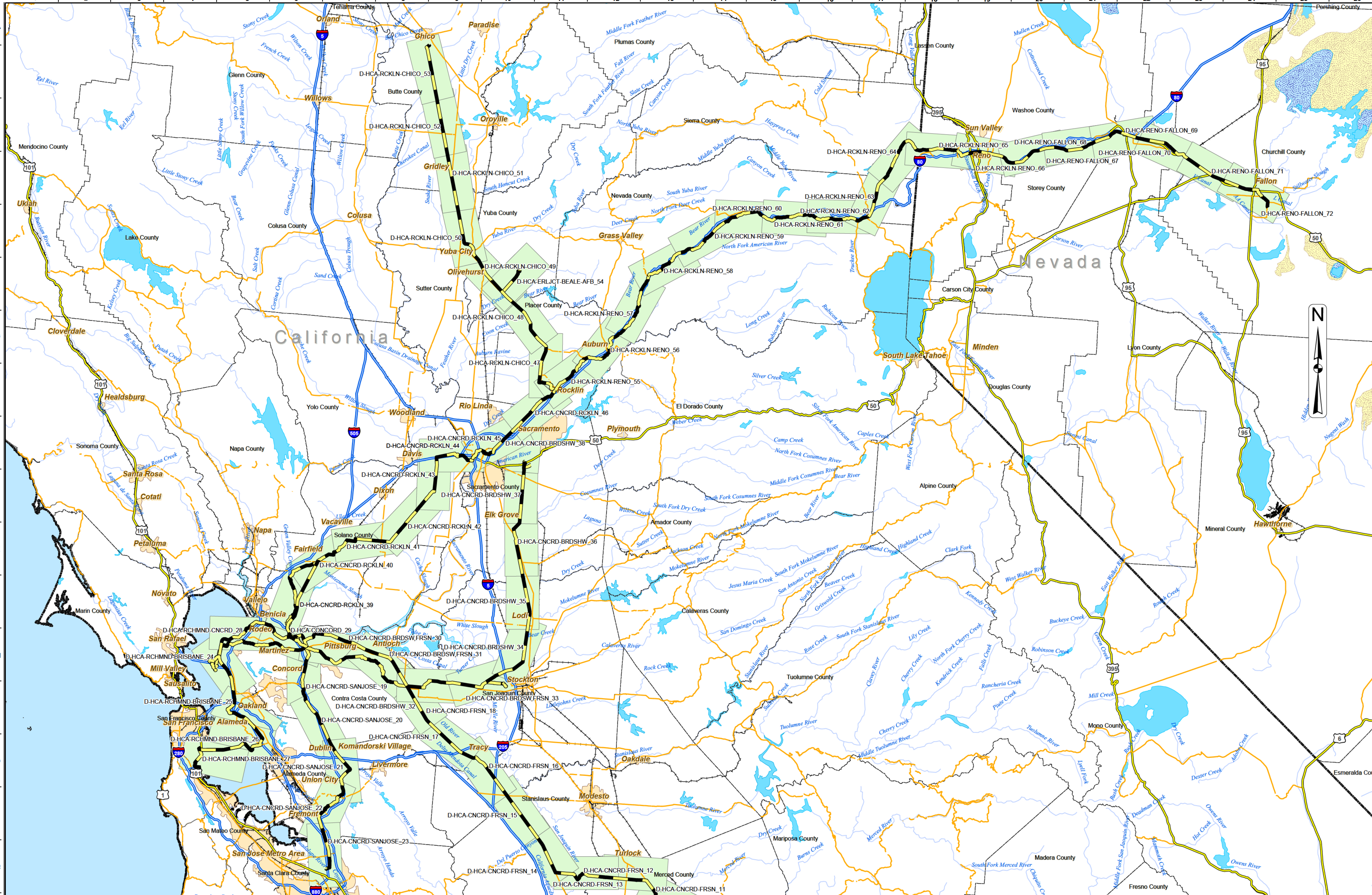
Refer to Figure 6.1a through Figure 6.1c for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_005.pdf
485-D-HCA-RCKLN-RENO_062.pdf
485-D-HCA-RCKLN-RENO_063.pdf
485-D-HCA-RCKLN-RENO_064.pdf
485-D-HCA-RCKLN-RENO_065.pdf
485-D-HCA-RCKLN-RENO_066.pdf
485-D-HCA-RENO-FALLON_067.pdf
485-D-HCA-RENO-FALLON_068.pdf
485-D-HCA-RENO-FALLON_069.pdf
485-D-HCA-RENO-FALLON_070.pdf
485-D-HCA-RENO-FALLON_071.pdf
485-D-HCA-RENO-FALLON_072.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CNCRD-FRSN_012	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_013	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_014	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_015	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_016	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_017	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_018	LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_019	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_020	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_021	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_022	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_023	LS-16; CONCORD - SAN JOSE 10"
D-HCA-RCHMND-BRISBANE_024	LS-104; CHEVRON REFINERY #2 - RICHMOND 10" LS-36/42 Combined LS-37; AMORCO - RICHMOND 12" LS-46/41; RICHMOND - BRISBANE 8/10" LS-69; CHEV REFINERY #1 - RICHMOND 8" LS-71; LS 89 - RICHMOND 8" LS-74; RICHMOND - ARCO 8" LS-75; IMTT / TIME - RICHMOND 8" LS-76; TIME OIL - LS-75/76 JCT. 3" LS-76; TIME OIL - LS-75/76 JCT. 8" LS-8; RICHMOND - CONCORD 8" LS-89; ARCO - LS 71 8" LS-99; CHEVRON REFINERY #3 - RICHMOND 10"
D-HCA-RCHMND-BRISBANE_025	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_026	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_027	LS-36/42 Combined LS-38; BRISBANE - SF AIRPORT JCT.12" LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-CNCRD_028	LS-37; AMORCO - RICHMOND 12" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8"
D-HCA-CONCORD_029	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-103C; SOUTH CARQUINEZ - MOCOCO JCT. 10" LS-130A; CONCORD-WATERFRONT 20" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-37; AMORCO - RICHMOND 12" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSW,FRSN_030	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSW,FRSN_031	LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_032	LS-9; CONCORD - BRADSHAW 10" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_033	LS-43; STOCKTON - BP WEST 8" LS-45A; ROUGH & READY JCT - SHELL 8" LS-45B; ROUGH & READY JCT - ST SERVICES 8" LS-45C; STOCKTON - ROUGH & READY JCT 8/6" LS-62; STOCKTON JCT - STOCK TERM 8/10" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_034	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_035	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_036	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_037	LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_038	LS-20; SACRAMENTO - ROCKLIN 12" LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-RCKLN_039	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-RCKLN_040	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" REDUCER - SUISUN JCT 8"
D-HCA-CNCRD-RCKLN_041	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-RCKLN_042	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-RCKLN_043	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-RCKLN_044	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-RCKLN_045	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-RCKLN_046	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 4" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_047	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 4" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_048	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_049	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-CHICO_050	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_051	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_052	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_053	LS-64; ROCKLIN - CHICO 8"
D-HCA-ERLJCT-BEALE-AFB_054	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-RENO_055	LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 4" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-RENO_056	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10"
D-HCA-RCKLN-RENO_057	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6"
D-HCA-RCKLN-RENO_058	LS-11; CLIPPER GAP - COLFAX 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_059	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_060	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_061	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_062	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_063	LS-12/13; WOODCHOPPER - REDUCER 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_064	LS-12/13; WOODCHOPPER - REDUCER 10"
D-HCA-RCKLN-RENO_065	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6"
D-HCA-RCKLN-RENO_066	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6" LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_067	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_068	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_069	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_070	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_071	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_072	LS-55; RENO - FALLON NAS 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

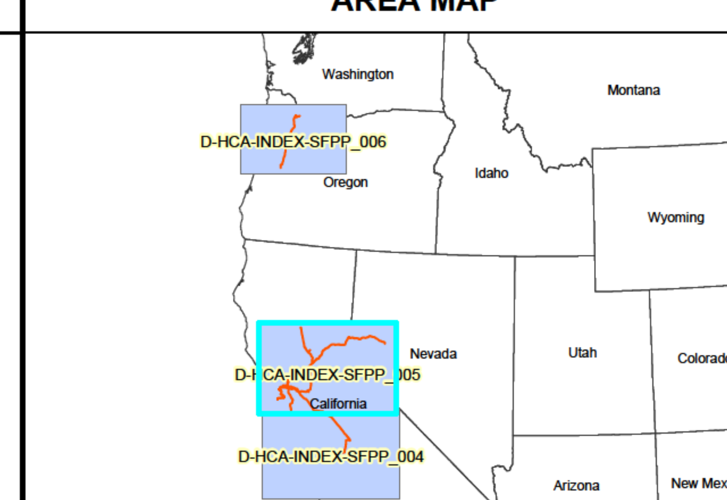
Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name: 485-D-HCA-INDEX-SFPP_005	
Approved:		

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Rocklin Area Lines:	
• Rocklin – Colfax 10"/6"/10"	11
• Colfax – (b) (3), (b) (7)(F)	12
• Antelope Road – Rocklin 12"	20
• Rocklin – UPRR 4"	48
• Rocklin – Chico 8"	64
• Erle – Beale 6"	65
(b) (3), (b) (7)(F)	

- Figures 6.1a through 6.1f on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled "Worst Case Discharge Data" of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

ROCKLIN - COLFAX 10"/6"/10" (11)		
Pipe and Operational Data		
• Section Length:	11.67 Miles	61,592 Feet
• Line Diameter:	6.625 in., O.D.	6.065 in., I.D. (note 1)
• Section Length:	21.99 Miles	116,151 Feet
• Line Diameter:	10.75 in., O.D.	10.192 in., I.D. (note 1)
• Line Capacity:	189 bbls/mile in 6 in. size (note 2) 533 bbls/mile in 10 in. size (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,100 bph or 50,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Placer, CA	
• Location Description:	From Rocklin, generally northeast paralleling the Southern Pacific Railroad to Colfax Station.	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

COLFAX – (b) (3), (b) (7)(F)

Pipe and Operational Data

Section Length:	44.14 Miles 233,038 Feet
Line Diameter:	8.625 in., O.D. 8,125 in., I.D. (note 1)
Line Capacity:	339 bbls/mile in 8 in. size (note 2)
Capacity of entire line section:	(b) (7)(F),
Maximum flow rate:	2,400 bph or 57,600 bpd

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

County(s)/State(s) Traversed:	Placer, Nevada, CA
Location Description:	From Colfax Station northeast generally parallel to the Southern Pacific Railroad to (b) (3), (b) (7)(F) e near Donner Lake-West of Truckee.

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

ANTELOPE ROAD - ROCKLIN 12" (20)		
Pipe and Operational Data		
• Section Length:	11.64 Miles	61,466 Feet
• Line Diameter:	12.75 in., O.D.	12.25 in., I.D. (note 1)
• Line Capacity:	770 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	6,000 bph or 144,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Sacramento, Placer, CA	
• Location Description:	From Antelope Road and Roseville Road generally northeast parallel to the Southern Pacific Railroad to Rocklin Terminal.	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

ROCKLIN - UPRR 4" (48)		
Pipe and Operational Data		
• Section Length:	3.76 Miles	19,846 Feet
• Line Diameter:	4.50 in., O.D.	4.124 in., I.D. (note 1)
• Line Capacity:	87 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	271 bph or 6,500 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Placer, CA	
• Location Description:	From Rocklin Station southwest to the UP Rail Yard.	

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

ROCKLIN - CHICO 8" (64)

Pipe and Operational Data

• Section Length:	77.30 Miles	408,133 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	339 bbls/mile (note 2)	
• Product types:	CARB ULSD, Gas, Ethanol	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,000 bph or 48,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

• County(s)/State(s) Traversed:	Placer, Yuba, Butte & Sutter, CA
• Location Description:	From Rocklin North to Lincoln, then generally Northwest to Marysville, then parallel to State Highway 99 to Chico Terminal

Worst Case Discharge Data

(b) (7)(F), (b) (3)

[redacted]

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

ERLE - BEALE 6" (65)		
Pipe and Operational Data		
• Section Length:	5.74 Miles	30,311 Feet
• Line Diameter:	6.625 in., O.D.	6.187 in., I.D. (note 1)
• Line Capacity:	197 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	1,350 bph or 32,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Yuba, CA	
• Location Description:	From a connection with Line 64 at Erle Road near Marysville east to Beale AFB.	

FIGURE 6.2

HCA INDEX

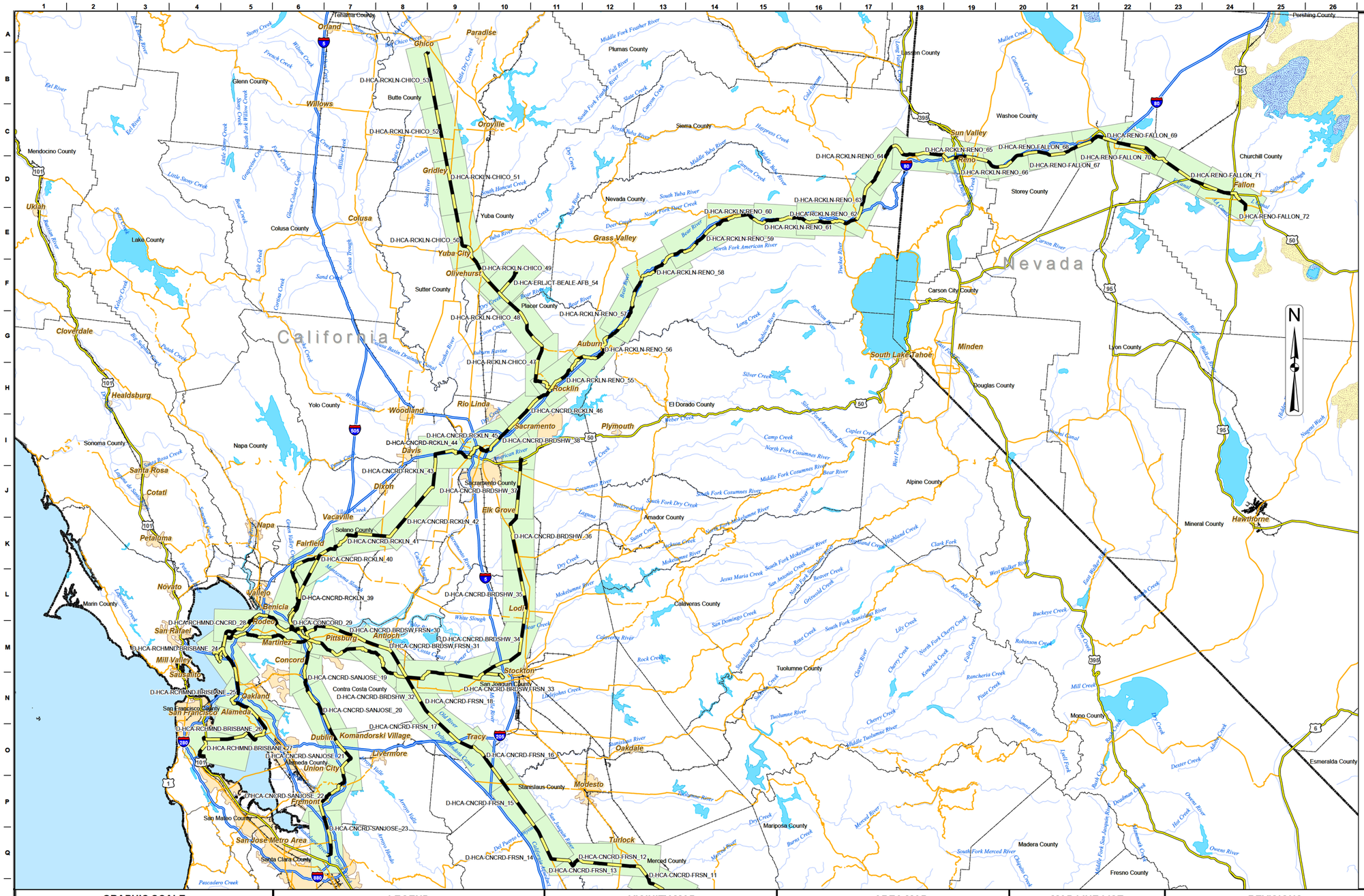
Refer to Figure 6.1a through Figure 6.f for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_005.pdf
485-D-HCA-CNCRD-RCKLN_046.pdf
485-D-HCA-RCKLN-CHICO_047.pdf
485-D-HCA-RCKLN-CHICO_048.pdf
485-D-HCA-RCKLN-CHICO_049.pdf
485-D-HCA-ERJCT-BEALE-AFB_054.pdf
485-D-HCA-RCKLN-CHICO_050.pdf
485-D-HCA-RCKLN-CHICO_051.pdf
485-D-HCA-RCKLN-CHICO_052.pdf
485-D-HCA-RCKLN-CHICO_053.pdf
485-D-HCA-RCKLN-CHICO_055.pdf
485-D-HCA-RCKLN-CHICO_056.pdf
485-D-HCA-RCKLN-CHICO_057.pdf
485-D-HCA-RCKLN-CHICO_058.pdf
485-D-HCA-RCKLN-CHICO_059.pdf
485-D-HCA-RCKLN-CHICO_060.pdf
485-D-HCA-RCKLN-CHICO_061.pdf
485-D-HCA-RCKLN-RENO_062.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CNCRD-FRSN_012	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_013	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_014	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_015	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_016	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_017	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_018	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_019	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_020	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_021	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_022	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_023	LS-16; CONCORD - SAN JOSE 10"
D-HCA-RCHMND-BRISBANE_024	LS-104; CHEVRON REFINERY #2 - RICHMOND 10" LS-36/42 Combined LS-37; AMORCO - RICHMOND 12" LS-44/41; RICHMOND - BRISBANE 8/10" LS-69; CHEV REFINERY #1 - RICHMOND 8" LS-71; LS 85 - RICHMOND 8" LS-74; RICHMOND - ARCO 8" LS-75; IMTT / TIME - RICHMOND 8" LS-76; TIME OIL - LS-75/76 JCT. 3" LS-76; TIME OIL - LS-75/76 JCT. 8" LS-8; RICHMOND - CONCORD 8" LS-89; ARCO - LS-71 8" LS-99; CHEVRON REFINERY #3 - RICHMOND 10"
D-HCA-RCHMND-BRISBANE_025	LS-36/42 Combined LS-44/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_026	LS-36/42 Combined LS-44/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_027	LS-36/42 Combined LS-38; BRISBANE - SF AIRPORT JCT. 12" LS-44/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-CNCRD_028	LS-37; AMORCO - RICHMOND 12" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8"
D-HCA-CONCORD_029	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-103C; SOUTH CARQUINEZ - MOCOCO JCT. 10" LS-130A; CONCORD-WATERFRONT 20" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-37; AMORCO - RICHMOND 12" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSW,FRSN_030	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSW,FRSN_031	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_032	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_033	LS-43; STOCKTON - BP WEST 8" LS-45A; ROUGH & READY JCT - SHELL 8" LS-45B; ROUGH & READY JCT - ST SERVICES 8" LS-45C; STOCKTON - ROUGH & READY JCT 8/6" LS-82; STOCKTON JCT - STOCK TERM 8/10" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_034	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_035	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_036	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_037	LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_038	LS-28; SACRAMENTO - ROCKLIN 12" LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-ROCKLN_039	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-130D; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-ROCKLN_040	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" REDUCER - SUISUN JCT 8"
D-HCA-CNCRD-ROCKLN_041	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_042	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_043	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCKLN_044	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-28; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCKLN_045	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-28; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCKLN_046	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-28; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-CHICO_047	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-28; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-CHICO_048	LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-CHICO_049	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-ROCKLN-CHICO_050	LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-CHICO_051	LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-CHICO_052	LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-CHICO_053	LS-64; ROCKLIN - CHICO 8"
D-HCA-ERLJCT-BEALE-AFB_054	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-ROCKLN-RENO_055	LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-16; CONCORD - SAN JOSE 10" LS-28; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-ROCKLN-RENO_056	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10"
D-HCA-ROCKLN-RENO_057	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6"
D-HCA-ROCKLN-RENO_058	LS-11; CLIPPER GAP - COLFAX 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_059	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_060	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_061	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_062	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_063	LS-12/13; WOODCHOPPER - REDUCER 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-ROCKLN-RENO_064	LS-12/13; WOODCHOPPER - REDUCER 10"
D-HCA-ROCKLN-RENO_065	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X8 REDUCER - RENO 8"
D-HCA-ROCKLN-RENO_066	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X8 REDUCER - RENO 8" LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_067	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_068	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_069	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_070	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_071	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_072	LS-55; RENO - FALLON NAS 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

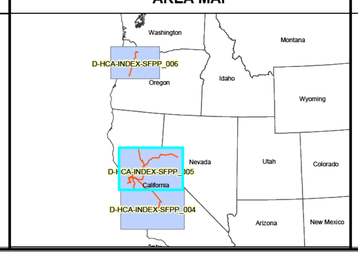
Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: **03/28/2012**	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_005**	

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Sacramento Area Lines:	
• Brentwood Junction - Bradshaw 10”	9
• Sacramento - Rocklin 12”	20
• Sacramento – Sacramento River Junction 10”	28
• Sacramento - Arco 10”	29
• Sacramento - Arco 10”	31
• Sacramento - Shell 10”	34
• Sacramento - Shell 10”	35
• Hay Road - Sacramento 20”	130
Bradshaw Area Lines:	
• Bradshaw - Mather 4”	57
Pipeline Facilities (Non-Storage)	
• Brentwood Junction - piping manifold only	
• Sacramento River Junction - piping manifold only	
• Sacramento Shell Terminal - manifold	
• Mather Airport - meter station only	

- Figures 6.1a thru 6.1m on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

BRENTWOOD JUNCTION – BRADSHAW 10" (9)

Pipe and Operational Data

- Section Length: 65.13 Miles 343,865 Feet
- Line Diameter: 10.75 in., O.D. 10.25 in., I.D. (note 1)
- Line Capacity: 539 bbls/mile (note 2)
- Product types: CARB ULSD, Gas, JP-5, Ethanol
- Capacity of entire line section: (b) (7)(F),
- Maximum flow rate: 4,250 bph or 102,000 bpd

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

- County(s)/State(s) Traversed: San Joaquin and Sacramento, CA
- Location Description: From Brentwood Junction east across the Old, Middle and San Joaquin Rivers to northwest edge of Stockton, then north generally adjacent to Highway 99, across the Mokelumne River, to the Bradshaw Terminal.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

[redacted]

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

SACRAMENTO – ANTELOPE ROAD 12" (20)		
Pipe and Operational Data		
• Section Length:	11.92 Miles	62,927 Feet
• Line Diameter:	12.75 in., O.D.	12.25 in., I.D. (note 1)
• Line Capacity:	770 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	6,000 bph or 144,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Yolo, Sacramento, CA	
• Location Description:	From Sacramento Station north through old Sacramento, east across the Sacramento River through north Sacramento, across the American River, then generally northeast along Roseville Road to Antelope Road.	

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

SACRAMENTO – SACRAMENTO RIVER JUNCTION 10" (28)	
Pipe and Operational Data	
● Section Length:	0.52 Miles 2,766 Feet
● Line Diameter:	10.75 in., O.D. 10.312 in., I.D. (note 1)
● Line Capacity:	545 bbls/mile (note 2)
● Capacity of entire line section:	[redacted] (b) (7) (F) (b)
● Maximum flow rate:	7,000 bph or 168,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
● County(s)/State(s) Traversed:	Yolo, Sacramento, CA
● Location Description:	From Sacramento Station east across the Sacramento River to a pipeline connection with Tosco.

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

SACRAMENTO – ARCO 10" (29)		
Pipe and Operational Data		
• Section Length:	0.13 Miles	670 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	7,000 bph or 168,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Yolo, CA	
• Location Description:	From Sacramento Station south to the adjacent Arco Terminal	

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

SACRAMENTO – ARCO 10" (31)	
Pipe and Operational Data	
● Section Length:	0.15 Miles 792 Feet
● Line Diameter:	10.75 in., O.D. 10.02 in., I.D. (note 1)
● Line Capacity:	515 bbls/mile (note 2)
● Capacity of entire line section:	(b) (7) (F) (b)
● Maximum flow rate:	7,000 bph or 168,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
● County(s)/State(s) Traversed:	Yolo, CA
● Location Description:	From Sacramento Station south to the adjacent Arco Terminal.

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

SACRAMENTO – SHELL 10" (34)		
Pipe and Operational Data		
• Section Length:	0.18 Miles	935 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	7,000 bph or 168,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Yolo, CA	
• Location Description:	From Sacramento Station north along the west edge of the Sacramento River to the Shell Terminal.	

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

SACRAMENTO – SHELL 10" (35)

Pipe and Operational Data

• Section Length:	0.18 Miles	951 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	7,000 bph or 168,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

• County(s)/State(s) Traversed:	Yolo, CA
• Location Description:	From Sacramento Station north along the west edge of the Sacramento River to the Shell Terminal.

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

HAY ROAD – SACRAMENTO 20" (130)	
Pipe and Operational Data	
• Section Length:	35.05 Miles 185,063 Feet
• Line Diameter:	20.00 in., O.D. 19.250 in., I.D. (note 1)
• Line Capacity:	2,113 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7)(F),
• Maximum flow rate:	8,333 bph or 200,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	Solano, Yolo, CA
• Location Description:	From Hay Road near Vacaville generally northeast adjacent to I-80 to West Sacramento.

FIGURE 6.1m

PIPELINE SECTION INFORMATION SUMMARY

BRADSHAW – MATHER 4" (57)		
Pipe and Operational Data		
• Section Length:	2.64 Miles	13,949 Feet
• Line Diameter:	4.50 in., O.D.	4.026 in., I.D. (note 1)
• Line Capacity:	83 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	420 bph or 10,080 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Sacramento, CA	
• Location Description:	From Bradshaw Terminal south to Old Placerville Road then east to Mather Airport facilities.	

FIGURE 6.2

HCA INDEX

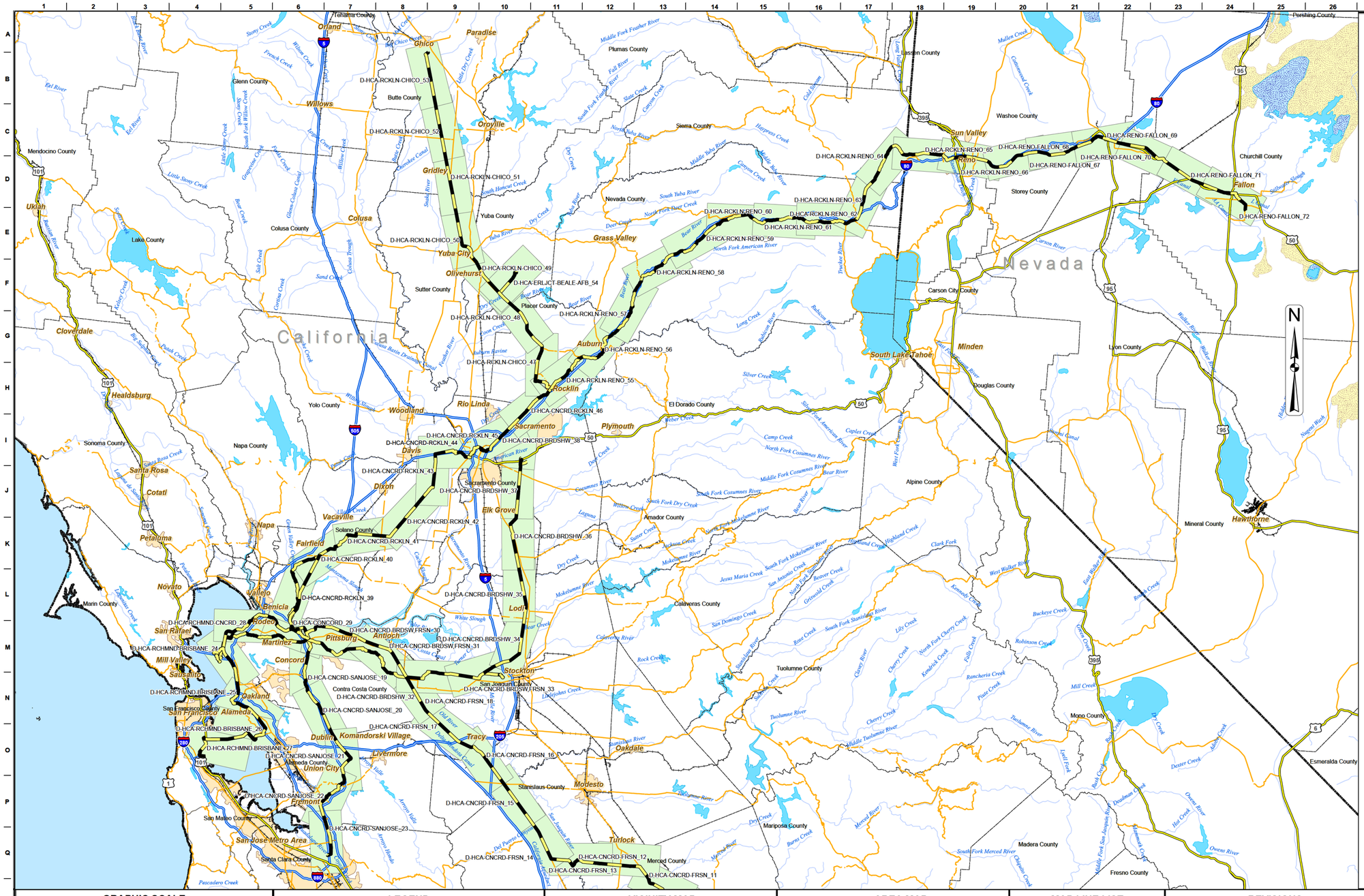
Refer to Figure 6.1a through Figure 6.1m for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_005.pdf
485-D-HCA-CNCRD-RCKLN_042.pdf
485-D-HCA-CNCRD-RCKLN_043.pdf
485-D-HCA-CNCRD-RCKLN_044.pdf
485-D-HCA-CNCRD-RCKLN_045.pdf
485-D-HCA-CNCRD-RCKLN_046.pdf
485-D-HCA-CNCRD-BRDSHW_031.pdf
485-D-HCA-CNCRD-BRDSHW_032.pdf
485-D-HCA-CNCRD-BRDSHW_033.pdf
485-D-HCA-CNCRD-BRDSHW_034.pdf
485-D-HCA-CNCRD-BRDSHW_035.pdf
485-D-HCA-CNCRD-BRDSHW_036.pdf
485-D-HCA-CNCRD-BRDSHW_037.pdf
485-D-HCA-CNCRD-BRDSHW_038.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CNCRD-FRSN_012	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_013	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_014	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_015	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_016	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_017	LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_018	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_019	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-SANJOSE_020	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_021	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_022	LS-16; CONCORD - SAN JOSE 10"
D-HCA-CNCRD-SANJOSE_023	LS-16; CONCORD - SAN JOSE 10"
D-HCA-RCHMND-BRISBANE_024	LS-104; CHEVRON REFINERY #2 - RICHMOND 10" LS-36/42 Combined LS-37; AMORCO - RICHMOND 12" LS-46/41; RICHMOND - BRISBANE 8/10" LS-69; CHEV REFINERY #1 - RICHMOND 8" LS-71; LS 85 - RICHMOND 8" LS-74; RICHMOND - ARCO 8" LS-75; IMTT / TIME - RICHMOND 8" LS-76; TIME OIL - LS-75/76 JCT. 3" LS-76; TIME OIL - LS-75/76 JCT. 8" LS-8; RICHMOND - CONCORD 8" LS-89; ARCO - LS-71 8" LS-99; CHEVRON REFINERY #3 - RICHMOND 10"
D-HCA-RCHMND-BRISBANE_025	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_026	LS-36/42 Combined LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-BRISBANE_027	LS-36/42 Combined LS-38; BRISBANE - SF AIRPORT JCT. 12" LS-46/41; RICHMOND - BRISBANE 8/10"
D-HCA-RCHMND-CNCRD_028	LS-37; AMORCO - RICHMOND 12" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8"
D-HCA-CONCORD_029	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-103C; SOUTH CARQUINEZ - MOCOCO JCT. 10" LS-130A; CONCORD-WATERFRONT 20" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-37; AMORCO - RICHMOND 12" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-BRDSW,FRSN_030	LS-130A; CONCORD-WATERFRONT 20" LS-16; CONCORD - SAN JOSE 10" LS-27; MARTINEZ - CONCORD 12" LS-33; MOCOCO JCT - CONCORD 12" LS-47; CONCORD - 8" X 10" REDUCER 8" LS-72; RODEO - CONCORD 8" LS-8; RICHMOND - CONCORD 8" LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSW,FRSN_031	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_032	LS-9; CONCORD - BRADSHAW 10" LS-905092; CONCORD - FRESNO 12"
D-HCA-CNCRD-BRDSHW_033	LS-43; STOCKTON - BP WEST 8" LS-45A; ROUGH & READY JCT - SHELL 8" LS-45B; ROUGH & READY JCT - ST SERVICES 8" LS-45C; STOCKTON - ROUGH & READY JCT 8/6" LS-82; STOCKTON JCT - STOCK TERM 8/10" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_034	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_035	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_036	LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_037	LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-BRDSHW_038	LS-28; SACRAMENTO - ROCKLIN 12" LS-57A; BRADSHAW - MATHER AIRPORT 4" LS-9; CONCORD - BRADSHAW 10"
D-HCA-CNCRD-ROCLN_039	LS-103A; VALERO - N CARQUINEZ 10" LS-103B; CARQUINEZ CROSSING 12" LS-130B; WATERFRONT LAUNCHER - N. CARQUINEZ 14" LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" RED - 8" X 10" REDUCER 10" LS-47; 8" X 10" REDUCER - SUISUN JCT 8" LS-95; VALERO - AMORCO 10"
D-HCA-CNCRD-ROCLN_040	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-47; 8" X 10" REDUCER - SUISUN JCT 8"
D-HCA-CNCRD-ROCLN_041	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCLN_042	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCLN_043	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20"
D-HCA-CNCRD-ROCLN_044	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCLN_045	LS-130C; NORTH CARQUINEZ-SACRAMENTO 20" LS-20; SACRAMENTO - ROCKLIN 12" LS-28; SACRAMENTO - SACRAMENTO RIVER JCT 10" LS-29; SACRAMENTO - ARCO #1 10" LS-31A; SACRAMENTO - ARCO #2 10" LS-34; SACRAMENTO - SHELL #1 10" LS-35; SACRAMENTO - SHELL #2 10"
D-HCA-CNCRD-ROCLN_046	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_047	LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_048	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_049	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-CHICO_050	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_051	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_052	LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-CHICO_053	LS-64; ROCKLIN - CHICO 8"
D-HCA-ERLJCT-BEALE-AFB_054	LS-64; ROCKLIN - CHICO 8" LS-65; ERLE JCT - BEALE AFB 6"
D-HCA-RCKLN-RENO_055	LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10" LS-20; SACRAMENTO - ROCKLIN 12" LS-48; LAUNCHER - UPRR 8" LS-48; ROCKLIN STN - LAUNCHER 4"/8" LS-64; ROCKLIN - CHICO 8"
D-HCA-RCKLN-RENO_056	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6" LS-11; ROCKLIN - NEW CASTLE 6/10"
D-HCA-RCKLN-RENO_057	LS-11; CLIPPER GAP - COLFAX 10" LS-11; NEW CASTLE - CLIPPER GAP 6"
D-HCA-RCKLN-RENO_058	LS-11; CLIPPER GAP - COLFAX 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_059	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_060	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_061	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_062	LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_063	LS-12/13; WOODCHOPPER - REDUCER 10" LS-12; COLFAX - WOODCHOPPER 8"
D-HCA-RCKLN-RENO_064	LS-12/13; WOODCHOPPER - REDUCER 10"
D-HCA-RCKLN-RENO_065	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6"
D-HCA-RCKLN-RENO_066	LS-12/13; WOODCHOPPER - REDUCER 10" LS-13; 10X6 REDUCER - RENO 6" LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_067	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_068	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_069	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_070	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_071	LS-55; RENO - FALLON NAS 6"
D-HCA-RENO-FALLON_072	LS-55; RENO - FALLON NAS 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

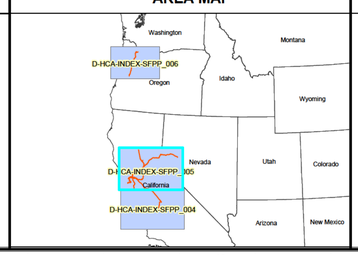
Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS HIGH CONSEQUENCE AREA (HCA) INDEX MAP PACIFIC REGION

Date: **03/28/2012**	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_005**	

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION/TERMINAL	LARGEST TANK (BBLS)	WCD (BBLS)
Reno Terminal (Tank R-21)	(b) (7)(F), (b) (3)	

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3) [redacted]

  - The tanks in the breakout station/terminal within this area have adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station/terminal)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other sections of this Volume 2.

FIGURE 7.1

RENO AREA
BREAKOUT TERMINAL TANK INFORMATION SUMMARY
(Note: EPA-Jurisdictional Tanks not Listed)

RENO TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
R-10	Transmix	(b) (7)(F), (b) (3)		
R-12	Transmix			
R-21	JP-8			
R-36	JP-8			
R-37	JP-8			
LOCATION DESCRIPTION				
• County/State	Washoe, NV			
• Location	Reno Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: Reno Terminal is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for Reno Terminal required by EPA is located in Section 8 of this Volume.

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Beale Breakout Station	(b) (7)(F), (b) (3)	
Rocklin Breakout Station		
Chico Terminal		

- The largest Worst Case Discharge (WCD) for the breakout stations within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout station within this area have adequate secondary containment.

- The specific information summary for these breakout stations is provided as follows:

  - Breakout Station Tank Information Summary (one per station)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume.

FIGURE 7.1a

CHICO ROCKLIN AREA
BREAKOUT STATION TANK INFORMATION SUMMARY

BEALE BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Beale Breakout Station:				
BE-1	Jet Fuel	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	Yuba, CA			
• Location	Beale Breakout Station			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

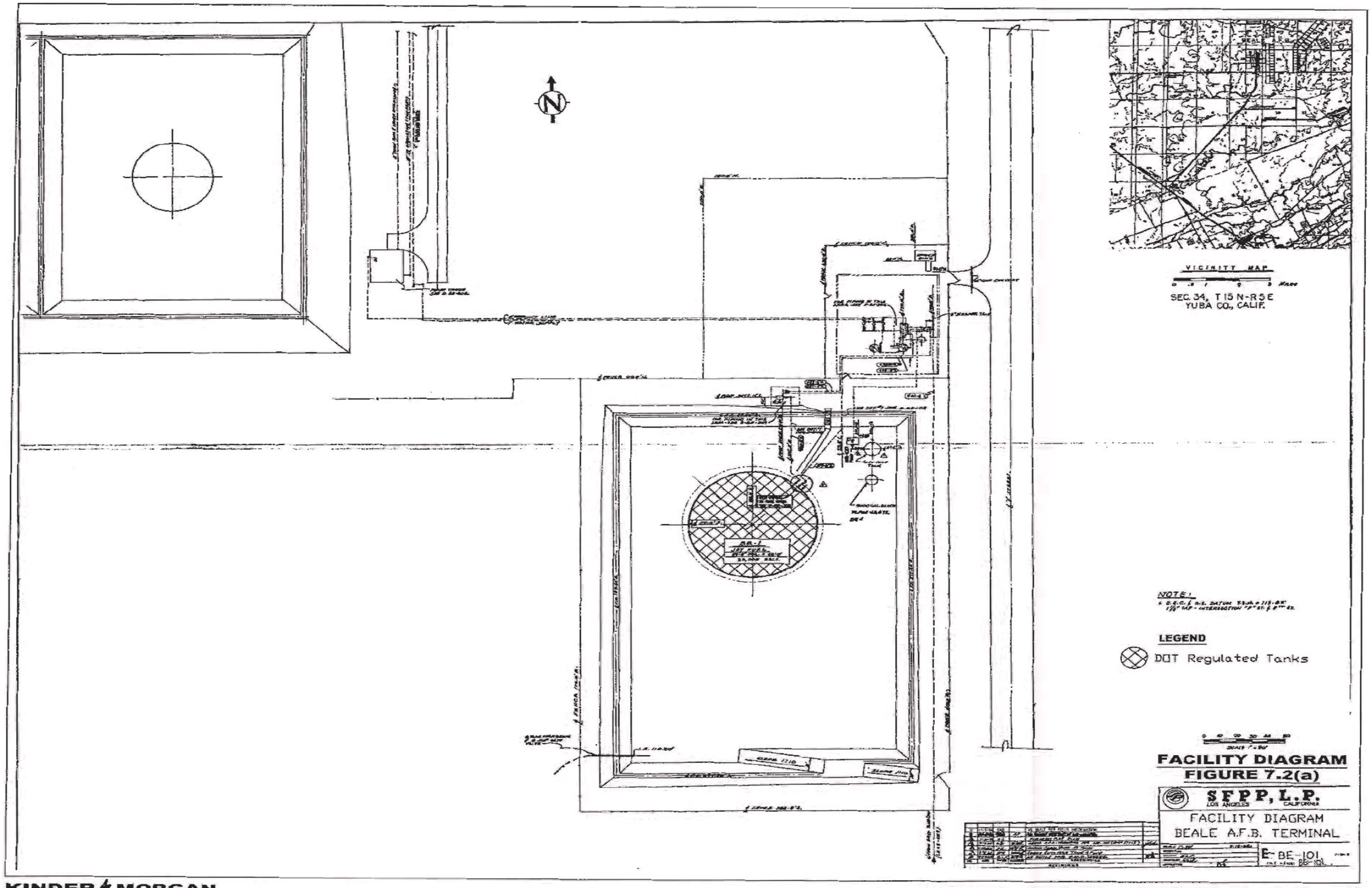

VICINITY MAP
SEC. 34, T 15 N-R 5 E
YUBA CO., CALIF.
NOTE:
LEGEND
DOT Regulated Tanks
FACILITY DIAGRAM
FIGURE 7.2(a)
SFPP, L.P.
LOS ANGELES CALIFORNIA
FACILITY DIAGRAM
BEALE A.F.B. TERMINAL
BE-101

FIGURE 7.1b

CHICO ROCKLIN AREA
BREAKOUT STATION TANK INFORMATION SUMMARY

ROCKLIN BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Rocklin Breakout Station				
RO-1	Diesel	(b) (7)(F), (b) (3)		
RO-2	Diesel			
RO-4	Transmix			
RO-5	Gasoline			
RO-6	Gasoline			
RO-7	Transmix (relief tank)			
RO-8	Gasoline			
RO-9	Gasoline			
RO-10	Diesel			
RO-11	Gasoline			
RO-12	Diesel			
LOCATION DESCRIPTION				
• County/State	Placer, CA			
• Location	Rocklin Breakout Station			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2b

FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

FIGURE 7.1c

CHICO ROCKLIN AREA
BREAKOUT STATION TANK INFORMATION SUMMARY

CHICO TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Chico Terminal:		(b) (7)(F), (b) (3)		
CH-18	Transmix			
CH-19	Transmix			

LOCATION DESCRIPTION	
• County/State	Butte County, CA
• Location	Chico Terminal

WORST CASE DISCHARGE
(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: This Facility is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION/TERMINAL	LARGEST TANK (BBLS)	WCD (BBLS)
Bradshaw Terminal	(b) (7)(F), (b) (3)	
Sacramento Station		
Stockton Terminal		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout stations/terminals within this area have adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station/ terminal)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other sections of this Volume 2.

FIGURE 7.1a

SACRAMENTO AREA
BREAKOUT TERMINAL TANK INFORMATION SUMMARY
(Note: EPA-Jurisdictional Tanks Not Listed)

BRADSHAW BREAKOUT TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Bradshaw Terminal:		(b) (7)(F), (b) (3)		
B-03	Turbine			
B-09	Transmix			
LOCATION DESCRIPTION				
• County/State	Sacramento, CA			
• Location	Bradshaw Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: Bradshaw Terminal is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for Bradshaw Terminal required by EPA is located in Section 8 of this Volume.

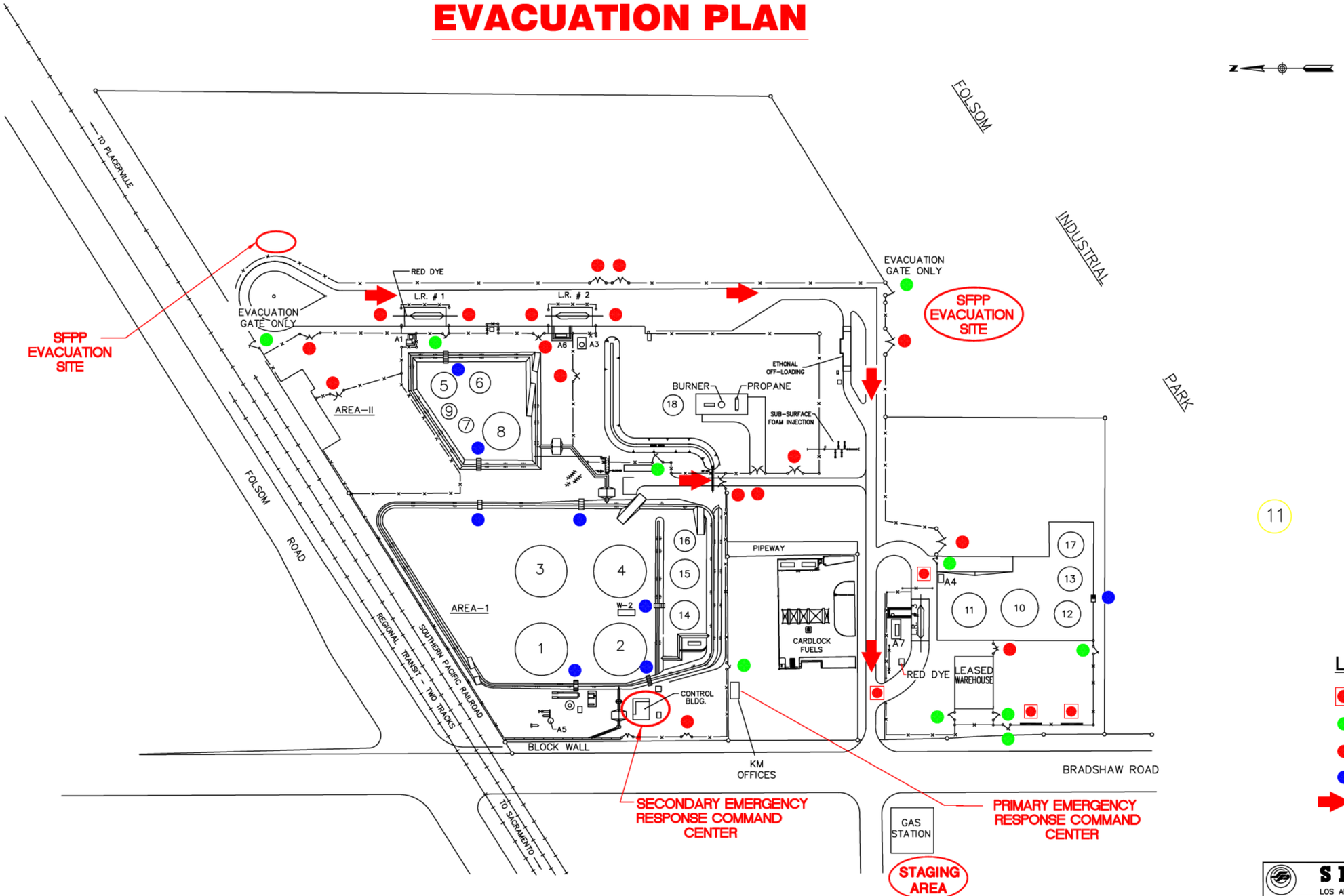
FIGURE 7.2a

FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

EVACUATION PLAN



11

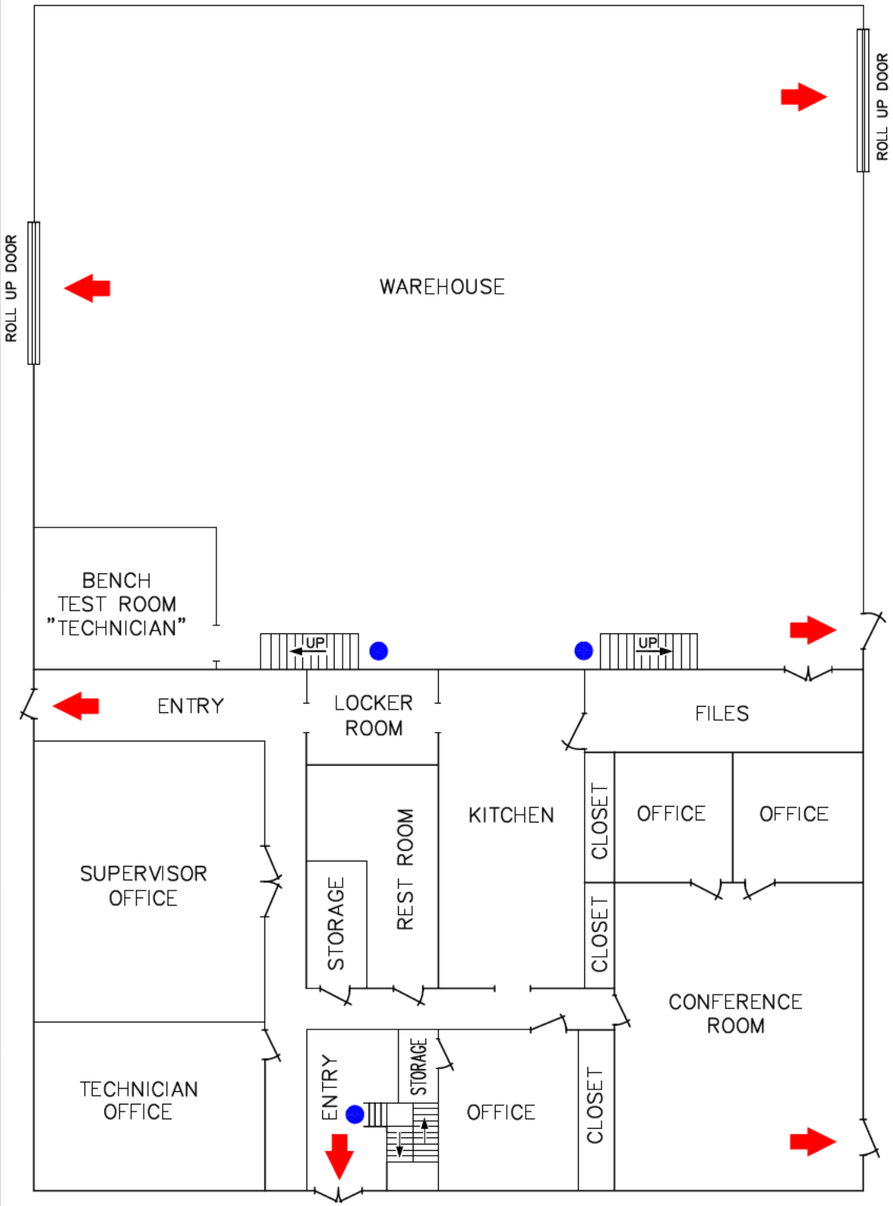
LEGEND:

- SLIDING GATE
- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

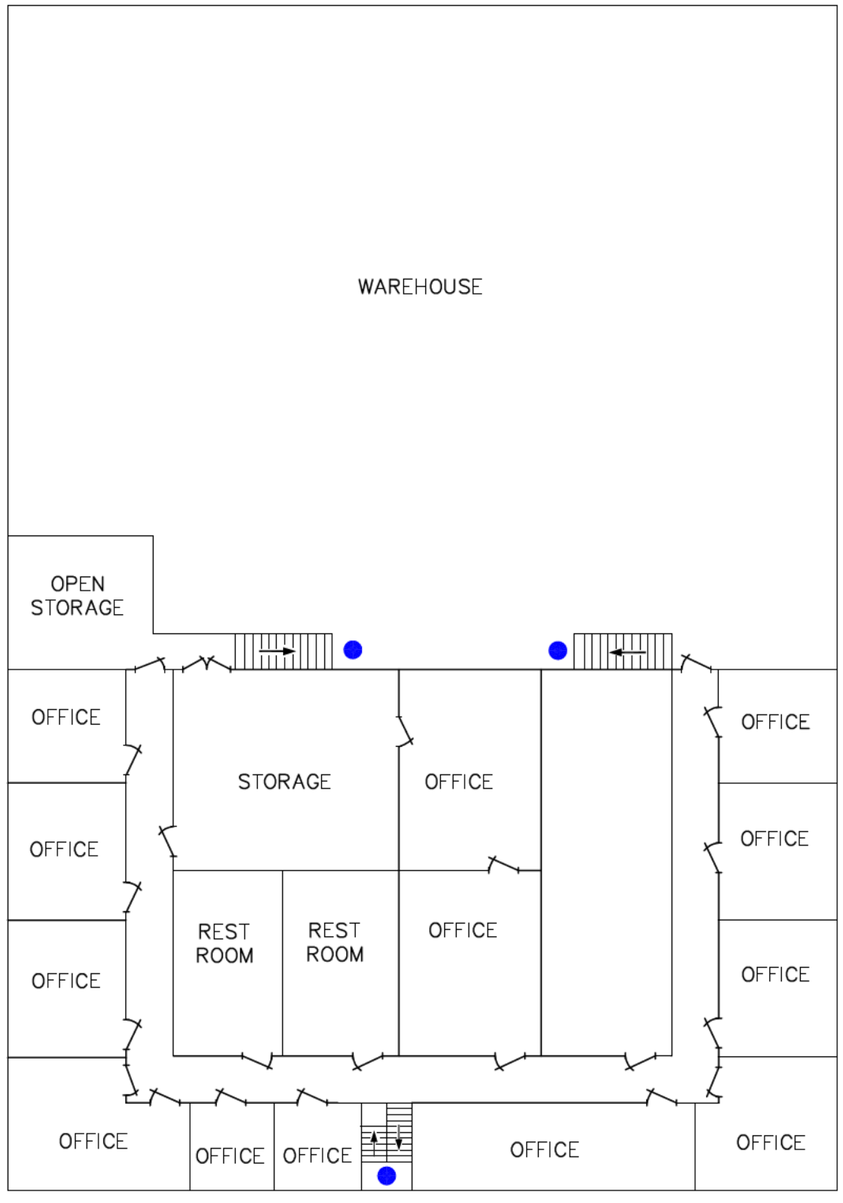
SFPP, L.P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
BRADSHAW TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC–BR	DESIGN SUPT	EVAC–BR
BY: SUN	MGR. SAFETY	
DATE: 2/21/07	AREA SUPR.	



FIRST FLOOR



SECOND FLOOR

LEGEND

- STAIRS
- MAIN EXITS

BRADSHAW WAREHOUSE

BRADSHAW ROAD

SFPP, L.P.
ORANGE CALIFORNIA

EVAC. DIAGRAM (WAREHOUSE)
BRADSHAW TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-BRWH	DESIGN SUPV	EVAC-BRW
BY: DR	MGR. SAFETY	
DATE: 12-10-97	AREA SUPR.	

FIGURE 7.1b

SACRAMENTO AREA
BREAKOUT STATION TANK INFORMATION SUMMARY

SACRAMENTO BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Sacramento Breakout Station:				
SA-1	Transmix (relief tank)	(b) (7)(F), (b) (3) [redacted]		
LOCATION DESCRIPTION				
• County/State Yolo, CA • Location Sacramento Breakout Stations				
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3) [redacted]				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2b

FACILITY DIAGRAMS

SACRAMENTO NORTHERN RAILROAD

N. 23°04'40"-E. 118.19'
5' SEWER EASEMENT

WAREHOUSE

N.66°55'20"W 120.00'

N. 23°04'40"-E 440.70'

R=266.57'
Δ=23°16'21"
L=108.28'

SHELL OIL CO
SPUR

S. 72° 35' 00" E. 194.74'
10' WIDE NON-EXCLUSIVE ROAD EASEMENT

10'

10.60'

N. 17° 25' 00" W. 1003.00'

42.43'

12" TO ROCKLIN
Line Section 20

4.5'

10" — TO BRADSHAW
L.S. 24, SW. 19

10" TO SACRAMENTO RIVER JUNCTION
L.S. 28 SHEET 1

USED
TRUE
N
Z
35° 54'

PAVED PARKING AREA

LS. 25 1/4" FROM CONCORD

0' SEWER EASEMENT

N. 66° 55' 20" W 208.31'

10" SIGNAL - DSL.
L.S. 25, SW. 1

10" SIGNAL - GAS
L.S. 28, SW. 1

0.00'-N

0.00'-W

INV 295
8-6" PIPES

SA-1
CONTAIN

U.S. FILTER

24" SCRAPER TRAP
107.1" W.

FE-206
METER

BOOSTER PUMP

DRA SKID

METER PROVER

SAMPLING SHELTER

SUMP

TEE'S AT MANIFOLD

CONTROL BLDG

WALKWAY

ELECTRICAL BUILDING

SWITCHGEAR ENCLOSURE

12" TO ROCKLIN
LINE SECTION 20

10" TO BRADSHAW

10" TO SACRAMENTO TK. FARM

10" TO EAST BANK MANIFOLD

20" FROM CONCORD
LINE SECTION 130

S. 36° 58' 00" W 618.80'

SOUTH RIVER ROAD
N. 36° 58' 00" E 646.58'

1"=20' 20' 0' 20' 40'

NO.	DATE	REVISIONS	BY	CHECKED	DESIGN SUPRVSR
2	5/22/07	AS-BUILT PER AFE 15774 (07 PRESS. TEST MODIFY)	ENS	CLV	VFV
1	4/9/07	AS-BUILT PER AFE-29093 (CONTROL VALVE REPLACEMENT)	SUN	CLV	VFV
0	2/28/05	AS-BUILT PER W.O. 22611 & 23435 (CC TO SA P/L)	SUN	VFV	JCC

SFPP, L.P.
ORANGE CALIFORNIA

GENERAL LAYOUT

SACRAMENTO STATION

CADFILE: SA-101&TIF
VIEW
PLOT BY: MW
DATE: 8/26/05

SCALE: 1"=20'-0"

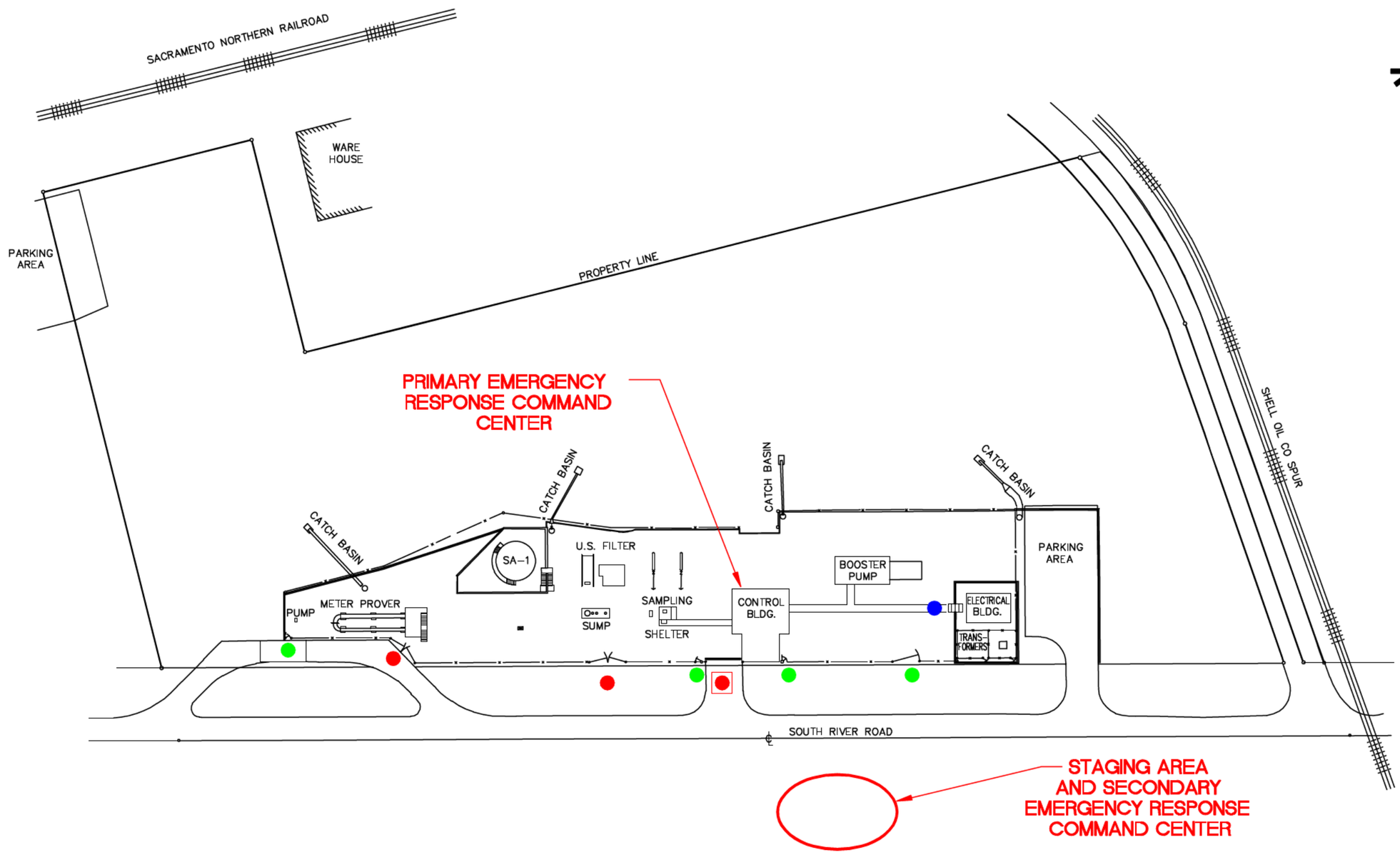
RECORD DRAWING NUMBER

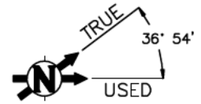
E-SA-101

MAY 14 2008 1:15 PM

(b) (7)(F), (b) (3)

EVACUATION PLAN





LEGEND:

- SINGLE GATE
- DOUBLE GATE
- SLIDING GATE
- STAIR/LADDER
- MAIN EXITS

SFPP, L.P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
SACRAMENTO STATION

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-SA	DESIGN SUPT	EVAC-SA
BY: AKC	MGR. SAFETY	
DATE: 4-10-95	AREA SUPR.	

FIGURE 7.1c

SACRAMENTO AREA
BREAKOUT STATION TANK INFORMATION SUMMARY

STOCKTON BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Stockton Breakout Station:				
SN-6	Transmix (relief tank)	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	San Joaquin, CA			
• Location	Stockton Breakout Stations			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

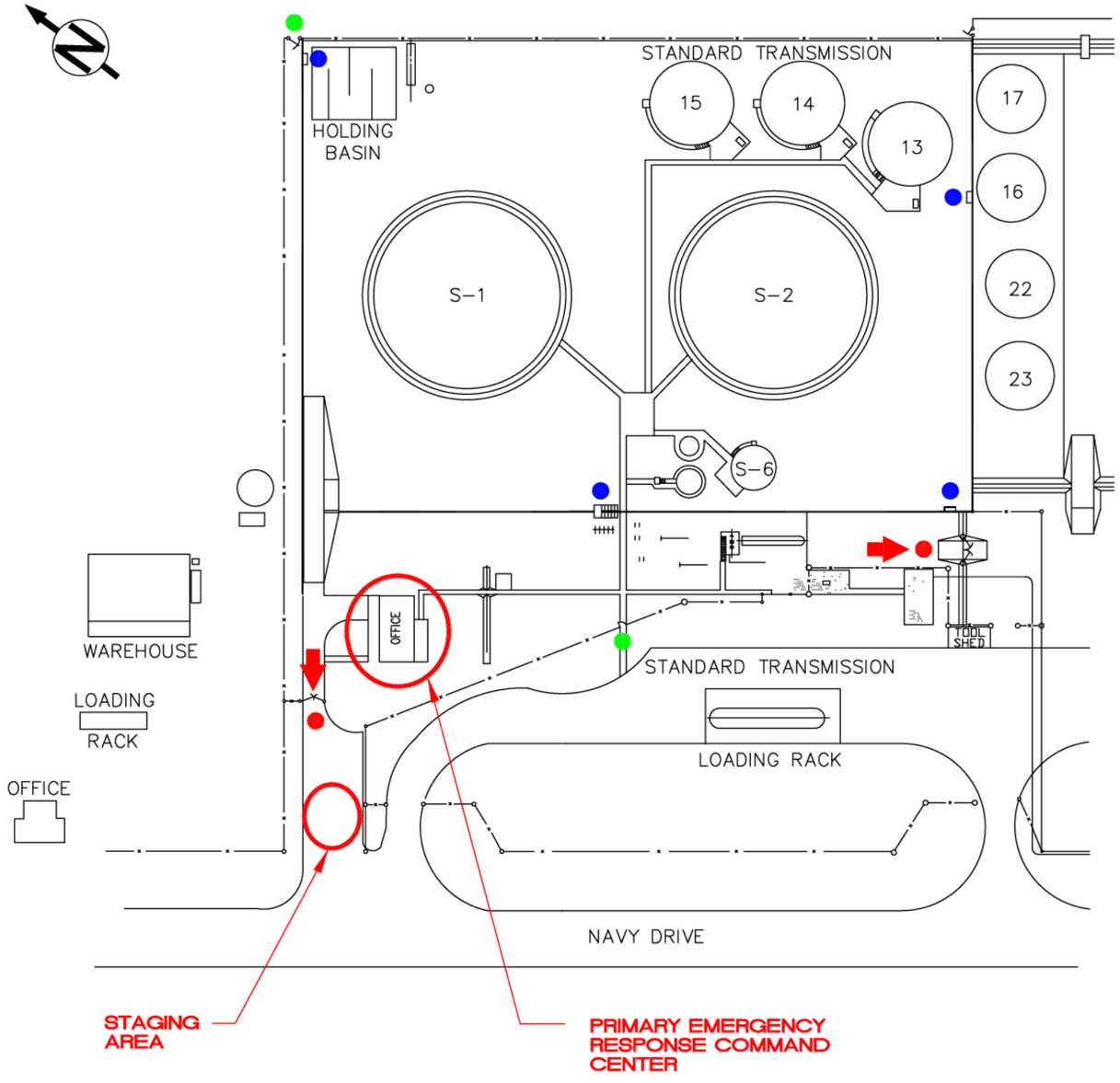
FIGURE 7.2c

FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

EVACUATION PLAN



LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

SFPP, L.P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
STOCKTON TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-SN	DESIGN SUPT	EVAC-SN
BY: AKC	MGR. SAFETY	
DATE: 4-6-95	AREA SUPR.	

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: SFPP, L.P. Bradshaw Terminal
FACILITY ADDRESS: 2901 Bradshaw Road
Sacramento, CA 95827

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 1.3)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes		No	✓
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes		No	✓
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.	Yes	✓	No	
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes	✓	No	
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?	Yes		No	✓

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

Kenneth W. Yeo
Signature

Area Manager
Title

Ken W. Yeo
Name (please type or print)

12/30/05
Date

NOTE: The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan. Response Management Associates, Inc. (RMA) provided consulting and plan development services in the preparation of this plan utilizing data provided by the owner/operator and/or the Facility. RMA assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. The product is transported out of the Facility by tanker trucks. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility and Figure 8.3 provides a Facility Diagram.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Bradshaw Terminal 2901 Bradshaw Road Sacramento, CA 95827 (916) 363-1666 (916) 369-9788 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0078
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	February 26, 1956
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.
FACILITY LOCATION	
County:	Sacramento County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than one mile
Landside Directions:	At the intersection of US Hwy 50 E and Bradshaw Road, travel north on Bradshaw Road by turning left. Proceed 0.42 miles to the Facility.
Waterside Directions:	There is no water access to this Facility.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Gasoline
- Ethanol
- Diesel
- Transmix
- Jet Fuel
- Commercial Turbine

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with three (3) loading racks which handle various refined petroleum products and one (1) off loading rack which handles ethanol and off-spec product.
- A maximum of six (6) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 150 trucks per day.

Loading Rate: 400 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - LOADING RACK (Cont'd)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in 1955-56. Three tanks with a maximum capacity of 5,838,000 gallons date from this initial period. The Facility expanded storage capacity by constructing three to four tanks about every three years. These tanks are situated in six separate areas at the Facility.

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates
(281) 320-9796

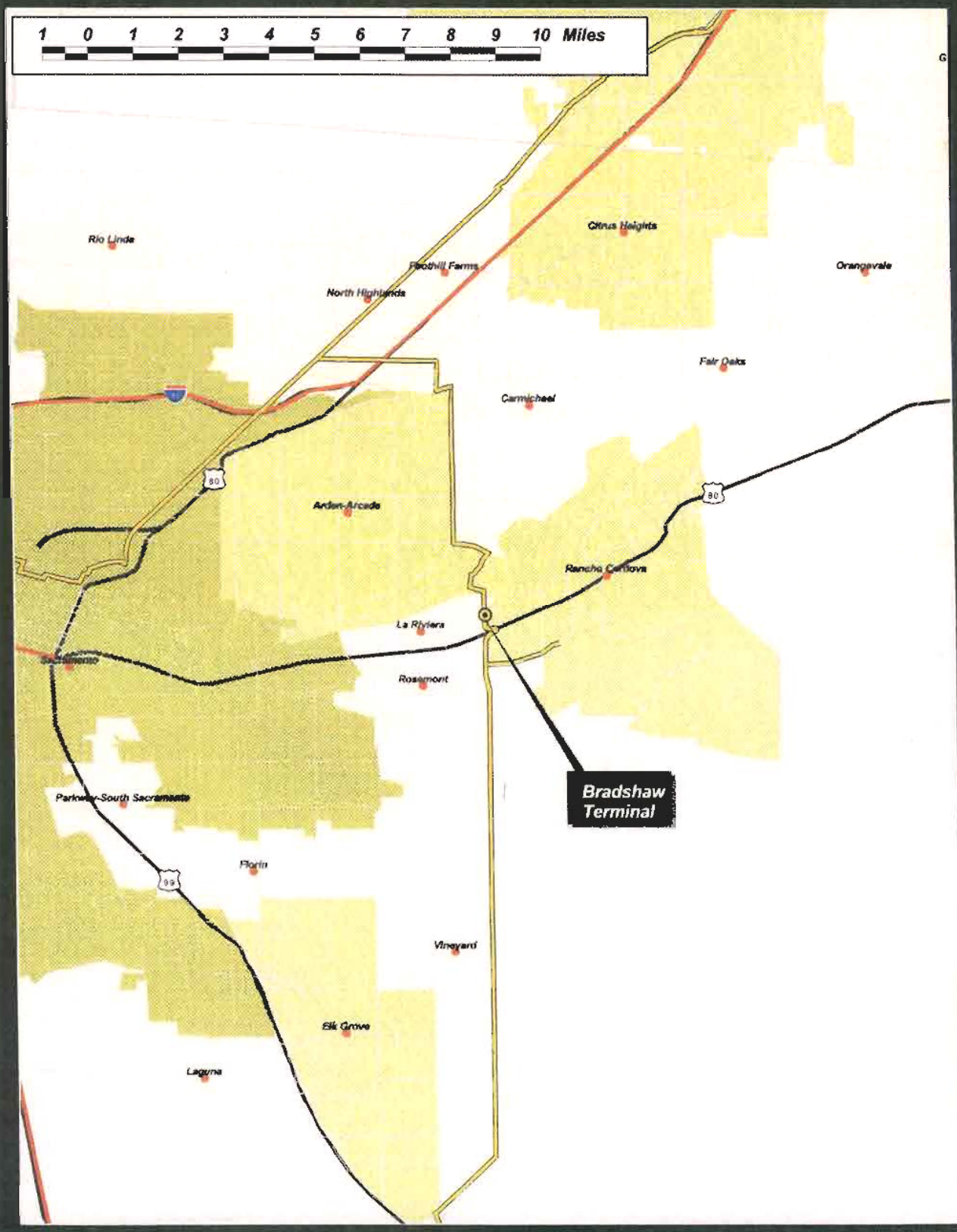


FIGURE 8.3

FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: SFPP, L.P. Chico Terminal
FACILITY ADDRESS: 2570 Hegan Lane
Chico, CA 95928-9598

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 1.3)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes		No	✓
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes		No	✓
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.	Yes	✓	No	
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes		No	✓
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?	Yes		No	✓

1 If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

2 For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

Kelly Johnson
Signature

Area Manager Operations Manager
Title

Frank L. Villalovos Kelly Johnson
Name (please type or print)

1-28-05
Date

NOTE: The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan. Response Management Associates, Inc. (RMA) provided consulting and plan development services in the preparation of this plan utilizing data provided by the owner/operator and/or the Facility. RMA assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

8.1.2 INTRODUCTION

The Facility is a bulk storage/distribution facility for refined petroleum products. The stored product arrives through the main Company pipeline to aboveground storage tanks, transfers to fueling racks through pipelines, and moves out of the Facility by tanker trucks. All tanker trucks are owned by others.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	SFPP, L.P.
Physical Address:	Chico Terminal 2570 Hegan Lane Chico, CA 95928-9598 (530) 342-6140 (530) 896-1834 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0085
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	February 26, 1964
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.
FACILITY LOCATION	
County:	Butte County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than .25 mile
Landside Directions:	At the intersection of State Hwy 99 N and E. Park Avenue. Take E. Park Avenue west by turning left to Midway for 1.16 miles. Take Midway to Hegan and turn right. The Facility will be on your right.
Waterside Directions:	There is no water access to this Facility.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- The Facility is a bulk storage/distribution facility for refined petroleum products. The stored product arrives through the main Company pipeline to aboveground storage tanks, transfers to fueling racks through pipelines, and moves out of the Facility by tanker trucks. All tanker trucks are owned by others.

- The aboveground storage tanks are contained in a bermed secondary containment area that, at a minimum, provides secondary containment for 110 percent of the largest tank. The tanks are filled or drawn down through a system of aboveground and underground pipes that connect this Facility into the Company distribution network.

(b) (7)(F), (b) (3)

- The Facility normally operates 24 hours a day 7 days a week.

- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3)

Products Handled:

- Ethanol
- Diesel
- Gasoline
- Transmix
- Additives

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with four (4) loading racks with seven (7) spots which handle various refined petroleum products.
- Additive unloading areas are located in each loading rack.
- A maximum of seven (7) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 200 trucks per day.

Loading Rate: 500 gpm (*per truck*)

Truck Capacity: 9,200 gallons (*maximum*)

Discharge Prevention:

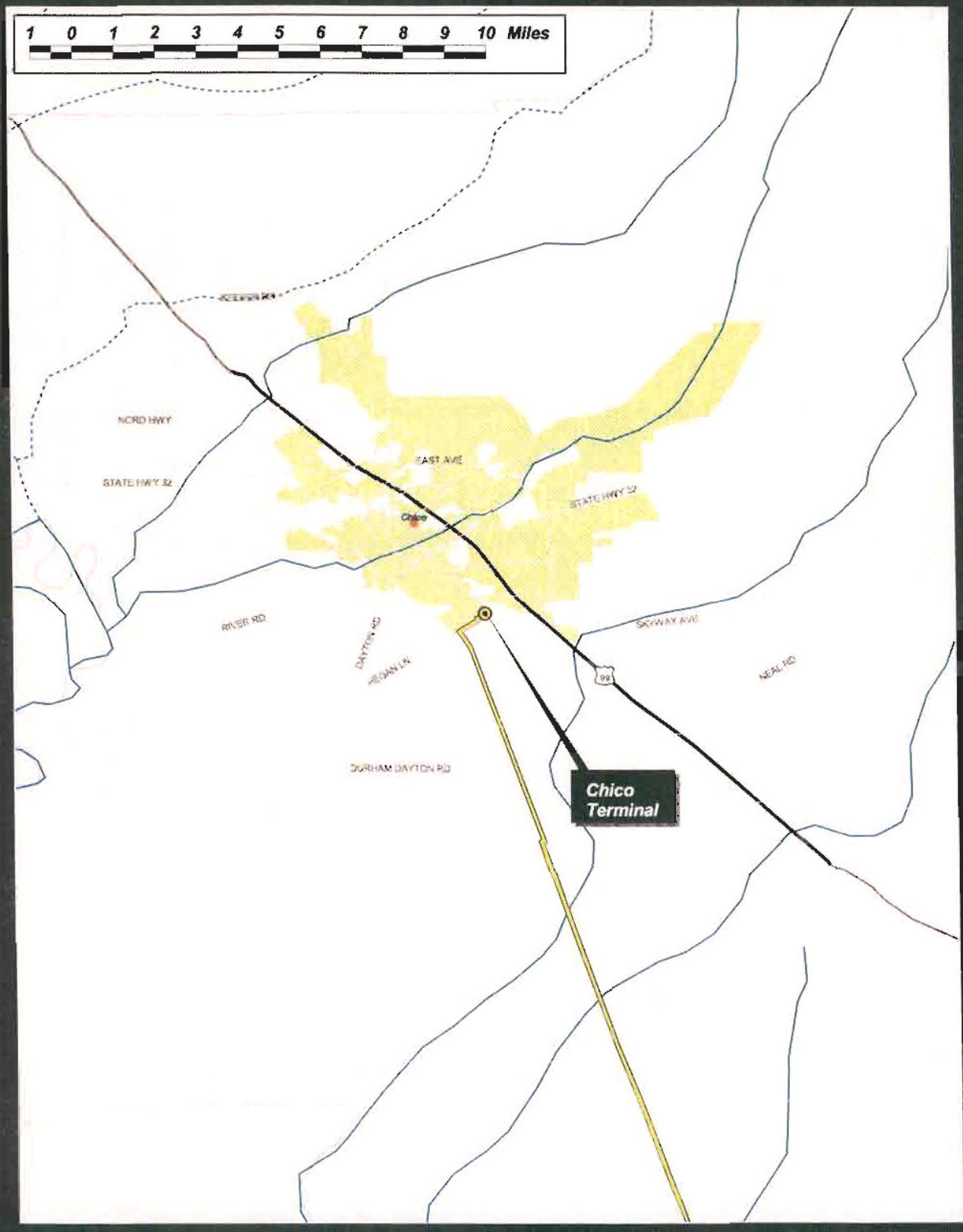
- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in the 1960's. The largest tank CH-8 has a maximum capacity of 1,260,000 gallons. In the 1970's tanks CH-30 thru 33 were added. Tank CH-32 was then the larger tank at 1,470,000 gallons. Two additional tanks were added in the 1980's - tanks CH-36 and CH-37 with maximum capacities of 2,520,000 and 1,680,000 gallons respectively.

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates
(281) 320-9796



(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: SFPP, L.P. Reno Terminal
301 Nugget Avenue
Sparks, NV 89431-5749

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: Gary Kulaszewski Date: 1/12/12

Gary Kulaszewski, Area Manager

8.1.2 INTRODUCTION

Description of Facility

This Facility is a bulk distribution facility for refined petroleum products. The Facility receives product via pipeline and additives via rail car and tank truck. Product is transported out of the Facility by tanker trucks, which are owned and operated by third parties, and via pipeline. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility and Figure 8.3 provides a Facility Diagram.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Reno Terminal 301 Nugget Avenue Sparks, NV 89431-5749 (775) 358-6971 *(24 Hrs)* (775) 358-7018 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0062
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	November 12, 1957
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.
FACILITY LOCATION	
County:	Washoe County, NV
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than one mile
Landside Directions:	At the intersection of I-80 and NV-445. Take NV-445 exit #18. Keep right at the fork in the ramp. Merge onto Pyramid Way 0.06 miles. Turn left onto Nugget Avenue and travel 0.36 miles to the Facility on the right.
Waterside Directions:	None

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk storage and distribution facility for refined petroleum products. The stored product arrives through the main Company pipeline to aboveground storage tanks, transfers to fueling racks through pipelines, and moves out of the Facility by tanker trucks. All tanker trucks are owned by others, as are some of the loading racks located on Company property.

- The aboveground storage tanks are contained in a bermed secondary containment area that, at a minimum, provides secondary containment for 110 percent of the largest tank. The tanks are filled or drawn down through a system of aboveground and underground pipes that connect this Facility into the Company distribution network.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.

- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Gasoline
- Diesel
- Jet Fuel
- Transmix
- Ethanol
- Turbine Fuel

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION – LOADING RACK

Description of Operation:

- The Facility is equipped with six (6) loading bays which handle various refined petroleum products.
- A maximum of six (6) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 60 trucks per day.

Loading Rate: 380 gpm (*per truck*)

Truck Capacity: 12,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

PHYSICAL DESCRIPTION - RAIL CAR UNLOADING AREA

Description of Operation:

- The Facility is equipped with three (3) rail car unloading spots for ethanol.
- The Facility is capable of handling six (6) tank cars per day depending on demand (seasonal).

Unloading Rate: 350 gpm *(typical)*

Railcar Capacity: 29,000 gallons

Discharge Prevention:

- Drip collection pans are positioned at each unloading spot.
- Unloading events are only performed by qualified Company personnel.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in 1957-59. Tanks R-1 thru R-31 were in place in 1959 with a maximum capacity of 1,260,000 gallons for at least four tanks. The Facility expanded storage capacity by constructing two more tanks in 1960 and 1963. Tanks R-33 thru R-36 were added during the 1970's with R-36 having the largest capacity of 1,209,264 gallons. Tank R-37 with a maximum capacity of 1,216,866 gallons, was built in 1980.
- Rail Car Unloading facility purchased in 2010.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

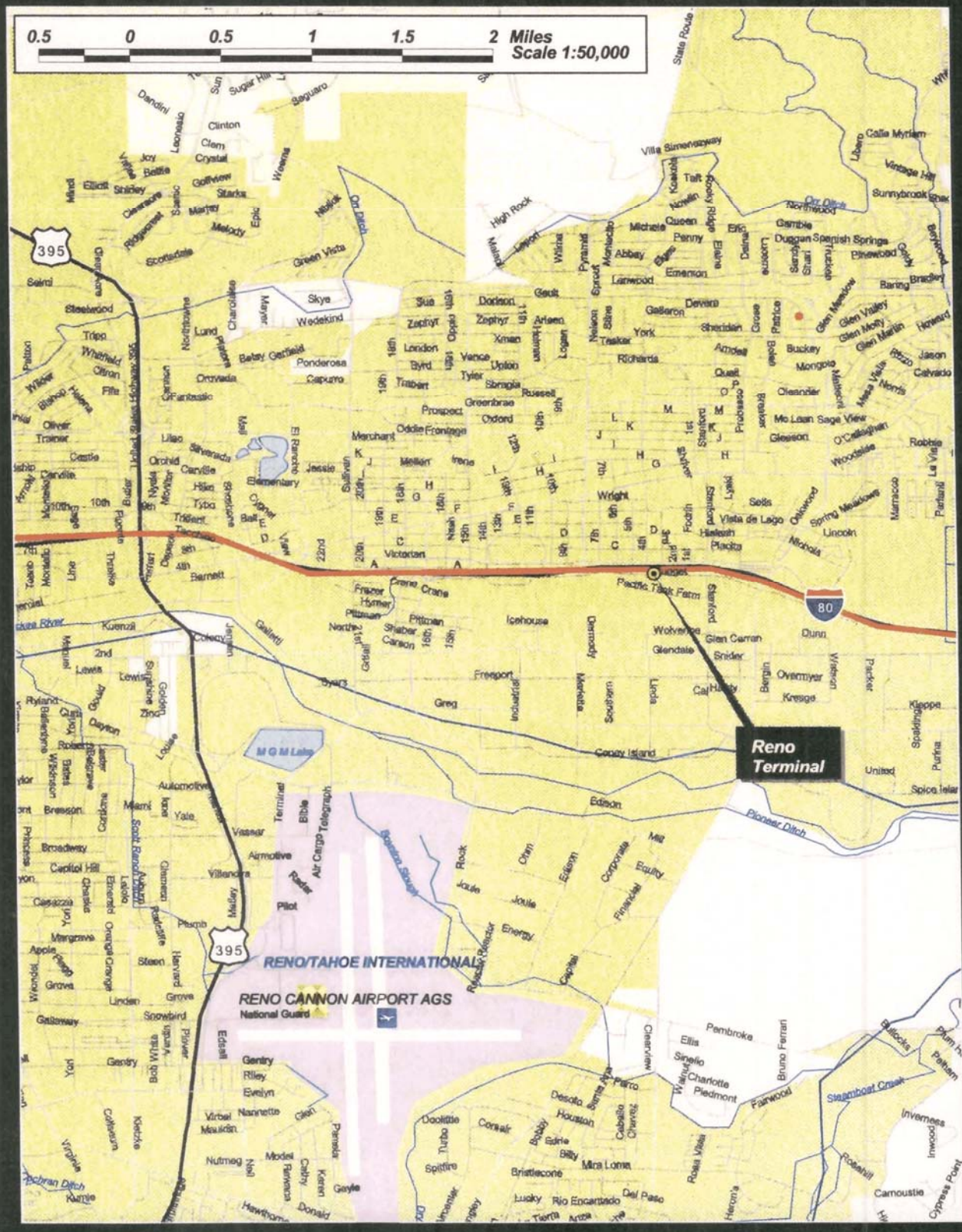
FACILITY MAPS AND DIAGRAMS

Figures presented on the following pages include:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout
- Figure 8.4 – Fire Protection Diagrams

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates
(281) 320-9796



(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed on the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System

Main Loading/Unloading Rack

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the loading rack loading and unloading facilities is contained in a depressed area (with curbs). Drainage is through area drains to an oil/water separator. The product is pumped using a skimming device from the oil/water separator to a transmix tank. Water is pumped through sock and carbon filter units before release to the Sacramento County sewer system.
- All transfers are in constant attendance by qualified personnel who are properly trained prior to conducting transfers.
- In the event that a spill did originate from the transfer area piping, the Facility would immediately shut down the source, activate its Contingency Plan, and commence clean up operations with local and contract resources as necessary to insure prompt removal of the discharged product.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Accumulated liquid is visually inspected for evidence of sheen. With Area Manager or designee approval, clean water is discharged to the local storm drain system. If evidence of contamination is present liquids are routed to the oil/water separator. The oil phase is transferred to a transmix tank and the water phase is passed through sock and charcoal filter units and sampled before being discharged to the Sacramento County sewer system in accordance with the county issued permit.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Surface drainage from undiked areas flows toward the drainage ditch near the center of the property then to the local storm sewer system along Bradshaw Road.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

- If the Facility does not have a wastewater treatment plant nor does it chemically treat water prior to discharge off site:
  - Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
  - Adequate records are kept of such drainage events.
  - Records of drainage events are maintained at the Control Room.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Bradshaw Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection methods.

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Automated Detection Systems

(b) (3), (b) (7)(F)

Security

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA I (WEST)										
B-01	Gasoline (100' x 40')	(b) (7)(F), (b) (3)		EFR	1957	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
B-02	Gasoline (100' x 40')			EFR	1957	Leak/Rupture	Instantaneous	None	E	
B-03*	Turbine (100' x 40')			EFR	1957	Leak/Rupture	Instantaneous	None	E	
B-04	Diesel (100' x 40')			EFR	1957	Leak/Rupture	Instantaneous	None	E	
B-14	Ethanol (56' x 48')			IFR	1968	Leak/Rupture	Instantaneous	None	E	
B-15	Diesel (56' x 48')			IFR	1968	Leak/Rupture	Instantaneous	None	E	
B-16	Diesel (39' x 48')			VFR	1968	Leak/Rupture	Instantaneous	None	E	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA II (EAST)										
B-05	Gasoline (52' x 40')	(b) (7)(F), (b) (3)		EFR	1962	Leak/Rupture	Instantaneous	None	S	(b) (7)(F), (b) (3)
B-06	Diesel (42'6" x 40')			VFR	1962	Leak/Rupture	Instantaneous	None	S	
B-07	Diesel (30' x 40')			VFR	1962	Leak/Rupture	Instantaneous	None	S	
B-08	Gasoline (73'4" x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	S	
B-09*	Transmix (30' x 40')			IFR	1963	Leak/Rupture	Instantaneous	None	S	
B-12	Turbine (50' x 48')			VFR	1968	Leak/Rupture	Instantaneous	None	N	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – TEXACO TANK FARM										
B-10	Gasoline (76'6" x 48')	(b) (7)(F), (b) (3)		IFR	1968	Leak/Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
B-11	Gasoline (68'6" x 48')			IFR	1968	Leak/Rupture	Instantaneous	None	N	
B-12	Turbine (50' x 48')			VFR	1968	Leak/Rupture	Instantaneous	None	N	
B-13	Diesel (42'6" x 40')			VFR	1968	Leak/Rupture	Instantaneous	None	N	
B-17	Diesel (50' x 48')			IFR	1971	Leak/Rupture	Instantaneous	None	N	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
BR-A-1	OOS	(b) (7)(F), (b) (3)		H	Unknown	Leak/Rupture	Instantaneous	None	S	(b) (7)(F), (b) (3)
BR-A-2	OOS			H	Unknown	Leak/Rupture	Instantaneous	None	S	
BR-A-3	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	W	
BR-A-4	OOS			H	Unknown	Leak/Rupture	Instantaneous	None	N	
BR-A5	Lubricity			VFR	Unknown	Leak/Rupture	Instantaneous	None	W	
BR-A-6	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	W	
BR-A-7	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	N	
Loading Rack 1 Red Dye	Red Dye			Tote	Unknown	Leak/Rupture	Instantaneous	None	S	
Loading Rack 3 Red Dye	Red Dye			Tote	Unknown	Leak/Rupture	Instantaneous	None	N	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow *(gpm)*	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING RACK							
Loading Rack 1	Refined Products, Additives	7,560	Leak/Rupture	Instantaneous	None	S	8,639 Curbing, Sump, OWS
Loading Rack 2	Refined Products, Transmix	7,560	Leak/Rupture	Instantaneous	None	W	8,639 Curbing, Sump, OWS
Loading Rack 3	Refined Products, Additives	7,560	Leak/Rupture	Instantaneous	Pump level switch failed to start pump (12-2002)	N	8,639 Curbing, Sump, OWS
Ethanol Rack	Ethanol, Off Spec Product	7,560	Leak/Rupture	Instantaneous	None	N	8,639 Curbing, Sump, OWS

KINDER MORGAN ENERGY PARTNERS, L.P.

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
			There are no Underground Storage Tanks at this Facility.						

8.2.2 FACILITY SELF-INSPECTIONS

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.
- Annual Secondary Containment Inspections are part of the SPCC Plan.
- Tank Inspections are part of the SPCC Plan.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:
  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valve locks and/or seals
  - Other appurtenances
- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.
- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.
- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.
- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

FIGURES 8.5 AND 8.6

Note: The following Kinder Morgan forms comprise the typical tank and secondary containment Inspection Checklists for this Facility. These forms may change over time to accommodate the specific operations of the Facility.

TANK INTEGRITY REPORT

LOCATION _____

QUARTERLY

FIRST	SECOND	THIRD	FORTH

BI-ANNUAL

FIRST	SECOND

REFERENCE NUMBER	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required
1. Shell Plates & Paint																				
2. Shell-Bottom Weld																				
3. Tank Foundation																				
4. Apron Around Tank																				
5. Grounding System																				
6. Auto Gauge Equipment																				
7. Shell Manways																				
8. Bottom Leak Detection																				
9. Stairway Handrails & Ladders																				
10. Lighting																				
11. Walkways & Platforms																				
12. Rain Gutter & Down Spout																				
13. Shell Rim Angle																				
14. Fixed Roof & Paint																				
15. Foam Hole Covers																				
16. Gauge & View Hatches																				
17. Vents																				
18. Liquid Level Control & Alarms																				
19. Wind Girders																				
20. Floating Roof & Pontoons																				
21. Roof Drain Mechanism																				
22. Roof Manways																				
23. Anti-Rotation Pole/Bar																				
24. Vapor Recovery Pipe																				
25. Foam Injection																				

LEGEND

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

_____

_____

REPORT PREPARED BY: _____ DATE: _____

TANK SEAL INSPECTION SUMMARY

LOCATION: ____________________ INSPECTION PERFORMED BY: ______________

DATE: ______________

REFERENCE NUMBER

1. Primary Seal
2. Secondary Seal
3. Anti-Rotation Pole/Bar Seal
4. Apron Seal
5. Floating Roof Deck
6. Floating Roof Drain Sump
7. Floating Roof Legs
8. Floating Pan Compartments
9. Vapor Recovery Pipe Seal
10. Center Column Seal
11. Gauge Pipe Float Seal
12. Emergency Drain
13. Pressure/Vacuum Vent
14. Sampling Funnel Cover
15. Sampling Hatch
16. Floating Roof Pontoons
17. Auto Gauge Float Well Cover

STATUS

N = NEW

R = REPEAT

Tank Number	Tank Type	Product	Status N or R	Reference Number	DESCRIPTION	Priority A or B	Cost Estimate	Responsibility

TANK SEAL INSPECTION REPORT

QUARTERLY | FIRST | SECOND | THIRD | FORTH |

SEMI-ANNUAL | FIRST | SECOND |

LOCATION _____

REFERENCE NUMBER																				
	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level	
	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required
1 Primary Seal																				
2 Secondary Seal																				
3 Anti-Rotation Pole/Bar Seal																				
4 Apron Seal																				
5 Floating Roof Deck																				
6 Floating Roof Drain Sump																				
7 Floating Roof Legs																				
8 Floating Pan Compartments																				
9 Vapor Recovery Pipe Seal																				
10 Center Column Seal																				
11 Gauge Pipe Float Seal																				
12 Emergency Drain																				
13 Pressure/Vacuum Vent																				
14 Sampling Funnel Cover																				
15 Sampling Hatch																				
16 Floating Roof Pontoons																				
17 Auto Gauge Float Well Cover																				

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

REPORT PREPARED BY: _____ DATE: _____

TANK FARM CONTAINMENT BERMS
INSPECTION REPORT

LOCATION : _____ DATE : _____

AREA OF LOCATION : _____

TYPE OF CONTAINMENT :

Dirt and Gravel	☐	Dirt With asphalt	☐
Dirt With Tar	☐	Dirt With Chip Rock	☐
Dirt With Tar and Chip Rock	☐	Dirt With Concrete	☐
Cinder Block	☐	Other	☐

COMMENTS : _____

CONDITION OF CONTAINMENT BERMS :

Excellent	☐	Good	☐	Fair	☐	Poor	☐
Wore Down / Ruts	☐			Erosion	☐	Gaps	☐
Animal Holes	☐			Cracks	☐	Other	☐
Cave-In / Under-Mined	☐						

COMMENTS : _____

RECOMMENDATIONS : _____

INSPECTED BY : _____

ADDITIVE TANK / SYSTEM INSPECTION REPORT

LOCATION : ______________________ DATE ______________________

INSPECTOR : QUARTER

TANK NUMBER	SERVICE VACUUM BREAKER		CHECK TANK GAUGE		PUMP LEAK		PIPE/TUBE LEAKS		CONTAIN-MENT		COMMENTS
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	

TANK MAINTENANCE LOG

LOCATION: _____ INSPECTION PERFORMED BY: _____

DATE: _____

TANK NUMBER	TANK TYPE	DESCRIPTION
		.

TANK LEAK DETECTION REPORT

QUARTERLY	SEMI-ANNUALLY	ANNUALLY

LOCATION : **DATE :**

TANK NO.	TUBE NO.	P.P.M.	BATTERY CHECK	COMMENTS

READINGS TAKEN BY : ______________________________

INTERNAL FLOATER TANK

VAPOR REPORT

LOCATION : DATE :

TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING

INSPECTED BY : _____

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The immediate area around the Facility (approximately within one (1) mile) is heavily populated, however, beyond that distance to the north and west, the area becomes more heavily populated.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

[redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

(b) (3), (b) (7)(F)

Additional detail on the medical facilities within the area of the Facility are included on the maps in Section 6.

Residential Areas

Residential areas are located in all directions from the Facility. These areas begin within one mile of the Facility and continue outward in all directions.

Businesses

The area surrounding the Facility is for the most part commercialized. Along Folsom Road there are numerous residences which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Santa Fe Pacific Pipelines, LP	0.00 miles *(approximate)*
Sun Barber Shop	0.00 miles *(approximate)*
Smile Food Market	0.00 miles *(approximate)*
Creations Landscaping	0.01 miles *(approximate)*
Safety Investigative Services	0.01 miles *(approximate)*
Riverwood Shopping Center	0.15 miles SW *(approximate)*
Pavilions Shopping Center	2.76 miles SW *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Figure 4.1 of this Volume for threatened/endangered species.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments (Cont'd)

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
American River, Freshwater Emergent Wetlands	(b) (7)(F), (b) (3)
Sacramento River, Freshwater Emergent Wetlands	

Wetland habitats, however, are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
American River	NW
Sacramento River	NW

Additional details on the lakes, streams, and rivers within the planning distance are found on the maps in Section 6.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

There are several recreational areas within the planning distance from the Facility. Review of GIS Data determined that the following recreational areas are within the planning

Recreational Area	Distance from Facility
Rosemont Community Park	.75 mile SSE *(approximate)*
Lincoln Village Park	1.70 miles SW *(approximate)*
Old Sacramento State Park	14.85 miles SW *(approximate)*

Additional details on the recreational areas within the planning distance are found on the maps in Section 6.

Transportation Routes (air, land, and water)

There are various public roadways and waterways which may be potentially affected by a discharge originating from the Facility. Review of GIS Data determined that the following transportation routes are within the planning.

Transportation Route	Distance from Facility
Bradshaw Road	West of Facility
Folsom Road	Adjacent
Sacramento Light Rail	Adjacent
Union Pacific Railroad	Adjacent
U.S. Highway 50	200 feet
Central Pacific Passenger Station	14.65 miles SW *(approximate)*

Utilities

Review of GIS Data determined that the following utilities are within the planning

Utilities	Distance from Facility
E.A. Fairbain Treatment Plant	5.0 miles SW *(approximate)*
Sacramento Filtration Plant	12.32 miles NW *(approximate)*

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Sacramento Museum	11.22 miles NW *(approximate)*
Sacramento History Museum	14.67 miles SW *(approximate)*
Peoples Market	14.76 miles SW *(approximate)*
Old Eagle Theater	14.77 miles SW *(approximate)*
Ogden Building	14.78 miles SW *(approximate)*
California State Railroad Museum	14.80 miles SW *(approximate)*
Schroth Bathhouse	14.81 miles SW *(approximate)*
Sam Brannan building	14.84 miles SW *(approximate)*
Schoolhouse Museum	14.99 miles SW *(approximate)*
California Citizens Museum	15.05 miles SW *(approximate)*
Crocker Art Museum	15.46 miles SW *(approximate)*
Towne Ford Museum	16.43 miles SW *(approximate)*
Sacramento Marina	16.93 miles SW *(approximate)*
Dippenbrock Landing	22.08 miles SE *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

The tanks were constructed in 1955, 1958, 1959, 1961, 1963, 1965, 1968, 1969, 1971, 1973, and 1978. The general condition of the tanks is good due to the type of construction and ongoing level of maintenance. Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Horizontal Range of a Spill

The tank farm is protected with concrete block walls and asphalt covered dikes designed to withstand pressure from freestanding product. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

The Tank Farm location is relatively flat area and is therefore unlikely to incur damage due to shifting and sliding. The seismic stability of the area is good. The probability of a landslide or earthquake is low.

In addition to the above referenced factors, it should also be noted that Facility inspection and response drills, as well as Standard Operating Procedures (SOPs) for loading operations and the like, contribute to minimization of spill potential at the Facility.

Other Factors

The area in which the Facility is located is prone to minor earthquakes; however, the actions taken to lessen hazards at the Facility petroleum tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file in the Kinder Morgan corporate office located at 1100 Town & Country Road, Orange, CA 92868. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Date of Discharge	Location of Discharge	Cause of Discharge	Product Discharged	Amount Discharged	NRC Incident Report #
12/29/02	American River, Sacramento, CA	Oily water sump overfill	Oily water	(b) (7)(F), (b) (3)	632934

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed on the Potential Spill Sources and Container Identification table in this Section.

The tank farm is protected with concrete block walls and asphalt covered dikes designed to withstand pressure from freestanding product. The floors of the tanks have impervious linings. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table in this Section.

Loading Rack Containment System

Main Loading/Unloading Racks

The loading/unloading rack areas are designed and operated as follows:

- Loading/unloading rack drainage flows into a catchment basin and OWS system, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- Drainage from each loading/unloading rack is contained in a depressed area with curbs. Drainage is through area drains to a 10,000 gallon oil/water separator. The product is pumped using a skimming device from the oil/water separator to a transmix tank. The water phase is drained to two (2) 11,000 gallon fiberglass holding tanks. The water is pumped through a sock filter and three (3) carbon filters to two (2) Visual Inspection Tanks (VITs) and sampled for contamination (alcohol, suspended solids, hydrocarbons, etc.) before being transferred by truck to the East Bay M.U.D.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining diked storage areas.
- Flapper-type drain valves are not used to drain diked storage areas.
- Stormwater from diked storage areas is emptied by gravity.
- Drainage from the diked storage areas, as described above, is controlled by manual valves kept closed except when draining. Water, which is drained from these areas following visual inspection for signs of contamination, is directed through the drainage ditch system to the stormwater pond where the water either evaporates or dissipates into the soil.
- Contaminated stormwater is routed to the OWS where the oil phase is sent to a transmix tank and the water phase is sent first to a visual inspection tank then through sock and carbon filter units before being transferred to the waste water tank. Contents of the waste water tank are transferred via tank truck to the East Bay M.U.D.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- All Facility aboveground piping is contained within diked storage areas or the containment systems provided for the loading racks.
- Surface drainage from undiked areas flows to a perimeter drainage ditch that directs collected stormwater to a holding pond at the northwest corner of the property.
- In the event that a spill originates from undiked areas, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Undiked Areas (Cont'd)

The procedure for supervising the drainage of stormwater from diked storage areas into a storm drain or an open watercourse is as follows:

- Water is visually inspected for product and discharged only if no product sheen is visible and the Area Manager has granted approval to open drain valves.
- Facility drainage does not flow directly into an open watercourse.
- When draining the diked storage areas, water is discharged to the perimeter drainage ditch which directs water to the holding pond in the northwest corner of the Facility.
- The Facility does have a wastewater treatment plant to filter contaminated water prior to transport to the East Bay M.U.D.
- Records of drainage events are kept at the Facility office.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Chico Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection measures.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Detection by Personnel

- Facility personnel conduct weekly inspection of tank gauges and cathodic protection readings Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

Automated Detection Systems

(b) (3), (b) (7)(F)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS -TANK AREA 1										
CH-01	Gasoline (42'6" x 40')	(b) (7)(F), (b) (3)		EFR	1962	Leak/Rupture	Instantaneous	None	W to drain	(b) (7)(F), (b) (3)
CH-02	Vapor			VFR	1962	Leak/Rupture	Instantaneous	None	W to drain	
CH-03	Diesel (40' x 40')			VFR	1962	Leak/Rupture	Instantaneous	None	W to drain	
CH-08	Gasoline (67' x 48')			EFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-09	Gasoline (48' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	SW to drain	
CH-10	Diesel (42'6 » x 48')			VFR	1962	Leak/Rupture	Instantaneous	None	SW to drain	
CH-16	Gasoline (42'6" x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	SW to drain	
CH-17	Gasoline (48' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	SW to drain	
CH-20	Diesel (42'6" x 40')			VFR	1962	Leak/Rupture	Instantaneous	None	W to drain	
CH-26	Diesel (42'6" x 40')			VFR	1965	Leak/Rupture	Instantaneous	None	SW to drain	
CH-27	Diesel (55' x 48')			VFR	1965	Leak/Rupture	Instantaneous	None	SW to drain	
CH-28	Gasoline (55' x 50')			IFR	1965	Leak/Rupture	Instantaneous	None	W to drain	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS -TANK AREA 1 (Cont'd)										
CH-29	Unassigned (55' x 50')	(b) (7)(F), (b) (3)		IFR	1965	Leak/Rupture	Instantaneous	None	W to drain	(b) (7)(F), (b) (3)
CH-30	Gasoline (70' x 50')			IFR	1970	Leak/Rupture	Instantaneous	None	W to drain	
CH-31	Gasoline (45' x 48')			IFR	1971	Leak/Rupture	Instantaneous	None	SW to drain	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS - TANK AREA 2										
CH-18*	Transmix (30' x 24')	(b) (7)(F), (b) (3)		EFR	1962	Leak/Rupture	Instantaneous	None	N to drain	(b) (7)(F), (b) (3)
CH-19*	Transmix (30' x 24')			IFR	1962	Leak/Rupture	Instantaneous	None	N to drain	
CH-04	Gasoline (70' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-05	Gasoline (42'6" x 36')			EFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-06	Gasoline (48' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	N to drain	
CH-07	Diesel (50' x 48')			VFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-11	Gasoline (60' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-12	Gasoline (42'6" x 32')			EFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-13	Unassigned (30' x 40')			IFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-14	Diesel (42'6" x 40')			VFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-15	Diesel (48' x 48')			VFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - TANK AREA 2 (Cont'd)										
CH-22	Gasoline (48' x 40')	(b) (7)(F), (b) (3)		EFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	(b) (7)(F), (b) (3)
CH-23	Gasoline (42'6" x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-24	Diesel (42'6" x 40')			VFR	1962	Leak/Rupture	Instantaneous	None	NW to drain	
CH-25	Gasoline (42'6" x 40')			IFR	1964	Leak/Rupture	Instantaneous	None	NW to drain	
CH-32	Gasoline (74' x 48')			IFR	1973	Leak/Rupture	Instantaneous	None	NW to drain	
CH-33	Gasoline (62'6" x 48')			IFR	1973	Leak/Rupture	Instantaneous	None	NW to drain	
	TOTAL									
BULK STORAGE CONTAINERS - TANK AREA 3										
CH-36	Diesel (96' x 48')	(b) (7)(F), (b) (3)		IFR	1986	Leak/Rupture	Instantaneous	None	SE to drain	(b) (7)(F), (b) (3)
CH-37	Gasoline (79' x 48')			IFR	1986	Leak/Rupture	Instantaneous	None	SE to drain	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
CH-A1	Additive	(b) (7)(F), (b) (3)		H	Unknown	Leak/Rupture	Instantaneous	None	W to drain	(b) (7)(F), (b) (3)
CH-A2	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	W to catch basin	
CH-A3	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	N to drain	
CH-A4	OOS			H	Unknown	Leak/Rupture	Instantaneous	None	W to drain	
CH-A5	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	W to drain	
CH-A6	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	SW to drain	
CH-A7	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	W to catch basin	
CH-A8	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	W to catch basin	
CH-A9	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	W to catch basin	
Red Dye	Red Dye			VFR	Unknown	Leak/Rupture	Instantaneous	None	Center of loading rack to drain	
DLA-1	Lubricity			H	2005	Leak/Rupture	Instantaneous	None	To drain	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OPERATIONAL EQUIPMENT								
Terminal Manifold	Petroleum Products	(b) (7)(F), (b) (3)	Manifold	Leak/Rupture	1,225 gpm	None	S to drain valve	(b) (7)(F), (b) (3)

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow *(gpm)*	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
TRUCK LOADING/UNLOADING AREAS							
1	Additive, Diesel, Gasoline	9,000	Equipment Failure/ Leak/Rupture	500	None	Center of loading rack to drain	8,778 curbing, sump, OWS
3	Additive, Diesel, Ethanol, Gasoline	9,000	Equipment Failure/ Leak/Rupture	500	None	Center of loading rack to drain	8,778 curbing, sump, OWS
4	Additives, Diesel, Gasoline	9,000	Equipment Failure/ Leak/Rupture	500	None	Center of loading rack to drain	8,778 curbing, sump, OWS
5	Additive, Diesel, Ethanol, Gasoline	9,000	Equipment Failure/ Leak/Rupture	500	None	Center of loading rack to drain	10,000 curbing, sump, OWS
Tested Product Offloading	Diesel, Gasoline	3,000	Equipment Failure/ Leak/Rupture	500	None	Center of loading rack to drain	10,000 curbing, sump, OWS

HAZARD IDENTIFICATION TANKS UNDERGROUND STORAGE TANKS							
Container I.D.	**Substance Stored** *(Oil & Haz. Substance)*	**Average Quantity Stored** *(Gallons)*	**Maximum Capacity** *(Gallons)*	**Container Type** *(i.e. floating roof, fixed roof, etc.)*	**Year Built**	**Failure/Cause** *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	**Containment Capacity** *(Gallons)*
COMPLETELY AND PARTIALLY BURIED TANKS							
		There are no Underground Storage Tanks					

8.2.2 FACILITY SELF-INSPECTIONS

Detection by Personnel

- Facility personnel conduct weekly inspection of tank gauges and cathodic protection readings Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

- Annual Secondary Containment Inspections are part of the SPCC Plan.

- Tank Inspections are part of the SPCC Plan.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement

- A Corrosion Specialist visits the Facility annually to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

FIGURES 8.5 AND 8.6

Note: The following Kinder Morgan forms comprise the typical tank and secondary containment Inspection Checklists for this Facility. These forms may change over time to accommodate the specific operations of the Facility.

TANK INTEGRITY REPORT

LOCATION _____

QUARTERLY

FIRST	SECOND	THIRD	FORTH

BI-ANNUAL

FIRST	SECOND

REFERENCE NUMBER	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required
1. Shell Plates & Paint																				
2. Shell-Bottom Weld																				
3. Tank Foundation																				
4. Apron Around Tank																				
5. Grounding System																				
6. Auto Gauge Equipment																				
7. Shell Manways																				
8. Bottom Leak Detection																				
9. Stairway Handrails & Ladders																				
10. Lighting																				
11. Walkways & Platforms																				
12. Rain Gutter & Down Spout																				
13. Shell Rim Angle																				
14. Fixed Roof & Paint																				
15. Foam Hole Covers																				
16. Gauge & View Hatches																				
17. Vents																				
18. Liquid Level Control & Alarms																				
19. Wind Girders																				
20. Floating Roof & Pontoons																				
21. Roof Drain Mechanism																				
22. Roof Manways																				
23. Anti-Rotation Pole/Bar																				
24. Vapor Recovery Pipe																				
25. Foam Injection																				

LEGEND

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

_____

_____

REPORT PREPARED BY: _____ DATE: _____

TANK SEAL INSPECTION SUMMARY

LOCATION: ______________________

INSPECTION PERFORMED BY: ______________

DATE: ______________

REFERENCE NUMBER

1. Primary Seal
2. Secondary Seal
3. Anti-Rotation Pole/Bar Seal
4. Apron Seal
5. Floating Roof Deck
6. Floating Roof Drain Sump
7. Floating Roof Legs
8. Floating Pan Compartments
9. Vapor Recovery Pipe Seal
10. Center Column Seal
11. Gauge Pipe Float Seal
12. Emergency Drain
13. Pressure/Vacuum Vent
14. Sampling Funnel Cover
15. Sampling Hatch
16. Floating Roof Pontoons
17. Auto Gauge Float Well Cover

STATUS

N = NEW

R = REPEAT

Tank Number	Tank Type	Product	Status N or R	Reference Number	DESCRIPTION	Priority A or B	Cost Estimate	Responsibility

TANK SEAL INSPECTION REPORT

QUARTERLY ***SEMI-ANNUAL***

LOCATION _____

FIRST	SECOND	THIRD	FORTH

FIRST	SECOND

REFERENCE NUMBER	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level	
	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required
1 Primary Seal																				
2 Secondary Seal																				
3 Anti-Rotation Pole/Bar Seal																				
4 Apron Seal																				
5 Floating Roof Deck																				
6 Floating Roof Drain Sump																				
7 Floating Roof Legs																				
8 Floating Pan Compartments																				
9 Vapor Recovery Pipe Seal																				
10 Center Column Seal																				
11 Gauge Pipe Float Seal																				
12 Emergency Drain																				
13 Pressure/Vacuum Vent																				
14 Sampling Funnel Cover																				
15 Sampling Hatch																				
16 Floating Roof Pontoons																				
17 Auto Gauge Float Well Cover																				

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

REPORT PREPARED BY: _____ DATE: _____

TANK FARM CONTAINMENT BERMS
INSPECTION REPORT

LOCATION : _____ DATE : _____

AREA OF LOCATION : _____

TYPE OF CONTAINMENT :

Dirt and Gravel	☐	Dirt With asphalt	☐
Dirt With Tar	☐	Dirt With Chip Rock	☐
Dirt With Tar and Chip Rock	☐	Dirt With Concrete	☐
Cinder Block	☐	Other	☐

COMMENTS : _____

CONDITION OF CONTAINMENT BERMS :

Excellent	☐	Good	☐	Fair	☐	Poor	☐
Wore Down / Ruts	☐			Erosion	☐	Gaps	☐
Animal Holes	☐			Cracks	☐	Other	☐
Cave-In / Under-Mined	☐						

COMMENTS : _____

RECOMMENDATIONS : _____

INSPECTED BY : _____

ADDITIVE TANK / SYSTEM INSPECTION REPORT

LOCATION : ______________________ DATE ______________________

INSPECTOR : QUARTER

TANK NUMBER	SERVICE VACUUM BREAKER		CHECK TANK GAUGE		PUMP LEAK		PIPE/TUBE LEAKS		CONTAIN-MENT		COMMENTS
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	

TANK MAINTENANCE LOG

LOCATION: _____ INSPECTION PERFORMED BY: _____

DATE: _____

TANK NUMBER	TANK TYPE	DESCRIPTION
		.

PHMSA 000101772

TANK LEAK DETECTION REPORT

QUARTERLY	SEMI-ANNUALLY	ANNUALLY

LOCATION : **DATE :**

TANK NO.	TUBE NO.	P.P.M.	BATTERY CHECK	COMMENTS

READINGS TAKEN BY : ______________________________

INTERNAL FLOATER TANK

VAPOR REPORT

LOCATION : DATE :

TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING

INSPECTED BY : _____

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located southwest of Chico and is approximately 200 yards east southeast of Edgar Slough and Little Chico Creek, the closest navigable water body.
- The Facility is connected by pipelines to other Company facilities in northern and central California.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

Medical Facilities

Miscellaneous medical facilities (primarily hospitals) are located within the Chico City Limits. The majority of the facilities lie to the northwest of the Facility. Review of GIS Data determined that the following medical facilities are within the planning distance of the Facility:

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Medical Facilities (Cont'd)

(b) (3), (b) (7)(F)

Additional detail on the medical facilities within the area of the Facility is included on the maps in Section 6.

Residential Areas

The immediate area around the Facility (within approximately one mile) is sparsely populated, however, beyond that distance to the northwest, the area becomes more heavily populated.

Additional detail on the residential areas within the area of the Facility is included on the maps in Section 6.

Businesses

The area surrounding the Facility is for the most part commercialized. Along Hegan Lane and Park Avenue there are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Atc-Vancom, Inc.	0.05 miles *(approximate)*
Chico Area Transit	0.05 miles *(approximate)*
Adexpedia, Inc.	0.11 miles *(approximate)*
Travidia, Inc.	0.11 miles *(approximate)*
Work Training Center	0.11 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The coastal area is home for a variety of migratory species during parts of the year. The common coastal inhabitants include shorebirds, wading birds, fish, reptiles, invertebrates, and various plants. The coastal shorelines have been divided into ten categories according to potential sensitivity to oil. The U.S. Coast Guard - Area Contingency Plan for this area details these categories.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments (Cont'd)

The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
Comanche Creek, Freshwater Emergent Wetlands	(b) (7)(F), (b) (3)

Wetland habitats, however, are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Little Chico Creek, Edgar Slough	0.1 miles N-NW *(approximate)*
Comanche Creek	0.5 miles NW *(approximate)*

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning distance:

Recreational Area	Distance from Facility
Silver Dollar Fairgrounds	0.5 miles *(approximate)*
Butte Creek Country Club	1.4 miles NW *(approximate)*

Additional details on the recreational areas within the planning distance are found on the maps in Section 6.

Transportation Routes (air, land, and water)

There are various public roadways and waterways which may be potentially affected by a discharge originating from the Facility. Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
State Highway 99	0.7 miles NE *(approximate)*

Utilities

PG&E is located directly behind the Facility and may be potentially impacted by a discharge originating from the Facility.

Other Areas of Economic Importance

Review of GIS Data determined that the following other areas of economic importance are within the planning distance of the Facility.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Other Areas of Economic Importance (Cont'd)

Other Areas of Economic Importance	Distance from the Facility
Chapman Neighborhood Center	1.5 miles N *(approximate)*
Chico Cemetary	3.5 miles SW *(approximate)*
Chico Museum	3.7 miles SW *(approximate)*
Chico City Hall	3.7 miles SW *(approximate)*
Bidwell Mansion State Monument	3.8 miles SW *(approximate)*
Bidwell Mansion	3.8 miles SW *(approximate)*
Meriam Library	3.9 miles SW *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow toward the drainage ditch inside the perimeter fence then to the retention pond at the northwest corner of the property.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Vulnerability to a Natural Disaster

The Facility is located in a semi-active earthquake zone with occasional seismic activity.

The Company has historical data that defines the probability of seismic activity in the San Francisco / Northern California area. The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of tank farms away from slide prone areas, and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

The actions taken to lessen hazards at the Facility tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file in the Facility office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has not experienced a reportable spill as defined in 40 CFR 110.

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Rail car unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

- The Facility is located in Sparks, NV, approximately one (1) mile north of the Truckee River which is the closest navigable waterway.
- The Facility is connected by pipelines to other Company facilities in northern California and western Nevada.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- Drainage from loading/unloading areas flows into a catchment basin then to OS1, designed to handle discharges.
- The containment systems are designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the Company loading rack south of Area 1, the military loading rack south of Area 4 and the Berry-Hinkley loading rack between Areas 2 and 5 is contained in depressed areas beneath the loading stations. Drainage through the area drains goes to a 13,219 gallon oil/water separator (OS1). Drainage from the additive unloading area north of the control building is routed to the oil/water separator (OS2) in the northwest corner of Area 1. The product recovered by OS1 and OS2 is pumped to an available transmix tank (R-10, R-11, or R-12). The water phase is drained to a holding pond. When the pond is filled the water is passed through four (4) sand filters, two (2) 2,000 lbs. carbon filter units, and sampled before being released to the municipal sewer system in accordance with the City of Sparks Environmental Control Section, Environmental Control Permit.

8.2.1 HAZARD IDENTIFICATION

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas is emptied by gravity.
- Areas 2, 4 and 5 on the south side of the Facility drain to OS1.
- Areas 1 and 3 on the north side of the Facility drain to OS2.
- Oil phase from both oil/water separators OS1 and OS2 is transferred to a transmix tank. Water phase is processed through four (4) sand and two (2) carbon filter units and sampled before being discharged to the sewer system in accordance with the City of Sparks Environmental Control Section Environmental Control Permit.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Aboveground piping outside diked areas is contained by the oil/water separator system OS1 that serves the southern portions of the Facility.
- Surface drainage from undiked areas is routed to OS1 located in Area 2. The oil phase is transferred to a transmix and water is passed through the filter system described in the SPCC Plan.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.
- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before it leaves the property.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

- Catchment basins, if applicable, are not located in areas subject to periodic flooding.

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Stormwater is allowed to evaporate from the secondary containment areas.
- Water is visually inspected for product and discharged only if no product sheen is visible.
- When draining the containment area, water is discharged to oily water separators OS1 or OS2 and passed through four (4) sand and two (2) carbon filter units and sampled before being discharged to the City of Sparks sewer system.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Reno Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the following document which is related to Discharge Detection:

- Spill Prevention, Control, and Countermeasure (SPCC) Plan

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA 1 TANK FARM										
R-10*	Transmix (23' x 40')	(b) (7)(F), (b) (3)		IFR	1957	Leak/ Rupture	Instantaneous	None	NW to OS2	(b) (7)(F), (b) (3)
R-11	Transmix (23' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	N to OS2	
R-12*	Transmix (23' x 40')			VFR	1957	Leak/ Rupture	Instantaneous	None	NW to OS2	
R-13	Gasoline (45' x 36')			VFR	1957	Leak/ Rupture	Instantaneous	None	W to OS2	
R-14	Gasoline (67' x 48')			IFR	1957	Leak/ Rupture	Instantaneous	None	NW to OS2	
R-15	Gasoline (67' x 48')			IFR	1957	Leak/ Rupture	Instantaneous	None	NW to OS2	
R-16	Diesel (60' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	W to OS2	
R-17	Gasoline (60' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	W to OS2	
R-25	Diesel (54'6" x 48')			VFR	1959	Leak/ Rupture	Instantaneous	None	NW to OS2	
R-26	JP-8 (54'6" x 48')			IFR	1959	Leak/ Rupture	Instantaneous	None	N to OS2	
R-27	Gasoline (54'6" x 48')			IFR	1959	Leak/ Rupture	Instantaneous	None	W to OS2	
R-28	Turbine (48' x 48')			VFR	1959	Leak/ Rupture	Instantaneous	None	W to OS2	
R-35	Turbine (47'6" x 48')			VFR	1973	Leak/ Rupture	Instantaneous	None	NW to OS2	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA 2/4 TANK FARM										
R-02	Gasoline (73' x 40')	(b) (7)(F), (b) (3)		IFR	1957	Leak/ Rupture	Instantaneous	None	SE to OS1	(b) (7)(F), (b) (3)
R-03	Gasoline (60' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	SE to OS1	
R-04	Gasoline (33' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	SE to OS1	
R-05	Ethanol (30' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	SE to OS1	
R-07	Diesel (70' x 40')			VFR	1957	Leak/ Rupture	Instantaneous	None	SE to OS1	
R-08	Turbine (60' x 40')			VFR	1957	Leak/ Rupture	Instantaneous	None	SE to OS1	
R-09	Diesel (60' x 40')			VFR	1957	Leak/ Rupture	Instantaneous	None	SE to OS1	
R-21*	JP-8 (67' x 48')			VFR	1959	Leak/ Rupture	Instantaneous	None	SE to OS1	
R-22	Diesel (54'6" x 48')			IFR	1959	Leak/ Rupture	Instantaneous	None	E to OS1	
R-23	Diesel (54'6" x 48')			IFR	1959	Leak/ Rupture	Instantaneous	None	E to OS1	
R-24	Gasoline (42'6" x 40')			IFR	1959	Leak/ Rupture	Instantaneous	None	E to OS1	
R-32	Diesel (67' x 40')			VFR	1963	Leak/ Rupture	Instantaneous	None	E to OS1	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA 2/4 TANK FARM (Cont'd)										
R-36*	JP-8 (67' x 48')	(b) (7)(F), (b) (3)		IFR	1979	Leak/ Rupture	Instantaneous	None	E to OS1	(b) (7)(F), (b) (3)
R-37*	JP-8 (67' x 48')			IFR	1980	Leak/ Rupture	Instantaneous	None	SE to OS1	
	TOTAL									
BULK STORAGE CONTAINERS – AREA 3 TANK FARM										
R-06	Vapors (48' x 48')	(b) (7)(F), (b) (3)		IFR	1957	Leak/ Rupture	Instantaneous	None	E to OS2	(b) (7)(F), (b) (3)
R-18	OOS (60' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	E to OS2	
R-19	OOS (60' x 40')			IFR	1957	Leak/ Rupture	Instantaneous	None	NE to OS2	
R-20	Ethanol (42'6" x 40')			IFR	1964	Leak/ Rupture	Instantaneous	None	NE to OS2	
R-33	OOS (60' x 50')			IFR	1970	Leak/ Rupture	Instantaneous	None	E to OS2	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA 5 TANK FARM										
R-29	Gasoline (54'6" x 48')	(b) (7)(F), (b) (3)		IFR	1959	Leak/ Rupture	Instantaneous	None	W to OS1	(b) (7)(F), (b) (3)
R-30	Gasoline (54'6" x 48')			IFR	1959	Leak/ Rupture	Instantaneous	None	W to OS1	
R-31	Diesel (54'6" x 48')			VFR	1960	Leak/ Rupture	Instantaneous	None	NW to OS1	
R-34	Gasoline (42'6" x 40')			IFR	1972	Leak/ Rupture	Instantaneous	None	NW to OS1	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
RA-1	Additive	(b) (7)(F), (b) (3)		H	Unknown	Leak/ Rupture	Instantaneous	None	N to drain valves	(b) (7)(F), (b) (3)
RA-2	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	N to drain valves	
RA-3	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	NW to OS2	
RA-4	OOS			H	Unknown	Leak/ Rupture	Instantaneous	None	NW to OS2	
RA-5	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	NW to OS2	
RA-6	OOS			H	Unknown	Leak/ Rupture	Instantaneous	None	NW to OS2	
RA-7	OOS			H	Unknown	Leak/ Rupture	Instantaneous	None	NW to OS2	
RA-8	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	SE to OS1	
RA-9	Red Dye			H	Unknown	Leak/ Rupture	Instantaneous	None	NW to OS2	
RA-10	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	NW to OS2	
RD-11	Lubricity			H	2005	Leak/ Rupture	Instantaneous	None	N to drain valves	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure *Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volumes – Gallons) (Secondary containment, curbing , sorbents)*
OPERATIONAL EQUIPMENT								
Terminal Manifold	Petroleum Products	(b) (7)(F), (b) (3)	Manifold	Leak/Rupture	1,484 gpm	None	N to drain valves	(b) (7)(F), (b) (3)
TRUCK/RAIL LOADING/UNLOADING RACK								
Loading Rack 1	Petroleum Products	7,560	Loading Rack	Leak/Rupture	Varies	None	S	11,719 CW, CF 13,219 (OS1)
Loading Rack 4	Petroleum Products	7,560	Loading Rack	Leak/Rupture	Varies	None	S	3,848.5 CW, CF 13,219 (OS1)
Rail Unloading Rack	Etahnol	29,000	Rail Unloading Rack	Leak/Rupture	Varies	None	S	Drip Pans

8.2.2 FACILITY SELF-INSPECTIONS

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.
- Annual Secondary Containment Inspections are part of the SPCC Plan.
- Tank Inspections are part of the SPCC Plan.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:
  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances
- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.
- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.
- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.
- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report which recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

The tank farm is protected with concrete block walls and earthen berms designed to withstand pressure from freestanding product. The floors of the tanks have impervious linings. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

- The Facility is located in Sparks, NV approximately one (1) mile north of the Truckee River.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

[redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Medical Facilities

No medical facilities were identified within the planning distance.

Residential Areas

Residential areas are located in all directions from the Facility. These areas begin within one mile of the Facility and continue outward in all directions.

Additional details on the residential areas within the area of the Facility are included on the maps in Section 6.

Businesses

The area surrounding the Facility is for the most part commercialized. There are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Truckee River Spa Company	0.02 miles *(approximate)*
Two College Guys	0.02 miles *(approximate)*
Holiday Inn	0.02 miles *(approximate)*
Scudders Performance	0.10 miles *(approximate)*
Sparks Jewelers	0.10 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The EPA Region 9 - Area Contingency Plan for this area details these categories. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

No wetlands were identified within the planning distance.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Truckee River	1.0 miles S *(approximate)*
Peoples Ditch	1.0 miles ESE *(approximate)*
Steamboat Creek	1.5 miles SE *(approximate)*
Truckee Canal	23.2 miles NE *(approximate)*

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

There are several recreational areas within the planning distance from the Facility. Review of GIS Data determined that the following recreational areas are within the planning distance:

Recreational Area	Distance from Facility
Garayenta Ranch	0.30 miles S *(approximate)*
Kleppe Ranch	0.90 miles SE *(approximate)*
Jones Ranch	1.00 miles SE *(approximate)*
Community Recreation Center	2.00 miles NNE *(approximate)*
Casci Ranch	2.2 miles SE *(approximate)*
Sparks Marina Park	2.5 miles NNE *(approximate)*
Sturtevant Ranch	5.3 miles SE *(approximate)*
Peri Ranch	6.5 miles SE *(approximate)*
102 Ranch	15 miles NE *(approximate)*
Gilpin Rest Stop	25.2 miles NE *(approximate)*
James Ranch	29.7 miles NE *(approximate)*

Additional details on the recreational areas within the planning distance are found on the maps in Section 6.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Transportation Routes (air, land, and water)

The Facility is located just south of I-80, with the Southern Pacific Railroad running approximately one quarter mile south, between the Truckee River and the Facility. Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
Union Pacific Railroad	Adjacent *(approximate)*
I-80	Adjacent *(approximate)*
McCarran Blvd.	700 yards E *(approximate)*
Airway Beacon 212	23.6 miles S *(approximate)*

Utilities

Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
Sparks Sewage Disposal Plant	1.8 miles SE *(approximate)*
Tracy Powerplant	14.0 miles SE *(approximate)*

Other Areas of Economic Importance

Review of GIS Data determined that the following other areas of economic importance are within the planning distance of the Facility:

Other Areas of Economic Importance	Distance from the Facility
Eastman Mil	0.20 miles SW *(approximate)*
Brothers of the Holy Rosary	0.20 miles S *(approximate)*
Court of Antiquity	3.70 miles SE *(approximate)*
Ditho (historical)	9.8 miles SE *(approximate)*
Browns (historical)	12.5 miles SE *(approximate)*
Wunotoo	14.0 miles SE *(approximate)*
Sarvia (historical)	20.9 miles NE *(approximate)*
Smith Ranch	24.1 miles NE *(approximate)*
Gilpin (historical)	25.4 miles NE *(approximate)*
Olinghouse Junction (historical)	27.0 miles NE *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Any spilled material which might escape a diked area would be mitigated through the implementation of spill response activities by: Facility personnel, or if necessary, one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

The Facility is located in a semi-active earthquake zone with occasional seismic activity.

The Company has historical data that defines the probability of seismic activity in the Northern California / Nevada area. The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of tank farms away from slide prone areas and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

The actions taken to lessen hazards at the Facility tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no spills as defined by 40 CFR 110.

(b) (7)(F), (b) (3)

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Bradshaw Terminal is classified as an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Bradshaw Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
On-Shore Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline or Diesel.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the loading rack would be diverted to the on line oil/water separator.

The closest waterway is the American River, which is north of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the American River, which is north of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to:

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline or Diesel. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the American River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the American River so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power

lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the River.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Calculation of the planning distance for a WCD is provided at the end of this section.

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow north and enter the American River which is located north of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in stormwater ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located south of the American River. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of six (6) feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Chico Terminal is classified as an EPA jurisdictional "Non-Transportation Related Facility" which operates in a Non-Higher Volume Port Area.

The agency discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F), (b) (2)

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Chico Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	40%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	15%
Removal Capacity Planning Volume - Percent Oil Onshore	45%
Emulsification Factor	1.8
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-shore Recovery Volume (bbls)	
On-shore Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the transmix tanks that are not at maximum capacity.

The Facility is approximately 200 yards east-southeast of Edgar Slough and Little Chico Creek, the closest major body of water. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach either waterway or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Summary of EPA Regulatory Response Requirements for a Small Discharge

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, ***AS APPROPRIATE****, include:*

- *1,000' of containment boom* ***and a means of deploying it*** *within one (1) hour of the discovery of a spill. [Guidance: The appropriate level of response resources to address a small discharge from this Facility should arrive on-scene; including the equipment and appropriately trained manpower necessary to deploy the response resources; within one (1) hour of discovery of the discharge.]*
- *Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a Small Discharge or greater which is available at the Facility within two (2) hours of the detection of an oil discharge. [Guidance: Oil recovery devices with a minimum of 50 bbls/day recovery capacity (or greater) should be on scene and ready to commence recovery of discharged oil within two (2) hours of discovery of the discharge. The response resources that arrived to the site in the first hour (noted in the first bullet above) should be deployed and actively containing discharged oil within this two (2) hour period.]*
- *Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate. [Guidance: Storage capacity for twice the effective daily recovery rate (2 times 50 bbls/day) is 100 bbls/day which should be available at the commencement of the recovery operations, therefore within two (2) hours of discovery of the discharge.]*

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Sections 2 and 3 of Volume 2.

Probable Scenario

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Potential Offsite Impact

- The closest waterways are the Edgar Slough and Little Chico Creek, which are northwest of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the slough and creek. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Potential Offsite Impact (Cont'd)

- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

Appropriate Level of Response (in unlikely event of offsite impact)

- Under Section 3.3 to Appendix E of 40 CFR 112 – *Determination and Evaluation of Required Response Resources for Facility Response Plans*, it states, "The response resources shall, **as appropriate**, include: 3.3.1 One thousand feet of containment boom…" (59FR34112)
- "EPA recognizes that certain other elements may not be applicable in all cases. To provide flexibility for facilities with unique circumstances, certain elements are prefaced by use of the words **'shall, as appropriate'** or modified by the use of the words **'or equivalent'.**"(59FR34074)
- **Accordingly, 1,000ft of containment boom is not appropriate and would not be practicable for a response to a discharge from this facility. Based upon local topography, initial response will be accomplished with diking/damming, underflow dams and a minimal amount of containment and sorbent boom (approximately 50 feet of each). The response will be implemented utilizing local contract resources. These tactical response strategies have been pre-identified and documented. These Tactical PrePlans have been provided herein behind tab "Tactical PrePlans" located at the end of this Volume 2, Section 8.**
- The equipment for these response strategies to be utilized for the small discharge will be provided by Ben's Truck & Equipment, Inc. with which KMEP has a contract (Contract 06-ER-20-011-ORG).
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and

actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the oil/water separator system. If a spill of this size escaped the property it could possibly enter the Edgar Slough and Little Chico Creek. Adverse weather conditions would increase the chances of a discharge entering the waterways; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, Facility personnel receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterways are the Edgar Slough and Little Chico Creek so the potential for a spill of this size reaching navigable water does exist. Damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the waterways.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Diesel.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow east-southeast and enter the Edgar Slough and Little Chico Creek which are located east-southeast of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams

- Trenches

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Ditch Containment

A spill may be contained in stormwater ditches. Some practical containment methods are:

- A board skimming device

- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located east southeast of Edgar Slough and Little Chico Creek. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate initial boom deployment and anchoring at the waterway within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a worst case discharge to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.
- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility members, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Reno Terminal is classified as an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = [redacted]

- **Medium Discharge**
  Discharge greater than 50 bbls (2,100 gallons) and less than or equal to 857 bbls (36,000 gallons) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 50 bbls (2,100 gallons), not to exceed the WCD

  SD = 50 bbls

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		**D**	**E**		**D**	**E**
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Reno Terminal
EPA - Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b) (3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	40%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	15%
Removal Capacity Planning Volume - Percent Oil Onshore	45%
Emulsification Factor	1.8
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)
On-Shore Recovery Volume (bbls)	
On-Shore Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks.

The closest waterway is the Truckee River, which is south of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Truckee River, which is south of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be deployed at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage tanks, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd) ● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes: ● Equipment and manpower resources are detailed in Section 3 of Volume 2. ● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1. ● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Truckee River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a Medium Discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Truckee River so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the Medium Discharge volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage tanks.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the Truckee River.
- Recovery of large spills from diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow south toward the Truckee River.

For a spill that is confined to the land along the pathway, Facility personnel would contain the spill using dams or trenches.

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located north of the Truckee River. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate initial boom deployment and anchoring at the waterway within a reasonable time. Several recreation areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by the state and federal trustees would more than likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.
- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage tanks.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2901 Bradshaw Road
Sacramento, CA 95827
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Union Pacific Railroad and Sacramento Light Rail if affected.
h. Staging area for Emergency Command Post will be at the Restaurant on Bradshaw Road or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in the SPCC Plan in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the main office or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, Control Building, or the north or south staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to Mercy General Hospital

From the Facility, start out going south on Bradshaw Road towards Oates Drive by turning left. Proceed 0.24 miles and take the US-50 W ramp towards Sacramento. Go 0.51 miles and merge onto US-50 W. Travel 4.54 miles and take the 65th Street exit. After going 0.19 miles, turn right onto 65th Street. Proceed 0.30 miles and turn left onto Elvas Avenue. Travel 0.71 miles and turn slight left onto ramp and go 0.06 miles, then left onto 57th Street. Proceed 0.07 miles and turn right onto J Street. Go 1.08 miles to Mercy General Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via Gore Road or the main gate. If the situation permits, the Facility may also be accessed through the northern access road.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the southwest at an average speed of 5-10 mph year round.

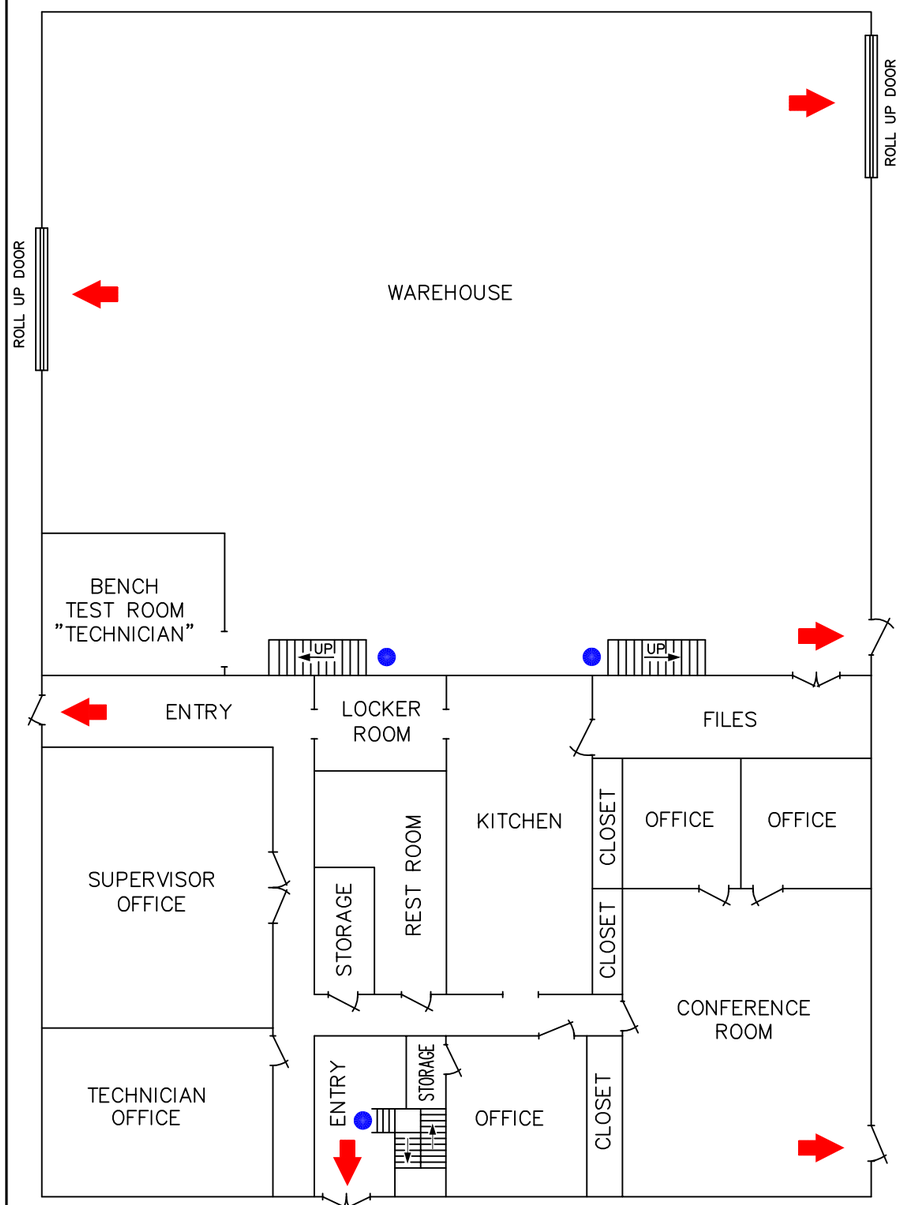
FIGURE 8.8

EVACUATION DIAGRAMS

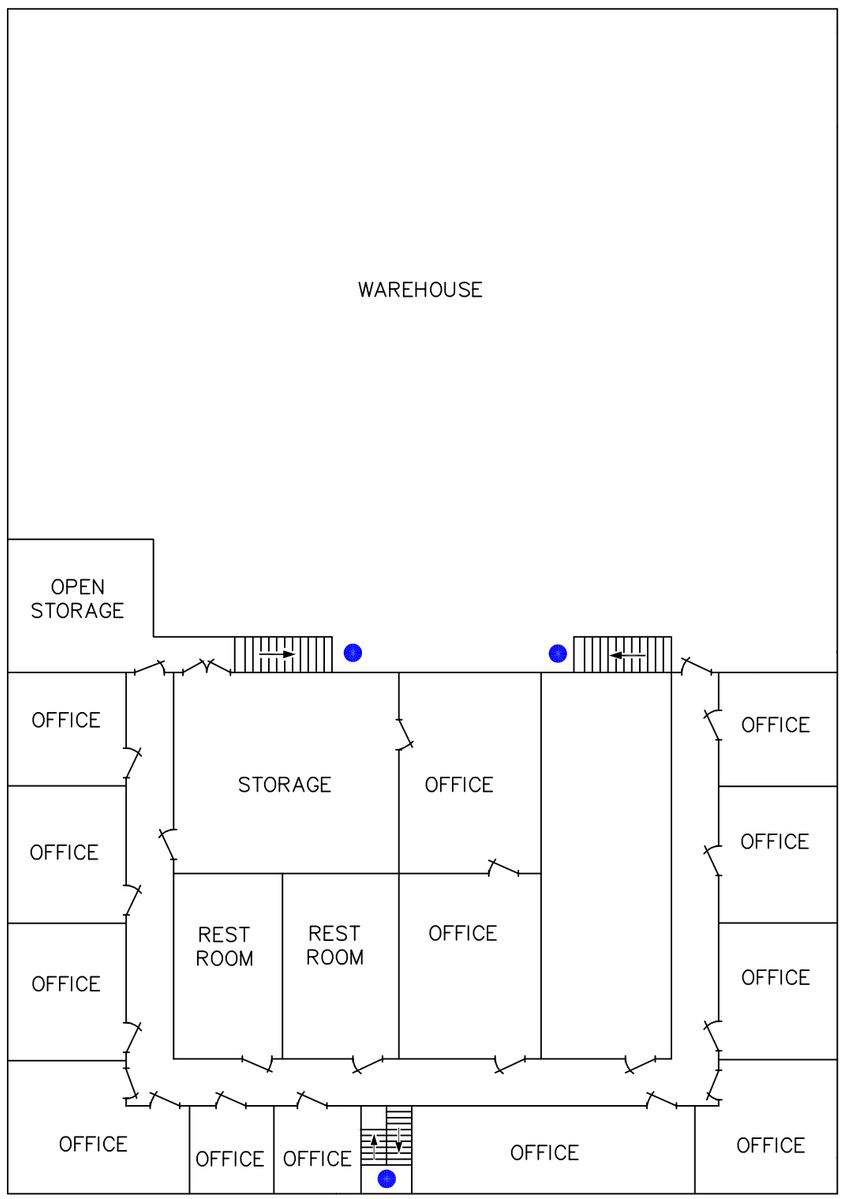
FIGURE 8.8

EVACUATION DIAGRAMS

(b) (7)(F), (b) (3)



FIRST FLOOR



SECOND FLOOR

LEGEND

- STAIRS
- MAIN EXITS

BRADSHAW WAREHOUSE

BRADSHAW ROAD

SFPP, L.P.
ORANGE CALIFORNIA

EVAC. DIAGRAM (WAREHOUSE)
BRADSHAW TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-BRWH	DESIGN SUPV	EVAC-BRW
BY: DR	MGR. SAFETY	
DATE: 12-10-97	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Emergency Director Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2570 Hegan Lane
Chico, CA 95928-9598
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Union Pacific Railroad.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All personnel will report to the Control Building. (Refer to the Evacuation Diagram in the SPCC Plan in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Personnel who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary emergency response command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Control Building or the secondary staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the Chico Fire Department that no community evacuation plan currently exists for this area. However, the fire department does have standard guidelines that are followed in the event of an evacuation.

5. Directions to Enloe Hospital

Take a left on Midway. Take another left on Park Avenue and continue on Park Avenue to Main Street. At Main Street turn right toward Esplanade Road. Take a right on Esplanade Road. The hospital is located at 1531 Esplanade Road.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located Southeast of the Control Building.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest at an average speed of 5-10 mph.

9. Water Currents

Currents in the Little Chico Creek are minimal.

(b) (7)(F), (b) (3)

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location:301 Nugget Avenue
Sparks, NV 89431-5749
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Union Pacific Railroad if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, Control Building, or the north or south staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the Sparks Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to St. Mary's Hospital

From the Facility on Nugget Avenue go west by turning left. Travel 0.37 miles and make a slight right onto Pyramid Way. Stay straight on Pyramid Way/NV-445 for 0.02 miles. Turn left onto I-80 towards Reno and travel 3.05 miles. Take exit number 13 towards Downtown Reno/Virginia Street. Stay straight to go onto E. 8th Street for 0.07 miles. Turn left onto N. Virginia Street/US-395 Bridge and travel 0.18 miles. Turn right onto W. 6th Street. Turn left onto N. Sierra Street. Turn right onto W. 6th Street and travel 0.09 miles to St. Mary's Regional Medical Center.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located south of Nugget Avenue and Stanford Way.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest, at an average speed of 5-10 mph year round.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION PLAN

N

(INTERSTATE 80)

PRIMARY INCIDENT COMMAND CENTER

HAZARDOUS WASTE SATELLITE STORAGE AREA

Nugget Ave.

Nugget Ave.

Nugget Ave.

PARKING

QUALITY INN HOTEL

PARKING

WAREHOUSING

Stanford Way

OMEGA

PARTNERS, LLC

STAGING AREA & SECONDARY INCIDENT COMMAND CENTER

AREA 3

AREA 1

AREA 2

AREA 4

AREA 5

AREA 6

SLIDING GATE

SHELL LOAD RACK 6

HAZ LUBRICITY

ADDITIVE

CONTROL BLDG.

LOADING PUMPS

LOAD RACK 1

LOAD RACK 2

KAG TANK LINES

CARDLOCK FUELS

TRUCK MAINT. BLDG.

SLIDING GATE

LADDER

PUMPS

SLIDING GATE

LOAD RACK 3

LOAD RACK 5

STORAGE & DOCK

CHEVRON USA, INC.

BURNER

LOAD RACK 4

JP-8 LOAD RACK

VACANT

WAREHOUSE

VACANT

FOREMAN POND

WASTE WATER TREATMENT BLDG.

FRAC TANK

BERRYHINKLY TERMINAL CO. (FORMERLY N.W. TERM.)

TANK – CAR LOADING RACK

PAVED ROADWAY

6" DIESEL TO SP. CO.

HAZARDOUS WASTE STORAGE AREA

WATER TREATMENT PLANT

WAREHOUSE

LEGEND:

- KEYED GATE
- SINGLE GATE
- DOUBLE GATE
- CARD LOCK GATE
- STAIR/LADDER
- MAIN EXIT

NOTES:

1. ALTERNATE STAGING AREAS ARE ALSO LOCATED AT THE NUGGET PARKING LOT TO THE WEST AND THE VACANT LOT WEST OF DENNY'S EAST OF THE TERMINAL.

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
RENO TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-RE	DESIGN SUPV	EVAC-RE
BY: CLV	MGR. SAFETY	
DATE: 11-15-10	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

SECTION 8

BRADSHAW TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

CHICO TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

RENO TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

INTEGRATED CONTINGENCY PLAN

Volume 2

[redacted]

Northern Region - Central

Fresno Area

Prepared for:

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street
Houston, TX 77002
or
1100 Town and Country Road
Orange, CA 92868

Prepared by:

Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 ● Fax: (281) 320-9700
www.rmaworld.com

EMERGENCY RESPONSE ACTION PLAN (ERAP)

The users of this Plan carry and maintain the complete Volume 1 and Volume 2 documents and the Plan has been designed for quick reference. Accordingly, the Emergency Response Action Plan (ERAP) for this Integrated Contingency Plan is addressed by cross-reference as follows:

● Qualified Individual	Volume 1 Figure 2.3; Volume 2 § 8.1.2
● Emergency Notification Phone List	Volume 1 §§ 2.1, 2.2; Volume 2 §§ 2.1, 2.2
● Spill Response Notification Form	Volume 1 Figure 2.2
● Response Equipment List and Location	Volume 2 § 3.1 and Figure 3.2
● Response Equipment Testing and Deployment	Volume 2 §§ 3.1, 3.2, 3.3, Figure 3.4
● Facility Response Team	Volume 1 § 2.0; Volume 2 § 2.0
● Evacuation Plan	Volume 2 § 8.4
● Immediate Actions	Volume 1 § 3.4
● Facility Diagram	Volume 2 § 8.1.2, Figure 8.3

REVISION RECORD

CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipeline, GATX Terminals, and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	General Plan Update; Revisions to Address; DOT RSPA Review
January 2005	iii, 2-2, 2-7, 3-5 thru 3-8, 3-10, 7-2, 8.1-3, 8.2-15, 8.2-16, 8.2-22, 8.2-23, 8.2-25	iii, 2-2, 2-7, 3-5 thru 3-8, 3-10, 7-2, 8.1-3, 8.2-15, 8.2-16, 8.2-22, 8.2-23, 8.2-25	Miscellaneous revisions
June 2005	Pgs. iii, iv; 2-1	Pgs. iii, iv; 2-1	Facility information update and miscellaneous revisions; Revisions to address Notifications and OSPR review.
October 2005	Pgs. iii, v, 2-7, 2-12, 3-2, 3-10, Fresno - 8.3-6, 8.3-7	Pgs. iii, v, 2-7, 2-12, 3-2, 3-10, Fresno - 8.3-6, 8.3-7	General Plan Update
December 2005	Pgs. Foreword, Table of Contents, Section 2.0, 3-2, 3-4, 4-8, Fresno - 8.1-6 (Fig. 8.2 Area Map), Sec. 8.2 (See revision packet for specific pages.)	Pgs. Foreword, Table of Contents, Section 2.0, 3-2, 3-4, 4-8, Fresno – 8.1-6 (Fig. 8.2 Area Map), Sec. 8.2, 8.4-4 (Fig. 8.9 & inserts) (See revision packet for specific pages.)	General Plan Update
September 2006	Pgs. iii thru v, 1-1, 1-2, 1-3, 2-1, 2-3, 2-4, 2-6, 2-7, 2-8, 2-13, 3-5, 3-8, 3-10, 3-14, 3-15 and attach-ments, 6-1, 6-4, 6-5, 6-6, 7-1 thru 7-3, 8.1-1, 8.1-5, 8.1-7, 8.1-8, 8.2-1, 8.2-7, 8.2-8, 8.2-9, 8.2-10, 8.2-11, 8.2-13, 8.2-15, 8.2-26, 8.2-27, 8.2-28, 8.2-30, 8.2-31, 8.3-5, 8.3-6, 8.3-8, 8.3-9, 8.3-10, 8.3-11, 8.4-2, 8.4.3	Pgs. iii thru v, 1-1, 1-2, 1-3, 2-1, 2-3, 2-4, 2-6, 2-7, 2-8, 2-13, 3-5, 3-8, 3-10, 3-14, 3-15 and attach-ments, 6-1, 6-4, 6-5, 7-1 thru 7-4, 8.1-1, 8.1-5, 8.1-7, 8.1-7a, 8.1-8, 8.2-1, 8.2-7, 8.2-8, 8.2-9, 8.2-10, 8.2-11, 8.2-13, 8.2-15, 8.2-26, 8.2-27, 8.2-28, 8.2-30, 8.2-31, 8.3-5, 8.3-6, 8.3-8, 8.3-9, 8.3-10, 8.3-11, 8.4-2, 8.4.3, 8.4.3a	General Plan Update
November 2007	iii, iv, v, TOC-ii, 2-1, 2-13, Section 6.0 (all)	iii, iv, v, TOC-ii, 2-1, 2-13, Section 6.0 (all)	Annual Update

NOTE: It is the responsibility of the holder of this plan to insure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

REVISION RECORD			
CHANGE DATE	**REMOVE**	**INSERT**	**DESCRIPTION OF CHANGE(S)**
	PAGE NUMBER(S)		
April 2009	iv, v, 3-2	iv thru vi, 3-2	Distribution and response information updates.
August 2009	iv thru vi, 8.1-4, 8.1-5, Figures 8.3 and 8.4 (retain Figure 8.3a), 8.2-4, 8.2-9, 8.2-13, 8.4-3 (retain page 8.4-3a)	iv thru vi, 8.1-4, 8.1-5, Facility Diagram and Fire Protection Diagram, 8.2-4, 8.2-9, 8.2-13, 8.4-3 and Evacuation Diagram	Annual Review. Update distribution, tank/truck rack information, and facility diagrams.
July 2010	iv, TOC-i, 2-10, 2-14 and Open End and On- Call Contracts List, 3-1, 3-5 through 3-15 and PARC Environmental Contract, 6-1 through 6-3, 6-6, 8.2-5, 8.2-11, 8.2-13, 8.2-15, 8.2-17 through 8.2-32 (retain Drainage Diagrams)	iv, TOC-i, 2-10, 3-1, 3-5 through 3-12 and PARC Environmental Contract, 6-1 through 6-3, 6-6, 8.2-5, 8.2-11, 8.2-13, 8.2-15, 8.2-17 through 8.2-23.	Annual Review. PHMSA Advisory Review.
November 2010	Pgs. iv, 2-13	Pgs. iv, 2-13	Updated Oiled Wildlife Care Network contact information.
August 2011	Pgs. iv, v	Pgs. iv, v	Update Northern Region Office address.
January 2012	Pgs. iv, 6-7 and HCA Index, 7-3, Section 8.1 Fire Protection Diagram, 8.4-3 and Fresno Terminal Evacuation Diagram	Pgs. 6-7 and HCA Index, 7-3 and Fresno Terminal General Layout Diagram, Section 8.1 Fire Protection Diagram, 8.4-3 and Fresno Terminal Evacuation Diagram	Update HCA references, HCA Index, and facility diagrams.
March 2013	Title Page, iv through vi, Section 1, 2-3, 2-8, 2-10, 3-2, 3-7, 3-12 and Agreement No. 13702, Section 6	Title Page, iv through vi, Section 1, 2-3, 2-8, 2-10, 3-2, 3-7, 3-12 and Contract No. 51351, Section 6	Update company, pipeline and response contractor information.

NOTE: It is the responsibility of the holder of this plan to insure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

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1	Director, Compliance Codes and Standards 1001 Louisiana, Suite 1000 Houston, TX 77002	A	A
2, 19, 20 7 24	Director of Operations (3) 709 Beck Avenue Fairfield, CA 94533 Operations Manager Manager Pipeline Maintenance	A	A
   11 12-15 16 17, 18	Orange Facilities 1100 Town & Country Rd. Orange, CA 92868 Crisis Relocation Center Mission Valley Orange Control Center (4) Orange Remediation Groups (Environmental Specialist) Orange Engineering (2)	A	A
8 21	Area Manager (Fresno Area) 4149 S. Maple Ave. Fresno, CA 93725 Lead Operator	A	A

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Region IX (SFD1-4)
75 Hawthorne Street
San Francisco, CA 94105 (One (1) per facility)

State of California Department of Fish and Game
Oil Spill Prevention and Response
Suite 250
1700 K Street
Sacramento, CA 94244

County of Tulare
Health & Human Services
Attn: Environmental Health Services Division
5957 S. Money Blvd.
Visalia, CA 93277

Witt O'Brien's
818 Town & Country Blvd, Suite 200
Houston, TX 77024

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3,4, 5, 6, 9, 10, 22, 23, 25, 26, 27, 28

NOTE: The Distribution of this Plan is controlled by the Copy Number located on the front cover. The Plan Distribution Procedures and the Plan Review and Update Procedures provided in Volume 1 should be followed when making any and all changes.

A = 2.0" Binder

1.0 INTRODUCTION AND PLAN CONTENT

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street, Suite 1000
Houston, Texas 77002
(713) 369-9454

Qualified Individual:	Doug Schminke Director Operations 707.438.2104 *(Office)* (b) (6) *(Mobile)* doug_schminke@kindermorgan.com
Alternate Qualified Individual:	Steve Osborn Operations Manager 916.624.2431x13 *(Office)* (b) (6) *(Mobile)* osborns@kindermorgan.com
Area Manager – Fresno	Mike McWhorter 559.493.2975 Office (b) (6) Mobile mcwhorterm@kindermorgan.com

1.2 OPERATING ASSETS COVERED BY THIS PLAN

The following tables provide a general information summary for the pipeline sections, pipeline facilities, breakout stations and terminals in each of the Areas in this Region. Specific detail can be located in the following sections for the applicable area.

- Section 6 – Area Pipeline Sections (for DOT jurisdiction)
- Section 7 – Area Breakout Stations (for DOT jurisdiction)
- Section 8 – Area Terminals (for EPA, USCG and OSPR jurisdiction)

FRESNO AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
FRESNO AREA LINES		
Merced River-South BV – Atwater 12”	50	Merced, CA
Atwater - Fresno 12”	60	Merced, Madera, Fresno, CA
Fresno - Fresno Military 8” – 10”	119A	Fresno, CA
Fresno Military - Lemoore 6”	119	Fresno, Kings, CA
Bakersfield – Fresno 8”	15	Fresno, CA
PIPELINE FACILITIES (Non-Storage)		
Bakersfield Pump Station – Booster		
Fresno Military Pump Station – Booster		
Lemoore NAS - Meter Facility Only		
BREAKOUT STATIONS		**COUNTY / STATE**
Fresno Military		Fresno, CA
TERMINALS		**COUNTY / STATE**
Fresno Terminal		Fresno, CA

1.3 SUBSTANTIAL HARM

It is Kinder Morgan Energy Partners, L.P. (KMEP)'s goal to respond as quickly as possible to all uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the overbreadth of the definitions provided in each of the applicable regulations, KMEP is compelled to consider all of the Facility's breakout stations, and active line sections listed above in this Section, as capable of a release potentially causing "significant and substantial harm". A summary of the worst case discharge scenarios for these facilities is provided as follows:

NORTHERN REGION CENTRAL WORST CASE DISCHARGE DOT JURISDICTION	
Discharge Scenario	**Planning Volume**
Worst Case Discharge for the Response Zone	
(b) (7)(F), (b) (3)	

* DOT worst case discharge volumes are based on 50% of the tank's maximum storage capacity and for pipelines based on an annual Integrity Management Program study, as follows:

Release volume prior to line shutdown and valve closures (Initial Loss):

- Full flow release due to rupture. This is computed at the maximum pumping rate the line segment.
- Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of fifteen (15) minutes in the event of a full flow rupture, which would cause an instant alarm (unless otherwise noted in the line segment information).
- Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

Line drainage following pump shutdown (Stabilization Loss) is computed the maximum potential line drainage between adjacent isolation or check valves, and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line. The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

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NORTHERN REGION CENTRAL WORST CASE DISCHARGE EPA JURISDICTION	
Discharge Scenario	**Planning Volume**
Small Discharge	
• Fresno Terminal	50 Bbls
Medium Discharge	
• Fresno Terminal	857 Bbls
Worst Case Discharge	
(b) (7)(F), (b) (3)	

Note: EPA worst case discharge is based on the maximum storage capacity of the largest tank.

1.3 SUBSTANTIAL HARM (Cont'd)

These Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three-tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. Sections 6, 7 and 8 of this Plan demonstrate a series of calculations and planning volume determinations based on guidance provided by all applicable regulations. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios detailed in the table above.

1.4 FORMAT AND SCOPE OF PLAN

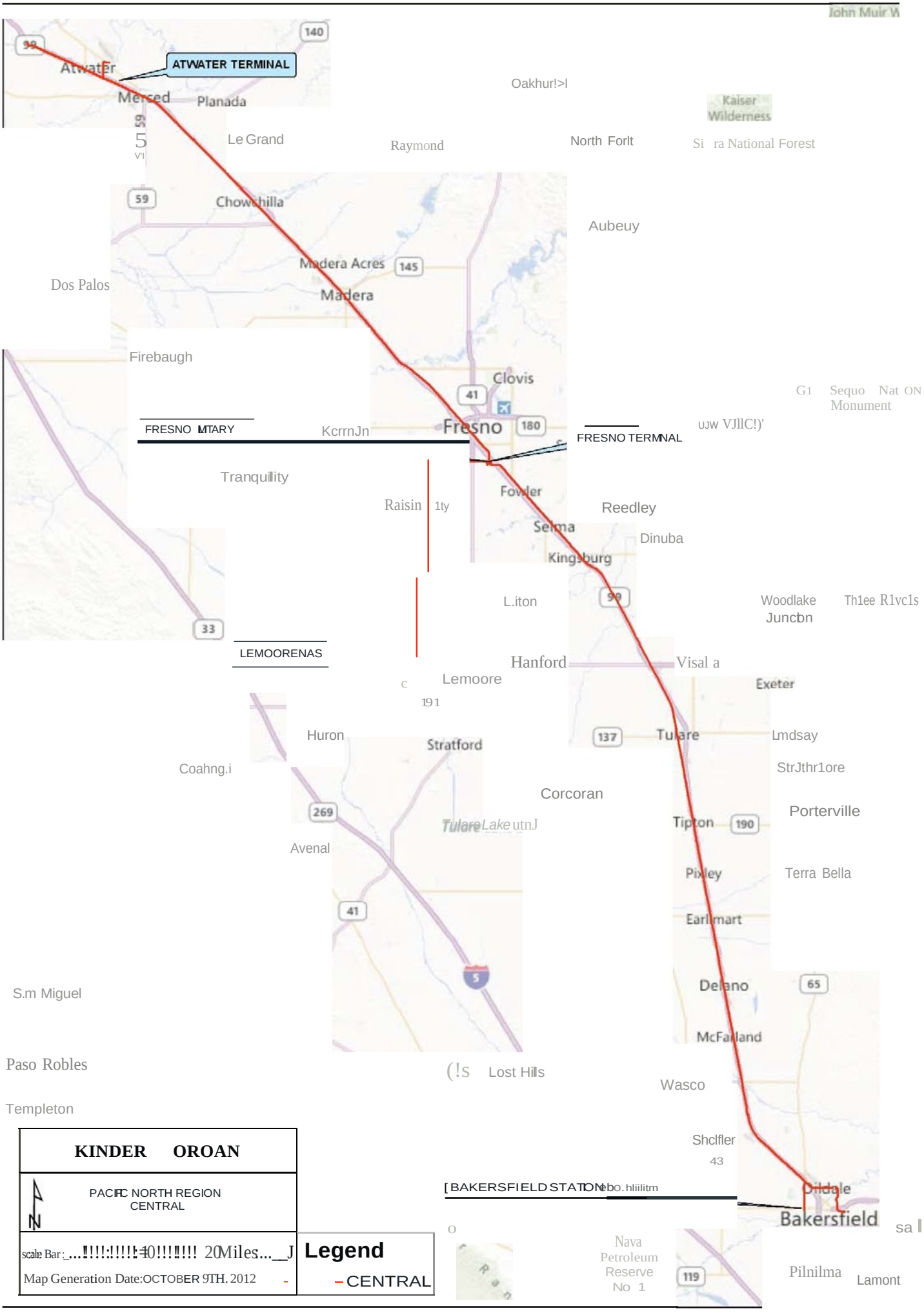
This Volume 2 of the Integrated Contingency Plan is intended to guide emergency response activities throughout KMEPs Pacific Operation Northern Region - Central. This Region is composed of the Fresno Area (see Figure 1.1).

Section 6 details the Pipeline Sections in the Area, Section 7 details the Breakout Stations and/or Terminals (DOT-jurisdictional) in the Area, and Section 8 details the Terminal (multi-jurisdictional) in the Area. The Area covered by this particular Plan is identified on the front cover of this Plan and on the footer of each page and on the maps provided in Figure 1.1.

Volume 1 of the Integrated Contingency Plan provides guidance which is consistent across the Pacific Operations. The two (2) documents are intended to work together as one seamless Integrated Contingency Plan for the various facilities/operations and agency jurisdictions in Pacific Operations.

Figure 1.1

NORTHERN REGION-CENTRAL AREA MAP



KINDER OROAN

PACIFIC NORTH REGION
CENTRAL

N

scale Bar: 0 10 20 Miles

Map Generation Date: OCTOBER 9TH, 2012

Legend

– CENTRAL

2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific reference to all internal notifications is detailed in Volume 1 Section 2.1 which provides the following:

- KM Employee or Agent Notification Process - California Only (Figure 2.1a)
- Operator Notification Process - Non-California (Figure 2.1b)
- Company Employee Other Than Operator Notification Process - Non-California (Figure 2.1c)
- Controller - Orange, CA Notification Process - California Only (Figure 2.1d-1)
- Controller - Orange, CA Notification Process - Non-California (Figure 2.1d-2)
- Controller - Houston, TX Notification Process (Figure 2.1e)
- Managers Internal Notification Process (Figure 2.1f)
- Initial Reporting Details Form (Figure 2.2)
- Northern Region Internal Notifications References (Figure 2.3a)
- Southern Region Internal Notifications References (Figure 2.3b)
- Crisis Support Team Internal Notifications References (Figure 2.3c)

2.2 EXTERNAL NOTIFICATIONS

Specific reference to all **"Regulatory Required"** external notifications is detailed in Volume 1, Figure 2.1 and Figure 2.4. **With the exception of notification to 911 and/or local fire/police agencies which are handled by local area operations, the Environmental, Health and Safety (EHS) and/or Compliance, Codes and Standards is responsible for making all regulatory required external notifications in all states other than in California. In California and locations monitoring or controlling, pipeline sections in California, refer to Volume 1, Section 2.2 and Figure 2.4.**

The locally required notifications and additional external notification references which are detailed in the following Volume 2 Figure 2.1 provide for assistance/advisory notifications. Specific notifications for contacting OSRO's is found in Volume 2, Figure, 2.1, "Regional Contractors / Services".

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FIRE DEPARTMENTS		
California		
Fresno County Fire Department	Fresno, CA	(559) 485-7500
Kern County Fire Department	Bakersfield, CA	(661) 391-7000
Kings County Fire Department	Hanford, CA	(559) 582-3211
Madera County Fire Department	Madera, CA	(559) 675-7799
Merced County Fire Department	Merced, CA	(209) 722-1551
Livingston Fire Department	Livingston, CA	(209) 394-7919
Fresno City Fire Department	Fresno, CA	(559) 621-4000

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FEDERAL		
U.S. Coast Guard (Recommended Courtesy Call - As Applicable)		
U.S. Coast Guard – Sector San Francisco *(San Joaquin, Stanislaus, Merced, Madera, Fresno and Kings Counties)*	San Francisco, CA	(415) 399-3300*
U.S. Coast Guard – Sector Los Angeles – Long Beach *(Kern County)*	San Pedro, CA	(310) 732-2000 (800) 221-8724* Emergency
U.S. Environmental Protection Agency (EPA)		
U.S. Environmental Protection Agency (EPA) Region IX	San Francisco, CA	(415) 947-4400
U.S. Fish and Wildlife Service		
US Fish and Wildlife Service (USFWS) *(California/Nevada)*	Sacramento, CA	(916) 414-6464
CALIFORNIA		
Office of Spill Prevention and Response (OSPR)		
California Department of Fish and Wildlife Office of Spill Prevention and Response (OSPR)	Sacramento, CA	(888) 334-2258 (916) 445-9338
LEPC		
Local Emergency Planning Committee (LEPC) Region IV-*San Joaquin and Stanislaus Counties*	Sacramento, CA	(916) 264-5268
Local Emergency Planning Committee (LEPC) Region V-*Merced, Madera, Fresno, Kings and Kern Counties*	Bakersfield, CA	(661) 326-3190
California Department of Transportation (DOT)		
California Department of Transportation/Caltrans	Sacramento, CA	(916) 653-3442

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Regional Water Quality Control Board		
Regional Water Quality Control Board (Region 5)	Sacramento, CA Fresno, CA Redding, CA	(916) 255-3000 (559) 445-5116 (530) 224-4845
Air Pollution Control District		
San Joaquin Valley Air Pollution Control District	Fresno, CA	(559) 230-6000
Kern County Air Pollution Control District	Bakersfield, CA	(661) 862-5250
California Department of Conservation		
California Department of Conservation Division of Oil and Gas-District 4 (Kings and Kern Counties)	Bakersfield, CA	(661) 322-4031
California Department of Conservation Division of Oil and Gas-District 5 (Stanislaus, Merced, Madera and Fresno Counties)	Coalinga, CA	(559) 935-2941
California Department of Conservation Division of Oil and Gas-District 6 (San Joaquin County)	Sacramento, CA	(916) 322-1110
State Lands Commission		
California State Lands Commission So. California Branch	Long Beach, CA	(562) 499-6312
California State Lands Commission No. California Branch	Hercules, CA	(510) 741-4950
Cal/OSHA		
Cal/OSHA Fresno Area Modesto Area Sacramento Area	 Fresno, CA Modesto, CA Sacramento, CA	 (559) 445-5302 (209) 576-6260 (916) 263-2800

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Native American Heritage Commission		
Native American Heritage Commission	Sacramento, CA	(916) 653-4082
Office of Historic Preservation Dept. Parks and Recreation		
Office of Historic Preservation Dept. Parks and Recreation	Sacramento, CA	(916) 653-6624
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)		
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)	Sacramento, CA	(916) 653-4529 (24-Hour recorder)
Dig Alert		
USA Underground Services Alert	Concord, CA	(800) 642-2444
Fire Marshals		
Office of the State Fire Marshal 3950 Paramount Blvd #210 Lakewood, CA 90712	Lakewood, CA	(562) 497-9100 * (562) 497-9104 FAX
Fresno City Fire Marshal	Fresno, CA	(559) 621-4111
Law Enforcements		
State Police (Highway Patrol)	Fresno, CA	(559) 441-5400 (559) 441-5441

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Local Water Supply System		
Malaga Water District	Fresno, CA	(559) 485-7353
Weather Report		
Weather Report National Weather Service-Recorded	Hanford, CA Fresno, CA Bakersfield, CA	(559) 584-0312 (559) 498-0375 (661) 393-2340
Radio/ Television		
KPRX - Radio	Fresno, CA	(559) 275-0764
KAAT - Radio	Fresno, CA	(559) 436-1031
KMAP - Radio	Bakersfield, CA	(661) 325-5805
KUBB - Radio	Merced, CA	(209) 383-7900
KCRA - TV	Modesto, CA	(209) 491-5170
KFSN - TV	Fresno, CA	(559) 442-1170
KNXT - TV	Fresno, CA	(559) 488-7440
KMPH - TV	Merced, CA	(209) 722-1700
Channel 59 - TV	Pinedale, CA	(559) 435-5900
KBAK - TV	Bakersfield, CA	(661) 325-6397

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Hospitals/Ambulance Service		
Fresno Community Medical Center	Fresno, CA	(559) 459-3998
Concentra Medical Center	Fresno, CA	(559) 268-0666
San Joaquin Community Hospital	Bakersfield, CA	(661) 395-3000
Madera Community Hospital	Madera, CA	(559) 675-5555 (559) 675-5531
Memorial Medical Center	Modesto, CA	(209) 526-4500
Mercy Hospital	Merced, CA	(209) 384-6444
American Ambulance	Fresno, CA	(559) 443-5900
Riggs Ambulance	Merced, CA	(209) 725-7000
Pistoresi Ambulance	Madera, CA	(559) 673-8004
American Medical Response	Modesto, CA	(209) 567-4000

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NORTHERN REGION – CENTRAL CONTRACTORS / SERVICES			
NON-USCG CLASSIFIED OSRO WITH CONTRACT AGREEMENT			
PARC Environmental, Inc.	Cleanup Contractor	Fresno, CA	(800) 955-7761* (559) 233-7156 (559) 955-7761
ADDITIONAL RESPONSE RESOURCES			
Ecology Control Industries, Inc.	Cleanup Contractor	Richmond, CA Torrance, CA	(800) 321-5479 (510) 235-1393* (310) 320-2555*
PSC Industrial Outsourcing, Inc.	Cleanup Contractor	Benicia, CA	(707) 746-8287* (800) 800-7472*
SPILL MANAGEMENT TEAM SUPPORT			
Witt O'Brien's	Personnel, Comms and Management Equipment	Slidell, LA Houston, TX Brea, CA Seattle, WA	(981) 781-0804* (281) 320-9796

* 24 Hour Number

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES				
ADDITIONAL RESPONSE RESOURCES				
DISPOSAL FACILITY	**LOCATION**	**MATERIAL**	**OFFICE/ ALTERNATE**	**EPA ID#**
Royal Tallow	San Francisco, CA	Non-hazardous liquids	(415) 647-4890	CAD 982361016
Republic Services VASCO Road LLC	Livermore, CA	Non-hazardous solids	(925) 447-0491	CAD 982407645
Romic Environmental Technologies Corp.	East Palo Alto, CA	Hazardous solids and liquids	(800) 766-4248	CAD 009452602
Clean Harbors	Buttonwillow, CA	Hazardous landfill	(661) 762-6200	CAD 980675276
General Environmental Management	Rancho Cordova, CA	Hazardous solids and liquids	(916) 351-0980	CAD 980884183

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL CONTRACTED RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Environmental Consultants			
Witt O'Brien's	Consultants	Slidell, LA Houston, TX	(981) 781-0804* (281) 320-9796 (281) 320-9700 FAX
ARCADIS U.S., Inc.	Consultants	Los Altos, CA Oakland, CA San Francisco, CA San Jose, CA Walnut Creek, CA	(650) 469-7230 (510) 271-7997 (415) 374-2744 (408) 365-5703 (925) 365-5703
Pipeline Contractor			
ARB, Inc.	Pipeline Contractor	Pittsburg, CA	(925) 432-3563*
Arizona Pipeline Co.	Pipeline Contractor	Corona, CA	(909) 270-3100
Corey Delta Construction Co.	Pipeline Contractor	Benicia, CA	(707) 747-7500*
Trucking Companies			
Ecology Control Industries, Inc.	Hazardous Waste Transporter	Richmond, CA	(510) 235-1393
X-Ray			
Industrial Tests, Inc.	X-ray	Sacramento, CA	(916) 483-2225

NOTE: Internal Company Numbers are provided in Volume 1.

* **Planning Assumptions**: On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Environmental Consultants			
Fluor Daniel	Consultants	Redwood City, CA	(415) 595-6342 (415) 595-6244 (415) 595-6310
Groundwater Tech.	Consultants	Concord, CA	(510) 671-2387
Kaprealian Engineering	Consultants	Martinez, CA	(510) 676-9100
Woodward/Clyde	Consultants	Oakland, CA San Jose, CA	(510) 444-1256 (408) 297-9585
Heavy Equipment			
Albany Construction Co	Cranes	Martinez, CA	(925) 228-5400
BL Griffin	Pumps, Hoses	Chico, CA	(530) 342-4391
Beacon Petroleum Products	Tank Trucks, Pumps	Chico, CA	(530) 342-6949
Cliff Edwards	Backhoe, Dozers, Trucks, Tank Trucks	Colfax, CA	(916) 346-2432
Collins Construction	Backhoe	Clovis, CA	(559) 299-4295 Dennis Collins
Cresco Equipment Rentals	Equipment Rental	Martinez, CA	(925) 228-9811 (800) 649-6629
Crutchfield Const Co.	Backhoe, Side Boom Trucks, Dump Trucks	Stockton, CA	(209) 463-5352 (209) 931-9287 – Linden
Frost Oil Co.	Tank Trucks	Chico, CA	(530) 514-4732
Granite Construction	Equipment Rental	Sparks, NV	(775) 358-8792

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING) (Cont'd)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Heavy Equipment (Cont'd)			
Hertz Equipment Rental	Equipment Rental	Concord, CA Fresno, CA	(925) 680-0316 (559) 497-1960
Manson Construction	Group V Oil Cleanup	Richmond, CA	(510) 232-6319
McGill Elliot Construction	Backhoe	Sacramento, CA	(530) 677-8930 Roy McGill
Norris Fuel Co.	Tank Trucks, Pumps	Sparks, NV	(702) 358-4453
Parker Diving Service	Group V Oil Cleanup	Forest Knolls, CA	(415) 488-0537*
Paydirt Excavating Co.	Backhoe, Loader, Trucks	Ripon, CA	(209) 599-2347
Philip Services	Vacuum Trucks	Benicia, CA	(702) 358-4435
Placer Tractor Service	Equipment	Loomis, CA	(916) 652-5535
Quinn "Cat" Rental	Heavy Equipment	Fresno, CA	(559) 268-8800
Ramos Environmental	Tank Trucks, Pumps, Hoses, Vacuum Trucks	West Sacramento, CA	(916) 371-5747
Tarrant Construction	Back Hoe, Front-End Loader, Dump Truck	Chico, CA	(530) 342-1219
Teichert Construction	Excavating Equipment	Truckee, CA Sacramento, CA	(916) 587-3811 (916) 386-6800
Truckee Sanitary Dist	Backhoe, Loaders	Truckee, CA	(916) 587-3804
United Rentals	Equipment Rental	Rocklin, CA Chico, CA Sparks, NV	(916) 624-0641 (530) 894-7799 (775) 359-6660
West Valley Construction Co.	Construction Equipment, Fill Material	Chico, CA	(916) 895-0216 (Day/Night)
W F Landy / Gomes Excavation	Excavation	Rio Vista, CA	(707) 374-2881
Williams Tank Lines, Inc	Tank Trucks, Pumps, Hoses	Stockton, CA	(209) 944-5613
W. M. Lyles Co.	Pipeline Contractor	Fresno, CA	(559) 237-2200

NORTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING) (Cont'd)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Vacuum and Tank Trucks			
Evergreen Environmental, Inc.	Vacuum Trucks	Fresno, CA	(510) 795-4400
Beneto Tank Lines	Tank Trucks	Fresno, CA	(559) 266-6228
A/C Industrial	Vacuum Trucks	Chico, CA	(530) 343-5488
Asta Construction Co.	Hazwaste	Rio Vista, CA	(530) 686-5223
California Tank Lines	Tank Trucks, Pumps, Hoses	Stockton, CA	(209) 466-3554 (209) 883-2658 (209) 931-1003 (209) 931-3818
Delta Oilfield Services	Hazwaste & Mat'l	Woodward, CA	(916) 662-2841
Teichert Construction	Vacuum Trucks, Tank Trucks	Sacramento, CA	(916) 386-6800 (800) 287-7383*
Philip Services, Inc.	Vacuum Trucks	Benicia, CA	(707) 746-8287
Wildlife/Rescue			
Oiled Wildlife Care Network	Wildlife Rescue & Rehab.	Davis, CA	(530) 752-4167
International Bird Rescue Center	Wildlife Rescue & Rehab.	Fairfield, CA	(707) 207-0380
X-Ray			
Conam Inspection (formerly Pacific Coast Testing)	X-ray	Benicia, CA	(707) 746-5878

3.0 RESPONSE RESOURCES

The following sections outline the various response equipment/resources available from the Facility, other Company facilities, and other outside resources.

3.1 AREA RESPONSE EQUIPMENT

This Area of the KMEP operations maintains response equipment readily available for spill response as detailed on the "Facility Response Equipment" lists provided in Figure 3.1 and the "Pipeline Repair Equipment" lists provided in Figure 3.2. The equipment is stored at locations in the Area as detailed on the equipment lists.

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. The equipment will be exercised as semi-annually (Terminal equipment) or annually (pipeline equipment) as required (PREP Guidelines). A sample form for documenting these Equipment Deployment Exercises is provided in Figure 3.4.

KMEP has contracts in place with Oil Spill Removal Organizations and other clean-up and response contractors that are capable of responding to all discharges within the Area and supplementing Area KMEP resources.

The Qualified Individual has the authority to activate these and other KMEP resources or that of private contractors and other experts and consultants as the situation demands.

3.2 OTHER COMPANY RESOURCES

Neighboring KMEP Areas have response resources similar to those provided in this Area (Figures 3.1 and 3.2). These resources as well as additional Company spill response equipment and manpower resources may be available to supplement the response operation.

3.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation. *The Company will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.*

Response resources will be secured from a Company approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Volume provides a quick reference to the OSROs and additional clean-up and response contract organizations. A detailed list of the "Pacific Region Open End and On-Call Contractors" is provided in Figure 2.2. Specific reference to their response capability (UCSG OSRO classification) is provided in Figure 3.3.

These OSRO's have adequate equipment and personnel resources available within the Area to respond to the applicable regulatory planning volumes in the required time frames.

3.3 CONTRACT RESOURCES (Cont'd)

OSROs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. KMEP personnel will oversee and coordinate with the OSRO to ensure their actions conform with overall incident objectives and established incident action plans.

OSROs also have extensive experience in using the Area Contingency Plans (ACPs) as a resource when responding to an incident that has affected a navigable waterway. The KMEP Incident Commander, Planning Officer and Operations Chief will employ the OSRO's experience to integrate applicable local ACPs into the overall incident action plans.

3.4 AREA CONTINGENCY PLANS (ACP)

Area Committees comprised of Federal, state and local agencies develop ACPs. Response efforts performed within a certain "area" should reference the ACPs for that specific area. ACPs include clean-up strategies and information on environmentally sensitive areas within a particular region. Some of the ACPs include maps, shoreline characteristics and booming strategies for specific areas while other ACPs offer priority lists of environmentally sensitive areas.

ACPs generally contain the following information:

- Physical features
- Seasonal concerns
- Resources of primary concern
- Containment, and cleanup strategies, including recommended techniques
- Equipment considerations
- Incident Command System Roles and Responsibilities (NIMS)

To identify specific spill response and protection strategies for the applicable region/area, ACP and Geographic Response Plan information can be found at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/pacific_icp.html Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-KMEP plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1 (inside front cover) or in a separate folder in electronic copies and is referenced in Figure 4.2.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

3.5 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/mutual aid resources will be utilized when available and/or necessary.

3.6 EXPERTS AND CONSULTANTS

KMEP maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

3.7 VOLUNTEERS

Volunteers will not be utilized by KMEP for the response operations. All volunteers will be referred to the state or Federal On-Scene Coordinator.

3.8 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment / diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between KMEP and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

3.8.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with KMEP emergencies. The notification procedures and telephone contacts documented in Section 2 of Volume 1 and Volume 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and state emergency telephone numbers for the Orange Control Center and emergency response personnel (Volume 1; Section 2).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Volume 2; Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Volume 2; Figure 2.1).

3.8 COMMUNICATIONS (Cont'd)

3.8.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing KMEP communications network. This network will utilize existing radios, telephones, beepers, fax machines, and computers and will be maintained by KMEP personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other KMEP and contract resources as the situation demands.

Each KMEP responder has, at a minimum, a cellular telephone. All KMEP response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the KMEP spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and kept in designated KMEP response trailers. In addition, KMEP also utilizes radio sets provided by contract resources. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain KMEP personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited. Most response team members carry a pager.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and KMEP personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE 3.1
Facility Response Equipment
(Reserved)

Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3

FIGURE 3.2
Pipeline Repair Equipment

Fresno Terminal		
Qty.	**Item**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
13 ea. 10’	Absorbent boom	Warehouse
7 pkgs.	Absorbent Pads	Warehouse
1-12” 1-8”	Leak sleeves	Yard
2	Line Probes	RV
2	Line Fider	RV/Shop
2	30# Ansul Fire Extinguishers.	Emergency Trailer
2	Fire Blankets/Water Gel	RV/Emergency Trailer
1	MSA-261	RV/Emergency Trailer
1	Gastech	RV/Emergency Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be “deployed” for equipment deployment exercise purposes.

FIGURE 3.3

AMPD INFORMATION - KMEP Fresno Terminal

- **AMPD response provider**

Non-USCG Classified OSRO / Clean-up Contractor	Contract Expiration Date
PARC Environmental, Inc. 2706 South Railroad Avenue Fresno, CA 93725 (800) 955-7761	51351 April 03, 2017

- **Equipment Address (*1-hour response time):**
  PARC Environmental, Inc.
  2706 South Railroad Avenue
  Fresno, CA 93725
  (800) 955-7761

  Boom: 1,000 ft

- **Equipment Address (*2-hour response time):**
  Evergreen Environmental, Inc.
  2522 South Cherry Avenue
  Fresno, CA 93725
  (510) 795-4400

  Skimmer: Skimpack

  Vacuum Trucks: One (1) each 5,000 gallon capacity, one (1) each 4,000 gallon capacity, & four (4) each 2,200 gallon capacity.

  Temporary Storage: 17,800 Gallons Total

***Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

FIGURE 3.3

OIL SPILL REMOVAL ORGANIZATIONS (Cont'd)

USCG OSRO Classifications

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

FIGURE 3.4

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Terminal/Response Zone: _____

3. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

4. Deployment location(s):
   _____
   _____
   _____
   _____
   _____
   _____

5. Time started: _____
   Time completed: _____

6. Equipment deployed was:
   - ❑ Facility - owned
   - ❑ Oil spill removal organization - owned if so, which OSRO? _____
   - ❑ Both

7. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:
   _____
   _____
   _____
   _____

8. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):
   _____
   _____
   _____
   _____

9. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's small/average most probable spill?
   _____
   _____

   Was the equipment deployed in its intended operating environment?
   _____
   _____

FIGURE 3.4 (Cont'd)

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

10. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

    Was the equipment deployed in its intended operating environment?

11. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

    If so, describe the program: _____

    Date of last equipment inspection: _____

12. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

13. Was all deployed equipment operational? If not, why not?

14. Attach a description of lessons learned, procedures and schedule for implementation, and persons responsible for follow up of corrective measures.

_____ _____

Certifying/Evaluator Signature Date

Retain this form and other documentation related to this exercise for a minimum of 5 years.

California OSPR Facilities/Response Zones: Submit this form and supporting documentation to Charlena Hayes at crhayes@ospr.dfg.ca.gov or FAX (916) 324-9786.

FIGURE 3.5

OSRO CONTRACTS

PARC ENVIRONMENTAL

PROFESSIONAL EMERGENCY RESPONSE SERVICES AGREEMENT

AGREEMENT NUMBER: 51351

COMMENCES: 04/03/2012

TERMINATES: 04/03/2017

BETWEEN

KINDER MORGAN ENERGY PARTNERS, L.P.

"COMPANY"

AND

PARC ENVIRONMENTAL

"CONSULTANT"

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AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES

NUMBER 51351

THIS AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES (the "Agreement") is entered as of April 3, 2012 and effective as of 04/03/2012 (the "Effective Date"), by and between KINDER MORGAN ENERGY PARTNERS, L.P., a limited partnership, with its principal place of business in Houston, Texas (the "COMPANY"), acting for itself and on behalf of any of its affiliates and subsidiaries which execute Work Directives hereunder (defined below), and PARC ENVIRONMENTAL, a corporation, with its principal place of business in FRESNO, CA (the "CONSULTANT").

WITNESSETH:

WHEREAS, CONSULTANT represents that it has the requisite knowledge, familiarity, experience, equipment, tools and fully trained and experienced personnel to perform emergency response services for the containment and cleanup of petroleum products and other hazardous and non-hazardous materials on an on-call, 24 hours 7 days a week basis as further described herein; and

WHEREAS, COMPANY desires CONSULTANT to perform said work.

NOW, THEREFORE, for and in consideration of the covenants and agreement hereinafter contained, the parties do hereby agree as follows:

1.0 CONTRACT DOCUMENTS AND DEFINITIONS

1.1 The "Contract Documents," in order from highest precedence to lowest precedence, shall consist of:

1.1.1 This Agreement 51351

1.1.2 Exhibit A - Form of Work Directive

1.1.3 Exhibit B - Schedule of Values

1.1.4 Exhibit C - Drug & Alcohol/Operator Qualification Program Requirements

1.1.5 Exhibit D - Form of Certificate of Final Completion

1.1.6 Exhibit E1 - Form of Conditional Waiver and Release

1.1.7 Exhibit E2 - Form of Unconditional Waiver and Release

1.1.8 Exhibit F - Form of Certificate of Insurance

1.2 In the event of a conflict between this Agreement and any Exhibit hereto, this Agreement shall control. In the event of a conflict between or among the Exhibits to this Agreement, the Exhibit with the highest order of precedence shall control (that is, for example, Exhibit **B** is higher in order of precedence than Exhibit **C**). For the avoidance of doubt, the term "Agreement" when used hereinafter in this Agreement shall mean this Agreement along with the Exhibits referenced in Section **1.1** and attached hereto (including any actual Work Directive(s), Certificate(s) of Final Completion, Lien Waivers or any other document executed by the parties in connection with this Agreement).

1.3 As used in this Agreement, the terms "hereunder", "herein", "herewith" and "hereof" are references to this Agreement and the Exhibits, taken as a whole. All references to a given agreement, instrument or other document shall be a reference to that agreement, instrument or other document as modified, amended, supplemented and restated through the date as of which such reference is made, and reference to a law, regulation or ordinance includes any amendment

or modification thereof, unless otherwise stated in the context. A reference to a person includes its successors and permitted assigns. The singular shall include the plural and the masculine shall include the feminine, and vice versa.

1.4 Definitions

1.4.1 **"Agreement"** shall have the meaning set forth on the first page of this Agreement and as further described in Section 1.2 of this Agreement.

1.4.2 **"COMPANY"** shall have the meaning set forth on the first page of this Agreement.

1.4.3 **"COMPANY Indemnitees"** shall have the meaning set forth in Section 7.1 of this Agreement.

1.4.4 **"Confidential Information"** shall have the meaning set forth in Section 14.0 of this Agreement.

1.4.5 **"CONSULTANT"** shall have the meaning set forth on the first page of this Agreement.

1.4.6 **"CONSULTANT Indemnitees"** shall have the meaning set forth in Section 7.2 of this Agreement

1.4.7 **"Contract Administrator"** shall have the meaning set forth in Section 2.2 of this Agreement.

1.4.8 **"Contract Documents"** shall have the meaning set forth in Section 1.1 of this Agreement.

1.4.9 **"Designated Representative"** shall have the meaning set forth in Section 2.2 of this Agreement.

1.4.10 **"Effective Date"** shall have the meaning set forth on the first page of this Agreement.

1.4.11 **"EHS Laws"** shall have the meaning set forth in Section 9.6 of this Agreement.

1.4.12 **"Extra Work"** shall have the meaning set forth in Section 3.4 of this Agreement.

1.4.13 **"Force Majeure"** shall have the meaning set forth in subsection 13.1.1 in this Agreement.

1.4.14 **"General Partner"** shall have the meaning set forth in Section 19.0 of this Agreement.

1.4.15 **"Hazardous Materials"** and **"Hazardous Substance"** shall have the meaning set forth in Section 9.6 of this Agreement.

1.4.16 **"Jobsite"**, **"Work Site"**, **"Project Site"**, **"Construction Site"**, "Property", **"Premises"**, **"Facility"**, **"Site"**, or any other wording having a similar meaning, whether capitalized or not herein, shall be interchangeable and shall mean any real property or offshore premises, including rights-of-ways, whether owned by COMPANY or not, on which CONSULTANT will be working under the Contract Documents.

1.4.17 **"Losses"** shall have the meaning set forth in Section 7.1 of this Agreement.

1.4.18 **"Non-Company Onsite Situation"** shall have the meaning set forth in subsection 10.1.2 of this Agreement.

1.4.19 **"Safety Manual"** shall have the meaning set forth in Section 9.2 of this Agreement.

1.4.20 "Waste" shall mean any form of material identified or determined by the COMPANY as having no beneficial value and is either a by-product of the COMPANY'S operations or is

generated during investigation and remediation activities (e.g. soils, debris) and may include any Hazardous Materials and/or Hazardous Substances as the context requires.

1.4.21 **"Work"** shall have the meaning set forth in Section **3.1** of this Agreement.

1.4.22 **"Work Directive"** shall have the meaning set forth in Section **3.1** of this Agreement.

2.0 TERM AND NOTICES

2.1 This Agreement becomes effective upon the Effective Date and shall terminate on the earlier of (i) **04/03/2017** (the "Expiration Date"), or (ii) cancellation or termination of the Agreement pursuant to Section **12.0** provided, however, that if COMPANY desires CONSULTANT to complete a Work Directive that is unfinished at the time of termination or expiration, then this Agreement shall continue with respect to that Work Directive until the Work Directive is satisfactorily completed.

2.2 For the term of this Agreement, matters of a technical nature should be directed to the COMPANY'S Designated Representative as identified on the applicable Work Directive and matters of a commercial nature should be directed to the COMPANY'S Contract Administrator identified below.

2.3 All notices to be given with respect to this Agreement, unless provided for to the contrary herein or in a Work Directive, shall be given to COMPANY and to CONSULTANT respectively at the address herein below shown, and shall be in writing, and sent via nationally recognized courier, facsimile (with the confirmation by the machine), or if mailed, postage prepaid via certified mail return receipt requested. All notices shall be effective upon actual receipt by the party to whom given if receipt occurs outside of normal business hours, then receipt shall be deemed to have occurred on the next business day.

COMPANY:	**CONSULTANT:**
KINDER MORGAN ENERGY PARTNERS, L.P. 1100 Town & Country Rd Suite 700 Orange, CA 92868	PARC ENVIRONMENTAL 2706 SOUTH RAILROAD AVENUE FRESNO, CA 93725
CONTRACT ADMINISTRATION: Attention: COLEMAN, RENEE Phone: 714-560-4771 Fax: 714-560-6570 Email: renee_coleman@kindermorgan.com	Attention: Jeff Davis Phone: 559-233-7156 Fax: 559-233-4284 Email: jdavis@parc-ics.com

2.4 The individual and/or addresses for notices may be changed upon written notice to the other party which is sent in the manner stated herein.

3.0 GENERAL DESCRIPTION OF AGREEMENT AND SERVICES

3.1 CONSULTANT shall furnish and pay for everything including all services, items, labor, supervision, tools, technical capability, permits, licenses, transportation, materials and supplies (except those materials and supplies which COMPANY hereinafter expressly agrees to furnish) necessary for **CONSULTANT to perform and accomplish emergency response services on an on-call, 24 hours 7 days a week basis at the locations or within the geographic area designated by COMPANY on the applicable Work Directive by having a team of professional personnel capable of (i) containment, characterization, handling,**

transportation, treatment, processing, recovery, repackaging, removal, storage and disposal of Waste and Hazardous Materials; (ii) site evaluation, decontamination and restoration; (iii) technical services, including sampling, laboratory services, analysis, and other related services; (iv) training and mock spill deployments; (v) performing such other activities as further described in any applicable Work Directive; and (vi) coordination of all such activities and services with COMPANY'S Designated Representative or his or her designee. For each assignment the Work shall be further described in a Work Directive, which shall be executed in a form substantially in accordance with Exhibit A ("Work Directive"), and in every case, shall also include all services, materials and goods reasonably inferable therefrom. CONSULTANT shall not provide and shall not be compensated for any services, goods, materials or equipment except pursuant to a properly executed Work Directive. Each Work Directive shall set forth CONSULTANT'S compensation for the Work described therein. The Work shall be performed pursuant to the provisions of the Contract Documents. Notwithstanding the foregoing, in the case of any emergency COMPANY may require CONSULTANT to perform the Work prior to the execution of a Work Directive which CONSULTANT hereby agrees to do pursuant to the terms of this Agreement. As soon as reasonably practicable thereafter the parties will finalize and execute the Work Directive for the performance of Work with respect to such emergency situation. Termination or suspension of any Work under any Work Directive, in whole or in part, shall not diminish CONSULTANT'S liability or obligation to continue prosecution of Work under any other Work Directive.

3.2 This Agreement does not obligate COMPANY to order materials or services from the CONSULTANT, nor does it obligate the CONSULTANT to accept orders for same, but it shall control and govern all Work requested by COMPANY and accepted by CONSULTANT, and shall define the rights and obligations of the COMPANY and CONSULTANT during the term hereof, notwithstanding anything to the contrary contained in instructions orally or in writing from the Designated Representative. CONSULTANT shall not accept any Work from COMPANY other than pursuant to this Agreement.

3.3 All items which CONSULTANT is required to furnish, prepare or develop in the performance and completion of the Work (whether delivered to COMPANY or not), including, but not limited to, reports, plans, drawings and specifications, calculations, maps, sketches, notes, data and samples, are the sole and exclusive property of COMPANY without limitation (except CONSULTANT may retain a copy thereof, subject to CONSULTANT'S right to use the same solely to perform the Work under this Agreement. Such items (including all copies thereof other than the copy that may be retained by CONSULTANT pursuant to the foregoing sentence) shall, together with any materials furnished by COMPANY hereunder, be delivered to COMPANY upon request and in any event upon completion or termination of this Agreement. All such items shall be considered to be Confidential Information.

3.4 COMPANY may require CONSULTANT to perform other services or furnish materials or equipment, or the use thereof, in connection with the Work which are not included in a given Work Directive (hereinafter referred to as "Extra Work"). Extra Work may be occasioned by major changes in specifications requiring materials or equipment of a materially different nature, kind and cost from that contemplated at the time of execution of a given Work Directive, or the performance of other or additional services incidental to the completion of the Work, but not in contemplation of the parties at the time of execution of a given Work Directive. CONSULTANT shall not perform any Extra Work without first having secured written authorization from COMPANY (by Work Directive or written change order) which shall be signed by COMPANY'S Designated Representative. Such authorization shall describe the Extra Work to be done and specify the price to be paid therefore, or the basis on which such price shall be calculated. Should CONSULTANT perform any Extra Work without advance written authorization from COMPANY'S Designated Representative such Extra Work shall be at CONSULTANT'S expense and risk.

3.5 If in the course of performance of Work, there is a change in law applicable to the Work; CONSULTANT shall bear any increased cost in performing the Work. If there is a change in law applicable to COMPANY'S business operations which directly impacts the Work, any increased costs in performing the Work shall be for COMPANY'S account provided CONSULTANT requests and clearly documents any such increased costs within thirty (30) days from the date the change in law first impacted the Work.

3.6 To the extent that Work requires any sampling, boring, excavation, ditching or other disruption of the soil or subsurface at the COMPANY'S site, CONSULTANT shall confer with COMPANY (and others, in CONSULTANT'S discretion and at its expense) prior to such activity and be responsible for making the appropriate one-call or other required notifications to third parties and for identifying, locating and marking, as necessary, any subterranean archaeological artifacts, structures or utilities ("Underground Facilities"). Thereafter, CONSULTANT shall take all reasonable precautions to avoid damage or injury to Underground Facilities which were or reasonably should have been discovered by CONSULTANT in the course of its Work. CONSULTANT will be liable for all costs and claims resulting from damage to the Underground Facilities arising out of the Work, if they were or reasonably should have been identified by CONSULTANT.

4.0 INSPECTION

4.1 **Field Inspection.** Throughout the performance of the Work, COMPANY shall have the right to designate one or more inspectors, engineers or other appropriate professionals to inspect and test the Waste, Work site and the progress of the Work. CONSULTANT shall cooperate with such inspectors, engineers or other appropriate professionals in order that the Waste, Work Site and Work may be fully inspected and tested and that COMPANY may at all times be fully advised of the progress of the Work and the manner in which it is being performed.

4.2 **Inspection or Testing Not Acceptance.** CONSULTANT expressly understands and agrees that any inspection or testing by COMPANY pursuant to this Agreement shall be for COMPANY'S sole benefit and shall not be deemed an acceptance by COMPANY of all or any portion of the Work so inspected or tested. CONSULTANT further understands and agrees that no inspection or testing by COMPANY pursuant to this Agreement or approval or failure to object to any portion of the Work shall relieve or release CONSULTANT from any duties, obligations, or liabilities provided in this Agreement.

4.3 **Non-Conforming Work.** CONSULTANT shall notify COMPANY in writing when the Work has been completed. If, in the sole good faith discretion of COMPANY, the Work conforms to all of the requirements of the Contract Documents, COMPANY shall accept the Work within ten (10) working days after receipt of such written notice. If, in the sole good faith discretion of COMPANY, the Work or any portion of the Work does not conform to all of the requirements of the Contract Documents, COMPANY shall give CONSULTANT notice of any non-conforming Work. Within five (5) working days after receiving such notice from COMPANY, CONSULTANT shall at its expense correct all non-conforming Work or provide a mutually accepted written plan of work for correction of the non-conforming Work. Corrected Work shall be resubmitted for acceptance by COMPANY and the above approval process will be repeated until the Work is acceptable or otherwise rejected by COMPANY.

5.0 INDEPENDENT CONTRACTOR

5.1 The parties expressly understand and agree that CONSULTANT is acting as an independent CONSULTANT unrelated to COMPANY or any of its subsidiary or affiliated companies, entities and persons.

5.2 COMPANY shall have no direction and control over CONSULTANT or CONSULTANT'S employees, agents, subcontractors, volunteers or the manner and method utilized by CONSULTANT and is interested only in results obtained by CONSULTANT. CONSULTANT shall

determine and have sole discretion over the manner and methods utilized to achieve the results desired by COMPANY and shall be solely responsible for the direction, control, and supervision of its acts and those of its agents, employees, subcontractors, and volunteers incident to the performance of this Agreement.

5.3 It is understood that the Designated Representative may make suggestions to CONSULTANT solely for the purpose of obtaining the desired results, but CONSULTANT shall be free to control the details necessary to accomplish such results.

5.4 CONSULTANT has sole responsibility for those matters governing the employment terms and conditions for its employees working under this Agreement, including but not limited to selection, hiring, discipline, grievance resolution, pay and benefits, withholdings, and supervision and control of its employees. COMPANY may require CONSULTANT to reassign employees (including those of its subcontractors) to non-COMPANY projects if COMPANY determines that any such employee is working in an unsafe manner, in violation of any labor laws including equal employment opportunity laws or immigration laws, or is not performing the Work according to the terms of this Agreement. In the event an employee of CONSULTANT or one of its subcontractors files a claim of employment against COMPANY, CONSULTANT agrees to indemnify and hold COMPANY Indemnitees harmless from and against liability and expense arising therefrom and further agrees to (i) promptly notify COMPANY of any employment related claim to which COMPANY may be a party and (ii) cooperate fully with COMPANY by providing COMPANY with all information, and access to employees and records so that COMPANY can investigate and defend such claim.

5.5 CONSULTANT shall be solely responsible, at its own expense, and CONSULTANT represents that it has the necessary accounting resources and an employer identification number, for withholding or paying all applicable state and federal income taxes, making all applicable filings and reports with respect to FICA and FUTA taxes, and making all applicable filings and reports in connection with or relating to the services of CONSULTANT or any individual employed or provided to work under this Agreement by CONSULTANT. CONSULTANT agrees to comply with any applicable laws and regulations governing the retention of employment-related records. CONSULTANT will indemnify and hold harmless COMPANY Indemnitees for and against liability and expense arising from CONSULTANT'S failure to make such filings and reports or retain such records.

5.6 CONSULTANT agrees to observe and comply with all applicable provisions and amendments of federal; state and local laws, rules and regulations, including strict compliance with federal immigration laws, employment verification laws enacted in the state(s) in which the Work will be performed, and the Fair Labor Standards Act of 1938.

6.0 PAYMENT, TAXES, COMPLIANCE WITH LAWS, AND LIENS

6.1 CONSULTANT shall prepare an invoice for the amount accrued to CONSULTANT for Work satisfactorily completed during the period covered by such invoice. The invoice period will be as stated in the Work Directive, or where no Work Directive is issued, no less than once each month following commencement of the Work. All invoices, with supporting data, electronic invoice information, lien releases and waivers, and sworn statements that all bills and materials have been paid, shall be sent with the invoice. If requested by COMPANY or as otherwise required under any Work Directive, lien waivers will be furnished by CONSULTANT with each invoice substantially in accordance with the form(s) set forth in Exhibit F. Invoices, electronic invoice information, and supporting documents will be sent to the Designated Representative unless otherwise instructed by COMPANY. Upon approval of such invoice, and subject to the further provisions hereof, COMPANY shall pay CONSULTANT the amount approved, less any amounts for which payment was made in connection with previous invoices within thirty (30) days from COMPANY'S receipt of the invoice and supporting data. COMPANY may, in its sole discretion, withhold ten percent (10%) of the amount of such payments.

6.2 In the event COMPANY disputes the amount or content of any invoice, COMPANY shall not be responsible for payment of such invoice or portion of such invoice that is in dispute, until such time as the dispute is resolved.

6.3 All invoices must show Agreement number, Work Directive number, Change Order number (as applicable); invoice date; invoice number; site or project name and Kinder Morgan entity name; CONSULTANT'S entity name and remittance address or electronic funds transfer routing number (must match information submitted to COMPANY'S Vendor Maintenance department); name of COMPANY'S Designated Representative; billing period; CONSULTANT contact name and phone number; amount due CONSULTANT; project status report and summary (if applicable) in order to be paid. Any rate schedule or pricing terms provided by CONSULTANT and accepted by COMPANY shall remain in effect until new rates or pricing terms are mutually agreed upon by COMPANY and CONSULTANT and amended into the Agreement. A copy of any time sheets required under any Work Directive for each classification of work or worker showing actual hours worked, description of work performed, progress, valid receipts for all reimbursable expenses, if any, shall accompany each invoice submitted.

6.4 Final payment to CONSULTANT shall be made by COMPANY only after CONSULTANT has fully performed and completed the Work to the reasonable satisfaction of COMPANY and presentation of CONSULTANT'S final adjusted invoice (initialed and dated by COMPANY'S Designated Representative), accompanied by an executed CONSULTANT'S Certificate of Final Completion, substantially in the form of Exhibit E together with a Conditional Lien Waiver substantially in the form of Exhibit F-1. Within two weeks after CONSULTANT'S receipt of final payment, CONSULTANT shall return to COMPANY an executed and notarized Unconditional Waiver and Release substantially in the form of Exhibit F-2. Acceptance by CONSULTANT of such final payment shall constitute a waiver by it of all claims against COMPANY related to or arising out of this Agreement with respect to the applicable Work Directive. Such final acceptance and payment by either party hereto shall not, however, release CONSULTANT and its surety from any warranty work or other unperformed obligations hereunder.

6.5 It is understood and the parties agree that the sums to be paid under any Work Directive shall be the entire consideration to be received by CONSULTANT from COMPANY for the Work and that said sums shall include any and all applicable taxes and contributions as otherwise set forth herein.

6.6 Prior to starting the Work, CONSULTANT shall obtain the necessary permits and licenses to allow CONSULTANT to remit sales, use, gross receipts and like taxes to the applicable taxing authority. CONSULTANT agrees to Indemnify COMPANY Indemnitees for all taxes, penalties and interest resulting from CONSULTANT'S failure to properly remit itemized taxes to the applicable taxing authority.

6.7 **Portions of Work Invoiced on a Time and Material Basis and/or Variations.** Upon written notice to CONSULTANT, COMPANY may elect to directly remit sales, use, gross receipts or like taxes to the taxing authority to whom such taxes are due and directly payable. If COMPANY exercises such election, COMPANY shall provide CONSULTANT with written evidence, as required by applicable taxing authority, prior to CONSULTANT'S procurement or payment of taxable purchases of goods and services. CONSULTANT agrees that the price to be paid for Work performed on a Time and Materials basis under this Agreement includes any such sales, use, gross receipts or like taxes on materials, supplies, equipment or services furnished by CONSULTANT and on services performed by CONSULTANT. CONSULTANT shall itemize price(s), including associated sales, use, gross receipts or like taxes for each component of Work performed on a Time and Material basis for which title and possession will be transferred to COMPANY. If the appropriate taxes are not separately listed, COMPANY shall have the right to calculate such tax based upon the charges, and withhold the calculated amount from its payment.

6.8 **Portions of Work Invoiced on a Lump Sum or Unit Price Basis.** CONSULTANT agrees that the price to be paid for Work performed on a lump sum basis, or unit price basis (such as a price

per foot installed, which includes labor plus materials), under this Agreement includes any such sales, use, gross receipts or like taxes on materials, supplies, equipment or services furnished by CONSULTANT and on services performed by CONSULTANT. CONSULTANT shall separately list all sales, use, gross receipts or like taxes included in the lump sum or unit prices and provide such written verification reasonably acceptable to COMPANY that such taxes have been paid. If the appropriate taxes are not separately listed, COMPANY shall have the right to calculate such tax based upon the charges, and withhold the calculated amount from its payment.

6.9 **Other Taxes.** CONSULTANT assumes full responsibility for and agrees to pay for, and agrees that the price to be paid by COMPANY as set herein shall be fully inclusive of, all labor, including overtime as legally required, all overhead, and all contributions and taxes payable under federal and state social security acts, old age pension, worker's compensation laws, unemployment compensation laws and income tax laws and any other applicable laws as to all of its employees and agents engaged in the performance of the Work hereunder; and CONSULTANT hereby agrees to indemnify and save COMPANY Indemnitees harmless against the consequences of any failure by CONSULTANT or any of its subcontractors to pay or withhold taxes, charges or compensation due on behalf of its employees or agents involved in the Work.

6.10 To the fullest extent permitted by applicable law, CONSULTANT covenants and agrees to protect and keep the Work or any site where the Work is performed, any and all interests and estates therein, and all improvements or materials now or hereafter placed thereon pursuant to this Agreement, free from any and all claims, liens, charges or encumbrances in the nature of mechanics, labor, or material liens or otherwise, arising out of or in connection with performance of the Work by CONSULTANT or any of its subcontractors (including the furnishing of any materials hereunder), and to promptly have any such lien released by bond or otherwise. If CONSULTANT disputes in good faith any lien or claim or encumbrance of any laborer, materialman or subcontractor, in lieu of the immediate payment thereof, CONSULTANT shall post security to protect COMPANY from liability for the payment thereof on terms acceptable to COMPANY and from any expense of defending against that liability, until the dispute is finally resolved. COMPANY may, at its sole discretion, post or place upon the site where any Work is being performed notices of non-responsibility or do any other act permitted by law to exempt COMPANY, the Site, any and all interests and estates therein, and any improvements or materials thereon from any liability to third parties for the performance of the Work. The failure of COMPANY to perform any of the actions described in the previous sentence shall not release or discharge CONSULTANT of any of its obligations hereunder.

6.11 If COMPANY fails to pay undisputed amounts when due, CONSULTANT may file any timely preliminary notice of lien or affidavit as required by applicable law in order to preserve his rights to payment. CONSULTANT shall not file a lien against the Site, COMPANY or COMPANY'S assets unless COMPANY fails to pay CONSULTANT undisputed amounts when due for the Work performed and such failure continues for more than thirty (30) days after COMPANY's receipt of CONSULTANT'S notice of the failure. To the fullest extent permitted under applicable law, CONSULTANT additionally agrees to require or cause all of its subcontractors and vendors performing or furnishing any portion of the Work to consent, prior to the performance thereof, to this provision. If COMPANY fails to timely pay an undisputed amount and CONSULTANT files a notice or affidavit of lien in respect thereof, CONSULTANT shall immediately remove the lien and withdraw all filings upon receipt of payment of such undisputed amount. CONSULTANT shall indemnify and hold harmless COMPANY for any costs or damages (including attorneys' fees) incurred by COMPANY as a result of CONSULTANT'S breach of Sections **6.11** or **6.12**.

6.12 For any work performed or furnished in Louisiana, in all cases where CONSULTANT'S employees (including CONSULTANT'S direct, borrowed, special or statutory employees) are covered by the Louisiana Worker's Compensation Act, La. R.S. 23:1021 et seq., COMPANY and CONSULTANT agree that all Work and operations performed by CONSULTANT and its employees pursuant to this Agreement are an integral part of and are essential to the ability of COMPANY to generate COMPANY'S goods, products and services. Furthermore, COMPANY

and CONSULTANT agree that COMPANY is a statutory employer of CONSULTANT'S employees for purposes of La. R.S. 23:1061(A)(3). Notwithstanding COMPANY'S status as a statutory employer or special employer (as defined in La. R.S. 23:1031 (C)) of CONSULTANT'S employees, CONSULTANT shall remain primarily responsible for the payment of Louisiana Worker's Compensation benefits to its employees, and shall not be entitled to seek contribution from COMPANY for any such payments.

6.13 CONSULTANT shall comply with all applicable U.S. federal, state, local laws, ordinances, codes, local and national standards and regulations, including the EHS Laws, all as the same may be amended from time to time.

6.13.1 CONSULTANT certifies that unless specifically exempted, all work furnished under this Agreement has been furnished in compliance with the following laws, regulations and orders, as amended, Title VI and Title VII of the Civil Rights Act of 1967, the Equal Pay Act of 1963, and Rehabilitation Act of 1974, the Immigration Reform Control Act of 1986, the Americans With Disabilities Act of 1990, Executive Orders of the President of the United States, the Office of Federal Contract Compliance Programs and Executive Orders 11246 and 11758, the Equal Opportunity Regulations at 41 CFR Subsection 60-1.4, Age Discrimination in Employment Act of 1967 (including the Older Workers Benefit Protection Act of 1990), Vietnam Era Veterans Readjustment Assistance Act, the Civil Rights Act of 1871 and 1991, the National Labor Relations Act, the Worker Adjustment and Retraining Notification Act, the Affirmative Action Regulations at 41 CFR Subsections 250.5 and 741.5, and any other applicable anti-discrimination laws or other applicable laws pertaining to an employment relationship. CONSULTANT shall assure that each of its permitted subcontractors complies with said requirements as well. CONSULTANT agrees to protect, indemnify and save harmless COMPANY Indemnitees from all claims, suits, liabilities and costs, including attorney's fees and costs of court, arising out of CONSULTANT'S or its permitted subcontractors' violation of or non-compliance with such laws, regulations, orders and guidelines. Any breach in any material respect by CONSULTANT of any provisions contained in this paragraph (including, without limitation, any citation of CONSULTANT for failure to comply with any valid law, ordinance, regulation or rule) which adversely affects the proper and timely completion or the performance of the Work by CONSULTANT or affects COMPANY'S operations, shall afford COMPANY the right, in addition to all other remedies, to invoke the termination provisions hereof.

6.13.2 If this Agreement is entered into by the parties in support of a federal government contract, the following alternate provision shall apply. Nothing in this provision is intended to create any obligations that do not exist under relevant federal statutes, regulations, and/or orders.

6.13.2.1 As to all transactions performed hereunder, in whole or in part within the United States, as defined by 48 C.F.R. Section 2.101, including, as applicable, the United States of America's outlying areas, CONSULTANT agrees that it shall comply with all applicable federal, state and local laws, regulations and orders, including, but not limited to the following provisions: 48 C.F.R. Section 2.203-13, "Contractor Code of Business Ethics and Conduct"; 48 C.F.R. Section 2.203-15, "Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009"; 48 C.F.R. 2.219-8, "Utilization of Small Business Concerns"; 48 C.F.R. 2.219-9, "Small Business Subcontracting Plan"; 48 C.F.R. 2.222.26, "Equal Opportunity" and 41 C.F.R. Section 60-1.4; 48 C.F.R. Section 2.222-35, "Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans"; and 41 C.F.R. Sections 60-250-5 and 60.300-5; 48 C.F.R. Section 2.222-36, "Notification of Employee Rights Concerning Payment of Union Dues or Fees"; 48 C.F.R. Section 52.222-50, "Combating Trafficking in Persons"; 48 C.F.R. Section 52.247-64, "Preference

for Privately Owned U.S.-Flag Commercial Vessels"; 48 C.F.R. Section 252.247-7023, "Transportation of Supplies by Sea"; and 48 C.F.R. Section 252-247-7024, "Notification of Transportation of Supplies by Sea." These provisions are incorporated herein by reference and have the same force and effect as if they were given in full text in the form and substance that they were incorporated into COMPANY'S contract with the Federal Government.

6.14 CONSULTANT certifies that at the time of execution of this Agreement CONSULTANT is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement CONSULTANT cannot so certify to COMPANY, CONSULTANT shall promptly notify COMPANY as to CONSULTANT'S status.

7.0 INDEMNIFICATION

7.1 CONSULTANT agrees to release, protect, indemnify and hold harmless COMPANY, its parent, subsidiaries, and affiliates, and its and their respective directors, officers, agents and employees (collectively, "COMPANY Indemnitees"), from all damages (including punitive damages), losses, costs, liabilities, penalties, expenses, demands or claims, including but not limited to those arising from personal injury, violation of any laws including EHS Laws, release of any Hazardous Materials or any other type of claim (whether arising in tort, contract, or otherwise), and including any and all costs and fees (including attorneys' and experts fees, and discovery costs) arising out of litigation or settlement, (collectively, "Losses"), including Losses described in the remainder of this Section **7.0**, to the extent the Losses are caused by, arise from or relate to, directly or indirectly, the acts or omissions of CONSULTANT and/or its affiliates, or each of their respective agents, employees (including leased employees) or subcontractors. If such Losses were also caused in part by the acts or omissions of any COMPANY Indemnitees or any third party (that is not one of the CONSULTANT Indemnitees), then CONSULTANT shall only be liable to the extent and for such portion that such Losses were caused by, arise from or relate to, directly or indirectly, (i) breach of this Agreement, or (ii) the acts or omissions of CONSULTANT and/or its affiliates or each of their respective agents, employees or subcontractors. CONSULTANT further agrees that it shall pay any and all costs and expenses (including attorney's fees) incurred by COMPANY in recovering the amount of agreed settlement and/or rendered judgment due to COMPANY from CONSULTANT'S insurer.

7.2 COMPANY agrees to release, protect, indemnify and hold harmless CONSULTANT, its affiliates, and its and their respective directors, officers, agents and employees (collectively, "CONSULTANT Indemnitees"), from every kind or character of Losses, to the extent the Losses are caused by, arise from or relate to, directly or indirectly, (i) breach of this Agreement, or (ii) the acts or omissions of COMPANY, its agents or employees. If such Losses were also caused in part by the acts or omissions of a CONSULTANT Indemnitees or any third party (that is not one of the COMPANY Indemnitees), then COMPANY shall only be liable to the extent and for such portion that such Losses were caused by, arise from or relate to, directly or indirectly, the acts or omissions of COMPANY, its agents or employees.

7.3 CONSULTANT shall require each of its subcontractors engaged for performance of the Work to provide express indemnities, enforceable by and for the benefit of the COMPANY Indemnitees, to the same extent required of CONSULTANT under Section **7.1** above.

7.4 The Parties agree that, to the extent permitted by applicable law, this Section **7.0** shall constitute an effective waiver of any cap(s) established by statute or case law which may limit the Indemnified party's recovery, but for this Agreement; provided, however, such a waiver is not intended to benefit any third parties and is not a waiver of any rights or defenses either party hereto may have against a third party.

7.5 CONSULTANT shall release, protect, indemnify and hold harmless the COMPANY Indemnitees from and against any claim, damage, liability, loss or expense (including costs for defense, settlement, conciliation, and attorney's fees) for which COMPANY may become responsible or pay out, to the extent resulting from any act or omission by CONSULTANT or any of its subcontractors in the performance of the Work, under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as the same may be amended from time to time, or any similar state statutes, regulations or requirements related to the transportation, treatment, storage or disposal of the Waste covered under this Agreement or out of CONSULTANT'S failure to comply with any warranty contained in this Agreement.

7.6 Notwithstanding any provision of this Section 7.0, COMPANY shall indemnify and hold harmless the CONSULTANT, its affiliates, directors, officer, employees, agents and subcontractors from and against any and all costs, liabilities, claims, demands and causes of action under the Oil Pollution Act of 1990, 33 U.S.C. 2701-2761, as the same may be amended from time to time ("OPA") or corresponding applicable state law for Removal Costs (as defined in OPA) and damages which result from actions taken or omitted to be taken in the course of rendering care, assistance or advice in connection with a Discharge (as defined in OPA) or threatened Discharge from a Vessel (as defined in OPA) consistent with the National Contingency Plan or as otherwise directed by the COMPANY, the U.S. Coast Guard or other governmental authorities, which the CONSULTANT, its affiliates, directors, officers, employees, agents and subcontractors, individually or collectively, may suffer, incur, or pay out, EXCEPT TO THE EXTENT THAT:

7.6.1 CONSULTANT, and any of its affiliates, officers, directors, employees or subcontractors is entitled to immunity from liability under laws granting responders immunity;

7.6.2 such liabilities, claims, demands and causes of action arise out of the gross negligence or willful misconduct of CONSULTANT or any of its affiliates, officers, directors, employees or subcontractors;

7.6.3 COMPANY would have been entitled to a complete defense to liability under federal law and any relevant state law had such claim, demand or cause of action been made against COMPANY or the Vessel (as defined in OPA) directly;

7.6.4 such payment or indemnification would result in a payment and/or liability of COMPANY in excess of that to which COMPANY would have been entitled to limit its liability under federal law and any relevant state law had such claim, demand or cause of action been made against COMPANY or the Vessel (as defined in OPA) directly; or

7.6.5 such liabilities, claims, demands and causes of action arise in respect of death or personal injury.

8.0 INSURANCE

8.1 CONSULTANT agrees to carry and maintain the following insurance, from carriers with an A.M. Best rating of at least A-/VIII:

8.1.1 Statutory Coverage Workers' Compensation Insurance (including Occupational Disease Coverage) in accordance with the laws of the states where the Work is to be performed and if CONSULTANT performs Work on or adjacent to navigable waterways CONSULTANT shall furnish a certificate of insurance showing compliance with the provisions of the Federal Longshoremen's and Harbor Workers' Compensation Law and the Jones Act.

8.1.2 Employer's Liability Insurance with limits of not less than **$1,000,000** per occurrence and **$1,000,000** per disease/each employee. In the event Work is being performed more than

three miles offshore, Maritime Employer's Liability (or Bumbershoot off Vessel P&I policy) coverage of not less than **$1,000,000** per occurrence.

8.1.3 Commercial General Liability Insurance insuring the indemnity agreements set forth in this Agreement with a combined single limit of not less than **$1,000,000** per occurrence and **$2,000,000** in the aggregate. All policies shall remove any exclusion for explosion, collapse and underground operations (XCU) and include coverage for blanket contractual liability assumed hereunder.

8.1.4 Comprehensive Automobile Liability Insurance covering liability arising out of any auto (owned, hired and non-owned); with a combined single limit of not less than **$1,000,000**. If necessary, the policy shall be endorsed to provide contractual liability coverage and, where applicable, pollution. In the event the Work includes transporting Hazardous Waste, with limits of not less than **$1,000,000** and which will include an endorsement to auto liability insurance for upsets or overturns (MCS-90 endorsement).

8.1.5 Professional Liability (Engineer's Errors and Omissions) Insurance, in the event CONSULTANT is performing design, engineering or other professional services, with limits of at least **$1**,000,000 per occurrence and $2,000,000 in the aggregate.

8.1.5 Comprehensive Aircraft Liability Insurance with combined bodily injury, including passengers, and property damage liability single limits of not less than **$5,000,000** each occurrence. This coverage is necessary only when CONSULTANT uses owned or non-owned aircraft in connection with Work performed under this Agreement.

8.1.6 Hull and Machinery Insurance if the Work includes the use of a marine vessel, with full market replacement value of the vessel and including coverage for the removal of the wreck; Protection and Indemnity Insurance including marine pollution coverage with a minimum limit of $5,000,000 per occurrence; Marine Towers Liability Insurance if the Work includes towing of any vessel; Marine Cargo Insurance if the Work includes transporting goods or materials on waterways, with limits sufficient to cover the replacement cost thereof (including the cost of insurance and freight).

8.1.7 Pollution Liability Insurance, where there is a known potential for release of Hazardous Materials and/or treatment or remediation of Hazardous Material(s), coverage of not less than **$5,000,000** per occurrence and in the aggregate.

8.1.8 Umbrella Insurance with a minimum limit of not less than **$10,000,000** per occurrence. Such umbrella policy shall follow the form of the Employer's Liability Insurance, Commercial General Liability Insurance and Comprehensive Automobile Liability Insurance set out above, be in excess of those underlying policies without gaps in limits and provide coverage as broad as those underlying policies.

8.2 As additional security for COMPANY and the separate obligation of CONSULTANT, whether or not required by the other provisions of this Agreement, all insurance policies carried by CONSULTANT hereunder (except Worker's Compensation and Professional Liability) shall name Kinder Morgan Energy Partners, L.P. and each of its respective subsidiary or affiliated companies and entities, their respective successors and assigns, and all of their respective directors, officers, agents and employees, and the respective owners of affiliated entities (for their vicarious liability) (all of the foregoing persons and entities, for the purposes of Section **8.3** below only, being identified as "Kinder Morgan") as additional insureds with respect to liability arising out of the Work performed by CONSULTANT or subcontractor, as applicable.

8.3 Also, as additional security for COMPANY and the separate obligation of CONSULTANT, whether or not required by other provisions of this Agreement, all insurance policies of CONSULTANT (except Professional Liability) shall include a waiver of subrogation in favor of Kinder Morgan (unless prohibited by law).

8.4 Before commencing any performance under this Agreement, CONSULTANT shall furnish COMPANY with evidence of insurance coverage as required by the provisions of this Agreement in the form of an ACORD certificate with boxes checked as approved by COMPANY and copies of such endorsements. Failure of CONSULTANT to furnish such evidence of insurance coverage shall not be considered a waiver by COMPANY of such coverage.

8.5 The insurance coverages required of CONSULTANT shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to or maintained by or for the benefit of COMPANY, and shall not require the exhaustion of any other coverage.

8.6 Should any of the above described CONSULTANT policies be cancelled before the expiration date thereof, CONSULTANT shall cause its carrier to deliver notice to COMPANY within the timeframe provided by the policy for notice of cancellation to be provided to the insured. CONSULTANT shall notify COMPANY immediately if the carrier declines or falls to so notify COMPANY and also notify COMPANY of any such cancellation.

8.7 CONSULTANT shall promptly notify COMPANY when any insurance policy required above is not reasonably available and shall state the reasons therefore.

8.8 All deductibles, self insured retentions and self insurance carried by the CONSULTANT under its insurance program are the sole responsibility of the CONSULTANT and will not be borne in any way by the COMPANY. The CONSULTANT will indemnify the COMPANY Indemnitees in full for any amounts related to such deductibles, retentions and self insurance and for any deductibles or amounts owed under any COMPANY issued policies due to the fault of CONSULTANT.

8.9 In the event of the CONSULTANT'S failure to carry out any of the provisions of this Section 8.0, the COMPANY shall, in addition to any right to recover damages or to obtain other relief, have the right to terminate this Agreement or any Work Directive issued pursuant hereto.

8.10 All subcontractor policies shall be endorsed with the waiver of subrogation and additional insured wording set forth in Section 8.4 above. Any deficiency in the coverage, policy limits, or endorsements of said subcontractors will be the sole responsibility of CONSULTANT.

9.0 SAFETY AND ENVIRONMENTAL REQUIREMENTS

9.1 CONSULTANT shall comply with all applicable federal, state and local laws, ordinances, codes, local and national standards and regulations, including the EHS Laws. CONSULTANT agrees to provide all necessary training, safety equipment and safety instruction, including a written safety plan, necessary for the safety of its employees, the COMPANY'S invitees, employees, representatives and subcontractors, if any, and all other individuals who may be at the Work location pursuant to the requirements, invitation or permission of CONSULTANT or COMPANY.

9.2 CONSULTANT shall be proactive, prudent and take all necessary precautions toward all safety issues and shall actively promote working conditions and work practices which will ensure all workers a safe and healthful work environment. This Agreement shall be governed by the provisions, as the same may be amended from time to time, of the U.S. Occupational Health and Safety Act (OSHA) of 1970 and other EHS Laws, and by regulations imposed by any federal, state or local authority having jurisdiction therefore. CONSULTANT shall access COMPANY'S Contractor Safety Manual and supplemental forms at: http://www.kindermorgan.com/work/contractor_co/safety_req.cfm prior to execution of any Work Directive and the commencement of any work. If CONSULTANT cannot access the Safety Manual, CONSULTANT shall contact the COMPANY Designated Representative prior to execution of any Work Directive and the commencement of any Work. CONSULTANT further agrees to access the Safety Manual no less frequently than every six (6) months during the term of this Agreement to check for updates to the Manual throughout the term hereof. CONSULTANT shall cause copies of the Safety Manual to be available for its employees and subcontractors on the Job Site throughout the course of any Work being performed, and require said employees

and subcontractors to comply with said Safety Manual at all times when they are performing work on COMPANY premises. CONSULTANT can request copies of the Kinder Morgan Contractor Safety Pre-Job Orientation Program materials by emailing the KM Contractor Safety Group at: contractor_safety@kindermorgan.com.

9.3 CONSULTANT will take all necessary precautions to protect personnel and property from injuries or damage due to falls, fumes, fire, explosion or other hazards presented by the Work. It shall be CONSULTANT'S responsibility to instruct its employees, subcontractors and agents to contact, COMPANY'S Designated Representative, prior to commencing any Work, regarding safety policies and procedures and potential hazards or Hazardous Materials in the Work areas, whether or not such hazards are addressed by federal, state or local law or regulations.

9.4 COMPANY may, at its option, suspend the Work for a full safety inspection and correction at any time if the Designated Representative (i) discovers a safety violation, (ii) sees the possibility of a dangerous condition in any Work area, or (iii) notices a pattern by CONSULTANT or any subcontractor of disregard for maintaining a safe jobsite. If CONSULTANT has one major or two or more minor safety violations, then such violations shall be grounds for immediate termination of this Agreement and/or Work Directive and/or COMPANY may eject CONSULTANT, its personnel and any of its subcontractor(s) from COMPANY'S premises or jobsite.

9.5 COMPANY will make available to CONSULTANT all information in its possession regarding the Waste, including its chemical analysis, known surface conditions, topographical surveys or other relevant information, that would assist CONSULTANT in properly evaluating the nature and character of the Waste and the Work to be performed; provided, however, that COMPANY does not warrant the accuracy or completeness of the information provided.

9.6 COMPANY shall be responsible for any environmental condition existing at the Work site prior to the time CONSULTANT commences performance under this Agreement. However, CONSULTANT shall remedy at its sole expense any creation or release of a Hazardous Material at or from the Work site to the extent that such creation or release is the result of CONSULTANT'S performance of Work, whether or not such Hazardous Material existed on the site prior to the performance of the Work. CONSULTANT shall indemnify and hold COMPANY Indemnitees harmless from and against all liability, loss, cost, damage and expense (including attorney's fees) arising from or in connection with (i) such release or creation of Hazardous Materials, or (ii) CONSULTANT'S violation of EHS Laws or any applicable permit, in the course of CONSULTANT'S performance of the Work. "Hazardous Material(s)" means and includes: (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws, and (b) any "hazardous waste," "hazardous substance", "toxic substance," "regulated substance," "pollutant" "contaminant", "oil" or "petroleum", each as defined under any EHS Laws ("EHS Laws") mean any and all U.S. federal, state, and local laws, regulations, permits, approvals and requirements pertaining to health, safety, or the environment.

9.7 In performing the Work CONSULTANT agrees to maintain all COMPANY premises in a clean, safe condition in compliance with applicable regulations and to COMPANY'S reasonable satisfaction. If CONSULTANT fails to so maintain any COMPANY premises, COMPANY may secure such maintenance from another source at CONSULTANT'S expense without affecting CONSULTANT'S obligations or responsibility to perform hereunder.

9.8 CONSULTANT shall remove all, Waste (including all Hazardous Materials), unused material belonging to CONSULTANT, rubbish, releases, spills, oil sludge, trash, debris or excavations and structures (not necessary to be left as part of the completed Work) from COMPANY premises or other areas where work has been performed, or where such material has accumulated, unless COMPANY elects to retain such matter. CONSULTANT warrants and guarantees that the sludge, spills, releases, trash, debris or other Waste will be disposed of in accordance with all federal, state and other governmental laws, rules and regulations, environmental or otherwise.

9.9 CONSULTANT warrants that it:

9.9.1 shall report usage of all toxic chemicals in the performance of the Work.

9.9.2 will obtain Material Safety Data Sheets ("MSDS") for all Hazardous Materials or substances utilized hereunder and will make same available at all times to COMPANY, CONSULTANT and subcontractor employees at any Work location hereunder.

9.9.3 shall be responsible for and deliver to COMPANY shipping papers, manifests and labels with each shipment of Waste in accordance with all applicable requirements of the United States Department of Transportation, (DOT) and the United States Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA), the Resource Conservation and Recovery Act (RCRA), or any replacement or successor agency thereto, and all other federal, state and local statutes, regulations and ordinances, at COMPANY'S request.

9.9.4 is knowledgeable about current, existing, known Hazardous Materials, Wastes, or substances at any jobsite where the Work is performed and shall be solely responsible to solidify, remove, remediate, encapsulate, treat, neutralize, transport and complete the required record keeping or documentation to take these same Hazardous Materials, wastes or substances away from those jobsites, to treatment and/or disposal sites designated and/or approved by COMPANY and approved by the federal, state or local authorities having jurisdiction over the treatment and/or disposition and control of these products and to the complete satisfaction of these authorities.

9.9.5 has the knowledge, trained personnel, skills, equipment, experience and any other qualification needed to comply fully with this Section **9.0** as defined by the authorities having jurisdiction therefore, or will hire individual(s) or subcontractors which have same, at no additional cost to COMPANY.

9.9.6 will immediately notify COMPANY in the event that it encounters Hazardous Material(s) during the course of its Work which were not known or disclosed at the time of commencement of the applicable Work Directive.

9.9.7 It will obtain and maintain all necessary, valid permits and licenses for the Work including those needed for the handling, transporting and disposing of Hazardous Materials as required under this Section **9.0**.

9.9.8 further represents to COMPANY that it has the skill and professional competence, expertise, experience with United States Coast Guard classification and all other necessary training, certification, licenses and approvals to undertake the obligations imposed by this Agreement.

9.10 If CONSULTANT'S Work includes activity for which a one-call telephone call must be made prior to commencement of such activity and CONSULTANT fails to make the required call(s), which failure becomes known to COMPANY prior to payment of CONSULTANT'S final invoice, then COMPANY may take a credit against such final invoice according to the following schedule: one (1) failure to call equals five hundred dollars ($500); two (2) failures to call equals one thousand dollars ($1,000); three failures to call equals ($5,000); more than three failures to call equals ten thousand dollars ($10,000).

9.11 Chemical of Interest

9.11.1 CONSULTANT shall be liable to COMPANY without limitation for any and all costs and/or damages arising out of any breach by CONSULTANT of Department of Homeland Security ("DHS") Chemical Facility Anti-Terrorism Standards ("CFATS") requirements, codified at 6 C.F.R. Part 27, as the same apply to the Premises. By way of example,

these costs and/or damages may result from the possession, use, storage, handling and/or management by CONSULTANT of a chemical of interest ("COI") identified in Appendix A to CFATS, 6 C.F.R. Part 27, Appendix A, on COMPANY Premises and/or from the failure by CONSULTANT to comply with reporting, record-keeping, or any other requirements contained in CFATS, including but not limited to the submission of a CFATS Top-Screen.

9.11.2 CONSULTANT must notify COMPANY thirty (30) days in advance of any plans by CONSULTANT to bring any COI onto the Premises, and must obtain the written approval of COMPANY's Director - Security or COMPANY representative designated by the COMPANY's Director - Security or COMPANY Officer for the Premises prior to bringing any COI onto the Premises. If providing such notice and obtaining such approval is not possible within this time frame due to an emergency situation, CONSULTANT shall notify COMPANY and gain approval from the COMPANY Director - Security or designated COMPANY representative as soon as reasonably possible.

10.0 CALIFORNIA RELEASE NOTIFICATION REQUIREMENTS

In the event any of the Work is to be performed by CONSULTANT or its permitted subcontractors in the State of California then the following provisions in this Section **10.0** shall apply with respect to such Work:

10.1 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT'S activities in the performance of the Work:

10.1.1 Are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

10.1.2 Understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in subsection **10.1.1** above has occurred for CONSULTANT'S employees, agents and subcontractors' employees who will be performing at such a site.

10.1.3 Designation of Non-Company Onsite Situation or Company Onsite Situation shall be made per individual Work Directive.

11.0 DRUG AND ALCOHOL, FIREARMS POLICY, OPERATOR QUALIFICATION POLICY AND TESTING

Per COMPANY'S determination, the Work includes DOT Jurisdictional Work as follows:

☑ YES ☐ NO If YES, Section **11.1** and Section **11.5** apply.

If NO, above Section 11.2 or Section 11.5 below applies, as determined by COMPANY and checked below.

☐ Section **11.2** Company Drugs/Alcohol/Weapons Policy in Non-DOT situations. (For example, office type work)

☐ Section **11.5** Company Drugs/Alcohol/Weapons Policy in Non-DOT situations requiring Pre-Employment, Accident and Random Testing. (For example, field type work)

In the event neither the "Yes" or "No" box is checked, then Sections 11.2 and 11.5 shall be deemed to apply, and CONSULTANT shall not undertake any DOT Jurisdictional work unless and until

CONSULTANT satisfies Section 11.1.

11.1 **Drug/Alcohol/Operator Qualification Program and Testing in DOT Situations.** CONSULTANT represents and warrants that it has established, maintains, and enforces both a Drug and Alcohol Program and an Operator Qualification Program per requirements as outlined in Exhibit _C_.

11.2 **Company Policy Regarding Drugs/Alcohol/Weapons in Non-DOT Situations.** CONSULTANT agrees to advise its employees/provided personnel and the employees/provided personnel of its subcontractors and agents that it is the policy of COMPANY that:

11.2.1 The use, possession, manufacture, and/or distribution of illegal drugs or controlled substances, unauthorized drugs, drug-related paraphernalia or weapons (to the extent permissible by applicable state law) is strictly prohibited on COMPANY Premises. The use or possession of alcoholic beverages, except where authorized by COMPANY'S management, is also prohibited. CONSULTANT'S employees and provided personnel shall not carry or transport any firearm or weapon, whether or not concealed, on the Premises in any COMPANY-owned vehicle or in any other vehicle (except as allowed by applicable State law) while engaged on COMPANY business or in the performance of Work. In the event applicable State law expressly allows weapons to be brought on any Premises, then all such allowed weapons must be unloaded and locked out of sight at all times;

11.2.2 Entry onto or presence on COMPANY'S premises by any person, including CONSULTANT, CONSULTANT'S employees, subcontractors, subcontractors' employees, contract personnel, temporary employees and visitors, constitutes consent to COMPANY to conduct searches, whether announced or unannounced, on COMPANY'S premises of the person and his or her personal effects for such prohibited items, and consent to drug testing at any time while on COMPANY'S premises;

11.2.3 Any person suspected or found in violation of the policy, abusing prescription or over-the-counter medications, or who refuses to permit a search or drug or alcohol test may be removed and barred from COMPANY'S premises, at the sole discretion of COMPANY; and

11.2.4 CONSULTANT personnel, who test positive for illegal drugs or unauthorized alcohol as a result of a test conducted in connection with CONSULTANT's performance of this Agreement, or upon request of COMPANY, will be removed from any further performance or services under this Agreement.

11.3 CONSULTANT is now and at all times during performance of this Agreement shall continue to be a member of ISNetworld or any similar organization which is successor thereto for COMPANY'S purposes, as notified by COMPANY to CONSULTANT;

11.4 CONSULTANT has and during the performance of this Agreement shall continue to report full, complete and accurate information to ISNetworld concerning CONSULTANT'S employees;

11.5 **COMPANY Policy Regarding Drugs/Alcohol/Weapons in Non-DOT Jurisdiction situations requiring Pre-Employment, Accident and Random Testing.** In addition to the notification and other requirements contained in Section 11.2 above, CONSULTANT shall:

11.5.1 At CONSULTANT'S cost, test his employees/provided personnel utilized in performance of the Work for drug and alcohol (D/A) impairment under the following conditions:

11.5.1.1 Pre-Employment Testing: CONSULTANT shall conduct pre-employment D/A testing of all employees/provided personnel who will be required to work on property owned, operated or leased by COMPANY or any Jobsite. A negative

test result is required for each of CONSULTANT'S employees or provided personnel prior to commencing Work.

11.5.1.2 Post-Accident Testing: An employee/provided personnel whom COMPANY or CONSULTANT reasonably believes may have contributed to an accident on the Jobsite or while engaged in the performance of Work may be required to undergo D/A impairment testing as determined by the COMPANY. Such a test will be conducted at CONTRACTOR'S cost as soon as practicable after the accident, but for drugs not later than thirty-two (32) hours after the accident and for alcohol not later than eight (8) hours after the accident. CONSULTANT will make reasonable attempts to obtain a sample from an employee/provided personnel following an Accident (as defined below), but any injury should be treated first.

11.5.1.2.1 **Accident** is defined as an unplanned, undesired event, resulting in injury and/or damaging to property and/or process interruption.

11.5.1.2.2 Obligations of Employee/Provided Personnel Subject to Post-Accident Testing: CONSULTANT (or subcontractor, as the case may be) shall require the employee/provided personnel who is subject to post-accident testing to remain readily available for such testing and caution him/her not take any action which could interfere with the testing or the results of testing.

11.5.1.3 Notify CONSULTANT'S and subcontractor's employees/provided personnel that random testing will occur under the following conditions:

11.5.1.3.1 All CONSULTANT (and subcontractor, as the case may be) employees/provided personnel working on property owned, operated or leased by COMPANY (including right-of-way) or any Jobsite shall be subject to unannounced and random drug and alcohol testing by CONSULTANT at CONSULTANT'S expense. The primary purposes of unannounced random testing are to deter illegal D/A use which may affect work performance or safety, and to ensure a D/A free workforce. Random D/A testing shall be conducted each year during the term of this Agreement, at a minimum twenty-five percent (25%) of the employee/provided personnel engaged in the Work. CONSULTANT shall exercise reasonable efforts to make random testing selections spread reasonably over a twelve (12) month period.

11.5.1.3.2 Random tests will only be administered just before, during, or shortly after a CONSULTANT'S (or subcontractor's) employee's/provided personnel's Work time;

11.5.1.3.3 CONSULTANT (and subcontractor) employees/provided personnel engaged in the Work must remain in the random selection pool at all times, regardless of whether or not they have been previously selected for testing.

11.5.1.3.4 CONSULTANT (and subcontractor) employees/provided personnel shall be selected for testing by using a computer-based random number generator;

11.5.1.3.5 No advance warning will be given to employees/provided personnel regarding the dates and times of random testing.

11.5.1.4 Testing Upon Reasonable Suspicion: If in the course of CONSULTANT'S performance of the Work on COMPANY premises, COMPANY has reasonable suspicion based upon objective observation (or report by a non-COMPANY objective observer) that CONSULTANT (or subcontractor) personnel has violated the policy, COMPANY may require such person(s) to undergo testing. If a person who is CONSULTANT'S (or subcontractor's) personnel is reasonably suspected to be in violation of the policy and does test positively, the expense of the test shall be borne by CONSULTANT.

11.5.1.5 Any person reasonably suspected or found in violation of the policy (by positive test result or otherwise) or who refuses to permit a search or drug or alcohol test may be removed and barred from COMPANY'S premises (owned, operated or leased) or Jobsite, at the sole discretion of COMPANY. CONSULTANT shall advise its employees/provided personnel and subcontractors' employees/provided personnel concerning this provision.

11.5.1.6 CONSULTANT and subcontractor personnel (whether employees, leased employees, temporary employees, or contract workers) who test positive for illegal drugs or unauthorized alcohol, will be removed from any further performance of services under this Agreement; provided that if such personnel has self-reported to his employer as requiring drug or alcohol treatment and successfully completes that treatment, (s)he may become eligible for readmittance to COMPANY'S premises after (s)he submits proof to CONSULTANT of attendance and successful completion of a substance abuse program recognized by CONSULTANT as adequate, and CONSULTANT certifies to COMPANY that CONSULTANT has received the same along with a negative return-to-work test result. An individual whose test specimen is "cancelled without medical explanation" shall be required to undergo a re-test under direct supervision.

11.6 **Operator Qualifications**

COMPANY has determined that the Work includes the performance of "Covered Task(s)" (as defined in Kinder Morgan's Operator Qualification Plan) as follows:

☑ Yes Section **11.6** applies

☐ No Section **11.6** does not apply.

In the event neither box is checked then Section **11.6** shall be deemed to apply.

11.6.1 With respect to Work to which operator qualifications requirements apply, CONSULTANT warrants and covenants to COMPANY as follows, and shall cause its subcontractors performing Work hereunder to which operator qualifications requirements apply to warrant and covenant to CONSULTANT as follows, with respect to their respective workers (whether they be permanent or temporary employees, or contracted/leased workers):

11.6.1.1 All of the workers utilized on COMPANY premises in the performance of Work under this Agreement to which operator qualifications requirements as set forth in Exhibit D hereto (the "Operator Qualifications Requirements") apply (whether such workers be permanent or temporary employees, or contracted/leased workers) shall be in compliance with said Operator Qualifications Requirements at all times when performing such Work; and

11.6.1.2 All welders utilized in the performance of Work under this Agreement are qualified under COMPANY-established welding procedures which shall be notified by COMPANY to CONSULTANT; and

11.6.1.3 For five (5) years following completion or termination of the Work and for so long thereafter as there may remain any unresolved questions or disputes regarding any aspect of operator qualifications as pertains to the Work, CONSULTANT shall provide and retain in ISNetworld (i) copies of its employees' Operator Qualification records, and (ii) copies of its applicable subcontractors' employees' records regarding compliance by such subcontractors' employees with said Operator Qualifications Requirements during the performance of the Work.

11.6.2 During the performance of the Work and for five (5) years following completion or termination of the Work in accordance with this Agreement and for so long thereafter as there may remain any unresolved questions or disputes regarding any aspect of operator qualifications, COMPANY or COMPANY's designee shall have the right to audit CONSULTANT'S personnel records (and its subcontractors' records, as retained per paragraph **11.6.1.2** above) concerning compliance with said Operator Qualifications Requirements in connection with the Work.

11.6.3 The provisions of this Section **11.0** are in addition to and not intended to limit COMPANY's right to audit as provided in Section **12.0** below.

12.0 ASSIGNMENT, TERMINATION AND RIGHT TO AUDIT

12.1 This Agreement shall extend to and be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto, provided that CONSULTANT, due to CONSULTANT'S qualifications and experience, shall not assign CONSULTANT'S rights or obligations or pledge as security any sum that may accrue to CONSULTANT hereunder without the prior written consent of COMPANY. Any such assignment or pledge without COMPANY'S prior written consent shall, at COMPANY'S election, be considered null and void or result in the immediate termination of this Agreement and all or part of the Work being performed hereunder. Notwithstanding such termination, CONSULTANT shall be liable for all additional costs incurred by COMPANY resulting from such termination and in completing the Work.

12.2 CONSULTANT shall not sublet or subcontract any Work to be performed except as authorized in writing by COMPANY. CONSULTANT further agrees to require that its authorized subcontractors accept and comply with all terms of this Agreement.

12.3 Termination

12.3.1 For Convenience: COMPANY may terminate for its convenience this Agreement or any Work Directive in whole or in part for any reason at any time upon ten (10) days written notice to CONSULTANT.

12.3.2 For Default: COMPANY may terminate this Agreement or any Work Directive in whole or in part for default by CONSULTANT in its contractual obligations hereunder by giving ten (10) days prior written notice to CONSULTANT; provided, however, that termination pursuant to Section **9.4** shall not require such ten-day notice. Without limiting the generality of the foregoing sentence, CONSULTANT shall be deemed to be in default hereunder if CONSULTANT:

12.3.2.1 persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;

12.3.2.2 consistently fails to achieve any milestones set out in any given Work Directive;

12.3.2.3 fails to make prompt payment to subcontractors or materialmen for materials or labor;

12.3.2.4 violates, or is indicted for any violation of, any law, ordinance, rule regulation or order of any public authority having jurisdiction;

12.3.2.5 fails to obtain and maintain insurance as required hereunder or fails to observe the insurance provisions hereof;

12.3.2.6 is in breach or default in any material respect of any other duty, obligation, representation or term set forth in the Contract Documents;

12.3.2.7 fails to remedy a default or potential default (which would occur through lapse of time) under the terms governing any security provided by CONSULTANT pursuant to Section 20.0 hereof or

12.3.2.8 violates any EHS law; or

12.3.2.9 suffers any of the following to occur:

12.3.2.9.1 institutes or has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation,

12.3.2.9.1.1 and this Agreement is not assumed or rejected within sixty 60 thirty days after an order for relief is entered, or

12.3.2.9.1.2 such proceeding or petition results in a judgment of insolvency or bankruptcy or the making of an order for CONSULTANT's winding up or liquidation which judgment is not dismissed, discharged, stayed or restrained within thirty or sixty (60) days after commencement of the action, and this Agreement is not assumed or rejected within such thirty or sixty (60) day period commencement of any such proceeding, or;

12.3.2.9.2 such proceeding or petition results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for CONSULTANT'S winding up or liquidation which judgment is not dismissed, discharged, stayed or restrained within sixty (60) days of its entry,

12.3.2.9.3 has a secured party take possession of all or substantially all of its assets or has a distress, execution, attachment, sequestration or other legal process levied or enforced against all or substantially all of its assets and such secured party maintains possession, and any such process is not dismissed, discharged, stayed or restrained; or

12.3.2.9.4 following the occurrence of any of the following, fails to provide assurances of future performance to COMPANY which are satisfactory to COMPANY in COMPANY'S reasonable discretion within fifteen (15) days of COMPANY'S demand therefore:

12.3.2.9.4.1 makes a general assignment, arrangement or composition with or for the benefit of its creditors;

12.3.2.9.4.2 becomes insolvent or is generally unable to pay its debts or fails or admits in writing its inability generally to pay its debts as they become due;

12.3.2.9.4.3 seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for all or substantially all of its assets;

12.3.2.9.4.4 otherwise seeks protection from creditors.

12.4 Upon termination for convenience under subsection **12.3.1**, COMPANY will pay CONSULTANT'S costs properly allocable and directly relating to the termination, together with reasonable profit for the portions of the Work performed prior to termination, but in no case shall COMPANY be liable for payment to CONSULTANT for unrealized costs or anticipated profits hereunder. COMPANY shall be entitled to deduct any costs or expenses owed to COMPANY by CONSULTANT against any sums due to CONSULTANT as a result of COMPANY terminating this Agreement. CONSULTANT shall provide COMPANY with an itemized invoice for said termination costs allowed hereunder along with supporting documentation within thirty (30) days from the date of termination; otherwise, said termination costs shall be deemed waived by CONSULTANT.

12.5 Upon termination for default under subsection **12.3.2**, COMPANY may take over the Work and prosecute the same to completion and may utilize any other remedies available at law or equity. In addition to any such remedies, CONSULTANT shall be liable to COMPANY for all additional costs and expenses incurred by COMPANY to complete the Work, including any damages for delay in completing the Work, and for any damages or injury of any type or kind caused by CONSULTANT'S failure to fulfill its obligations to complete the Work or fulfill its obligations hereunder.

12.6 Upon receipt of COMPANY'S notice to terminate, CONSULTANT shall, unless the notice directs otherwise, immediately cease Work and if so directed make every reasonable effort to secure cancellation of all existing orders or contracts upon terms and conditions satisfactory to COMPANY and transfer title to the completed Work to COMPANY and deliver to COMPANY all data, designs, drawings, specifications, reports, estimates, summaries, surveys and other materials and information supplied by COMPANY or obtained by CONSULTANT in performing hereunder. In addition, In addition, CONSULTANT will take any action that may be necessary, or required by the COMPANY, for the protection, treatment and preservation or disposal, as directed by COMPANY, of the property related to this Agreement that is in the possession of the CONSULTANT and which COMPANY has or may acquire an interest. The parties agree that "reasonable effort", as a minimum, shall be that CONSULTANT has explicitly contacted each and every supplier for which outstanding orders and/or contracts exist In connection with the Agreement, and has attempted to cancel every such order and/or contract upon terms and conditions reasonably satisfactory to COMPANY.

12.7 Throughout the term of this Agreement and for a period of five (5) years following the completion or termination of this Agreement and for so long thereafter as there may remain any unresolved questions or disputes regarding any item: (i) COMPANY shall, at all reasonable times and upon prior notice to CONSULTANT, have access to all CONSULTANT'S, subcontractors', and vendors' personnel, books, records, correspondence, instructions, plans, equipment maintenance records, drawings, receipts, vouchers, financial accounts and memoranda of every description pertaining to the Work for the purpose of auditing and verifying costs of the Work, CONSULTANT'S compliance with applicable laws, CONSULTANT'S safety performance under this Agreement or for any other reasonable purpose; (ii) COMPANY shall have the right to reproduce any of the aforesaid documents; (iii) in the event that any audit reveals an error or discrepancy of any nature

whatsoever, such error or discrepancy will be corrected promptly, and any moneys owing and due either COMPANY or CONSULTANT will be paid promptly by the other party; and (iv) CONSULTANT shall not charge for any costs incurred by assisting COMPANY with audits performed pursuant to this Agreement.

12.8 Neither CONSULTANT nor COMPANY shall be liable to the other for indirect, special, exemplary, consequential or punitive damages, EXCEPT: (i) arising out of breach of the confidentiality provisions under this Agreement, (ii) resulting from gross negligence or willful misconduct, or (iii) as otherwise provided herein.

13.0 DELAYS; REMEDIES AND DISPUTE RESOLUTION

13.1 Force Majeure

13.1.1 "Force Majeure," as used herein, shall mean acts of God, acts of public enemies, fire, war or civil disturbance, insurrection, blockades, strikes, riots, epidemics, landslides, lightning, hurricanes, tornadoes, earthquakes, floods and/or washouts, explosions, commandeering of raw materials or products or plants or facilities by a government, labor disputes involving a general stoppage of work on the job, rules, regulations, orders or acts of governmental authority, loss or shortage of transportation facilities due solely to an event described in this subsection **13.1.1**, inability with reasonable diligence to obtain materials due solely to the effect of an event described in this subsection **13.1.1**, and in each case not involving the fault or negligence of COMPANY or CONSULTANT.

13.1.2 It is agreed that in the event either party is rendered unable wholly or in part by Force Majeure to carry out its obligations hereunder, then such party shall give notice of the full particulars of such Force Majeure event in writing to the other party as soon as practicable after the occurrence of the cause relied on. The obligation of the party giving such notice, so far and only insofar as affected by such Force Majeure, shall be suspended during the continuance of any inability so caused, but for no longer period, and such cause shall be remedied with all reasonable dispatch. This obligation to remedy shall not require the settlement of labor matters when such course is inadvisable in the judgment of the party claiming same as a Force Majeure. Neither party shall be entitled to any additional compensation for delays resulting from a Force Majeure event.

13.1.3 Time is of the essence for performance hereunder. A delay shall be deemed excusable if the delay is a COMPANY-directed schedule delay. Delays due to subcontractors, suppliers or transporters of CONSULTANT-furnished material, shall not be deemed excusable unless such delay is due to Force Majeure. The party claiming a Force Majeure event shall have the burden of proof with respect to demonstrating that such delay in fact constitutes a Force Majeure event.

13.2 Remedies and Dispute Resolution

13.2.1 This Agreement and any Work Directives associated herewith shall be deemed to have been made and accepted in Harris County, Texas, and the laws of Texas (without giving effect to Texas' choice of law rules and to the extent permitted by applicable law) shall govern any interpretations or constructions of this Agreement. Any dispute between COMPANY and CONSULTANT arising from or related to this Agreement shall be resolved first through discussions among upper management of the parties, and if the dispute cannot be resolved within forty-five (45) days from the date the matter was first brought by the disputing party to the attention of the other party, then either party may elect to resolve the matter through litigation which shall be brought in any court sitting in Harris County, Texas, having jurisdiction thereof. COMPANY and CONSULTANT each submits to the exclusive jurisdiction of said courts and waives the right to change venue. The costs and expenses of the litigation (including attorney's fees) of the prevailing party will be borne by the other party.

13.2.2 If in COMPANY'S sole reasonable discretion the Work cannot be suspended pending the resolution of a dispute, COMPANY may (I) require that CONSULTANT continue prosecuting the Work to completion pursuant to the terms and conditions of this Agreement (including payment of amounts that are invoiced by CONSULTANT and undisputed by COMPANY), or (II) take over the Work and itself prosecute the same to completion. If the pending dispute is resolved in COMPANY'S favor, CONSULTANT shall be liable to COMPANY for any costs and expenses incurred in completion of the Work which are in excess of the amount(s) COMPANY would have paid pursuant to this Agreement.

14.0 CONFIDENTIALITY

14.1 It is understood that CONSULTANT may have access, as determined by COMPANY in its sole discretion, to confidential materials and information ("Confidential Information") of COMPANY, its parent, subsidiaries, or affiliates in order to provide the Work hereunder. Such Confidential Information includes but is not limited to information relating to the progress of the Work and its expected completion date. Although COMPANY shall endeavor to supply CONSULTANT with reliable and accurate information, COMPANY does not make any representation or warranty, express or implied, as to the accuracy or completeness of the Confidential Information furnished for the purposes of the Work. COMPANY shall have no liability to CONSULTANT, nor its directors, officers, employees or advisors to CONSULTANT, or any of its representatives, arising out of the use of Confidential Information by CONSULTANT or its representatives. The above provisions of this Section **14.0** shall apply to CONSULTANT'S parent corporation and all of its subsidiaries and affiliates, if any. It is further understood that CONSULTANT will utilize the Confidential Information only for the purpose of providing the Work contemplated hereunder and for no other purposes whatsoever, and will not utilize the Confidential Information in any manner which could be adverse to COMPANY'S interests. In no event shall CONSULTANT divulge any such Confidential Information to any third party without the express prior written consent of COMPANY'S Designated Representative. In the event any Confidential Information is requested or required of CONSULTANT in the course of legal proceedings, interrogatories, subpoenas, or similar process conducted by a third party, CONSULTANT shall promptly notify COMPANY of such request or requirement in order that COMPANY may seek injunctive relief or protective order, or waive CONSULTANT'S compliance with the provisions hereof. In addition to all remedies at law that COMPANY may be entitled for CONSULTANT'S breach of this section, COMPANY shall also be entitled to equitable remedies including injunctive relief. CONSULTANT shall ensure that its subcontractors comply with the provisions of this Section **14.0**.

15.0 TITLE

15.1 If CONSULTANT is required to transport the Waste from the Work site then title to the Waste passes to CONSULTANT at the time the CONSULTANT'S vehicle is loaded with the Waste. If instead COMPANY transports the Waste from the Work site to CONSULTANT'S facility or site then title to the Waste passes to the CONSULTANT at the time the Waste is delivered to CONSULTANT'S facility or site.

16.0 WAIVER

16.1 No waiver or failure to act by COMPANY with respect to any of its rights under this Agreement shall be construed as a waiver or relinquishment of that right in any other instance or of COMPANY'S right to assert or to rely on the terms of this Agreement. Any express waiver of a provision of this Agreement shall not be binding and effective unless made in writing and properly executed by the waiving party.

17.0 SEVERABILITY AND SURVIVAL

17.1 Each provision of this Agreement is severable. If any provision of this Agreement is determined to be illegal, invalid or unenforceable in any jurisdiction, the illegality, invalidity or unenforceability

of that provision shall not affect (i) the legality, validity or enforceability of the remaining provisions of this Agreement, or (ii) the legality, validity or enforceability of that provision in any other jurisdiction; and provided further, the subject provision shall be applied to the fullest extent permitted by applicable law, and COMPANY and CONSULTANT shall revise the provision so as to confirm their mutual intention upon entering this Agreement and yet be legal, valid and enforceable in the applicable jurisdiction. The provisions of Sections **1.0**, **3.0**, **5.0**, **6.0**, **7.0**, **9.0**, **12.0**, **13.0**, **14.0**, **15.0**, **16.0**, **17.0**, **19.0**, and **21.0** shall survive the termination of this Agreement.

18.0 SERVICES FOR AFFILIATES

18.1 The Work to be performed by CONSULTANT under this Agreement shall be performed, in certain cases, for one or more entities under common control with COMPANY or controlled by the COMPANY or for which the COMPANY serves as an operator through one or more of COMPANY'S affiliates. In the event any such entity requires CONSULTANT to perform Work under this Agreement, a Work Directive for such Work shall be issued by the entity requiring the Work, substantially in the form shown in Exhibit A. Upon execution of said Work Directive, CONSULTANT shall perform such Work for the executing entity in accordance with the Work Directive and the terms and conditions of this Agreement. By execution of the Work Directive, such entity shall be entitled to all rights and privileges, and liable for all commitments and responsibilities held by COMPANY under this Agreement, as same applies to said Work Directive. Upon execution of said Work Directive, CONSULTANT'S agreement to insure and indemnify COMPANY pursuant to this Agreement shall extend to both COMPANY and such entity for purposes of said Work Directive. Unless expressly provided in the Work Directive, such entity which executes the Work Directive shall be solely responsible for the liabilities and obligations set forth in this Agreement under which that Work Directive is being issued as the same apply to the Work to be performed pursuant to that Work Directive. All such liabilities and obligations, as they apply to that Work Directive, shall be non-recourse to the direct and indirect parents (or a general partner or company member, as the case may be) and to the affiliates of the entity executing the particular Work Directive.

19.0 LIABILITY OF GENERAL PARTNER

19.1 In the case where Kinder Morgan G.P., Inc., a Delaware corporation, or any other Kinder Morgan entity is the general partner of COMPANY, (the "General Partner"), the CONSULTANT agrees that the General Partner shall not be liable, directly or indirectly, for any of obligations or liabilities of COMPANY under this Agreement. All such obligations and liabilities shall be non-recourse to the General Partner and shall not constitute debts or obligations of the General Partner. No judgment, attachment, execution or other writ or process shall be sought, issued, or levied in connection with this Agreement against the General Partner or any of its assets or properties to satisfy any such liabilities or obligations or any judgments rendered in connection therewith and all such liabilities and obligations shall be satisfied solely from the assets of COMPANY, or the entity executing the Work Directive, as the case may be.

20.0 SECURITY

20.1 In the event COMPANY elects to require CONSULTANT to obtain a Letter of Credit, Performance and/or Labor and Material Bond(s), Parent Guaranty or other instrument or vehicle to provide financial security for the performance and payment obligations of CONSULTANT under this Agreement or for any particular job or project assigned to CONSULTANT pursuant to any Work Directive, COMPANY shall notify CONSULTANT of COMPANY'S election upon execution of this Agreement or in the Work Directive for the particular job or project, and CONSULTANT shall furnish to COMPANY, at COMPANY'S expense in case of a Bond, within ten (10) days of such notice and prior to commencing the Work or promptly thereafter in the case of an emergency, all documentation associated with such CONSULTANT-provided security, which shall be on terms and in a form satisfactory to COMPANY.

21.0 PUBLIC RELATIONS

21.1 CONSULTANT shall exert all reasonable efforts to maintain goodwill for the benefit of COMPANY with the landowners, occupiers and with the general public in the course of CONSULTANT performing the Work. Nothing contained herein shall permit or be deemed to permit use by CONSULTANT of COMPANY'S name, its logo or trademarks, nor names of it employees, directly or indirectly, orally or in the form of advertising or in a press release without the prior receipt of COMPANY'S written approval. CONSULTANT shall not utilize the fact that this Agreement exists to gain business or revenue elsewhere. Further CONSULTANT agrees to keep and maintain in confidence the commercial terms and conditions of this Agreement.

22.0 FACSIMILE SIGNATURES/COUNTERPARTS

22.1 This Agreement may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Agreement may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Agreement shall be construed and treated as the original and shall be binding as if it were the original.

23.0 CAPTIONS

23.1 The captions contained in the Contract Documents are for convenience of reference only and shall not be construed to explain, modify, amplify or otherwise aid in the interpretation or construction of the provisions contained therein.

24.0 ENTIRE AGREEMENT

24.1 This Agreement together with the Contract Documents and Work Directive(s) constitutes the entire agreement between COMPANY and CONSULTANT and supersedes any prior written or oral agreements, or contemporaneous communications with respect to this subject matter. No subsequent amendment to this Agreement between the parties shall be binding on either party unless reduced to writing and signed by an authorized representative of each party. Preparation of the Contract Documents has been a joint effort of the parties and the resulting documents shall not be construed more severely against one of the parties than against the other.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement to be effective as of the day and year first above written.

KINDER MORGAN ENERGY PARTNERS, L.P.
By: Kinder Morgan G.P., Inc. By: Kinder Morgan Management, LLC, the Delegate of the General Partner

Renee Coleman
Signature

Renee Coleman
Name

Authorized Signatory
Title

PARC ENVIRONMENTAL

Signature

JEFF DAVIS
Name

ESTIMATOR/PROJECT MANAGER
Title

4.10.12
Date

4-11-12
Date

EXHIBIT A - WORK DIRECTIVE

To: Attention:
Phone:
Fax:
Email:

Date:
Work Directive No.:
Agreement No.:
Requisition No:

This Work Directive is entered pursuant to the terms of the Agreement ("Agreement") dated contract effective date, by and between _____("COMPANY") and _____("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT'S proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued, as the same apply to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1. Project Name and Location:

2. Description of Work: Full and complete description of the services (and goods) to be provided by CONSULTANT including, but not limited to specifications, conditions and referenced bids/proposals.

3. The KM entity shall/shall not furnish the following materials to the work site(s):

4. CONSULTANT shall commence the Work by _____, and shall complete the Work on or before _____.

5. CONSULTANT offers to complete the Work in accordance with the Agreement for the following consideration, which shall constitute full and complete payment therefore:
   a. the total Lump Sum Amount, Fixed Price of $_____ **OR**
   a. the total Time & Materials Amount, not to exceed $_____ with rates specified in the Schedule of Values (Exhibit C to the Agreement) **OR**
   a. in accordance with the Schedule of Values (Exhibit C to the Agreement) **OR**
   a. For this Work Directive only, the schedule of values/rate sheet dated _____, 20XX, attached hereto as Exhibit _____, shall supersede the Schedule of Values in the Agreement. All other terms and conditions of Agreement and its prior amendments will remain unchanged and in force.

6. Retainage Fee:

7. CONSULTANT shall submit invoices to: Attn.:
   Phone:
   Fax:
   Invoices must clearly indicate the Agreement Number, Work Directive Number, and Work Order/ Account Coding, as indicated above.
   For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized

representative, notarized, and attached to CONSULTANT'S final invoice.

8. CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Group at: contractor_safety@kindermorgan.com prior to commencement of any Work.

9. Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

For Work performed within the State of California, CONSULTANT shall certify within three working days of execution hereof that the requirements set forth in Exhibit B to this Work Directive have been satisfied. Failure by CONSULTANT to do so shall constitute a breach under Section [for cause with no notice] of the Agreement.

In the Agreement, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware Corporation. This is not a change of entity, but merely a change of name only.

By signing below, COMPANY and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. #_____ is by reference hereby made part of Agreement No.

This Work Directive is hereby agreed to and accepted:

COMPANY	**CONSULTANT**
By: _____ Print Name	By: _____ Print Name
Title _____ Print Title	Title _____ Print Title
Date _____	Date _____

Please return executed Work Directive to:

The following Exhibits shall be provided by COMPANY:

_____ **Exhibit WD_A** - Scope of Work
_____ **Exhibit WD_B** – Revised Release Reporting Criteria (**California only**)
_____ **Exhibit WD_C** – Work Directive Specific Schedule of Values/Rates
_____ **Exhibit WD_D** – Operator Qualification Form (as provided by the Designated Representative either electronically or hardcopy submission) .

CONSULTANT shall include the following documents with its invoices in accordance with Section 6 of the Agreement which are being required based on the Scope of Work. These documents are located in the Agreement Exhibits.

_____ Certificate of Final Completion
_____ Conditional Waiver and Release
_____ Unconditional Waiver and Release

EXHIBIT B - SCHEDULE OF VALUES

1.0 OVERVIEW.

1.1 The amounts set forth in the Agreement cover payment in full for all materials, work, tools, equipment, insurance, bonds, profit, overhead and all other costs and expenses of every kind, character and nature for which the CONSULTANT is entitled to payment. Unless specifically set forth in the Agreement, no additional payment of any kind will be contemplated. Unless otherwise agreed in writing by COMPANY and CONSULTANT, the rates set forth in this Exhibit constitute all of CONSULTANT'S rates applicable to the Work (except those which may be added with COMPANY'S approval). Modification of any pricing terms for Labor, Equipment and/or Material rates shall be in effect only upon the concurrence of both COMPANY and CONSULTANT, and any such modification shall be evidenced by amendment to this Exhibit. If a Work Directive or Change Order includes rates which are different from those in this Exhibit, said Work Directive/Change Order rates shall apply only to that Work Directive/Change Order, and only after COMPANY and CONSULTANT have approved said rates in writing prior to Work Directive/Change Order issuance.

1.2 COMPANY (throughout this Schedule "KM Entity" or "COMPANY", as the case may be) agrees to pay CONSULTANT for Work performed pursuant to this Agreement on a LUMP SUM, UNIT PRICE or TIME and MATERIAL basis in accordance with the labor, material and equipment rates in this Exhibit or as defined in each Work Directive release, or as mutually agreed in writing where a Work Directive is not issued under Section 3.1 of the Agreement and per the Schedule of Allowable Costs.

2.0 INVOICE PROCEDURE

2.1 Standard Invoice Procedure

2.1.1 CONSULTANT shall submit a detailed invoice for Work performed including all supporting documentation for the invoice period set forth in each Work Directive. CONSULTANT shall submit a Microsoft Excel spreadsheet containing Electronic Invoice Information (EII) as per format set forth in this Exhibit-Appendix A. Where no invoice period is stated, invoices shall be sent to COMPANY at the end of each month. Such invoices and EII will be addressed and sent by email, fax, or mail per the instructions on the Work Directive.

2.1.2 Any invoices that do not relate to this Agreement will not be accepted or processed by COMPANY.

2.1.3 Charges invoiced but not specifically provided for in the Agreement, Work Directive or Change Order requires prior WRITTEN approval BY COMPANY. ALL charges invoiced WITHOUT prior approval in writing from the COMPANY will not be accepted by COMPANY. ALL charges not in compliance with the stated terms and conditions of the Contract Documents, including this Exhibit, will be disputed and deducted from the invoice prior to payment processing.

2.2 Required Invoice Detail

2.2.1 Each invoice shall state the following information on its face:

2.2.1.1 Agreement Number, Work Directive Number and Change Order Number (as applicable).

2.2.1.2 Invoice date.

2.2.1.3 Reference number (invoice number) which is unique to the transaction.

2.2.1.4 Site or project name (if applicable) and COMPANY or KM Entity name on Work Directive.

2.2.1.5 Name of COMPANY'S Designated Representative.

2.2.1.6 Billing Invoice period (time period of charges).

2.2.1.7 CONSULTANT'S entity name and remittance address or electronic funds transfer routing information (as applicable). This information must match information as submitted to COMPANY'S Vendor Maintenance department.

2.2.1.8 Name and telephone number of CONSULTANT'S contact to handle invoice related questions.

2.2.1.9 Amount due CONSULTANT.

2.2.1.10 Project Status Report (if applicable).

2.2.1.11 Summary of amount invoiced to date, current invoiced amount, retention (as applicable), the amount remaining to be invoiced and the percentage of budgeted cost for the applicable milestone already expended (including current invoice) (if applicable).

2.3 Supporting Documentation

2.3.1 Each invoice shall be itemized and submitted to COMPANY together with receipts, time records, lien waivers, evidence of payment to subcontractors, vouchers showing payments for itemized material and labor, and any other evidence of CONSULTANT'S right to payment under this Agreement as COMPANY may, in its sole good faith discretion, from time to time require.

2.3.2 CONSULTANT shall submit the time records and reimbursable expenses to the Designated Representative (or his or her delegate) on a daily basis for verification/acknowledgement of expenses and time spent on a project when required by the Designated Representative. All supporting documentation must be signed by the Designated Representative (or his or her delegate) prior to invoicing. **This verification/acknowledgement does not constitute COMPANY'S agreement to pay these expenses.**

2.4 Final Invoice

2.4.1 CONSULTANT shall submit its final invoice to COMPANY for the Work no later than sixty (60) days after the project completion date and include the following documents:

2.4.1.1 Unconditional Release of Lien notices executed by CONSULTANT and by each person or entity that furnished any labor, services or materials in connection with the Work for labor, materials or any other claim or potential claim for which COMPANY withheld compensation pursuant to the Agreement have been paid or satisfied in a manner acceptable to COMPANY;

2.4.1.2 A Certificate of Final Completion; and

2.4.1.3 Any other documents required by this Agreement.

3.0 PAYMENT PROCEDURE

3.1 Processing of Approved Invoices. Provided that such invoice meets all of the requirements as explained, COMPANY shall pay all undisputed charges set forth in each invoice, less any retention amount applicable, within 30 days after such invoice is received by COMPANY.

3.2 Processing of Disputed Invoices. If COMPANY, in good faith, disputes and does not approve an item billed, COMPANY shall notify CONSULTANT of the item or portion of an item disputed and withhold payment thereof until settlement of the dispute. Such right of COMPANY to withhold such payments shall be in addition to, and not in any way in lieu of, any other right of COMPANY hereunder, including the right to raise disputes for the first time after audit. Payment shall be contingent upon COMPANY'S review of the Invoice and determination that the Work described in the invoice complies with all of the terms of this Agreement. Interest penalties for disputed invoices will not be paid by COMPANY.

3.3 Delayed submittal of Invoices and Non-payment. Any Work for which CONSULTANT does not submit an invoice to COMPANY within sixty (60) days after the month in which such Work is completed shall be deemed to have been performed by CONSULTANT without compensation; provided however, that if prior to the end of such sixty (60) day period, CONSULTANT requests in writing from COMPANY'S Designated Representative an extension of time for submitting such invoice (stating the reasons therefore and the amount of additional time requested). If COMPANY elects to authorize such extension in writing, CONSULTANT shall have until the end of the extension to submit such invoice, and provided further, that nothing in this Agreement shall affect CONSULTANT'S right to submit invoices within a longer period of time if so afforded by applicable statute.

4.0 LABOR RATES

(Attached in this Exhibit as Table 1 **OR** See Work Directive)

4.1 The Labor Rate Schedule shall list the following: (1) Description/Category/Classification, (2) Rate, and (3) Unit of Measure.

4.2 Labor Rates may also apply to any Extra Work and to lump sum Work Directives, when requested by COMPANY, upon execution of a written Change Order which shall modify that Work Directive.

4.3 It is further stipulated and agreed that the rates in this Exhibit are firm and not subject to escalation for one (1) calendar year after the Effective Date of the Agreement. Modification of any pricing terms thereafter shall be in effect only upon the concurrence of both COMPANY and CONSULTANT, and any such modification shall be evidenced by amendment replacing this Exhibit. All Work related to a particular Work Directive will be invoiced at the rates in effect on this Exhibit at the time the Work is requested by COMPANY unless rates are attached to the Work Directive.

5.0 MATERIAL RATES

(Attached in this Exhibit as Table 2 **OR** See Work Directive)

6.0 EQUIPMENT RATES

(Attached in this Exhibit as Table 3 **OR** See Work Directive)

6.1 The Equipment Rate Schedule shall list the following: (1) Description/Category/Classification, (2) Rate, and (3) Unit of Measure.

6.2 Equipment Rates will also apply to any Extra Work and to lump sum Work Directives, when requested by COMPANY, upon execution of a written Change Order which shall modify that Work Directive.

SCHEDULE OF ALLOWABLE COSTS

Cost/Charge	Description
Labor Rates	- Only labor titles listed in the Labor Rates in this Exhibit are reimbursable. If CONSULTANT desires to add labor titles to a particular Work Directive (or Contract), then such titles may be added to that Work Directive with the written approval of COMPANY by an executed Change Order (or Amendment). - Labor Rates shall be inclusive of, but not be limited to, statutory and non-statutory burdens such as taxes, vacation, legislated statutory deductions and contributions (Medicare, FUTA, FICA, Workers Compensation, and State Unemployment), payroll benefits, bonus programs, welfare benefits, and office overhead costs directly and indirectly related to the execution of the Work at CONTRACTOR'S actual cost. Office overhead costs shall include all the costs of operating and otherwise maintaining the CONTRACTOR'S home/head office organization such as office costs, utilities, accounting, payroll, insurance, procurement, human resources, telephone, fax, computer, copying, mail and courier services, and CONTRACTOR'S fee or profit. - Labor Rates shall be inclusive of all tools having an individual cost of $1500 or less, including, but not limited to: disposable parts, software, expendables, consumables, personal protective clothing and safety items required for the performance of the Work. - Labor Rates do not include costs for travel, subsistence, reproduction, subcontracts, freight, etc. (discussed in detail below)
Overtime & Double Time	- "Overtime" is defined as work exceeding 40 hours per calendar week (Monday through Sunday) when working on a weekly basis under a specific Work Directive (or exceeding 8 hours per day when required by state law). Overtime shall be paid by CONSULTANT to its employees consistent with applicable state wage and hour laws. - CONSULTANT'S employee(s) hours worked on project(s) other than the project specifically referred to under any given Work Directive will not be credited hours for the purpose of overtime. - CONSULTANT shall minimize the amount of Overtime and provide a work plan detailing the number of overtime hours expected when required by COMPANY'S Designated Representative. COMPANY will not pay for Overtime for additional hours resulting from CONSULTANT staffing issues. - COMPANY will pay Overtime for emergency call-outs during nights and weekends. - COMPANY will pay Overtime at the "Overtime" rates shown in the Schedule of Values (Table 1) or Work Directive, or at a factor of 1.3 times the straight time or flat rate, if applicable, multiplied by the number of hours worked. Overtime shall be charged to COMPANY only for time spent in performance of the Work in excess of 40 hours/week. - Overtime will be charged as straight time by exempt personnel. Overtime by non-exempt personnel (classifications identified with an asterisk "*" in Table 1) will be charged at 1.3 times the above hourly rates. Classifications and straight time, overtime and double time rates not set forth in this Exhibit shall be approved in advance by COMPANY'S Designated Representative and Contract Administrator listed in the Agreement. - "Double Time" is defined as work on Sundays (if Sunday is not part of the 40 hour work week for performance of the Work) or on COMPANY'S observed holidays. - Double Time shall be paid at the rates shown in the Schedule of Values, or at a factor of 1.7 times the Straight-Time or flat rate, if applicable, multiplied by the number of hours worked. - Double-Time will be charged as straight time by exempt personnel. Double Time by non-exempt personnel classifications identified with an asterisk "*" will be paid a factor of 1.7 times the Straight-Time rate listed herein multiplied by the number of hours worked.
Shift Rates	- Shift Rates. CONSULTANT agrees not to charge Company shift differential for swing (evening) or graveyard (night) shifts.
Labor: Stand-by Time	- Stand-By Time. CONSULTANT'S employee(s) put on stand-by time, through no fault of CONSULTANT, shall be paid for actual hours on stand-by. Stand-by time hours will be credited for the purpose of overtime. Stand-by time hours may not exceed 8 hours per day, 40 hours per week. Standby time shall be coded separately from actual time worked.
Subcontractors	- Reimbursement for Subcontractors. The actual net cost to the CONSULTANT of all subcontracted labor (covering work performed for the CONSULTANT with the COMPANY'S Designated Representative's prior written approval) is plus 7% - Any subcontract that includes work for duties that are, or are similar to work that could be, performed by CONSULTANT cannot be billed at a rate higher than CONTACTOR'S Labor Rates. Any exception must be approved in writing by the COMPANY'S Designated Representative. - COMPANY will not pay markups on work subcontracted to partially owned or wholly owned

Cost/Charge	Description
	companies / subsidiaries of CONSULTANT.
Holidays & Vacations	- COMPANY will not pay for COMPANY and/or CONSULTANT holidays without prior written approval of COMPANY. Vacations are not allowable charges and should not be billed.
Personal Owned Vehicle	- COMPANY will pay miles per IRS allowance per vehicle only. If CONSULTANT is charging for a personal owned vehicle, personal mileage is not allowed. - COMPANY will pay Mileage Reimbursement for Mobilization and Demobilization only no more than the current IRS allowable per mile, per vehicle. COMPANY will compensate only per vehicle and not per man within the vehicle. - CONSULTANT shall provide an accurate log indicating vehicle VIN #, start and finish locations, total miles traveled and purpose of trip along with a Google (or other electronic system) map printout showing start and end locations. Only business related mileage may be reimbursed. - Mileage includes fuel, maintenance, and insurance. Fuel and insurance charges should not be submitted for reimbursement.
Contractor-Owned Vehicles	- COMPANY will pay CONSULTANT owned vehicles at a set day, week or monthly rate determined in this Exhibit or per the Work Directive. In the absence of a day, week, or monthly rate, COMPANY will pay miles per IRS allowance per vehicle only. - CONSULTANT shall provide an accurate log indicating vehicle VIN #, start and finish locations, total miles traveled and purpose of trip along with a Google (or other electronic system) map printout showing start and end locations. Only business related mileage may be reimbursed. - Mileage includes fuel, maintenance, and insurance. Fuel, maintenance, and insurance charges should not be submitted for reimbursement.
Rental Vehicles	- Rental cars should be insured by the CONSULTANT'S automobile insurance. - Rental vehicles should be returned with the same amount of fuel in the tank as when they were checked out, therefore, the Fuel Option should be rejected. COMPANY will pay for required fuel purchased at a gas station only. Charges for the Fuel Option and Rental Car Insurance are not reimbursable. - Mileage Reimbursement does not apply to rental vehicles. Rental vehicle agreements should include unlimited mileage. COMPANY will not reimburse for rental vehicles where the agreements did not stipulate unlimited mileage and the rental agency charged on a per mile basis.
Travel Time	- All travel time requires authorization prior to its incurrence by an individual and, if approved, all travel time requires a separate disclosure on the invoice from worked hours. - COMPANY will pay travel time at the standard hourly rate. Travel time is not included in Overtime calculations. - Travel time shall not include travel time to/from the individual's home and the worksite unless specifically agreed by COMPANY and CONSULTANT and noted on the applicable Work Directive. - COMPANY will pay first and last day of travel at 75% of the GSA-Domestic Per Diem M&IE Rates. (www.gsa.gov/perdiem)
Travel Expenses	- COMPANY will pay CONSULTANT, without markup, for the direct, reasonable cost to CONSULTANT for employee travel expenses away from the project site or employee's base office when this travel occurs as a direct result of the performance of the Work. Travel expenses include air (excluding first class or business airfare, upgrades, and change fees), ground transportation, parking and medium size car rental. - All travel expenses must have prior COMPANY approval and shall be supported by valid receipts.
Per Diem	- COMPANY will pay per diem rates in accordance with published GSA-Domestic Per Diem Rates at time of travel. - Costs not included in MIE (meals and incidental expenses) must be business related, proper and reasonable, pre-approved by Project Manager, and substantiated by receipts. (www.gsa.gov/perdiem)
Safety Equipment	- Safety items are included in Labor Rates. CONSULTANT is responsible at its expense for keeping all of its personnel adequately attired in personal protective clothing and equipment such as hard hats, steel toed work footwear, gloves (where applicable), safety glasses and all fire protective clothing where required snake leggings, and H2S monitors to protect CONSULTANT from injury on the job site. CONSULTANT shall evaluate the situation daily and determine what equipment is necessary for the performance of the Scope of Work. See COMPANY'S Contractor Safety Manual, as updated.
	- Equipment required to perform the Work and not available from CONSULTANT or

Cost/Charge	Description
Equipment Rates/ Standby & Fuel Charges	Subcontractors shall be rented, subject to COMPANY'S approval. The rented equipment will be reimbursed at actual cost (less all discounts and credits) to CONSULTANT as substantiated by paid invoices. - Equipment rates (Table 3) shall include servicing, fuel, lubricants and maintenance. - COMPANY will pay for rates only for the period that equipment is working (with operator) at the work site as authorized by COMPANY's Designated Representative, excepting down-time for repairs and/or servicing which shall not be charged. - Equipment not listed in the Equipment Rates list must be pre-approved by Designated Representative and substantiated before reimbursement is made. - CONSULTANT shall not charge Equipment Standby time unless COMPANY's Designated Representative specifically requests in writing or email that CONSULTANT keep equipment on site on a standby basis. - Compensation shall apply only to on-site equipment utilized by CONSULTANT when performing the Work. The rate payable for any equipment shall be determined according to the length of time during which such equipment is used in connection with the Work, having regard to the most economical rate available for such equipment for the period of time it is required for the Work. The rate payable may be a combination of hourly, weekly or monthly rates. - A Calendar Day shall be any consecutive twenty-four (24) hour period at the COMPANY'S discretion. A Calendar Week shall be any consecutive seven (7) day period at the COMPANY'S discretion. A Calendar Month shall be any consecutive period extending for the number of days in the month that the Lease/Rental begins.
Fuel Surcharges	- COMPANY will not pay for Fuel Surcharges.
Materials	- COMPANY will pay CONSULTANT for materials purchased at wholesale or jobber's actual cost. Materials purchased must be pre-authorized by Designated Representative.
Mobile Phones	- Mobile phones are not reimbursable.
Reproduction Rates	- Reproduction rates for in-house reprographic services are included in the labor rates unless specifically pre-approved in writing by COMPANY's Designated Representative.
Computer Equipment	- Computer equipment and laptops are included in the labor rates.
Software & License Fees	- Software and license fees for standard software provided by CONSULTANT such as Windows OS, MS Office, Internet Explorer, Adobe Acrobat Reader, anti-virus, FAX and WinZip are included in the labor rates.
Charges Not Stated in Contract	- Non-consumable supplies are deemed to be included in CONSULTANT'S overhead and are considered non-reimbursable (e.g., radios, cameras, hole-punches, compasses, and other similar items). - Company will not pay for charges not specifically stated in the contract such as executive and clerical salaries; office rent; mortgage payments; warehouse rent; depreciation; property taxes; insurance; utilities and telephone expenses; professional and trade licenses and fees; employee recruitment; relocation; training and education; photocopying; data processing; office supplies; postage; books and periodicals; miscellaneous general and administrative expenses; advertising expenses; interest on borrowing and other financial costs; entertainment expenses; contributions and donations; bad debts; losses on other contracts; equipment storage and upkeep (if not specifically required and COMPANY-approved for individual jobs); and bid and proposal costs unless specifically pre-approved in writing by COMPANY's Designated Representative. Any of these charges, once approved, must be substantiated for reimbursement.

Table 1 Labor Rates - CONSULTANT Effective From 4/3/2012 To 1/1/2015			
Description/Category/Classification	Straight Time (Rate Per Hour) (US $0.00)	Overtime (Rate Per Hour) (US $0.00)	Double Time (Rate Per Hour) (US $0.00)
Haz Mat Supervisor	$78.75	$104.97	$131.22
Haz Mat Foreman	$63.00	$89.98	$104.97
Haz Mat Technician	$52.50	$69.98	$87.48
Equipment Operator/Driver	$68.25	$91.46	$121.64
Subsistence	$100.00 -per day		

Table 2 Material Rates Effective From 4/3/2012 To 1/1/2015		
Description/Category/Classification	Rate (U.S. $0.00)	Unit of Measure (Per Hour, Day, Week, Etc.)
5-Gallon Poly DOT Pail	$26.25	Each
30-Gallon Poly DOT Drum	$47.25	Each
55-Gallon Poly DOT Drum	$57.75	Each
55-Gallon Metal DOT Drum	$57.75	Each
85-Gallon Metal DOT Over pack Drum	$231.00	Each
Tri-Wall Cubic Yard DOT Box & Pallet	157.50	Each
Towels	$110.25	Box-200 towels per box
Stardust Absorbent/Cleaner	$30.45	Bag
6-Mil, 36" x 60" Clear Poly Bags	$157.50	Roll-50 bags per roll
6-Mil, Clear Poly	$157.50	Roll-10' x 100' roll
Petroleum Absorbent Pads	$96.60	Bail-100 pads per Bail
Petroleum Absorbent Booms	$88.20	Each-6 sections

Table 3 Equipment Rates Effective From 4/3/2012 To 1/1/2015		
Description/Category/Classification	Rate (U.S. $0.00)	Unit of Measure (Per Hour, Day, Week, Etc.)
Emergency Response Unit	$89.25	Hour
Generator	$26.25	Hour
Roll Off Truck without Drive	$99.75	Hour
Support Passenger Vehicle and/or Pickup	$36.75	Hour
Backhoe	$603.75	Day
Skid Steer Loader	$393.75	Day
Trailer Light Tower System	$367.50	Day
Lowboy Delivery & Pickup Charges	$183.75	Hour
20 Cubic yard Debris Bin	$10.50	Day
40 Cubic Yard Debris Bin	$10.50	Day
Vacuum Truck with Driver	$157.50	Hour
Water Truck	$535.50	Day
End Dumps without Drive	$99.75	Hour
Pressure Washer, High Pressure	$183.75	Day
Commercial Steam Cleaner	$183.75	Day
Explosion Proof/Corrosive Liquid Electric Transfer Pump	$157.50	Day
Explosion Proof/Corrosive Liquid Pneumatic Transfer Pump	$472.50	Day

Personal Protective Equipment Rates		
Tyveck Suit	$22.05	Each
Saranex Suit	$42.00	Each
Respirator with Cartridges	$38.85	Each
Self Contained Breathing Apparatus (SCBA)	$183.75	$30-Minute Air Tanks Included
Type C Supplied Air System	$133.35	Hour-$375 Minimum Charge/$600 per Day Max.
Chemical Gloves	$4.99	Pair
Inner Disposable Gloves	$1.31	Pair
Leather Gloves	$4.73	Pair
Haz Mat Booties	$18.90	Pair
Chemical Tape	$26.25	Roll
Snow & Foul Weather Safety Gear	$183.75	Each-Reusable during project.
Level A Protective Suits	$367.50	Each
Analytical Testing Rates		
TPH-Diesel (Liquid)	$262.50	Each- 24 Hour Turnaround
TPH-Diesel (Solid)	$262.50	Each- 24 Hour Turnaround
TPH-Oil (liquid)	$262.50	Each- 24 Hour Turnaround
TPH-Oil (Solid)	$262.50	Each- 24 Hour Turnaround
Chlor-D-Tect Kit	$25.99	Each
Disposal Rates to be Determined		

EXHIBIT C – DRUG & ALCOHOL/OPERATOR QUALIFICATION PROGRAM REQUIREMENTS

CONSULTANT shall comply with requirements for both DOT Drug and Alcohol and Operator Qualification Requirements Programs, as follows:

1 DOT DRUG AND ALCOHOL PROGRAM

CONSULTANT represents and warrants that it has established, maintains, and enforces a drug and alcohol policy.

1.1 Compliance with DOT Anti-Drug and Alcohol Misuse Regulations.

COMPANY, under 49 CFR Parts 199 and 40, is required by law to ensure compliance with the pipeline safety regulations for drug and alcohol testing applicable to its CONSULTANTS', subcontractors and their agents, performing operations, maintenance, or emergency response functions on a pipeline or LNG facility subject to Parts 191, 192, 193 and 195 of Title 49 of the Code of Federal Regulations or any other provision or Part thereof (or any successor thereof) covering the type of work CONSULTANT may perform pursuant to this Agreement as follows:

1.1.1 CONSULTANT agrees that CONSULTANT, its subcontractors, and their agents will abide by a DOT anti-drug plan and alcohol Misuse Program which applies to all employees of CONSULTANT, its subcontractors, and agents if performing an operations, maintenance or emergency response function on COMPANY'S facilities.

1.1.2 CONSULTANT agrees that CONSULTANT, its subcontractors and their agents shall provide to their respective employees an Anti-drug Plan and Alcohol Misuse Program, the drug and alcohol testing, education, and training required by Title 49 Parts 199 and 40 of the Code of Federal Regulations. Prior to and during the performance of any work hereunder, CONSULTANT shall have in place and shall implement a drug testing program meeting the requirements imposed by the regulations of the Code of Federal Regulations.

1.1.3 CONSULTANT agrees that CONSULTANT, its subcontractors, and their agents, are in compliance with the drug and alcohol testing regulations at 49 CFR Parts 199 and 40 and the Motor Carrier Regulations at 49 CFR Parts 391 and 394, if applicable.

1.1.4 CONSULTANT agrees that CONSULTANT, its subcontractors, and their agents shall allow COMPANY, the administrator and/or representative of a state agency (as defined in 49 CFR Part 199) access to property and records for the purpose of monitoring compliance with the requirements of the Research and Special Programs Administration for drug and alcohol testing at 49 CFR Part 199. This access shall occur periodically, and without prior notice to allow COMPANY, the administrator and/or representative of a state agency to audit CONSULTANT, its subcontractors, and their agents' Anti-drug Plan and Alcohol Misuse Program, the required drug and alcohol testing and results thereof.

1.1.5 COMPANY requires that CONSULTANT'S written Drug Testing Program be approved in writing by COMPANY'S Policy and Compliance Department or its third party designee prior to start of work hereunder. Thereafter, COMPANY reserves the unqualified right to audit the said program at any time, or to ask its third party designee to do likewise, during the performance of work hereunder. In the event that COMPANY, at its sole discretion believes that the said program no longer meets the applicable law and/or regulatory statutes recited in this Policy and its subsections, then COMPANY may suspend work until such time as CONSULTANT restores the said program to full compliance. Any costs incurred by COMPANY because of such suspension, shall be borne by CONSULTANT.

1.1.6 COMPANY, to the extent required by applicable laws or regulations, will monitor the CONSULTANT'S compliance with these regulations and from time to time require

certificates regarding compliance with such testing requirements to be provided by CONSULTANT from CONSULTANT'S testing agency. CONSULTANT will allow access to its property and records by COMPANY or by any authorized state agency (or its representative) having jurisdiction over COMPANY or its facilities, for the purpose of monitoring COMPANY'S compliance with governmental laws, rules or regulations.

2 OPERATOR QUALIFICATION PROGRAM

CONSULTANT represents and warrants that it has established, maintains and enforces an Operator Qualification (OQ) program.

2.1 Compliance with DOT OQ Regulations

COMPANY under 49 CFR Parts 192 and 195 is required by law to ensure compliance with the pipeline safety regulations for OQ applicable to its CONSULTANTS, its subcontractors and their agents who perform specific OQ covered tasks during operations and maintenance work on hazardous liquids (including CO2) or natural gas pipelines or facilities subject to Parts 192 or 195 of Title 49 of the Code of Federal Regulations as follows:

2.1.1 CONSULTANT agrees that CONSULTANT, its subcontractors and their agents shall review and comply with COMPANY'S OQ Program. CONSULTANT agrees that CONSULTANT, its subcontractors and their agents will also review the list of OQ-covered tasks and identify any and all OQ-covered tasks that they would perform for COMPANY (OQ Program and list of covered tasks attached).

2.1.2 CONSULTANT agrees that CONSULTANT, its subcontractors and their agents will be qualified under a COMPANY approved evaluation program which applies to all employees of CONSULTANT, its subcontractors and their agents who perform specific OQ-covered tasks during operations and maintenance work.

2.1.3 CONSULTANT agrees that proper and approved documentation will be kept by CONSULTANT or their agents to verify the OQ evaluations and that CONSULTANT will provide for COMPANY'S access to this documentation as necessary for verification. CONSULTANT will keep documentation in ISNetworld unless instructed by COMPANY.

2.1.4 CONSULTANT agrees that CONSULTANT, its subcontractors and their agents shall allow COMPANY'S representative and/or the representative of a local, State or Federal agency access to property and records for the purpose of monitoring compliance with the requirements of the OQ regulation. This access shall occur periodically and without prior notice.

2.1.5 CONSULTANT personnel who do not have proper and documented OQ qualifications will not be allowed to perform specific OQ-covered tasks during operations and maintenance work on hazardous liquids (including CO2) or natural gas pipelines or facilities subject to Parts 192 or 195 of Title 49 of the Code of Federal Regulations, unless those non-OQ qualified personnel are supervised by an OQ-qualified individual, as described in COMPANY'S OQ Program.

2.1.6 CONSULTANT agrees to provide OQ-related information on its personnel when requested by COMPANY. Typically, this will be requested by COMPANY Project Management or Operations Designated Representatives during the bidding process or if the work is not bid, when the work is assigned to CONSULTANT.

2.1.7 CONSULTANT agrees to review the work it is being asked to perform and identify any OQ-covered tasks being performed which were not identified as OQ-covered tasks by COMPANY'S Project Management personnel, and notify COMPANY'S Project Management

personnel of the discrepancy prior to commencement of the work.

Detailed information on COMPANY'S DOT and Operator Qualification program requirements are located on the Internet at:

DOT Drug and Alcohol Compliance:
http://www.kindermorgan.com/work/contractor_co/dot_drug_alcohol_req.cfm

Operator Qualification Program:
http://www.kindermorgan.com/work/contractor_co/dot_operator_qual.cfm

IMPORTANT NOTICE

To Contractors Of Kinder Morgan And/Or Its Affiliates ("KM")

Department of Transportation Regulations
For
Anti-Drug and Alcohol Misuse Plans

The Department of Transportation ("DOT") continues to report drug/alcohol testing compliance problems with contractors who perform DOT-covered work for pipeline operators. In response to these compliance problems, DOT promises to step-up their enforcement of the regulations contained in 49 CFR Parts 199 and 40. DOT places the responsibility upon the pipeline operators such as KM, to see that contractors and contractor employees performing DOT-covered work are in compliance with the drug testing regulations. Given what we know about DOT drug/alcohol testing plans and contractor monitoring, it is possible many existing contractor's drug plans do not meets the standards required by these regulations. In addition, new alcohol regulations became effective January 1, 1995, for the Pipeline and Hazardous Materials Safety Administration and the Federal Motor Carrier Safety Administration. Consequently, reasonable measures must be undertaken to safeguard against civil penalties from DOT.

Effective January 1996, COMPANY contracted with National Compliance Management Service, Inc., (NCMS) to act as its agent for monitoring contractor DOT anti-drug and alcohol misuse prevention plans and to obtain contractor drug/alcohol testing data. NCMS is authorized by KM to request anti-drug and alcohol misuse plans and statistical data and other documentation from contractors who plan to perform an operating, maintenance or emergency response function on KM covered facilities.

Contractor can access COMPANY'S website for further information and contacts for the NCMS at:

http://www.kindermorgan.com/work/contractor_co/dot_drug_alcohol_req.cfm

Contractor can call NCMS directly or access the required documentation through the National Compliance Management Services website. This information is available under forms: http://www.nationalcompliance.com/forms.htm, selecting the PHMSA Contractor Packet at the bottom of the page. Detailed instructions and information are provided to facilitate completion of the package. The completed package should be then submitted via email to: dot@nationalcompliance.com

If email is not available, contact NCMS as follows:

National Compliance Management Service
(Kinder Morgan Audit)
7 Compound Drive
Hutchinson, KS 67502
Phone: (620) 669-0954 Fax: (620) 669-8430

Only contractors with approved drug/alcohol testing programs will be allowed to perform DOT-covered tasks for KM. If you should have any question pertaining to this matter or require additional information, for general information please contact: Director, Compliance HR. For those Contractors registered in ISNetworld, information is downloaded from NCMS to ISNetworld contractor dashboard.

EXHIBIT D - CERTIFICATE OF FINAL COMPLETION

The State of:
County of:
Date:

To: **[Insert Name and Address of KM Entity executing the applicable Work Directive]**

Re: Work Directive date , 20 (the "Work Directive") by and between WD Entity Name ("KM") and ("CONSULTANT") under that certain [Type of Agreement] dated (the "Agreement")

CONSULTANT, by and through the undersigned officer, duly authorized to represent CONSULTANT and execute and deliver this certificate (the "Certificate") to KM, provides this Certificate to KM under the Agreement and the Work Directive. Capitalized terms used herein not otherwise defined shall have the meaning given such terms in the Agreement (except as may be expressly modified by the terms of the Work Directive). CONSULTANT hereby certifies to KM as of the date hereof that the following are true and correct:

1. The Work under the Work Directive has been completed in accordance with the terms of the Contract Documents;

2. CONSULTANT has met all its obligations under the terms of the Contract Documents, other than warranty obligations and any other obligations that expressly survive the termination thereunder;

3. All amounts that were due and payable by KM in connection with the Work have been paid;

4. All federal and state unemployment and old age benefit taxes have been paid, or will be paid when due; all valid state sales and use taxes properly levied on materials, equipment, supplies and services furnished by CONSULTANT have been paid; all federal and state income taxes required by law to be withheld from employees or others have been withheld and remitted to the proper taxing authority, or will be remitted when due;

5. All premiums for insurance requirements under the Contract Documents have been paid;

6. All claims for damages of any nature arising from the fulfillment of the Contract Documents and for which CONSULTANT is responsible pursuant thereto have been paid, and payment has been made by CONSULTANT in full for all claims for damages for which CONSULTANT is required under the Contract Documents to indemnify KM, its general partner (if any) and its affiliated companies; and

7. Any other items payable by CONSULTANT under the Contract Documents have been paid in full.

8. A Conditional Lien Waiver is attached to this Certificate of Final Completion, and within two weeks of COMPANY'S execution of this Certificate which shall be accompanied by COMPANY'S final payment to CONTRACTOR in respect of the Work covered hereby CONTRACTOR shall return to COMPANY an executed and notarized Unconditional Waiver and Release in the form prescribed by the Agreement.

CONSULTANT agrees to (i) indemnify and hold harmless KM, its parent, general partner (if any), affiliated and subsidiary companies and entities from any claims, damages, fines or penalties, or expenses arising from CONSULTANT'S failure to perform or fulfill any of the acts or obligations referred to above; and (ii) to comply with those terms and conditions contained in the Contract Documents which survive expiration of the applicable Work Directive and/or the Agreement.

CONSULTANT'S EXECUTION OF THIS CERTIFICATE SHALL CONSTITUTE A WAIVER BY IT OF ALL CLAIMS AGAINST KM RELATED TO OR ARISING OUT OF THE APPLICABLE WORK DIRECTIVE (EXCEPT FOR FINAL PAYMENT BY KM, IF IT HAS NOT ALREADY BEEN MADE); PROVIDED, HOWEVER, THAT CONSULTANT (NOR ITS SURETY, IF ANY) SHALL NOT BE RELEASED FROM ANY WARRANTY WORK

OR OTHER UNPERFORMED OBLIGATIONS UNDER THE CONTRACT DOCUMENTS.

This Certificate of Final Completion shall be governed by, construed and enforced in accordance with the laws of the State of Texas (without giving effect to the principles thereof relating to conflicts of laws), except with regard to the creation, recordation and discharge of a lien, which shall be governed by the laws of the state in which the Work was performed.

IN WITNESS WHEREOF, CONSULTANT has duly executed and acknowledges this Certificate of Final Completion on the XX day of XXXXXX, 20XX.

[Insert CONSULTANT Name]

By:
Printed Name:
Title:

The state of:
County of:

This instrument was acknowledged before me on the XX day of XXXXXX, 20XX. by XXXXXX, as Representative of [Name of CONSULTANT].

By:
Printed Name or Notary
Notary Public, State of:
My commission expires:

Countersigned:
[Name of KM Entity on the Work Directive]

By:
Printed Name:
Title:
Date:

EXHIBIT E-1 – FORM OF CONDITIONAL WAIVER AND RELEASE

[LETTERHEAD OF CONTRACTOR]
Date
To: [Name and Address of Company

Contract No. _____
Work Directive No. _____ Date: _____
Description of Project _____
Site: _____

WHEREAS:

[To be inserted] ("KM") and [To be inserted] ("CONSULTANT") have entered into that certain Work Directive dated as of [To be inserted] under that certain [to be inserted] Agreement dated as of (the "Agreement"), pursuant to which CONSULTANT is to provide [To be inserted] services in connection with a located in [(as more fully defined in the Contract, the "Project"). To be inserted] (the "Project") located at [To be inserted] (the "Site").

As a condition precedent of the obligation of KM to make each payment under the Work Directive that CONSULTANT supplies KM with a waiver and release of liens and security interests and waiver of any claims to the extent of such payment and CONSULTANT provides this Conditional Waiver and Release in order to satisfy the aforesaid condition precedent in relation to its invoice no. [to be inserted] dated [to be inserted] (the "Invoice").

NOW THEREFORE:

1. Capitalized terms used and not defined herein shall have the meaning assigned to them in the Agreement (except as may be expressly modified by the terms of the Work Directive).

2. Upon receipt by CONTRACTOR (the signer of this document) of a check or wire payment from COMPANY in the sum of [$ XXX.00], which sum represents the full amount currently due to CONTRACTOR under the Invoice, payable to [payee(s) of the check or wire], and when the check has been properly endorsed and has been paid by the bank on which it is drawn, this document becomes effective to release any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in signer's position, that the signer has on the property of located at to the following extent [description of job]

   This release covers a progress payment for all labor, services, equipment or materials furnished to the Jobsite or to (COMPANY) through , 20 , as indicated in the attached statement(s) or progress payment request(s),only except for any unpaid retention, pending modifications and changes or items furnished after that date. Before any recipient of this document relies on it, that person should verify evidence of payment to the undersigned.

3. CONSULTANT (the undersigned) certifies that:

   3.1 All amounts that were due and payable in connection with the Work have been paid by KM as of the date of payment and as of the last advance applicable to CONSULTANT [save in relation to the amounts of (i) [$To be inserted] under Invoice Nos. [To be inserted], which CONSULTANT acknowledges that KM is withholding in accordance with the Agreement and/or Work Directive and (b) [To be inserted], which CONSULTANT acknowledges are subject to dispute with KM.

3.2 CONSULTANT has not directly or indirectly created, incurred, assumed or suffered to be created by it or any subcontractor, employee, laborer, mechanic, materialman or other supplier of goods or services any lien relating to the Work, the Project, the Site or any part thereof or interest therein, except to the extent lien security has been provided by CONSULTANT and accepted by KM in connection therewith; and

3.3 CONSULTANT has promptly paid and discharged any liens which, notwithstanding paragraph 3.2 hereof it has directly or indirectly created or suffered to be created by it or any subcontractor, employee, laborer, mechanic, materialman or other supplier of goods or services relating to the Work, the Project, the Site or any part thereof or interest therein, except to the extent lien security has been provided by CONSULTANT and accepted by KM in connection therewith; and

3.4 Title to all Work is free and clear of any and all liens, claims, charges, security interests, encumbrances and rights of other persons arising as a result of any actions or failure to act of CONSULTANT, its subcontractors, or their employees or representatives except to the extent lien security has been provided by CONSULTANT and accepted by KM in connection therewith.

The undersigned warrants that he either has already paid or will use the monies received from this progress payment to promptly pay in full all of his laborers, subcontractors, materialmen and suppliers for all work, materials, equipment or services provided for or to the above referenced project up to the date of this waiver, in regard to the attached statement(s) or progress payment request(s).

THIS CONDITIONAL WAIVER AND RELEASE SHALL BE GOVERNED BY, CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF TEXAS (WITHOUT GIVING EFFECT TO THE PRINCIPLES THEREOF RELATING TO CONFLICTS OF LAWS), EXCEPT WITH REGARD TO THE CREATION, RECORDATION AND DISCHARGE OF A LIEN, WHICH SHALL BE GOVERNED BY LAWS OF THE STATE WHERE THE WORK HAS BEEN PERFORMED.

IN WITNESS WHEREOF, CONSULTANT has duly executed and acknowledges this Conditional Waiver and Release on the day and year first written above.

[CONSULTANT Name]

By: _____
Name: _____
Title: _____

EXHIBIT E-2 – FORM OF UNCONDITIONAL WAIVER AND RELEASE

THE STATE OF _____ §
§
COUNTY OF _____ §

NOTICE

This document waives rights unconditionally and states that CONSULTANT has been paid for giving up those rights. It is prohibited for a person to require CONSULTANT to sign this document if CONSULTANT has not been paid the payment amount set forth below. If CONSULTANT has not been paid, use a conditional release form.

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS [FINAL] PAYMENT

Contract No.: _____

Work Directive No: _____ Dated: _____

Description of Project: _____

Site: _____

1.0 The signer of this document has been paid and has received a progress payment in the sum of $[*to be inserted]* for all labor, services, equipment, and materials furnished to date to the property or to [Name of KM Entity] ("KM") on the property of KM located at [location] to the following extent: [brief job description]. The undersigned therefore irrevocably waives and releases any mechanic's lien, right, security interest, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment (whether for breach of contract, pursuant to law, or otherwise), and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in the undersigned's position that the undersigned has on the above-referenced project to the following extent: up to and including [date of the Release].

2.0 This release covers a progress [or final, as the case may be] payment for all labor, services, equipment, and materials furnished to the property or to KM by the undersigned, as indicated in the attached "Invoice" which includes all relevant statement(s) or progress payment request(s) [Insert the following for all progress payments except final Invoice: except for unpaid retention, pending modifications or changes, Extra Work furnished and not billed, and $ which was billed to [KM entity] and which the undersigned acknowledges is the subject of dispute between the parties; for final invoice: as well as all retainage and other amounts due CONSULTANT in respect of the job covered by the Contract (or Work Directive, as the case may be)].

3.0 The undersigned warrants that the undersigned has already paid or will use the funds received from this progress payment to promptly pay in full all of the undersigned's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided to date in performance of the above-referenced Work Directive, as reflected in the Invoice.

4.0 The undersigned certifies that:

4.1 CONSULTANT has not directly or indirectly created, incurred, assumed or suffered to be created by it or any subcontractor, employee, laborer, mechanic, materialman or other supplier of goods or services any lien relating to the Work, the Project, the Site or any part thereof or interest therein, except to the extent lien security has been provided by CONSULTANT and accepted by KM in connection therewith;

4.2 CONSULTANT has promptly paid and discharged any liens which, notwithstanding paragraph 3.2 hereof it has directly or indirectly created or suffered to be created by it or any subcontractor, employee, laborer, mechanic, materialman or other supplier of goods or services relating to the Work, the Project, the Site or any part thereof or interest therein, except to the extent lien security has been provided by CONSULTANT and accepted by KM in connection therewith; and

4.3 Title to all Work is free and clear of any and all liens, claims, charges, security interests, encumbrances and rights of other persons arising as a result of any actions or failure to act of CONSULTANT, its subcontractors, or their employees or representatives except to the extent lien security has been provided by CONSULTANT and accepted by KM in connection therewith.

5.0 THIS UNCONDITIONAL WAIVER AND RELEASE SHALL BE GOVERNED BY, CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF TEXAS (WITHOUT GIVING EFFECT TO THE PRINCIPLES THEREOF RELATING TO CONFLICTS OF LAWS), EXCEPT WITH REGARD TO THE CREATION, RECORDATION AND DISCHARGE OF A LIEN, WHICH SHALL BE GOVERNED BY LAWS OF THE STATE WHERE THE PROJECT IS LOCATED.

6.0 Capitalized terms used and not defined herein shall have the meaning assigned to them in the Agreement (except as may be expressly modified by the terms of the Work Directive).

IN WITNESS WHEREOF, CONSULTANT has duly executed and acknowledges this Unconditional Waiver and Release on the day of , 20_____.

[CONSULTANT Name]

By: _____

Name: _____

Title: _____

THE STATE OF _____ §
§
COUNTY OF _____ §

This instrument was acknowledged before me on the XX day of XXXXX, 20XX by xxxxxx , as Representative of CONSULTANT .

By: _____
Notary Public, State of _____
Printed Name of Notary: _____
My Commission Expires: _____

EXHIBIT F - FORM OF CERTIFICATE OF INSURANCE

CONSULTANT is required to submit the text required for a certificate of insurance (as contained in Section 8.0 of the Agreement) directly to its insurance carrier so that evidence of proper insurance coverage may be submitted. Upon receipt from its carrier of the fully executed certificate, CONSULTANT shall forward same to ISNetworld for ISN's review and approval, unless submission shall be to COMPANY, as explained below. If CONSULTANT has been exempted from ISNetworld, CONSULTANT shall submit said certificate of insurance along with its Agreement requirements for review by the Contract Administrator designated in Section 2.3 of the Agreement. Upon acceptance by COMPANY or its designated representative(s), the executed certificate of insurance shall be incorporated into this Exhibit.

4.0 SPILL IMPACT CONSIDERATIONS

4.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil. The Federal, state, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY

- Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species.
- Areas which consist of vegetated low banks, freshwater/saltwater marshes, swamps, scrub-shrub wetlands and impact to threatened/endangered species.

MODERATE SENSITIVITY

- Areas of moderate productivity, somewhat resistant to the effects of oiling.
- Areas which consist of mixed sand, gravel beaches, bars, gently sloping banks, and no impact to threatened/endangered species.

LOW SENSITIVITY

- Areas of low productivity, man-made structures, and/or high energy.
- Areas which consist of gravel, sand, or clay material, barren/rocky shores or banks, man-made structures, concrete/compacted earthen drainage ditches and no impact to threatened/endangered species.

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans (see CD affixed to inside front cover of Volume 1 and the CD Navigation Summary in Figure 4.2)
- Other industry and private experts

The environmental and socio-economic sensitivities in the area have been broken down into specific categories and identified in this section.

4.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

4.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 4.1.

4.3.2 Wildlife Rescue

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

4.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

4.3.2 Wildlife Rescue (Cont'd)

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
  - Use of capture and relocation.

4.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife on their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
  - Outside rehabilitation organizations
  - Local regulatory agencies
  - Other resources

4.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

4.5 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

FIGURE 4.1

ENDANGERED SPECIES LISTING

The following is a list of endangered and threatened species with known or possible occurrence in the State of California by county (listed alphabetically by the scientific name).

ANIMALS	
Common Name	**Scientific Name**
Fresno County	
Plover, Mountain	Charadrius Montanus
Beetle, Valley Elderberry Longhorn	Desmocerus Californicus Dimorphus
Kangaroo Ray, Giant	Dipodomys Ingens
Kangaroo Rat, Fresno	Dipodomys Nitratoides Exilis
Lizard, Blunt-Nosed Leopard	Gambelia (Crotaphytus) Silus
Eagle, Bald	Haliaeetus Leucocephalus
Snake, Giant Garter	Thamnophis Gigas
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
Kern County	
Plover, Mountain	Charadrius Montanus
Kangaroo Rat, Giant	Dipodomys Ingens
Kangaroo Rat, Tipton	Dipodomys Nitratoides
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Moth, Kern Primrose Sphinx	Euproserpinus Euterpe
Lizard, Blunt-Nosed Leopard	Gambelia (Crotaphytus) Silus
Condor, California	Gymnogyps Californianus
Eagle, Bald	Haliaeetus Leucocephalus
Shrew, Buena Vista Lake	Sorex Ornatus Relictus
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
Kings County	
Plover, Mountain	Charadrius Montanus
Kangaroo Rat, Giant	Dipodomys Ingens
Kangaroo Rat, Tipton	Dipodomys Nitratoides
Kangaroo Rat, Fresno	Dipodomys Nitratoides Exilis
Lizard, Blunt-Nosed Leopard	Gambelia (Crotaphytus) Silus
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
Madera County	
Beetle, Valley Elderberry Longhorn	Desmocerus Californicus Dimorphus
Kangaroo Rat, Fresno	Dipodomys Nitratoides Exilis
Lizard, Blunt-Nosed Leopard	Gambelia (Crotaphytus) Silus
Eagle, Bald	Haliaeetus Leucocephalus
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
Merced County	
Shrimp, Conservancy Fairy	Branchinecta Conservatio
Shrimp, Vernal Pool Fairy	Branchinecta Lynchi
Plover, Mountain	Charadrius Montanus
Beetle, Valley Elderberry Longhorn	Desmocerus Californicus Dimorphus
Kangaroo Rat, Giant	Dipodomys Ingens
Kangaroo Rat, Fresno	Dipodomys Nitratoides Exilis
Lizard, Blunt-Nosed Leopard	Gambelia (Crotaphytus) Silus
Eagle, Bald	Haliaeetus Leucocephalus
Snake, Giant Garter	Thamnophis Gigas
Fox, San Joaquin Kit	Vulpes Macrotis Mutica

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

ANIMALS (Cont'd)	
Common Name	**Scientific Name**
San Joaquin County	
Shrimp, Vernal Pool Fairy	Branchinecta Lynchi
Plover, Mountain	Charadrius Montanus
Beetle, Valley Elderberry Longhorn	Desmocerus Californicus Dimorphus
Eagle, Bald	Haliaeetus Leucocephalus
Smelt, Delta	Hypomesus Transpacificus
Shrimp, Vernal Pool Tadpole	Lepidurus Packardi
Rabbit, Riparian Brush	Sylvilagus Bachmani Riparius
Snake, Giant Garter	Thamnophis Gigas
Fox, San Joaquin Kit	Vulpes Macrotis Mutica
Stanislaus County	
Plover, Mountain	Charadrius Montanus
Beetle, Valley Elderberry Longhorn	Desmocerus Californicus Dimorphus
Eagle, Bald	Haliaeetus Leucocephalus
Shrimp, Vernal Pool Tadpole	Lepidurus Packardi
Fox, San Joaquin Kit	Vulpes Macrotis Mutica

PLANTS	
Common Name	**Scientific Name**
Fresno County	
Pussypaws, Mariposa	Calyptridium Pulchellum
Owl's-Clover, Fleshy	Castilleja Campestris Ssp. Succulenta
Jewelflower, California	Caulanthus Californicus
Bird's-Beak, Palmate-Bracted	Cordylanthes Palmatus
Dudleya, Santa Clara Valley	Dudleya Setchellii
Golden Sunburst, Hartweg's	Pseudobahia Bahiifolia
Adobe Sunburst, San Joaquin	Pseudobahia Peirsonii
Checker-Mallow, Keck's	Sidalcea Keckii
Kern County	
Jewelflower, California	Caulanthus Californicus
Mallow, Kern	Eremalche Kernensis
Cactus, Bakersfield	Opuntia Treleasei
Kings County	
Jewelflower, California	Caulanthus Californicus
Madera County	
Pussypaws, Mariposa	Calyptridium Pulchellum
Owl's-Clover, Fleshy	Castilleja Campestris Ssp. Succulenta
Bird's-Beak, Palmate-Bracted	Cordylanthes Palmatus
Lupine, Clover	Lupinus Tidestromii
Grass, Hairy Orcutt	Orcuttia Pilosa
Golden Sunburst, Hartweg's	Pseudobahia Bahiifolia
Adobe Sunburst, San Joaquin	Pseudobahia Peirsonii
Merced County	
Owl's-Clover, Fleshy	Castilleja Campestris Ssp. Succulenta
Grass, Colusa	Neostapfia Colusana
Grass, Hairy Orcutt	Orcuttia Pilosa

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

PLANTS (Cont'd)	
Common Name	**Scientific Name**
San Joaquin County	
Fiddleneck, Large-Flowered	Amsinckia Grandiflora
Bird's-Beak, Palmate-Bracted	Cordylanthes Palmatus
Stanislaus County	
Owls'-Clover, Fleshy	Castilleja Campestris Ssp. Succulenta
Grass, Colusa	Neostapfia Colusana
Grass, Hairy Orcutt	Orcuttia Pilosa
Golden Sunburst, Hartweg's	Pseudobahai Bahiifolia
Adobe Sunburst, San Joaquin	Pseudobahai Peirsonii

FIGURE 4.2

ACP/GRP CD
NAVIGATION INSTRUCTIONS
(Excerpt from CD affixed to inside front cover of Volume 1)

KINDER MORGAN

The information contained herein is provided to identify specific spill response and protection strategies for the applicable Kinder Morgan Pacific Operations Regions. Navigating through the bookmark links provided on the CD will take you to the Environmentally Sensitive Sites and the Economically Significant Sites provided in the applicable Area Contingency Plans and Geographic Response Plans.

INSTRUCTIONS FOR USE

1. From the screen on the left, click on region of interest. The different regions are identified by the red font.
2. Once the appropriate region is accessed, click on the "+" to the left of the region name to display the various areas within each region. These are identified with blue font.
3. Once the appropriate area is accessed, the links to the Environmentally Sensitive Sites and the Economically Significant Sites will be available for selection.
   - ➢ It is important to note that once each Environmentally Sensitive Site and Economically Significant Site is accessed, the user will have to scroll to the desired location.
   - ➢ Use the zoom icon to zoom into each page for easier reading.

NOTES:

1. In those areas where the statement "No ACP Information Available" is made, it indicates that there is no ACP or GRP information which is specific to the particular region or area of interest.
2. EPA REGION IX: For areas without specific ACP/GRP information, the Region IX Contingency Plan (RCP) is used as the response guidance; however, this RCP is currently in revision.
3. EPA REGION X: Region X is covered by the Northwest Area Contingency Plan; however, inland facilities are not addressed.
4. Thus, the following areas are covered by specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Linnton-Willbridge, Washington Area
   - Northern Region—Bay: Brisbane, Concord, Richmond, San Jose
   - Southern Region—Central: Mission Valley-Orange
   - Southern Region—West: Carson, Watson
5. And, the following areas do not have specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Oregon Pipelines (inland)
   - Northern Region—Central: Fresno
   - Northern Region—CalNev: Sacramento, Rocklin, Reno
   - Southern Region—East: Imperial, Phoenix, Tucson
   - Southern Region—Central: Colton, Barstow, Las Vegas

Developed by:
Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
(281) 320-9796
www.rmaworld.com

5.0 DISPOSAL PLAN

5.1 OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Manager or their designee to manage the following:

- Coordinate waste disposal activities;
- Identify appropriate interim storage methods and locations;
- Coordinate permitting activities needed to ensure proper disposal; and
- Document compliance with appropriate local, State, and Federal handling of hazardous materials and/or wastes.

Material will be containerized or stored in a manner complying with applicable environmental regulations pertaining to the known or suspected materials characteristics. Upon characterization, waste, recyclable materials, or contaminated materials will be treated on-site, recycled, or transported and disposed of at an appropriate KMEP approved facility after appropriate regulatory approval.

5.2 WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Solid Wastes

A solid waste is defined as any discarded material provided that it is not specifically excluded under the regulations. These exclusions cover materials such as domestic sewage and mixtures of sewage discharged through a sewer system or industrial wastewater point source discharges.

A discarded material is any material which is abandoned (disposed of, burned or incinerated) or accumulated, stored or treated prior to being abandoned. A discarded material is also any material recycled or any material considered inherently wastelike. Recycled material is considered solid waste when used in a manner constituting disposal, placed on land or burned for energy recovery.

5.2 WASTE CLASSIFICATION (Cont'd)

Solid Wastes (Cont'd)

A solid waste may be considered a hazardous waste. A solid waste, as defined above, may be a hazardous waste if it is not excluded from regulation and is either a listed hazardous waste or exhibits the characteristics of a hazardous waste. A solid waste exhibits the characteristics of a hazardous waste if it exceeds the thresholds established in determining the following:

1) ignitability
2) corrosivity
3) reactivity
4) toxicity

A solid waste may also become a hazardous waste if it is mixed with a listed hazardous waste or, in the case of any other waste (including mixtures), when the waste exhibits any of the characteristics identified above.

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

5.3 WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

Safety Considerations

Care would be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes would wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles would be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste would be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

5.3 WASTE HANDLING (Cont'd)

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.

- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure 5.1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

5.4 WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure 5.2. The majority of these options can be used either onshore or offshore.

If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.
- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Access.
- Public contact.

5.4 WASTE STORAGE (Cont'd)

Temporary storage sites should use the best achievable technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 mils or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least three (3) meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

5.5 WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

During an oil spill incident, KMEP would consult with the Federal and state On Scene Coordinator (OSC) to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. KMEP maintains a list of approved disposal sites that satisfy local, state, and Federal regulations and KMEP requirements. This identification of suitable waste treatment and disposal sites would be prepared by the Environmental Manager or their designee in the form of an Incident Disposal Plan which must be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

5.5 WASTE DISPOSAL (Cont'd)

Techniques for Disposal of Recovered Oil (Cont'd)

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure 5.3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Environmental Manager or their designee is responsible for ensuring that all waste materials be disposed of at an internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

5.5 WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning

As a general rule, *in situ* burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at Company-approved disposal facilities. The Environmental Manager or their designee is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Environmental Manager or their designee prior to sending any waste to such a facility.

FIGURE 5.1

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

A. Normally require remote power sources, thus are safe around flammable fluids.
B. Should have a relief valve in the outlet line to prevent bursting hoses.
C. Air powered units tend to freeze up in sub-freezing temperatures.
D. Units with work ball valves are difficult to prime.
E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
F. Can also pump air at low pressure.
G. Transfer is batch-wise rather than continuous.
H. Waste must be in separate container for efficient transfer.
I. Transportable with its own prime mover.
J. High shear action tends to emulsify oil and water mixtures.

FIGURE 5.2

TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

FIGURE 5.3

OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Fresno Area Lines:	
• Merced River-South BV – Atwater 12”	50
• Atwater – Fresno 12”	60
• Fresno – Fresno Military 8” – 10”	119A
• Fresno Military – Lemoore 6”	119
• Bakersfield – Fresno 8”	15
• Refinery – Bakersfield 8”	91
Pipeline Facilities (non-storage):	
• Bakersfield Pump Station (booster)	
• Fresno Military Pump Station (booster)	
• Lemoore NAS – meter facility only	

- Figures 6.1a through 6.1f on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Worst Case Discharge Data” of the applicable Line Segment. The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent sections in this Volume 2.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

MERCED RIVER-SOUTH BV - ATWATER 12" (50)

Pipe and Operational Data

- Section Length: 10.33 Miles 54,542 Feet
- Line Diameter: 12.75 in., O.D. 12.312 in., I.D. (note 1)
- Line Capacity: 778 bbls/mile (note 2)
- Capacity of entire line section: (b) (7)(F),
- Maximum flow rate: 4,500 bph or 108,000 bpd

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

- County(s)/State(s) Traversed: Merced, CA
- Location Description: (b) (3), (b) (7)(F) southeast parallel to railroad right of way to Atwater Terminal near Atwater.

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

ATWATER – FRESNO 12" (60)		
Pipe and Operational Data		
• Section Length:	65.33 Miles	344,966 Feet
• Line Diameter:	12.75 in., O.D.	12.312 in., I.D. (note 1)
• Line Capacity:	778 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,500 bph or 108,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Merced, Madera, Fresno, CA
• Location Description:	From Atwater Terminal near Atwater, generally southeast parallel to railroad right of way to the Fresno Terminal near American Avenue and Cedar Ave. in Fresno.

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

FRESNO – FRESNO MILITARY 8”/10” (119A)			
Pipe and Operational Data			
• Section Length:	0.078 Miles	410 Feet	8” Section
	0.232 Miles	1,225 Feet	10” Section
	0.152 Miles	800 Feet	10” Section
• Line Diameter:	8.625 in., O.D.	7.981 in., I.D. (note 1)	
	10.750 in., O.D.	10.374 in., I.D (note 1)	
	10.750 in., O.D.	10.312 in., I.D. (note 1)	
• Line Capacity:	512 bbls/mile (note 2)		
• Capacity of entire line section:	(b) (7) (F) (b)		
• Maximum flow rate:	4,500 bph or 108,000 bpd		
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.			
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.			
Location Description			
• County(s)/State(s) Traversed:	Fresno, CA		
• Location Description:	Connects Fresno Terminal to the Lemoore Pumping Facility.		

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

FRESNO MILITARY – LEMOORE 6" (119)		
Pipe and Operational Data		
• Section Length:	35.18 Miles	185,774 Feet
• Line Diameter:	6.625 in., O.D.	6.249 in., I.D. (note 1)
• Line Capacity:	200 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	550 bph or 13,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Fresno, Kings, CA	
• Location Description:	From the Fresno Military Pump Facility generally south to the Lemoore Naval Air Station.	

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

BAKERSFIELD - FRESNO 8" (15)		
Pipe and Operational Data		
• Section Length:	97.85 Miles	516,633 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)	
• Product types:	CARB ULSD, Gas, JP-5, Ethanol	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	1,000 bph or 24,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Kern, Fresno, CA
• Location Description:	From Bakersfield Station generally northwest parallel to railroad right of way to the Fresno Terminal.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

REFINERY – BAKERSFIELD 8" (91)	
Pipe and Operational Data	
• Section Length:	4.29 Miles 22,653 Feet
• Line Diameter:	8.625 in., O.D. 8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7)(F),
• Maximum flow rate:	1,000 bph or 24,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	Kern, CA
• Location Description:	From the former Big West Refinery north to the Bakersfield Station at Snow Road adjacent to Highway 99.

FIGURE 6.2

HCA INDEX

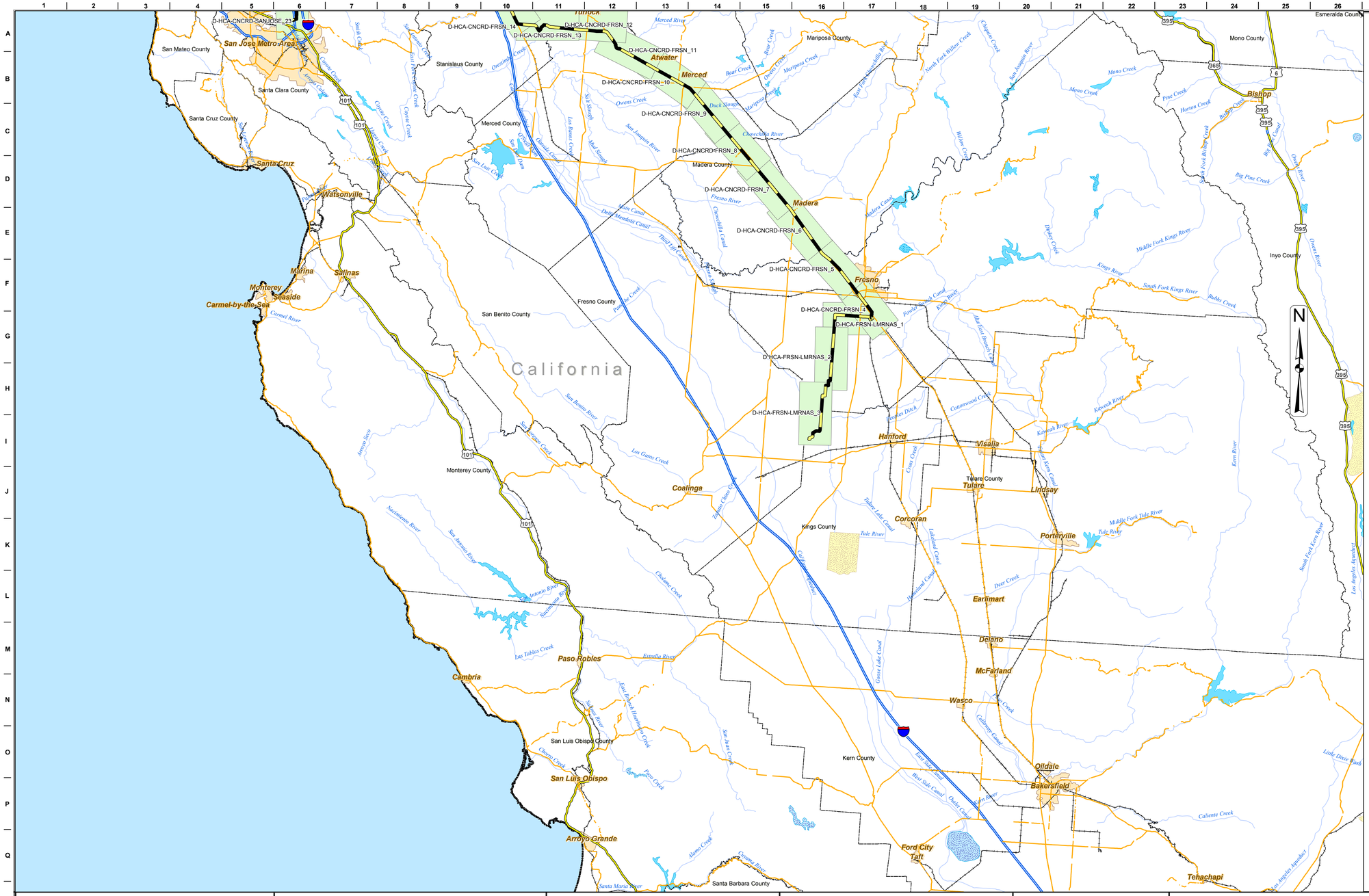
Refer to Figure 6.1a through Figure 6.1f for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_004.pdf
485-D-HCA-CNCRD-FRSN_004.pdf
485-D-HCA-CNCRD-FRSN_005.pdf
485-D-HCA-CNCRD-FRSN_006.pdf
485-D-HCA-CNCRD-FRSN_007.pdf
485-D-HCA-CNCRD-FRSN_008.pdf
485-D-HCA-CNCRD-FRSN_009.pdf
485-D-HCA-CNCRD-FRSN_010.pdf
485-D-HCA-FRSN-LMRNAS_001.pdf
485-D-HCA-FRSN-LMRNAS_002.pdf
485-D-HCA-FRSN-LMRNAS_003.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-FRSN-LMRNAS_001	LS-119A; FRESNO – FRESNO MILITARY 8/10" LS-119; FRESNO MILIT. - LEMOORE NAS 6" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-FRSN-LMRNAS_002	LS-119; FRESNO MILIT. - LEMOORE NAS 6"
D-HCA-FRSN-LMRNAS_003	LS-119; FRESNO MILIT. - LEMOORE NAS 6"
D-HCA-CNCRD-FRSN_004	LS-119A; FRESNO – FRESNO MILITARY 8/10" LS-119; FRESNO MILIT. - LEMOORE NAS 6" LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_005	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_006	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_007	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_008	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_009	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_010	LS-90/50/60; CONCORD - FRESNO 12"
D-HCA-CNCRD-FRSN_011	LS-90/50/60; CONCORD - FRESNO 12"

GRAPHIC SCALE

10 5 0 10 20 Miles

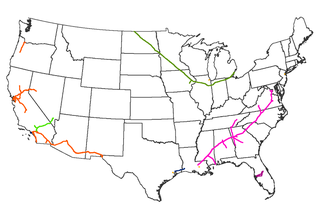
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP



AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCR PTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: **07/25/2011**	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Feb, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_004**	

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION/TERMINAL	LARGEST TANK (BBLS)	WCD (BBLS)
Fresno Military (Tank FR-25)	(b) (7)(F), (b) (3)	
Fresno Terminal (Tank FR-08)		

- The largest Worst Case Discharge (WCD) for the breakout station/terminal within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout station/terminal within this area have adequate secondary containment.

- The specific information summary for this breakout station/terminal is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station/ terminal)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other sections of this Volume 2.

FIGURE 7.1a

BREAKOUT STATION/TERMINAL TANK INFORMATION

(Note: EPA – Jurisdictional Tanks Not Listed)

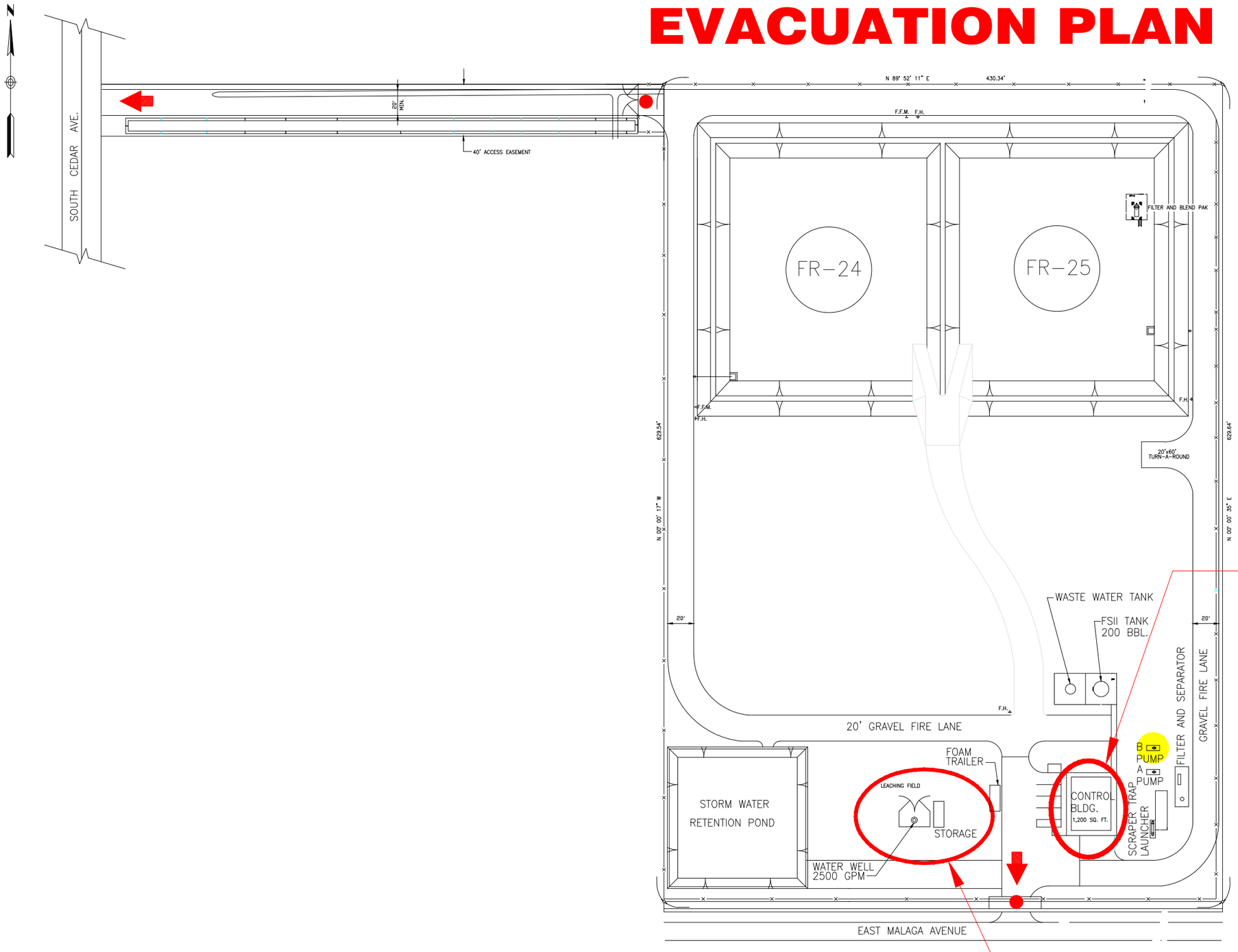
FRESNO MILITARY				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
FR-24	JP-5	(b) (7)(F), (b) (3)		
FR-25	JP-5			
LOCATION DESCRIPTION				
• County/State	Fresno, CA			
• Location	Fresno Military			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2a

FACILITY DIAGRAM

EVACUATION PLAN



PRIMARY INCIDENT COMMAND CENTER

PRIMARY STAGING AREA

LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS
- HEARING PROTECTION REQUIRED

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
FRESNO MILITARY TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-OR	DESIGN SUPT	EVAC-FRM
BY: VFV	MGR. SAFETY	
DATE: 3-25-04	AREA SUPR.	

(b) (7)(F), (b) (3)

FIGURE 7.1b

BREAKOUT STATION/TERMINAL TANK INFORMATION

(Note: EPA – Jurisdictional Tanks Not Listed)

FRESNO TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
FR-01	Out of Service	(b) (7)(F), (b) (3)		
FR-08	Transmix			
FR-18	Transmix			
LOCATION DESCRIPTION				
• County/State	Fresno, CA			
• Location	Fresno Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: Fresno Terminal is a multi-jurisdictional Facility (DOT and EPA). The complete Facility information for Fresno Terminal required by EPA is located in Section 8 of this Volume.

FIGURE 7.2b

FACILITY DIAGRAM

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: SFPP, L.P. Fresno Terminal
FACILITY ADDRESS: 4149 South Maple Avenue
Fresno, CA 93725

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 1.3)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes		No	✓
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes		No	✓
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.	Yes	✓	No	
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes		No	✓
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?	Yes		No	✓

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

Michael McWhorter — Signature

Area Manager — Title

Michael McWhorter — Name (please type or print)

4-28-2006 — Date

NOTE: The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan. Response Management Associates, Inc. (RMA) provided consulting and plan development services in the preparation of this plan utilizing data provided by the owner/operator and/or the Facility. RMA assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

8.1.2 INTRODUCTION

This Facility is a bulk distribution Facility for refined petroleum products. Product arrives via pipeline and is transported out of the Facility by tanker trucks. Ethanol is received via tank truck. The following Figure 8.1 provides Facility specific information and Figure 8.2 provides an Area Map for the Facility.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Fresno Terminal 4149 South Maple Avenue Fresno, CA 93725 (559) 237-4612 (559) 264-5531 *(Fax)*
SIC Code:	4226
Primary NAICS Code:	493190
EPA FRP Number:	FRP09A0088
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	October, 1964
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Fresno County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Greater than one mile
Landside Directions:	From Highway 99 North, go west on E. Central Avenue for .25 miles. Turn left onto S. Maple Avenue. Travel .19 miles to the Facility.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Products Handled:

- Gasoline
- Diesel
- Jet Fuel
- Transmix

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility Office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with 12 loading spots which handle various refined petroleum products and one unloading spot for ethanol offloading.
- A maximum of 12 tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 450 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in 1964. Sixteen tanks with a maximum capacity of 16,212,420 gallons date from this initial period. The Facility expanded storage capacity by purchasing one tank (FR-17, 1,512,000 gallons) in 1970 which increased capacity to 17,724,420 gallons. Two tanks (FR-18 and 19, 2,310,000 gallons) increased capacity to 20,034,420 gallons in 1984. In 1987, two tanks (FR-20 and 21, 5,880,000 gallons) were added which increased total capacity to 25,914,420 gallons. An additional four (4) tanks (FR-22 through 25) were added to the Facility, bringing the total number of tanks to 25. FR-26 and Loading Rack 8 added in 2008.

Figures presented on the following pages include:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout
- Figure 8.4 – Fire Protection Diagram

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates, Inc.
(281) 320-9796

KINDER MORGAN
ICP - V2

Norhtern Region - Central
Fresno Area - Fresno Terminal
December 2005

(b) (7)(F); (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- The Facility loading racks are equipped with curbing and drains that lead to the oil/water separators.
- Surface drainage at the loading racks lead to catch basins where all liquids are pumped to the main oil/water separator. Surface drainage at the adjacent facility (formerly Chevron) drains to a collection pit (formerly used as a separator). From there it is transferred to the main oil/water separator.
- Surface drainage from the additive unloading headers is contained within its own secondary containment. Drainage from this area is tied to the oil-water separator.
- All transfers are in constant attendance by qualified personnel who are properly trained prior to conducting transfers.
- In the event that a spill did originate from the transfer area piping, the Facility would immediately shut down the source, activate its Contingency Plan, and commence clean up operations with local and contract resources as necessary to insure prompt removal of the discharged product.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/structures or inhibit operations conducted within the containment area.

- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.

- Drainage from the west tank farm is restrained by a manually controlled valve.

- Dike drain valves, when present, are secured in the closed position when not draining containment areas.

- Flapper-type drain valves are not used to drain diked areas.

- The west tank farm has a drain that leads to the retention pond. It is equipped with a valve that is maintained closed and locked when not in use.

- The main tank farm (north and south areas) does not have a drain. Accumulated liquids that do not percolate or evaporate are collected in a catch basin and inspected for any evidence of oil or oil sheen. After determination of no evidence of oil or oil sheen, a manually activated portable pump is used to pump stormwater to an adjacent culvert that leads to the retention pond. If there is any evidence of oil or oil sheen, the stormwater would be pumped to the oil/water separator.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Surface drainage from undiked areas near the ethanol unloading rack would be contained by a ponding area immediately east of the unloading rack. This piping is only in service when the rack is staffed for ethanol unloading operations.

- All other undiked piping within the Facility is situated such that releases would be directed into diked areas of the main tank farm or to culverts that lead to one of two retention ponds.

- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Undiked Areas (Cont'd)

- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

- The Facility loading racks are equipped with curbing and drains that lead to the oil/water separators.

- Surface drainage at the loading racks lead to catch basins where all liquids are pumped to the main oil/water separator. Surface drainage at the adjacent facility (formerly Chevron) drains to a collection pit (formerly used as a separator). From there it is transferred to the main oil/water separator.

- Surface drainage from the additive unloading headers would either flow toward one of the loading rack drains or toward the secondary containment area of the main tank farm.

- The Facility maintains response equipment on site to utilize in the event that a spill did escape the Facility.

- Catchment basins, if applicable, are not located in areas subject to periodic flooding.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- The west tank farm has a drain that leads to the retention pond. It is equipped with a valve that is maintained closed and locked when not in use.

- The main tank farm (north and south areas) does not have a drain. Accumulated liquids that do not percolate or evaporate are collected in a catch basin and inspected for any evidence of oil or oil sheen. After determination of no evidence of oil or oil sheen, a portable pump is used to pump stormwater to an adjacent culvert that leads to the retention pond. If there is any evidence of oil or oil sheen, the stormwater would be pumped to the oil/water separator.

- Stormwater occasionally accumulates on Maple Avenue, interfering with truck access to the Facility. In the event that this occurs, stormwater can be pumped from the street into culverts that flow to the main retention basin.

- Facility drainage does not flow directly into an open watercourse.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

General Drainage (Cont'd)

- The Facility does not have a wastewater treatment plant nor does it chemically treat water prior to discharge off site.
- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- Adequate records are kept of such drainage events.
- Records of drainage events are maintained at the Facility office.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Fresno Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus, changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan, which details additional discharge detection measures.

(b) (3), (b) (7)(F)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Detection by Personnel

- Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.
- The loading rack is equipped with warning and instruction signs.

Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - MAIN TANK FARM										
FRC-01*	OOS (18'4" x 30'11")	(b) (7)(F), (b) (3)		VFR	1964	Leak/Rupture	Instantaneous	None	West end of Tank Farm	(b) (7)(F), (b) (3)
FR-02	Gasoline (54'8" x 48')			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-03	Gasoline (42'6" x 40')			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-04	Gasoline (66'9" x 48')			IFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-05	Gasoline (82' x 48')			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-06	Gasoline (60' x 48')			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-07	Gasoline (49'10" x 40'4")			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-08*	Transmix (42'6" x 40')			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-09	Gasoline (60' x 48')			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-10	Gasoline (49'10" x 42')			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-11	Gasoline (66'9" x 47'11")			EFR	1964	Leak/ Rupture	Instantaneous	None	West end of Tank Farm	
FR-12	Gasoline (54'8" x 48')			EFR	1964	Leak Rupture	Instantaneous	None	West end of Tank Farm	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
MAIN TANK FARM (Cont'd)										
FR-13	Gasoline (72'2" x 48')	(b) (7)(F), (b) (3)		EFR	1964	Leak/Rupture	Instantaneous	None	West end of Tank Farm	(b) (7)(F), (b) (3)
FR-14	Gasoline (66'9" x 48')			EFR	1964	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-15	Diesel (77'2" x 48')			VFR	1964	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-16	Diesel (72'2" x 47'11")			VFR	1964	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-17	Gasoline (73' x 47'10")			VFR	1970	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-18*	Transmix (40' x 24')			IFR	1984	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-19	Gasoline (86'6" x 48')			IFR	1984	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - WEST COMMUNITY TANK FARM										
FR-20	Gasoline (110' x 48')	(b) (7)(F), (b) (3)		IFR	1987	Leak/Rupture	Instantaneous	None	West end of Tank Farm	(b) (7)(F), (b) (3)
FR-21	Diesel (95' x 48')			VFR	1987	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-22	Diesel (82' x 48')			VFR	1992	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-23	Diesel (110' x 48')			IFR	2003	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
FR-26	Diesel (110' x 48')			IFR	2008	Leak/Rupture	Instantaneous	None	West end of Tank Farm	
	TOTAL									
BULK STORAGE CONTAINERS - MILITARY TANK FARM										
FR-24*	JP-8	(b) (7)(F), (b) (3)		VFR	1991	Leak/Rupture	Instantaneous	None	Southeast and South	(b) (7)(F), (b) (3)
FR-25*	JP-8			VFR	1991	Leak/Rupture	Instantaneous	None	West of Tank Farm	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
FR-2A	Additive	(b) (7)(F), (b) (3)		VFR	1964	Leak/Rupture	Instantaneous	None	To West end of Tank Farm	(b) (7)(F), (b) (3)
FR-4A	Additive			VFR	1964	Leak/Rupture	Instantaneous	None	To West end of Tank Farm	
FR-8A	Additive			VFR	1964	Leak/Rupture	Instantaneous	None	To West end of Tank Farm	
FR-9A	Additive			VFR	1964	Leak/Rupture	Instantaneous	None	To West end of Tank Farm	
FR-12A	Empty			VFR	1968	Leak/Rupture	Instantaneous	None	To West end of Tank Farm	
FR-13A	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	To West end of Tank Farm	
FR-14A	Additive			VFR	1972	Leak/Rupture	Instantaneous	None	To West end of Tank Farm	
FR-15A	Empty			VFR	1987	Leak/Rupture	Instantaneous	None	North	
FR-16A	Empty			VFR	Unknown	Leak/Rupture	Instantaneous	None	North	
FR-17A	Additive			VFR	1991	Leak/ Rupture	Instantaneous	None	To west end of Tank Farm	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS (Cont'd)										
FR-20A	Lubricity	(b) (7)(F), (b) (3)		H	2005	Leak/Rupture	Instantaneous	None	To west end of Tank Farm	(b) (7)(F), (b) (3)
FR-A-18	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None		
FR-19A	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	Within containment	
FR-21A	Additive			H	2008	Leak/Rupture	Instantaneous	None	To west end of Tank Farm	
	Total									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
OPERATIONAL EQUIPMENT									
Terminal Manifold	Petroleum Product	(b) (7)(F), (b) (3)		Manifold	Rupture/ Leak/Overfill	1855 gpm	None	To dike	(b) (7)(F), (b) (3)
Fire Engine #1	Diesel			Fire Engine	Rupture/Leak	Instantaneous	None	Varies	
Fire Engine #2	Diesel			Fire Engine	Rupture/Leak	Instantaneous	None	Varies	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
TRUCK OR RAIL LOADING/UNLOADING RACK							
Loading Rack 1	Gasoline	5,040	Rupture/Leak	Varies	None	To drains	8,316 CF, CW, OWS,VT
Loading Rack 2	Gasoline	5,040	Rupture/Leak	Varies	None	To drains	8,316 CF, CW, OWS,VT
Loading Rack 3	Gasoline	5,040	Rupture/Leak	Varies	None	To drains	8,316 CF, CW, OWS,VT
Loading Rack 4	Gasoline	5,040	Rupture/Leak	Varies	None	To drains	8,316 CF, CW, OWS,VT
Loading Rack 5	Diesel	5,040	Rupture/Leak	Varies	None	To drains	29,022 CF, CW, OWS,VT
Loading Rack 6	Gasoline	5,040	Rupture/Leak	Varies	None	To drains	29,022 CF, CW, OWS,VT
Unloading Area 7	Ethanol	5,040	Rupture/Leak	Varies	None	To drains	8,316 CF, CW, OWS,VT
Loading Rack 8	Refined Products	5,040	Rupture/Leak	Varies	None	To drains	8,316 CF, CW, OWS,VT
Additive Offloading North	Additives to tanks FR-2A, FR-12A, FR-16A, FR-17A, and FR-20A	5,040	Rupture/Leak	Varies	None	To center drain	VT
Additive Offloading South	Additives to tanks FR-4A, FR-8A, FR-9A, FR-13A and FR-14A	5,040	Rupture/Leak	Varies	None	South to drain	VT

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
Red Dye Tote	Red Dye	(b) (7)(F), (b) (3)	Tote	Leak/Rupture	Instantaneous	None	To west end of Tank Farm	(b) (7)(F), (b) (3)
Red Dye Tote	Red Dye		Tote	Leak/Rupture	Instantaneous	None	To west end of Tank Farm	
Vapor Recovery Area	OOS			Rupture/ Leak	Instantaneous	None	East	
Water Tank 1	Water		Water Tank	Rupture/ Leak	30 gpm	None	North to drain valve and retention pond	
Water Tank 2	Water		Water Tank	Rupture/ Leak	30 gpm	None	North to drain valve and retention pond	
Water Tank 3	Water		Water Tank	Rupture/ Leak	30 gpm	None	North to drain valve and retention pond	

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101 as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested on a monthly basis.
- High level alarms are tested on a monthly basis.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located in an agricultural and residential area.
- The Facility is located in south Fresno and is less than one (1) mile south of the Central Canal, which is the closest water body.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

[redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Medical Facilities

Review of GIS Data determined that the following medical facilities are within the planning distance of the Facility:

Medical Facility	Distance from Facility
Valley Industrial Family Medical	6.5 miles (*approximate*)
Fresno Community Medical Center	6.8 miles (*approximate*)

Additional details on the medical facilities within the area of the Facility are included on the maps in Section 6.

Residential Areas

Residential areas are located south and east of the Facility.

Additional details on the residential areas within the area of the Facility are included on the maps in Section 6.

Businesses

The area surrounding the Facility is for the most part commercial and agricultural. Along the San Joaquin River there are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Valley Pacific Petroleum	0.00 miles *(approximate)*
Beneto, Inc.	0.06 miles *(approximate)*
Williams Tank Lines, Inc.	0.06 miles *(approximate)*
Cox Petroleum	0.06 miles *(approximate)*
Robert V. Jensen, Inc.	0.11 miles *(approximate)*
Rvj's Truck Stop	0.11 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. Refer to Figure 4.1 of this Volume for details.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments (Cont'd)

No wetlands were identified within the planning distance.

Wetland habitats, however, are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Central Canal	Less than 1 mile N

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

No recreational areas were identified within the planning distance.

8.2.3 VULNERABILITY ANALYSIS (Cont'd

Transportation Routes (air, land, and water)

There are various public roadways and waterways which may be potentially effected by a discharge originating from the Facility. Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
Highway 99	.5 miles NE *(approximate)*
Santa Fe Railroad	Adjacent

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Potential Spill Sources and Container Identification table in this Section for details concerning spill history for the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Vulnerability to a Natural Disaster

- The Facility is located in south Fresno and is less than one (1) mile south of the Central Canal, which is the closest water body.

- The Facility is connected by pipelines to facilities in northern and central California.

Potential hazards are identified below:

Earthquake	The Facility is located in a semi-active earthquake zone with occasional seismic activity.
Fire	Fire from an external source. Internal fire sources out of control are also a threat.
Terrorism	Bombing or malicious destruction could be directed at tanks, piping systems, or control systems by a third-party source.
Vehicular Accident	This would include any of the tank trucks that are visiting the Facility for loading or off-loading.
Material Failure	Tank plating, fittings, and piping, are all subject to failure from material corrosion, impact, or fatigue breakage.
Equipment Failure	Pumps, gauges, detectors, or controllers (mechanical or electrical) are all subject to failure.
Human Error	The wrong decision and or action by personnel may potentially cause a spill.

- The Company has taken considerable action to lessen the probability of the hazard occurring.

Investigation and Monitoring of Natural Hazards

- The Company has historical data that defines the low probability of seismic activity in the area.

- The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of Tank Farms away from slide prone areas and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Fire Protection Safety

- The Facility has installed fire suppressant foam capability and adequate portable fire extinguishers to combat a moderate fire.

- The Facility is located close to city and county fire departments that would respond to fires.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Fire Protection Safety (Cont'd)

- The brush free zone surrounding the Facility will prevent brush fires from reaching the fuel storage tanks.
- The fuel piping and transfer systems have metal supports, fire walls, and additional protection including welded pipe joints within the fire walls.
- The Facility has a fire system consisting of two (2) fire pumps. Backup for this system is provided by city water lines.

Material Maintenance of Tanks, Piping Systems, and Valves

- The tanks are visually inspected daily on the outside and are inspected internally when the tanks are taken out of service.

Other Factors

The actions taken to lessen hazards at the Facility petroleum tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file in the Facility office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

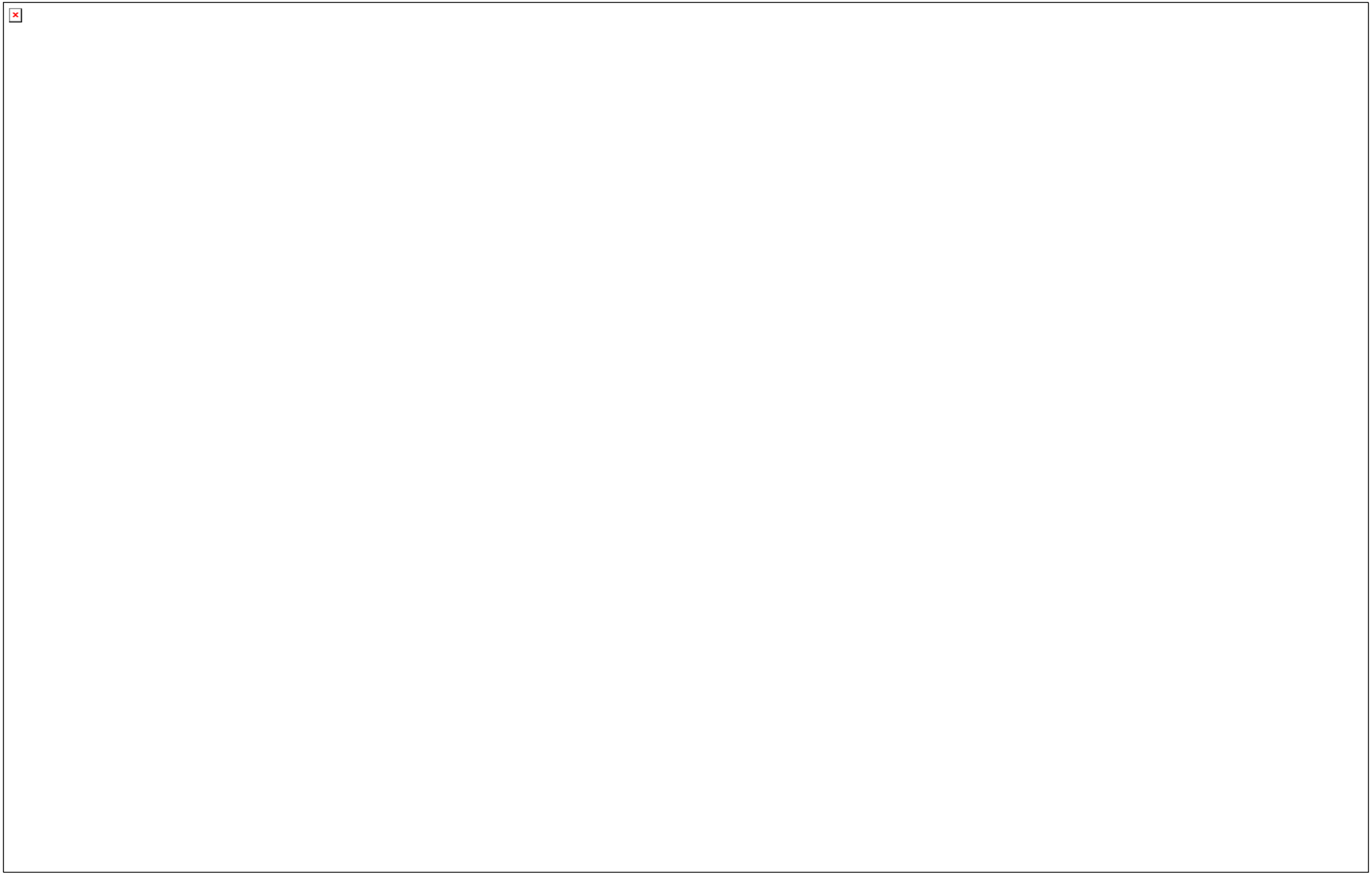
- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

(b) (7)(F), (b) (3)



8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Fresno Terminal is classified as an "EPA Jurisdictional Non-Transportation Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation
● **Worst Case Discharge** *100% of the largest single tank* **WCD** = (b) (7)(F),
● **Medium Discharge** *Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD* **MD** = 857 bbls
● **Small Discharge** *Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD* **SD** = 50 bbls

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Fresno Terminal
EPA - Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b) (3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation			
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)		
On-Shore Recovery Volume (bbls)			
Total Recovery Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A Small Discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the loading rack would be diverted to the in line oil water separator.

The closest waterway is the Central Canal, which is north of the Facility. The storage tanks and truck loading racks have adequate secondary containment so it is unlikely that a spill would reach the canal or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Summary of EPA Regulatory Response Requirements for a Small Discharge

*The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, **AS APPROPRIATE**, include:*

- *1,000' of containment boom **and a means of deploying it** within one (1) hour of the discovery of a spill. [Guidance: The appropriate level of response resources to address a small discharge from this Facility should arrive on-scene; including the equipment and appropriately trained manpower necessary to deploy the response resources; within one (1) hour of discovery of the discharge.]*
- *Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a Small Discharge or greater which is available at the Facility within two (2) hours of the detection of an oil discharge. [Guidance: Oil recovery devices with a minimum of 50 bbls/day recovery capacity (or greater) should be on scene and ready to commence recovery of discharged oil within two (2) hours of discovery of the discharge. The response resources that arrived to the site in the first hour (noted in the first bullet above) should be deployed and actively containing discharged oil within this two (2) hour period.]*
- *Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate. [Guidance: Storage capacity for twice the effective daily recovery rate (2 times 50 bbls/day) is 100 bbls/day which should be available at the commencement of the recovery operations, therefore within two (2) hours of discovery of the discharge.]*

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack or Control Room. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Central Canal, which is north of the Facility. The surface topography of the area around the Facility is relatively flat with a slight increase in elevation toward the canal. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd)   ● A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.   ● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes: ● Equipment and manpower resources are detailed in Section 3 of Volume 2.   ● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.   ● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A Medium Discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property. The spilled material would likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property, there is a remote possibility it could flow upgradient and enter the Central Canal. Adverse weather conditions would increase the chance of a discharge entering the canal; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Central Canal. The potential for a spill this size reaching the canal is minimal. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow north upgradient and possibly enter the Central Canal which is located north of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in stormwater ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located south of the Central Canal. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use a combination of Facility personnel, contractor personnel, and Facility-owned and contractor-owned equipment to initiate initial boom deployment and anchoring at the waterway, if necessary, within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, and equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 4149 South Maple Avenue
Fresno, CA 93725
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Santa Fe Railroad, if applicable.
h. Staging Area for Emergency Command Post will be at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the main office or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility north gate.

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to Fresno Community Medical Center

From the Facility, turn left going north on S. Maple Avenue. Turn right onto E. Central Avenue. Turn left onto Highway 99 going north for 3.2 miles. Take the Highway 41 north exit and merge onto Highway 41 traveling north for 1.4 miles. Take the Tulare Street exit and turn left on Tulare. Turn right onto U Street. Turn left onto E. Divisadero Street. Turn right onto N. Howard Street. Turn left onto E. Illinois Avenue. Turn left onto N. Thesta Street into Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located southeast of the Control Building. If the situation permits, the Facility may also be accessed through the northern access road.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest at an average speed of 0-5 mph year round.

9. Water Currents

Currents in the Central Canal, San Joaquin River and Kings River are minimal most of the year.

The Company has confirmed with the Fresno Police Department that a Community Evacuation Plan currently exists for this area. However, the Sheriff's Department does have standard guidelines that are followed in the event of an evacuation.

FIGURE 8.9

Evacuation Diagram

(b) (7)(F); (b) (3)

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

SECTION 8

FRESNO TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

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EMERGENCY RESPONSE ACTION PLAN

[redacted]

Northern Region - Northwest

Linnton-Willbridge Area

Linnton Terminal

January 2013

Kinder Morgan Liquids Terminals, LLC
Linnton Terminal
11400 N.W. St. Helens Road
Portland, OR 97231-1036
(503) 220-1260
(503) 220-1270 (FAX)

EMERGENCY RESPONSE ACTION PLAN

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Facility Evacuation

Evacuation Diagram

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Linnton Terminal 11400 NW St. Helens Road Portland, OR 97231-1036 (503) 220-1260 *(24 Hrs)* (503) 220-1270 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP-95
Dun & Bradstreet Number:	618 450-866
Date of Initial Storage:	Prior to 1941
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 or 1100 Town & Country Road Orange, CA 92868
Qualifed Individual: ***(Emergency Coordinator)*** ***(On-Site Firefighting Coordinator)*** (Work Address)	Jeff Hibner - Area Manager (b) (3), (b) (7)(F) (503) 220-1263 *(Work)* (b) (6) *(Mobile)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)*** (Work Address)	Andrew Holbrook - Operations Manager Northwest (b) (3), (b) (7)(F) (503) 220-1257 *(Work)* (b) (6) *(Mobile)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

* Company policy is to treat an employee's home address as confidential. This information is kept on file at the Regional Office (909) 877-2373, and Houston Corporate Office, Human Resources Dept. (713) 369-8876.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Multnomah County, OR
Latitude:	(b) (7)(F), (b) (3)
Longitude:	
River Mile:	Willamette River Mile 4.5
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Oil Spill Response Planning Zone:	Columbia River - Portland sub-zone
Facility Distance to Navigable Water:	Less than 0.25 miles
Landside Directions:	Starting at the airport, go northwest on NE Airport Way. NE Airport Way becomes Long Term Parking. Turn left onto parking exit, then left again onto NE Airport Way. Merge onto I-205/Veterans Memorial Hwy. At Exit 21B merge onto US-30 toward Portland. Merge onto I-405 S via exit number 302B. Merge onto US-30 W via exit number 3, then merge onto NW Yeon Ave. NW Yeon Ave. becomes NW St. Helens Rd. The Facility is located at 11400 NW St. Helens Rd.
Waterside Directions:	From the Columbia River travel southwest, south and southeast on the Willamette River approximately three (3) miles. Facility is on the left descending bank approximately two (2) miles downstream of the St. Johns Bridge.

FIGURE 2.1c

COMPANY EMPLOYEE OTHER THAN OPERATOR - NON-CALIFORNIA NOTIFICATION PROCESS

This flowchart shows the appropriate notifications a company employee **other than an operator** is required to make ***immediately*** in the event of an actual or suspected release. This process is to ensure all levels of management are notified of the situation, as appropriate.

Internal notification references are provided in Figure 2.3a, b, c.

Company employee **other than an operator** is notified by telephone or becomes aware of a release or threatened release.

↓

Call Orange Pipeline Control Center.
NOTE: Control Center initiates ERL or ERL+ notifications

↓

Obtain information and complete Initial Reporting Details form
(See Figure 2.2)

↓

Notify 911 - Fire Department/Police as necessary.
NOTE: If emergency warrants, notify 911 first.

↓

Notify Area Manager. If Area Manager is not available, proceed until first notification is made to:

- Operations Manager
- Director of Operations
- V.P. of Operations

*ERL = Emergency Response Line. Initiated per External Notification References (see Fig. 2.4).
*ERL+ = Emergency Response Line Plus – Notification for any major event associated with the Company, such as: major disruption or operations shutdown, death of employee(s) or contract employee(s), or any fatality or injury to member of public.

FEDERAL

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES

REQUIRED NOTIFICATIONS (FOR ALL FACILITIES)		
NATIONAL RESPONSE CENTER		
National Response Center c/o United States Coast Guard (CG-3RPF-2) 2100 2nd Street Southwest Room 2111-B Washington, D.C. 20593-0001	(800) 424-8802* (202) 267-2675* (202) 267-1322 (Fax)	**REPORTING REQUIREMENTS** TYPE: For all spills that impact or threaten to impact navigable water or for any failure in a pipeline system that: 1. Caused a death or a personal injury requiring hospitalization 2. Resulted in either a fire or explosion not intentionally set by the carrier. 3. Caused estimated damage to the property of the carrier or others, or both, of a total of $50,000 or more. 4. Resulted in the pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water or adjoining shoreline, causing a discoloration or emulsion beneath the surface of the water or upon adjoining shorelines. 5. In the judgment of the carrier, was significant even though it did not meet the criteria of any other subparagraph of this paragraph **(cleared through the V.P. of Operations).** NOTE: A call to the NRC must also be made for spills or releases of hazardous substances that meet or exceed their RQ. VERBAL: Immediate notification required. WRITTEN: Not required

*24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS (FOR DOT JURISDICTIONAL FACILITIES)		
DEPARTMENT OF TRANSPORTATION		
US Dept. of Transportation Information Resources Manager Office of Pipeline Safety Pipeline & Hazardous Material Safety Administration 1200 New Jersey Avenue SE-E-22-321 Washington, DC 20590 Fax Filing: (202) 366-4566	(800) 424-8802* (202) 267-2675*	**REPORTING REQUIREMENTS** TYPE: In addition to the reporting of accidents to the NRC, a written accident report must be submitted for releases resulting in any of the following: 1. Explosion or fire not intentionally set by the operator. 2. Release of 5 gallons or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels resulting from a pipeline maintenance activity if the release is: a. Not one described under the NRC's reporting conditions. b. Confined to Company property or pipeline right-of-way; and c. Cleaned up promptly. 3. Death of any person. 4. Personal injury necessitating hospitalization. 5. Estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000. VERBAL: Call to the NRC meets the required verbal notification under DOT reporting requirement. WRITTEN: As soon as practicable, an accident meeting any of the above criteria must be reported on DOT Form PHMSA F 7000-1. The report must be sent to DOT no later than 30 days after the release. Changes or additions to the original report (DOT Form PHMSA F 7000-1) must file a supplemental report within 30 days.

*24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
OREGON EMERGENCY RESPONSE SYSTEM (OERS)		
Oregon Department of State Police Emergency Management Division 595 Cottage Street NE Salem, OR 97301 or SERC/LEPC c/o OERS P.O. Box 14370 Salem, OR 97309-5062	(800) 452-0311* (503) 378-6377 (24 hr in Salem area only)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land and any pipeline spill that is reportable to the NRC. VERBAL: Immediately; also state that you are making a SERC/LEPC notification. WRITTEN: Within 7 days, submit a written report to the DEQ (see below)
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY		
NORTHWEST REGION-MULTNOMAH AND WASHINGTON COUNTY 2020 SW 4th Avenue, Suite 400 Portland, OR 97204	(503) 229-5263 (503) 229-5696 (503) 229-5630 (503) 229-5359 (Air Quality Division)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land; any spills that violate air quality standards report to ORDEQ Air Quality Division. VERBAL: Immediately WRITTEN: Within 7 days, submit a written report.
WESTERN REGION-YAMHILL, POLK, BENTON, AND LANE COUNTY 1102 Lincoln St., Suite 210 Eugene, OR 97401	(541) 686-7838 (800) 844-8467 (In state only)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land VERBAL: Immediately WRITTEN: Within 7 days, submit a written report using the ODEQ Spill/Release Report (Vol. 1 Fig. 2.4 Oregon).

*24-Hour Number

OREGON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	OFFICE/ ALTERNATE
Eugene & Springfield Fire Dept.	Eugene, OR	(541) 682-5111
City of Portland Bureau of Environmental Services – Spill Response Team	Portland, OR	(503) 823-7180* (Leave message if after hours)
Portland Fire Dept. Station 6 - *Willbridge Area*	Portland, OR	(503) 823-3834
Portland Fire Dept. Station 22 - *Linnton Area*	Portland, OR	(503) 823-3849
Portland Fire and Rescue Bureau	Portland, OR	(503) 823-3700
Salem Fire Dept.	Salem, OR	(503) 588-6245

* 24-hour number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Pacific Northwest Region 1150 North Curtis Road, Suite 100 Boise, Idaho 83706-1234	(208) 378-5012 (208) 378-5019 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
US Department of the Interior, Bureau of Reclamation – Mid Pacific Region Federal Office Building 2800 Cottage Way Sacramento CA 95825-1898	(916) 978-5000 (916) 978-5005 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
WASHINGTON EMERGENCY MANAGEMENT DIVISION		
Building 20, M/S: TA-20 Camp Murray, WA 98430-5122	(800) 258-5990*	**REPORTING REQUIREMENTS** TYPE: Report all significant releases or threatened releases of hazardous materials that may threaten the state of Washington. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances

*24-Hour Number

OREGON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
WASHINGTON DEPARTMENT OF ECOLOGY		
300 Desmond Dr Olympia, WA 98503	(360) 407-6300	**REPORTING REQUIREMENTS** TYPE: Report all significant releases or threatened releases of hazardous materials that may threaten the state of Washington or the Columbia River. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances

*24-Hour Number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NORTHERN REGION-NORTHWEST RESPONSE CONTRACTORS				
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)				
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**	**RESPONSE TIME**
Linnton and Willbridge Terminals				
National Response Corporation	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(800) 337-7455* (503) 283-1150 (503) 289-6568 (Fax)	1.0
Eugene Terminal and Oregon Pipelines				
Clean Rivers Cooperative	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(503) 220-2040* (503) 295-3660 (Fax)	2.0
National Response Corporation	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(800) 337-7455* (503) 283-1150 (503) 289-6568 (Fax)	1.0
Northwest Hazmat, Inc.	Boom, Vac-truck, Personnel	Springfield, OR	(800) 597-1323* (541) 988-9823	1.0
Mid-State Industrial Service, Inc.	Skimpack	Eugene, OR	(541) 726-6730 (541) 726-7690 (Fax)	2.0
SPILL MANAGEMENT TEAM SUPPORT				
O'Brien's Response Management Inc.	Personnel, Comms and Management Equipment	Slidell, LA Spring, TX Brea, CA Seattle, WA	(981) 781-0804* (281) 320-9796	1.0

OREGON

FIGURE 2.2

It is not necessary to wait for all information before calling the NRC.
National Response Center - 800-424-8802.

INITIAL REPORTING DETAILS

Incident Name:_____ **Data Base Record #**_____

Date Event Occurred:_____ Time Event Occurred: _____ Time Reported to ORCC: _____

Reported by: _____ Area of Responsibility: _____

Contact #'s: _____

Address where incident occurred: _____

_____ County: _____

Location of Event relative to railways, highways, roads, residents, etc. _____

Incident occurred at:

- ❑ Terminal Name: _____
- ❑ Breakout Facility (*) Name: _____
- ❑ Pump Station/Booster Name: _____
- ❑ Pipeline LS _____ PLMP _____ Line Size _____
- ❑ Other _____

Did the event cause any of the following?

- Fire or Explosion ❑ Yes ❑ No
- Death or injury ❑ Yes ❑ No # of employees _____ # of non-employees _____
- Product into the Water ❑ Yes ❑ No
- Damage Greater than $50,000 ❑ Yes ❑ No

If yes to any of the above, describe weather conditions: _____

Did the Incident occur during:

- ❑ Maintenance
- ❑ Operational Activity
- ❑ Failure of Equipment/Non-pipe component (valve, seals, gasket, piping, etc.)
- ❑ Terminal Loading ❑ Dome out (release to atmosphere) ❑ Dome out (contained in truck)

Additional Description

Size of Wet Area Type of Product

Description of Event:

Local Agencies Notified/Time: (Fire, Police, 911, etc.)

Reporting Requirements (To be determined by ORCC)

- ❑ Non-Reportable ❑ OES (Calif.)
- ❑ Railroad ❑ Other _____
- ❑ NRC ❑ State Agency _____
- ❑ Initiate Leak Wheel Call-out

(*) Breakout Facility Definition: Facility that uses tanks and equipment for input into a pipeline i.e., Concord, Watson, Rocklin (portions of Colton & Tucson

Prepared by: _____ Date: _____

ORCC Fax 714/541-3682 Northern Region Fax 707/424-6089 Southern Region Fax 909/877-9036

Rev: 10/1/02

FIGURE 2.2 (Cont'd)

INITIAL REPORTING DETAILS

Incident Name:_____ **Data Base Record #**_____

Time Leak Stopped: _____ Time Product was Contained: _____

How was product contained: _____

_____

_____

_____

Type of Repairs Required: _____

- ❑ Replaced – Pipe or Component
- ❑ Sleeved – Type A, Type B, Clock Spring
- ❑ Torqued
- ❑ Other: Describe _____

Method of Clean-up:

- ❑ HQ Remediation
- ❑ Local Environment Contractor
- ❑ Local field Personnel

Describe Cleanup: _____

_____

_____

Terminal Dome-Out

KMEP Equipment:

- ❑ Scully System Failure
- ❑ Brodie Hung Open
- ❑ TMS Failure to Shutdown or Problem
- ❑ Other: Describe _____

Carriers Equipment

- ❑ Sensor set to high
- ❑ Other: Describe _____

Driver Error:

- ❑ Retain on truck
- ❑ Two Compartments Opened
- ❑ Hooked up to wrong compartment
- ❑ Incorrect Preset
- ❑ Other: Describe _____

ORCC Fax 714/541-3682 Northern Region Fax 707/424-6089 Southern Region Fax 909/877-9036

Rev: 10/1/02

NOTE: Completing this form does not satisfy the need to enter this information in the Leak Database.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS

The initial reporting detail form is used by the Control Center to document the necessary information for reporting to governmental agencies and the initial entry into the leak database. The initial responder and the Area Manger should use the form as a guideline to insure that the necessary information is available to the Control Center. However, reporting should not be delayed due to incomplete information. Some of this information will be collected as the emergency response continues or after repairs are completed. Area Managers, Maintenance Managers and the Manager of Control Centers are responsible for completing or coordinating the answers to this form. This form should be retained in the official leak file.

Instructions for completion of this form are as follows:

Incident Name — Document the name of the leak. It is typical for a given leak to be named. This name is used in subsequent discussion and documentation.

Database Number — This is the number automatically assigned in the leak database.

General Information Section

The Initial Responder is responsible for the answers to this section.

Date event occurred — This is the date of the month the incident is reported to the Control Center. This should be the date that there is evidence of a suspected leak. It may be different from the date the leak is confirmed or sufficient information is collected to indicate governmental reportability. However, if there are differences in the dates, the reason for differences should be documented.

Time event occurred — This is the time that evidence of a suspected leak is discovered. Time should be reported using the 2400 clock. The local time zone should be designated. It may be different from the time the leak is confirmed or determination that the incident is determined to be reportable to a government agency. However if the time is different, the reason for differences should be documented.

Time Reported to OCC — This is the time the event was reported to the Orange Control Center.

Reported by — This is the person who is reporting the suspected leak to the Orange Control Center.

Area of Responsibility — This is the name of the Area office where the suspected leak occurred.

Contact number — This is the telephone number that the control center (or others) will use to get further information, if needed.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Address where incident occurred	This is the actual address or closest cross street address where the event occurred. It will be used to locate the incident site on maps and to communicate to others where event occurred.
County	This is County where incident occurred.
Location of event relative to Railways, highways, roads, residents, etc.	Give detail relative to other significant assets. This may be used to determine other emergency response action.

Facility Type Section

The Initial Responder is responsible for the answers to this section. Check the appropriate facility type.

Terminal	Refers to Truck Loading facilities, truck racks and associated storage. Document the name of the facility.
Breakout Facility	Refers to storage, piping, and equipment associated with pipeline transportation. There are two types of Breakout Tanks. Storage – where product comes from pipeline and then is reinjected back into pipeline for further transportation. Breakout also includes tanks associated with pipeline overpressure protection. Document the name of the facility.
Pump Station/Booster	This refers to pump stations associated with pipeline transportation. Document the name of the facility.
Pipeline	This refers to line pipe in the pipeline right-of-way. Document the Line Section number (LS), pipeline mile post (PLMP), and line size.
Other	This refers to valve sites, measurements stations and other facilities, such as gravitometer sites, in the pipeline right of way that is not at a breakout facility, pump station or line pipe. Document the name of the facility.

Consequence Section

The Initial Responder is responsible for the answers to this section. Check the consequence of the event. This is used to determine whether the event is reportable to DOT.

Fire or Explosion	If possible, denote whether fire or explosion was a result of the event or caused the event.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Death or Injury	If possible, differentiate the number of employees and non-employees affected.
Product into the water	Denote if product resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines.
Damage greater than $50,000	This includes cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both. In many cases this may not be known in the early stages of the incident, however leaks involving breakout tanks should be considered as having met this requirement.
Describe weather conditions	Document temperature, rain, and wind conditions (direction and estimated speed) if the incident involved a fire, explosion, death, injury requiring hospitalization, water, or damage greater than $50,000.
Activity Section	
The Initial Responder is responsible for the answers to this section. Document the activity of the system at the time the evidence of the incident was discovered.	
Maintenance	Check if maintenance activities are involved.
Operation Activity	This applies to normal operations, such as start up and shut down of pump(s) or pipeline, filling or emptying tanks.
Failure of Equipment	Check if failure of equipment was involved. Examples of "failure of equipment" includes malfunction of control or leak equipment, failure of components, seal failures etc.
Terminal Loading	This pertains to the actual loading transports.
Dome out	Dome outs should be documented. Only Dome outs released to the atmosphere should be reported to the Control Center and documented on this form.
Additional Descriptions Section	
The Initial Responder is responsible for the answers to this section.	
Size of Wet Area	This is useful to assist in the estimation of released product and determine appropriate emergency response.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Type of Product	This pertains to the product that was released from the pipeline. Document the product that is in the pipeline at point of incident at the time of the incident.
Description of Event	Give narrative description of incident. This will help others understand the facts and circumstances surrounding the incidents.
Local Agencies Notified / Time	Document local agencies and emergency response organizations contacted and the time of notification.

External Reporting Section

The Control Center is responsible for determining the external notifications to be made. However, if the Incident Commander requests the Control Center to assist in making other notifications, they may do so. The Manager of Control Centers is responsible for determination of the "reportability" of an incident. If there are questions, or the Manager of Control Centers needs assistance in determining whether or not a given incident is reportable, the Director Pipeline Safety will be consulted.

Non- Reportable	Check if the incident was determined to be non-reportable to State or Federal Agencies.
Initiate Leak Wheel	Check if the pipeline wheel is notified. The pipeline wheel is a predetermined list of pipeline operators that operate in the area of Kinder Morgan's pipeline. Document the date, time, and person (s) receiving notification.
OES	Check if the California's Office of Emergency Services (OES) was notified. Document the date, time, and person receiving notification and the OES number.
Other	Check if other external notifications were made that are not included elsewhere in this section. Document the date, time, and person receiving notification.
State Agency	Check, if other state agencies are notified. Document the date, time, and person receiving notification and State ID number.
NRC	Check if the National Response Center (NRC) is notified. Document the date, time, and person receiving notification and NRC number.

Leak Control & Remediation

The Incident Commander is responsible for determining the answers to this section. However times may be coordinated with others.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Time Leak Stopped:	Document the time the leak was stopped. Use the 2400 hour clock.
Time Product was contained:	Document the time the leak was contained. Use the 2400 hour clock.
How was product contained:	Document the method that the product was contained.

Type of Repair Section

The Area Manager or Maintenance Manager is responsible for completing this section. Check the type of repair used.

Replaced	Replace means that the affected segment was cut out or the affected component removed and replaced.
Sleeve – Type A, Type B, Clock Spring	Sleeve means that the affected pipe was left in place and a pressure containing sleeve, non-pressure containing sleeve or a composite wrap was used as the repair method.
Torqued	Torque means to tighten the fitting or nut used as repair method to stop the leak. This typically refers to repairs on components.
Other: Describe	Check if a repair method other than the ones previously listed were used. Describe type of repair.

Method of Clean-up Section

The Area Manager or Maintenance Manager is responsible for completing this section. Check who was responsible for the clean up and the method used.

HQ Remediation	Check if the EHS Remediation Department was responsible for cleanup.
Local Environmental Contractor	Check if a local environmental contractor was responsible for cleanup.
Local Field Personnel	Check if local field personnel were responsible for cleanup.
Describe Cleanup:	Document the method of Cleanup.

Terminal Dome-out Section

The Area Manager is responsible for completing this section. If Equipment Failure was involved designate ownership of equipment or if it was Driver Error, check apparent cause of driver error.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
KMEP Equipment:	
Scully System Failure	Check if cause of event was due to failure of the Scully System. List the root cause of the failure.
Brodie Hung Open	Check if cause of event was due to failure of the Brodie Valve. List the root cause of the failure.
TMS Failure to Shutdown or Problem	Check if cause of event was due to failure of the TMS System. List the root cause of the failure.
Other	Check if cause of event was due to cause not otherwise listed. List the root cause of the failure.
Carrier Equipment:	
Sensors set too high	Check if cause of event was due to the failure of the Carriers sensors. List the root cause of the failure.
Other	Check if the cause of event was due to failure of the Carrier's equipment and not otherwise listed. List the root cause of the failure.
Driver Error:	
Retain on Truck	Check if cause of event was due to the driver was not aware of residual volumes on truck. List the root cause of the failure.
Two Compartments Opened	Check if cause of event was due to two compartments of the truck being opened. List the root cause of the failure.
Incorrect Preset	Check if cause of event was due to the incorrect volume being set by the Operator. List the root cause of the failure.
Other	Check if the cause of event was due to driver's error and not otherwise listed in this section. List the root cause of the failure.

FIGURE 3.8

FLAMMABLE LIQUIDS (Polar/Water-Miscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Ethanol and Ethanol Solutions**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 127

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.8 (Cont'd)

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Diesel Fuel** **Gasoline** **Fuel Oils (#1- #6)** **Jet Fuel**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 128

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE

Incident Type	Mitigation Actions
Flange, Valve, or Hose Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off flow to line ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Initiate spill containment (if outside containment area) ❑ Block and purge affected equipment ❑ Initiate recovery/clean-up action as required.

Incident Type	Mitigation Actions
Tank Truck or Rack Valve Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop transfer operation ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Offload the leaking compartment ❑ Flush area into containment drains or other containment ❑ Initiate other cleanup action as required

Incident Type	Mitigation Actions
Pipeline Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut down system to control release ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ If possible, place containment under the leak ❑ Initiate spill containment (if outside containment area) ❑ Initiate other recovery/cleanup action as required

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE (Cont'd)

Incident Type	Mitigation Actions
Tank Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop flow into the tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Organize temporary tank patch and begin repair ❑ Initiate other response actions as required

Incident Type	Mitigation Actions
Tank Overfill	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off transfer or flow to tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Initiate other response actions as required

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 11400 NW St. Helens Road
Portland, OR 97231
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility, if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, Control Building, or the north or south staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the Linnton Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to Oregon Health & Science University Hospital

From the Facility go southwest on NW St. Helens Rd/Columbia River Hwy/US-30. Stay straight to go onto NW Yeon Ave. Take US-30 W. Merge onto I-405 S toward Beaverton. Take exit number 1C toward 6th Ave./US-26 E/Ross 1s. Br. The ramp becomes SW Broadway. Make a slight right onto SW 6th Ave., which becomes SW Terwilliger Blvd. Stay straight to go onto SW Sam Jackson Park Rd. OHSU is located at 3181 SW Sam Jackson Park Road.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located east of St. Helens Road.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing summer winds in the Facility area generally come from the northwest with speeds ranging from 10-15 knots. Winter winds are primarily from the east and southeast with speeds ranging from 10-15 knots.

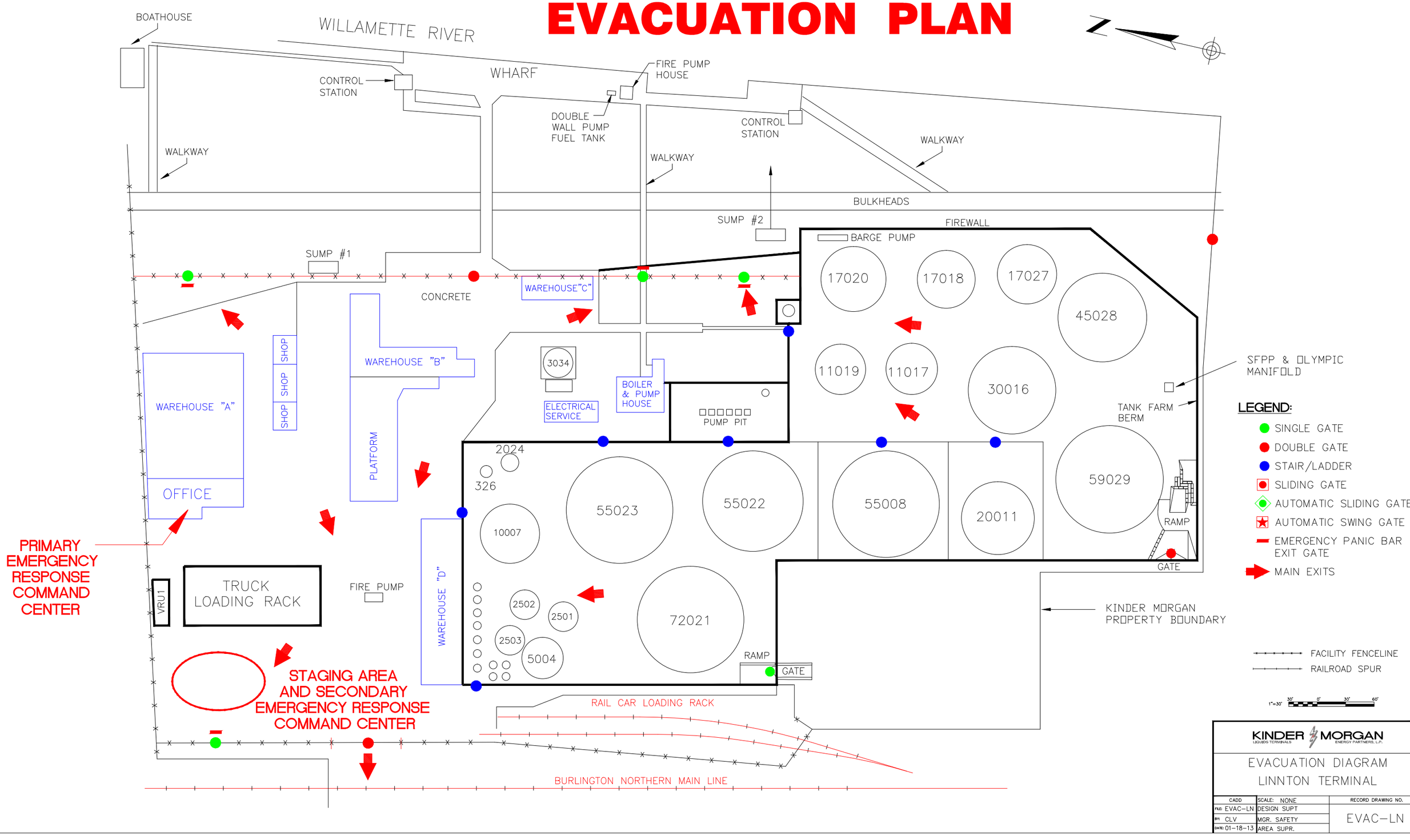
9. Water Currents

Currents in the Willamette River average 0.5 knots.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION PLAN



KINDER MORGAN
LIQUIDS TERMINALS — ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
LINNTON TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-LN	DESIGN SUPT	EVAC-LN
BY: CLV	MGR. SAFETY	
DATE: 01-18-13	AREA SUPR.	

EMERGENCY RESPONSE ACTION PLAN

[redacted]

Northern Region - Northwest

Linnton-Willbridge Area

Willbridge Terminal

November 2012

Kinder Morgan Liquids Terminals, LLC
Willbridge Terminal
5880 N.W. St. Helens Road
Portland, OR 97210
(503) 224-0319 / (503) 209-5046
(503) 220-1270 (FAX)

EMERGENCY RESPONSE ACTION PLAN

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Facility Evacuation

Evacuation Diagram

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Willbridge Terminal 5880 NW St. Helens Rd. Portland, OR 97210 (503) 224-0319 / (503) 209-5046 *(24 Hrs)* (503) 220-1270 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP-37
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	1915
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 or 1100 Town & Country Road Orange, CA 92868
Qualified Individual: ***(Emergency Coordinator)*** ***(On-Site Firefighting Coordinator)*** (Work Address)	Jeff Hibner - Area Manager (b) (3), (b) (7)(F) (503) 220-1263 *(Work)* (b) (6) *(Mobile)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)*** (Work Address)	Andrew Holbrook - Operations Manager Northwest (b) (3), (b) (7)(F) (503) 220-1257 *(Work)* (b) (6) *(Mobile)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

* Company policy is to treat an employee's home address as confidential. This information is kept on file at the Regional Office (909) 877-2373, and Houston Corporate Office, Human Resources Dept. (713) 369-8876.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Multnomah County, OR
Latitude:	(b) (7)(F), (b) (3)
Longitude:	
River Mile:	Willamette River Mile 7
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Oil Spill Response Planning Zone:	Columbia River - Portland sub-zone
Facility Distance to Navigable Water:	Less than 0.25 miles
Landside Directions:	Starting at the airport, go northwest on NE Airport Way. NE Airport Way becomes Long Term Parking. Turn left onto Parking Exit, then left again onto NE Airport Way. Merge onto I-205/Veterans Memorial Hwy. At Exit 21B merge onto US-30 toward Portland. Merge onto I-405 S via exit number 302B. Merge onto US-30 W via exit number 3, then merge onto NW Yeon Ave. NW Yeon Ave. becomes NW St. Helens Rd. The Facility is located at 5880 NW St. Helens Rd.
Waterside Directions:	From the Columbia River travel southwest, south and southeast on the Willamette River approximately seven (7) miles. Facility is on the left descending bank approximately two (2) miles upstream of the St. Johns Bridge.

FIGURE 2.1c

COMPANY EMPLOYEE OTHER THAN OPERATOR - NON-CALIFORNIA NOTIFICATION PROCESS

This flowchart shows the appropriate notifications a company employee **other than an operator** is required to make ***immediately*** in the event of an actual or suspected release. This process is to ensure all levels of management are notified of the situation, as appropriate.

Internal notification references are provided in Figure 2.3a, b, c.

Company employee **other than an operator** is notified by telephone or becomes aware of a release or threatened release.

↓

Call Orange Pipeline Control Center.
NOTE: Control Center initiates ERL or ERL+ notifications

↓

Obtain information and complete Initial Reporting Details form
(See Figure 2.2)

↓

Notify 911 - Fire Department/Police as necessary.
NOTE: If emergency warrants, notify 911 first.

↓

Notify Area Manager. If Area Manager is not available, proceed until first notification is made to:

- Operations Manager
- Director of Operations
- V.P. of Operations

*ERL = Emergency Response Line. Initiated per External Notification References (see Fig. 2.4).
*ERL+ = Emergency Response Line Plus – Notification for any major event associated with the Company, such as: major disruption or operations shutdown, death of employee(s) or contract employee(s), or any fatality or injury to member of public.

FEDERAL

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES

REQUIRED NOTIFICATIONS (FOR ALL FACILITIES)		
NATIONAL RESPONSE CENTER		
National Response Center c/o United States Coast Guard (CG-3RPF-2) 2100 2nd Street Southwest Room 2111-B Washington, D.C. 20593-0001	(800) 424-8802* (202) 267-2675* (202) 267-1322 (Fax)	**REPORTING REQUIREMENTS** TYPE: For all spills that impact or threaten to impact navigable water or for any failure in a pipeline system that: 1. Caused a death or a personal injury requiring hospitalization 2. Resulted in either a fire or explosion not intentionally set by the carrier. 3. Caused estimated damage to the property of the carrier or others, or both, of a total of $50,000 or more. 4. Resulted in the pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water or adjoining shoreline, causing a discoloration or emulsion beneath the surface of the water or upon adjoining shorelines. 5. In the judgment of the carrier, was significant even though it did not meet the criteria of any other subparagraph of this paragraph **(cleared through the V.P. of Operations).** NOTE: A call to the NRC must also be made for spills or releases of hazardous substances that meet or exceed their RQ. VERBAL: Immediate notification required. WRITTEN: Not required

*24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

FEDERAL

REQUIRED NOTIFICATIONS (FOR DOT JURISDICTIONAL FACILITIES)		
DEPARTMENT OF TRANSPORTATION		
US Dept. of Transportation Information Resources Manager Office of Pipeline Safety Pipeline & Hazardous Material Safety Administration 1200 New Jersey Avenue SE-E-22-321 Washington, DC 20590-0001 Fax Filing: (202) 366-4566	(800) 424-8802* (202) 267-2675*	**REPORTING REQUIREMENTS** TYPE: In addition to the reporting of accidents to the NRC, a written accident report must be submitted for releases resulting in any of the following: 1. Explosion or fire not intentionally set by the operator. 2. Release of 5 gallons or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels resulting from a pipeline maintenance activity if the release is: a. Not one described under the NRC's reporting conditions. b. Confined to Company property or pipeline right-of-way; and c. Cleaned up promptly. 3. Death of any person. 4. Personal injury necessitating hospitalization. 5. Estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000. VERBAL: Call to the NRC meets the required verbal notification under DOT reporting requirement. WRITTEN: As soon as practicable, an accident meeting any of the above criteria must be reported on DOT Form PHMSA F 7000-1. The report must be sent to DOT no later than 30 days after the release. Changes or additions to the original report (DOT Form PHMSA F 7000-1) must file a supplemental report within 30 days.

*24-Hour Number

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
OREGON EMERGENCY RESPONSE SYSTEM (OERS)		
Oregon Department of State Police Emergency Management Division 595 Cottage Street NE Salem, OR 97301 or SERC/LEPC c/o OERS P.O. Box 14370 Salem, OR 97309-5062	(800) 452-0311* (503) 378-6377 (24 hr in Salem area only)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land and any pipeline spill that is reportable to the NRC. VERBAL: Immediately; also state that you are making a SERC/LEPC notification. WRITTEN: Within 7 days, submit a written report to the DEQ (see below)
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY		
NORTHWEST REGION-MULTNOMAH AND WASHINGTON COUNTY 2020 SW 4th Avenue, Suite 400 Portland, OR 97204	(503) 229-5263 (503) 229-5696 (503) 229-5630 (503) 229-5359 (Air Quality Division)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land; any spills that violate air quality standards report to ORDEQ Air Quality Division. VERBAL: Immediately WRITTEN: Within 7 days, submit a written report.
WESTERN REGION-YAMHILL, POLK, BENTON, AND LANE COUNTY 1102 Lincoln St., Suite 210 Eugene, OR 97401	(541) 686-7838 (800) 844-8467 (In state only)	**REPORTING REQUIREMENTS** TYPE: Report any amount of oil in state waters and > 42 gallons on land VERBAL: Immediately WRITTEN: Within 7 days, submit a written report using the ODEQ Spill/Release Report (Vol. 1 Fig. 2.4 Oregon).

*24-Hour Number

OREGON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)

FIRE DEPARTMENT

TYPE: Any fire or unauthorized release of a flammable or hazardous material on property.

VERBAL: Immediately

WRITTEN: As requested by agency.

NOTE: The Fire Department notifications will be handled by the Local Area Operations.

AGENCY	LOCATION	OFFICE/ ALTERNATE
Eugene & Springfield Fire Dept.	Eugene, OR	(541) 682-5111
City of Portland Bureau of Environmental Services – Spill Response Team	Portland, OR	(503) 823-7180* (Leave message if after hours)
Portland Fire Dept. Station 6 - *Willbridge Area*	Portland, OR	(503) 823-3834
Portland Fire Dept. Station 22 - *Linnton Area*	Portland, OR	(503) 823-3849
Portland Fire and Rescue Bureau	Portland, OR	(503) 823-3700
Salem Fire Dept.	Salem, OR	(503) 588-6245

* 24-hour number

OREGON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
US BUREAU OF RECLAMATION		
US Department of the Interior, Bureau of Reclamation – Pacific Northwest Region 1150 North Curtis Road, Suite 100 Boise, Idaho 83706-1234	(208) 378-5012 (208) 378-5019 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
US Department of the Interior, Bureau of Reclamation – Mid Pacific Region Federal Office Building 2800 Cottage Way Sacramento CA 95825-1898	(916) 978-5000 (916) 978-5005 FAX	**REPORTING REQUIREMENTS** TYPE: Notification must be made to the Bureau of Reclamation for releases impacting reservoirs. VERBAL: Immediate WRITTEN: As requested by agency.
WASHINGTON EMERGENCY MANAGEMENT DIVISION		
Building 20, M/S: TA-20 Camp Murray, WA 98430-5122	(800) 258-5990*	**REPORTING REQUIREMENTS** TYPE: Report all significant releases or threatened releases of hazardous materials that may threaten the state of Washington. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances

*24-Hour Number

OREGON

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OREGON

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (Cont'd)		
WASHINGTON DEPARTMENT OF ECOLOGY		
300 Desmond Dr Olympia, WA 98503	(360) 407-6300	**REPORTING REQUIREMENTS** TYPE: Report all significant releases or threatened releases of hazardous materials that may threaten the state of Washington or the Columbia River. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances

*24-Hour Number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NORTHERN REGION-NORTHWEST RESPONSE CONTRACTORS				
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)				
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**	**RESPONSE TIME**
Linnton and Willbridge Terminals				
National Response Corporation	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(800) 337-7455* (503) 283-1150 (503) 289-6568 (Fax)	1.0
Eugene Terminal and Oregon Pipelines				
Clean Rivers Cooperative	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(503) 220-2040* (503) 295-3660 (Fax)	2.0
National Response Corporation	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(800) 337-7455* (503) 283-1150 (503) 289-6568 (Fax)	1.0
Northwest Hazmat, Inc.	Boom, Vac-truck, Personnel	Springfield, OR	(800) 597-1323* (541) 988-9823	1.0
Mid-State Industrial Service, Inc.	Skimpack	Eugene, OR	(541) 726-6730 (541) 726-7690 (Fax)	2.0
SPILL MANAGEMENT TEAM SUPPORT				
O'Brien's Response Management Inc.	Personnel, Comms and Management Equipment	Slidell, LA Spring, TX Brea, CA Seattle, WA	(981) 781-0804* (281) 320-9796	1.0

OREGON

FIGURE 2.2

It is not necessary to wait for all information before calling the NRC.
National Response Center - 800-424-8802.

INITIAL REPORTING DETAILS

Incident Name:_____ **Data Base Record #**_____

Date Event Occurred:_____ Time Event Occurred: _____ Time Reported to ORCC: _____

Reported by: _____ Area of Responsibility: _____

Contact #'s: _____

Address where incident occurred: _____

_____ County: _____

Location of Event relative to railways, highways, roads, residents, etc. _____

Incident occurred at:

- ❑ Terminal Name: _____
- ❑ Breakout Facility (*) Name: _____
- ❑ Pump Station/Booster Name: _____
- ❑ Pipeline LS _____ PLMP _____ Line Size _____
- ❑ Other _____

Did the event cause any of the following?

- Fire or Explosion ❑ Yes ❑ No
- Death or injury ❑ Yes ❑ No # of employees _____ # of non-employees _____
- Product into the Water ❑ Yes ❑ No
- Damage Greater than $50,000 ❑ Yes ❑ No

If yes to any of the above, describe weather conditions: _____

Did the Incident occur during:

- ❑ Maintenance
- ❑ Operational Activity
- ❑ Failure of Equipment/Non-pipe component (valve, seals, gasket, piping, etc.)
- ❑ Terminal Loading ❑ Dome out (release to atmosphere) ❑ Dome out (contained in truck)

Additional Description

Size of Wet Area Type of Product

Description of Event:

Local Agencies Notified/Time: (Fire, Police, 911, etc.)

Reporting Requirements (To be determined by ORCC)

- ❑ Non-Reportable ❑ OES (Calif.)
- ❑ Railroad ❑ Other _____
- ❑ NRC ❑ State Agency _____
- ❑ Initiate Leak Wheel Call-out

(*) Breakout Facility Definition: Facility that uses tanks and equipment for input into a pipeline i.e., Concord, Watson, Rocklin (portions of Colton & Tucson

Prepared by: _____ Date: _____

ORCC Fax 714/541-3682 Northern Region Fax 707/424-6089 Southern Region Fax 909/877-9036

Rev: 10/1/02

FIGURE 2.2 (Cont'd)

INITIAL REPORTING DETAILS

Incident Name:_____ **Data Base Record #**_____

Time Leak Stopped: _____ Time Product was Contained: _____

How was product contained: _____

_____

_____

_____

Type of Repairs Required: _____

- ❑ Replaced – Pipe or Component
- ❑ Sleeved – Type A, Type B, Clock Spring
- ❑ Torqued
- ❑ Other: Describe _____

Method of Clean-up:

- ❑ HQ Remediation
- ❑ Local Environment Contractor
- ❑ Local field Personnel

Describe Cleanup: _____

_____

_____

Terminal Dome-Out

KMEP Equipment:

- ❑ Scully System Failure
- ❑ Brodie Hung Open
- ❑ TMS Failure to Shutdown or Problem
- ❑ Other: Describe _____

Carriers Equipment

- ❑ Sensor set to high
- ❑ Other: Describe _____

Driver Error:

- ❑ Retain on truck
- ❑ Two Compartments Opened
- ❑ Hooked up to wrong compartment
- ❑ Incorrect Preset
- ❑ Other: Describe _____

ORCC Fax 714/541-3682 Northern Region Fax 707/424-6089 Southern Region Fax 909/877-9036

Rev: 10/1/02

NOTE: Completing this form does not satisfy the need to enter this information in the Leak Database.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS

The initial reporting detail form is used by the Control Center to document the necessary information for reporting to governmental agencies and the initial entry into the leak database. The initial responder and the Area Manger should use the form as a guideline to insure that the necessary information is available to the Control Center. However, reporting should not be delayed due to incomplete information. Some of this information will be collected as the emergency response continues or after repairs are completed. Area Managers, Maintenance Managers and the Manager of Control Centers are responsible for completing or coordinating the answers to this form. This form should be retained in the official leak file.

Instructions for completion of this form are as follows:

Incident Name — Document the name of the leak. It is typical for a given leak to be named. This name is used in subsequent discussion and documentation.

Database Number — This is the number automatically assigned in the leak database.

General Information Section

The Initial Responder is responsible for the answers to this section.

Date event occurred — This is the date of the month the incident is reported to the Control Center. This should be the date that there is evidence of a suspected leak. It may be different from the date the leak is confirmed or sufficient information is collected to indicate governmental reportability. However, if there are differences in the dates, the reason for differences should be documented.

Time event occurred — This is the time that evidence of a suspected leak is discovered. Time should be reported using the 2400 clock. The local time zone should be designated. It may be different from the time the leak is confirmed or determination that the incident is determined to be reportable to a government agency. However if the time is different, the reason for differences should be documented.

Time Reported to OCC — This is the time the event was reported to the Orange Control Center.

Reported by — This is the person who is reporting the suspected leak to the Orange Control Center.

Area of Responsibility — This is the name of the Area office where the suspected leak occurred.

Contact number — This is the telephone number that the control center (or others) will use to get further information, if needed.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Address where incident occurred	This is the actual address or closest cross street address where the event occurred. It will be used to locate the incident site on maps and to communicate to others where event occurred.
County	This is County where incident occurred.
Location of event relative to Railways, highways, roads, residents, etc.	Give detail relative to other significant assets. This may be used to determine other emergency response action.

Facility Type Section

The Initial Responder is responsible for the answers to this section. Check the appropriate facility type.

Terminal	Refers to Truck Loading facilities, truck racks and associated storage. Document the name of the facility.
Breakout Facility	Refers to storage, piping, and equipment associated with pipeline transportation. There are two types of Breakout Tanks. Storage – where product comes from pipeline and then is reinjected back into pipeline for further transportation. Breakout also includes tanks associated with pipeline overpressure protection. Document the name of the facility.
Pump Station/Booster	This refers to pump stations associated with pipeline transportation. Document the name of the facility.
Pipeline	This refers to line pipe in the pipeline right-of-way. Document the Line Section number (LS), pipeline mile post (PLMP), and line size.
Other	This refers to valve sites, measurements stations and other facilities, such as gravitometer sites, in the pipeline right of way that is not at a breakout facility, pump station or line pipe. Document the name of the facility.

Consequence Section

The Initial Responder is responsible for the answers to this section. Check the consequence of the event. This is used to determine whether the event is reportable to DOT.

Fire or Explosion	If possible, denote whether fire or explosion was a result of the event or caused the event.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Death or Injury	If possible, differentiate the number of employees and non-employees affected.
Product into the water	Denote if product resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines.
Damage greater than $50,000	This includes cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both. In many cases this may not be known in the early stages of the incident, however leaks involving breakout tanks should be considered as having met this requirement.
Describe weather conditions	Document temperature, rain, and wind conditions (direction and estimated speed) if the incident involved a fire, explosion, death, injury requiring hospitalization, water, or damage greater than $50,000.
Activity Section	
The Initial Responder is responsible for the answers to this section. Document the activity of the system at the time the evidence of the incident was discovered.	
Maintenance	Check if maintenance activities are involved.
Operation Activity	This applies to normal operations, such as start up and shut down of pump(s) or pipeline, filling or emptying tanks.
Failure of Equipment	Check if failure of equipment was involved. Examples of "failure of equipment" includes malfunction of control or leak equipment, failure of components, seal failures etc.
Terminal Loading	This pertains to the actual loading transports.
Dome out	Dome outs should be documented. Only Dome outs released to the atmosphere should be reported to the Control Center and documented on this form.
Additional Descriptions Section	
The Initial Responder is responsible for the answers to this section.	
Size of Wet Area	This is useful to assist in the estimation of released product and determine appropriate emergency response.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Type of Product	This pertains to the product that was released from the pipeline. Document the product that is in the pipeline at point of incident at the time of the incident.
Description of Event	Give narrative description of incident. This will help others understand the facts and circumstances surrounding the incidents.
Local Agencies Notified / Time	Document local agencies and emergency response organizations contacted and the time of notification.

External Reporting Section

The Control Center is responsible for determining the external notifications to be made. However, if the Incident Commander requests the Control Center to assist in making other notifications, they may do so. The Manager of Control Centers is responsible for determination of the "reportability" of an incident. If there are questions, or the Manager of Control Centers needs assistance in determining whether or not a given incident is reportable, the Director Pipeline Safety will be consulted.

Non- Reportable	Check if the incident was determined to be non-reportable to State or Federal Agencies.
Initiate Leak Wheel	Check if the pipeline wheel is notified. The pipeline wheel is a predetermined list of pipeline operators that operate in the area of Kinder Morgan's pipeline. Document the date, time, and person (s) receiving notification.
OES	Check if the California's Office of Emergency Services (OES) was notified. Document the date, time, and person receiving notification and the OES number.
Other	Check if other external notifications were made that are not included elsewhere in this section. Document the date, time, and person receiving notification.
State Agency	Check, if other state agencies are notified. Document the date, time, and person receiving notification and State ID number.
NRC	Check if the National Response Center (NRC) is notified. Document the date, time, and person receiving notification and NRC number.

Leak Control & Remediation

The Incident Commander is responsible for determining the answers to this section. However times may be coordinated with others.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
Time Leak Stopped:	Document the time the leak was stopped. Use the 2400 hour clock.
Time Product was contained:	Document the time the leak was contained. Use the 2400 hour clock.
How was product contained:	Document the method that the product was contained.

Type of Repair Section

The Area Manager or Maintenance Manager is responsible for completing this section. Check the type of repair used.

Replaced	Replace means that the affected segment was cut out or the affected component removed and replaced.
Sleeve – Type A, Type B, Clock Spring	Sleeve means that the affected pipe was left in place and a pressure containing sleeve, non-pressure containing sleeve or a composite wrap was used as the repair method.
Torqued	Torque means to tighten the fitting or nut used as repair method to stop the leak. This typically refers to repairs on components.
Other: Describe	Check if a repair method other than the ones previously listed were used. Describe type of repair.

Method of Clean-up Section

The Area Manager or Maintenance Manager is responsible for completing this section. Check who was responsible for the clean up and the method used.

HQ Remediation	Check if the EHS Remediation Department was responsible for cleanup.
Local Environmental Contractor	Check if a local environmental contractor was responsible for cleanup.
Local Field Personnel	Check if local field personnel were responsible for cleanup.
Describe Cleanup:	Document the method of Cleanup.

Terminal Dome-out Section

The Area Manager is responsible for completing this section. If Equipment Failure was involved designate ownership of equipment or if it was Driver Error, check apparent cause of driver error.

FIGURE 2.2 (Cont'd)

"INITIAL REPORTING DETAILS" FORM INSTRUCTIONS	
KMEP Equipment:	
Scully System Failure	Check if cause of event was due to failure of the Scully System. List the root cause of the failure.
Brodie Hung Open	Check if cause of event was due to failure of the Brodie Valve. List the root cause of the failure.
TMS Failure to Shutdown or Problem	Check if cause of event was due to failure of the TMS System. List the root cause of the failure.
Other	Check if cause of event was due to cause not otherwise listed. List the root cause of the failure.
Carrier Equipment:	
Sensors set too high	Check if cause of event was due to the failure of the Carriers sensors. List the root cause of the failure.
Other	Check if the cause of event was due to failure of the Carrier's equipment and not otherwise listed. List the root cause of the failure.
Driver Error:	
Retain on Truck	Check if cause of event was due to the driver was not aware of residual volumes on truck. List the root cause of the failure.
Two Compartments Opened	Check if cause of event was due to two compartments of the truck being opened. List the root cause of the failure.
Incorrect Preset	Check if cause of event was due to the incorrect volume being set by the Operator. List the root cause of the failure.
Other	Check if the cause of event was due to driver's error and not otherwise listed in this section. List the root cause of the failure.

FIGURE 3.8

FLAMMABLE LIQUIDS (Polar/Water-Miscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Ethanol and Ethanol Solutions**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 127

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.8 (Cont'd)

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Diesel Fuel** **Gasoline** **Fuel Oils (#1- #6)** **Jet Fuel**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 128

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE

Incident Type	Mitigation Actions
Flange, Valve, or Hose Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off flow to line ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Initiate spill containment (if outside containment area) ❑ Block and purge affected equipment ❑ Initiate recovery/clean-up action as required.

Incident Type	Mitigation Actions
Tank Truck or Rack Valve Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop transfer operation ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Offload the leaking compartment ❑ Flush area into containment drains or other containment ❑ Initiate other cleanup action as required

Incident Type	Mitigation Actions
Pipeline Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut down system to control release ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ If possible, place containment under the leak ❑ Initiate spill containment (if outside containment area) ❑ Initiate other recovery/cleanup action as required

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE (Cont'd)

Incident Type	Mitigation Actions
Tank Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop flow into the tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Organize temporary tank patch and begin repair ❑ Initiate other response actions as required

Incident Type	Mitigation Actions
Tank Overfill	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off transfer or flow to tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify Qualified Individual or Alternate ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Initiate other response actions as required

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 5880 NW St. Helens Rd.
Portland, OR 97210
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Burlington Northern if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility main office (Building #6) or the warehouse (Building #2).

4. Community Evacuation

The Company has confirmed with the Portland Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to Oregon Health & Science University Hospital (OHSU)

From the Facility go southwest on NW St. Helens Rd/Columbia River Hwy/US-30. Stay straight to go onto NW Yeon Ave. Take US-30 E. Merge onto I-405 S toward Beaverton. Take exit number 1C toward 6th Ave./US-26 E/Ross Is. Br. The ramp becomes SW Broadway. Make a slight right onto SW 6th Ave., which becomes SW Terwilliger Blvd. Stay straight to go onto SW Sam Jackson Park Rd. OHSU is located at 3181 SW Sam Jackson Park Road.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located northeast of NW Culebra Avenue.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram in Section 8.2.

8. Prevailing Winds

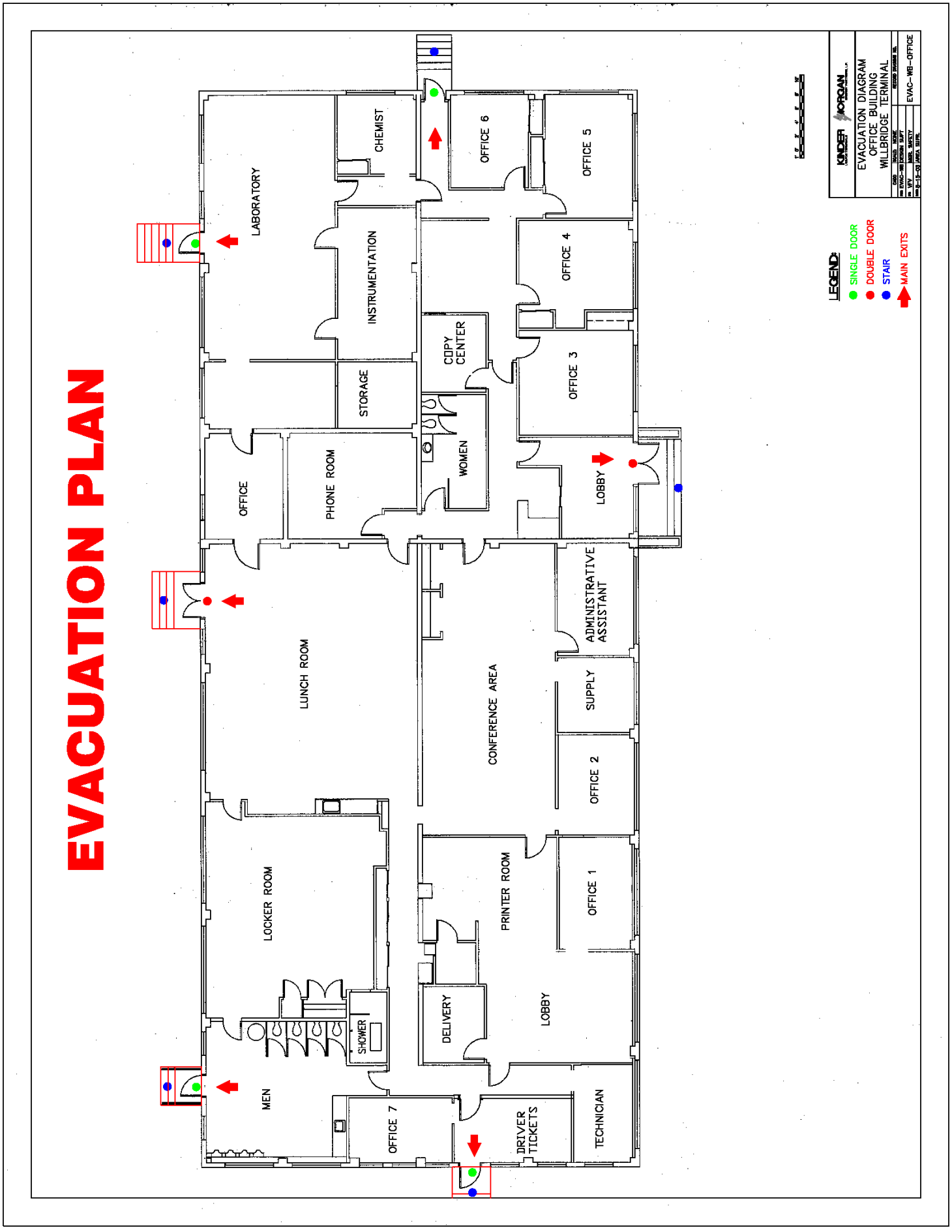
The prevailing summer winds in the Facility area generally come from the northwest with speeds ranging from 10-15 knots. Winter winds are primarily from the east and southeast with speeds ranging from 10-15 knots.

9. Water Currents

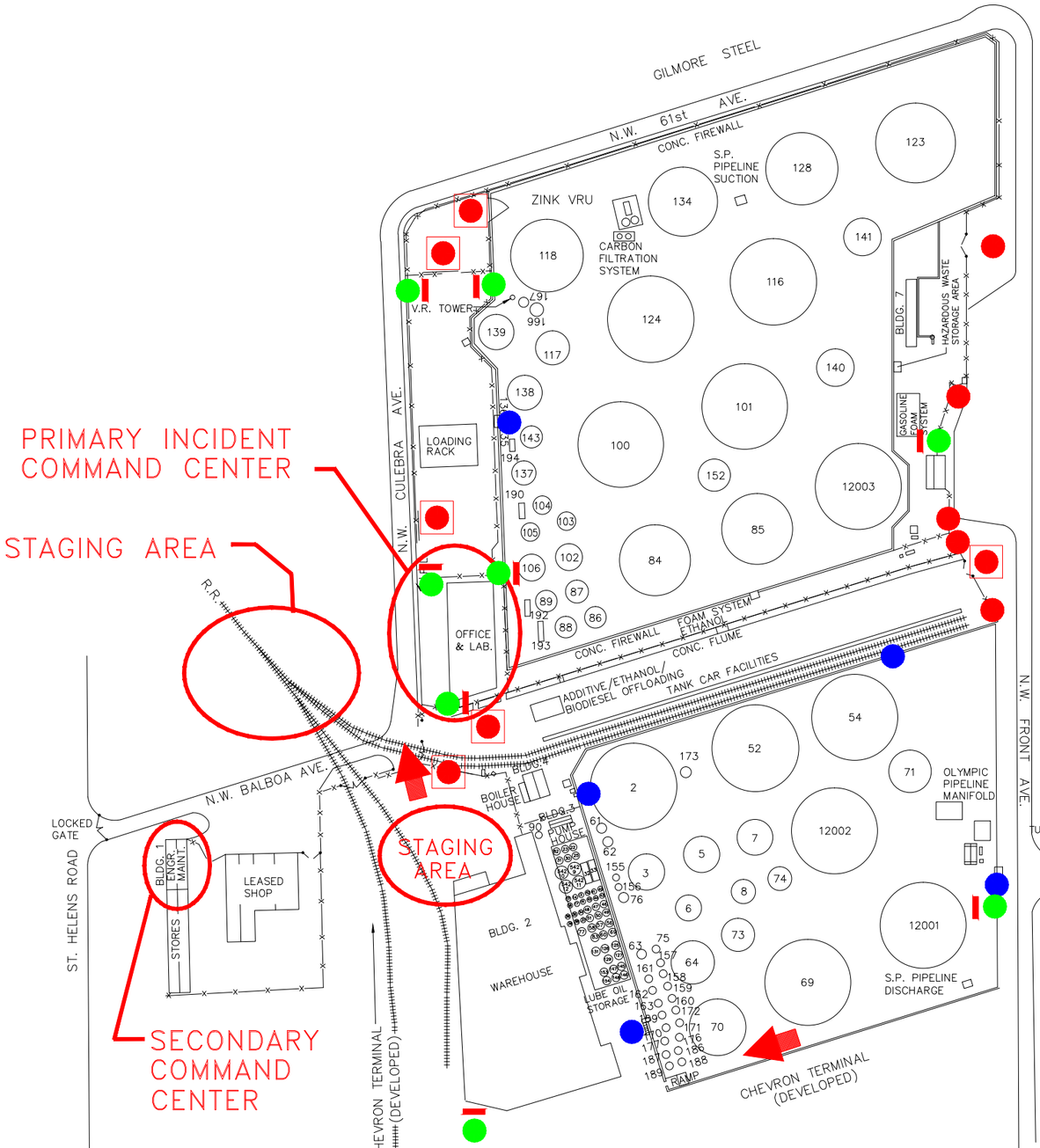
Currents in the Willamette River average 0.5 knots.

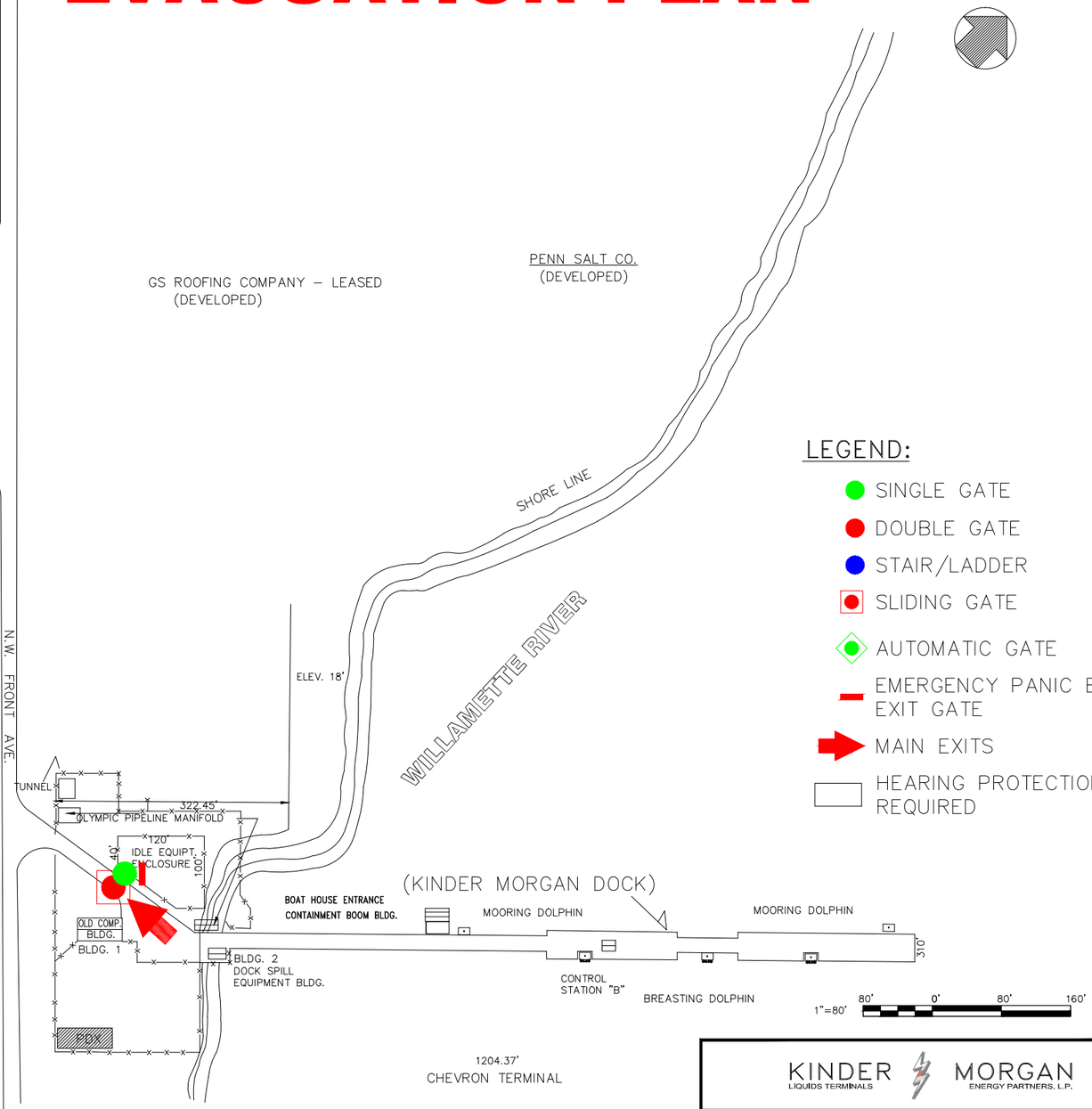
FIGURE 8.8

EVACUATION DIAGRAM


EVACUATION PLAN
LABORATORY
CHEMIST
INSTRUMENTATION
OFFICE 6
OFFICE 5
OFFICE 4
COPY CENTER
STORAGE
OFFICE 3
WOMEN
OFFICE
PHONE ROOM
LOBBY
LUNCH ROOM
CONFERENCE AREA
ADMINISTRATIVE ASSISTANT
SUPPLY
OFFICE 2
LOCKER ROOM
PRINTER ROOM
OFFICE 1
SHOWER
DELIVERY
LOBBY
MEN
OFFICE 7
DRIVER TICKETS
TECHNICIAN
LEGEND
SINGLE DOOR
DOUBLE DOOR
STAIR
MAIN EXITS
KINDER MORGAN
EVACUATION DIAGRAM
OFFICE BUILDING
WILLBRIDGE TERMINAL
EVAC-WEB-OFFICE

EVACUATION PLAN





LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- SLIDING GATE
- AUTOMATIC GATE
- EMERGENCY PANIC BAR EXIT GATE
- MAIN EXITS
- HEARING PROTECTION REQUIRED

TERMINAL: 5880 NW SAINT HELENS RD.

DOCK: 6080 NW FRONT STREET.

KINDER MORGAN LIQUIDS TERMINALS — ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
WILLBRIDGE TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC–WB	DESIGN SUPT	EVAC–WB
BY: CLV	MGR. SAFETY	
DATE: 11–19–12	AREA SUPR.	

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

AGENCY CORRESPONDENCE

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

May 13, 2014

David Rowland
Kinder Morgan Harbor Island
2720 13th Ave. SW
Seattle, WA 98134

Dear Mr. Rowland:

We have received and reviewed the update sent to our office May 6, 2014. The following changes are noted relating to this update:

- Updated Internal Notifications- Crisis Support Team, replace Chuck Mathis with Rod Dillon (Figure 2.2)
- Updated External Notifications- Response Contractors to reflect MSRC contact information (Figure 2.3)
- Updated Wildlife Facilities, Equipment, and Personnel to reflect MSRC information pg. 6-6.
- Updated Shoreline Response Resources to reflect MSRC information on pg. 6-10.
- Updated App. B to include MSRC information in scenarios and Washington State Planning Standards table on pg. B-5
- Updated contact information for Contracted Response Resources on pg. A-6. New service agreement and equipment lists for MSRC.
- New letter of intent from Global Diving & Salvage for spill response services, including equipment list.

These changes to your plan have been added to our copies of your oil spill contingency plan residing at the Department of Ecology.

Enclosed is a copy of the planning standard spreadsheet Ecology has calculated for your contingency plan, which reflects the change in your response contractor. Please add this spreadsheet to your contingency plan by printing the "Summary" tab. Include the following link in your plan to access the full, detailed spreadsheets. Your spreadsheets will remain available at this location.

ftp://ecy.wa.gov/spills/Planning%20Spreadsheets/KinderMorganLiquidsTerminalHarborIsland/

If you have any questions regarding your oil spill contingency plan please contact me at (360) 407-7281. As always, we appreciate your partnership in protecting Washington State's marine environment.

Sincerely,

Danielle Butsick

Danielle R. Butsick
Contingency Plan Compliance Specialist
Washington State Department of Ecology

cc: Del Carey, Kinder Morgan
Rod Dillon, Kinder Morgan
HQ Spills Central Files, Preparedness Section, Kinder Morgan Harbor Island

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

June 28, 2010

Jeffery Hibner
Kinder Morgan Liquid Terminals, LLC
Area Manager
2720 13th Avenue SW
Seattle, WA 98134

Dear Mr. Hibner:

Congratulations, on behalf of the state of Washington I am granting final approval to the Kinder Morgan Harbor Island oil spill contingency plan. The plan meets Washington's statutory and regulatory requirements and must be maintained in an accurate condition. Please add a copy of the enclosed certificate to the front of each plan as proof of compliance. This approval expires on June 28, 2015.

Your work to improve this plan is a significant milestone in the history of Washington's preparedness program. The new regulatory standards have improved plans and resulted in:

- Response equipment pre-staged in more than 45 locations around the state, effective in fast flowing rivers, shallow waters, estuaries, and open waters.
- Commitment to a variety of drills that will test all aspects of your plan over time.
- Participation in our program to verify maintenance of all spill response equipment including boats, trucks, boom, vacuum devices and skimmers.
- New standards for non-dedicated workboats, shoreline cleanup crews, and aerial surveillance.

Thank you for your cooperation and patience throughout the process. If you have questions, please contact your plan manager, Sabrina Payne at (360) 407-6394 or spay461@ecy.wa.gov.

Sincerely,

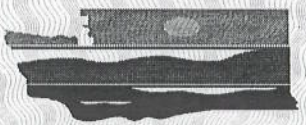
Linda Pilkey-Jarvis
Preparedness Section Manager
Spill Prevention, Preparedness, and Response

LP: bl

Enclosure: Certificate

cc: Chuck Mathis, Kinder Morgan
Sabrina Payne, Spills Program

LITHO.IN U.S.A.
© GOES 445



Oil Spill Contingency Plan Approval Certificate

The Oil Spill Contingency Plan for

KINDER MORGAN HARBOR ISLAND

has been APPROVED pursuant to
Washington Administrative Code 173-182

June 28, 2010 — Date of Approval

June 28, 2015 — Plan Expiration Date

Linda Pikey-Jarvis

Preparedness Section Manager
Washington State Department of Ecology Spill Preparedness Section

PHMSA 00102118

U.S. Department of Homeland Security

United States Coast Guard

Captain of the Port
United States Coast Guard
Sector Puget Sound

1519 Alaskan Way South
Seattle, WA 98134-1192
Phone: (206) 217-6165
FAX: (206) 217-6199

16471

AUG 21 2012

Kinder Morgan
Attn: Chuck Mathis
500 Dallas Street
Houston, TX 77002

Dear Mr. Chuck Mathis:

Your Facility Response Plan submitted to this office on March 5, 2012, to meet the requirements of the Oil Pollution Act of 1990, and 33 CFR 154, Subpart F is approved.

I commend your efforts in maintaining a Facility Response Plan that reflects your company's commitment to this program. Your response plan will help ensure effective oil spill response and mitigation. Please be sure that all parties with responsibilities under the plan are familiar with the plan's procedures and requirements.

You are reminded that Kinder Morgan is prohibited from handling, storing, transporting, transferring, or lightering oil unless it is operating in full compliance with this plan. Compliance includes ensuring the required response resources are in place and available through contract or other approved means.

Your plan's approval will remain valid until 5 years from the date of submittal. You must review your plan annually and resubmit the plan to the Coast Guard for re-approval six months before the end of the approval period as required by 33 CFR 154.1065. If there are questions please contact the Sector Puget Sound, Facilities and Containers Branch at 206-217-6165 or email d13-pf-spsfac@uscg.mil.

Please keep a copy of this letter with your plan.

Sincerely,

J.D. Dwyer
U.S. Coast Guard
Chief Inspections Division
By Direction of the Captain of the Port

APPENDIX A

RESPONSE RESOURCES

RESPONSE EQUIPMENT / RESOURCES

A.1 Facility Response Equipment A-2
A.2 Other Company Resources A-2
A.3 Contract Resources A-2
A.4 Cooperative/Mutual Aid Resources A-3
A.5 Experts and Consultants A-3
A.6 Volunteers A-3
A.7 Communications A-3

FIGURES

Figure A.1 Response Equipment Inventory A-5
Figure A.2 Contracted Response Resources A-6
Figure A.3 Revised USCG OSRO Classifications A-7
Figure A.4 OSRO/Contractor Contracts A-10

RESPONSE EQUIPMENT/RESOURCES

The following sections outline the various response equipment/resources available from the Facility, other Company facilities, Oil Spill Removal Organizations, and other outside resources.

A.1 FACILITY RESPONSE EQUIPMENT

This Facility maintains response equipment readily available for spill response as detailed on the "Response Equipment Inventory" list provided in Figure A.1. The equipment is stored at locations in the Facility as detailed on the equipment lists.

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. Spill response equipment maintenance records are kept for at least five (5) years and will be made available if requested by the EPA, USCG or WDOE. The equipment will be exercised semi-annually as required by PREP Guidelines. A sample form for documenting these Equipment Deployment Exercises is provided in Appendix G.

The Qualified Individual has the authority to activate these and other Company resources or that of private contractors and other experts and consultants as the situation demands.

A.2 OTHER COMPANY RESOURCES

Additional Company spill response equipment and manpower resources may be available to supplement the response operation.

A.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO) / Primary Response Contractor (PRC). These OSROs / PRCs can provide manpower and containment/clean-up equipment for the response operation. The Company will ensure that each OSRO / PRC has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.

Response resources, including spill tracking and aerial surveillance, will be secured from a Company approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Plan provides a quick reference to the OSROs / PRCs and additional clean-up and response contract organizations. Specific reference to their response capability (UCSG OSRO classification) is provided in Figure A.3.

These OSROs / PRCs have adequate equipment and personnel resources available to respond to the applicable regulatory planning volumes in the required time frames.

OSROs / PRCs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. Company personnel will oversee and coordinate with the OSRO / PRC to ensure their actions conform with overall incident objectives and established incident action plans.

A.4 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/mutual aid resources are not currently available to the Facility.

A.5 EXPERTS AND CONSULTANTS

The Company maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

A.6 VOLUNTEERS

Volunteers will not be utilized by the Company for the response operations. All volunteers will be referred to the State or Federal On-Scene Coordinator.

A.7 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/ diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between the Company and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

A.7.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with emergencies. The notification procedures and telephone contacts documented in Section 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and state emergency telephone numbers for the Orange Control Center and emergency response personnel (Figure 2.1).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Figure 2.1).

A.7 COMMUNICATIONS (Cont'd)

A.7.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing Company communications network. This network will utilize existing radios, telephones, pagers, fax machines, and computers and will be maintained by Company personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other Company and contract resources as the situation demands.

Each Company responder has, at a minimum, a cellular telephone. All Company response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the Company spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and kept in designated Company response trailers. In addition, the Company also utilizes radio sets provided by contract resources. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain Company personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited. Most response team members carry a pager.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and Company personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE A.1

RESPONSE EQUIPMENT INVENTORY

Item	Quantity	Location	Year Acquired
SPILL RESPONSE EQUIPMENT			
Spill Containment Boom 24" Petrobarrier	400'	Dock Response Trailer	Approximately 1990 & 2008
Spill Containment Boom 18" Kepner	1,500'	Dock Response Trailer	Approximately 1990
Spill Containment Boom 24" Petrobarrier	1,100'	In Water	Approximately 1990
19' Oil Spill Response Boat w/130 hp outboard	1	At Dock	2005
14' Skiff w/14 hp Outboard	1	Maintenance Shop	1990
Misc.	4 ea. 3M Sorbent Pads (100 ct. - HP 156) 2 ea SPC1900 Sorbent Sweep _____ 2 ea. SXT638 Sorbent Roll _____ 2 ea. SPC 150 sorbent roll _____ 4 ea. Ergon Sorbent Boom E810 8" x 10" _____	A Yard Emergency Response Supplies South End of Storage Building	Replaced as needed.
100' Sorbent Sweep Boom	3 each	Dock Storage	Replaced as needed.
Sorbent Pads	5 Bales	Dock Storage Container	Replaced as needed.

All contractor response equipment to be available during a spill event can be found on the Western Response Resource List (WRRL) website: www.wrrl.us/index.html

Note: All Facility emergency response equipment is maintained in an operable status at all times. Equipment is inspected quarterly. All equipment maintenance records are maintained at the Facility for five (5) years. A sample inspection form is located in Appendix G.

The Company primarily relies on its Primary Response Contractor during spill scenarios.

FIGURE A.2

CONTRACTED RESPONSE RESOURCES

AMPD INFORMATION

- **AMPD response provider**

OSRO / Clean-up Contractor	Contract Expiration Date
Harbor Island Terminal (Equipment deployment personnel are located at equipment site.)	Proprietary Equipment

- **Equipment Address (*1-hour response time):**

Boom: Harbor Island Terminal
2720 13th Ave. SW
Seattle, WA 98134

- **Equipment Address (*2-hour response time):**

Skimmer (Vacuum Trucks): Harbor Island Terminal
2720 13th Ave. SW
Seattle, WA 98134

Temporary Storage: Harbor Island Terminal
2720 13th Ave. SW
Seattle, WA 98134

- **Aerial Oil Tracking Capabilities:**
Aircraft, pilots and trained observers capable of arriving on scene within 6 hours will be sourced from Marine Spill Response Corporation.

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Puget Sound Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation	6MPA374	River/Canal	X	X	X	X	Yes
		Inland	X	X	X	X	

FIGURE A.3

REVISED USCG OSRO CLASSIFICATIONS

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Great Lakes			
MM	Protective Boom: 6,000*ft EDRC: 1,250 bbls TSC: 2,500 bbls	All Ports: 6 hours	All Ports: 12 hours
W 1	Protective Boom: 30,000*ft EDRC: 6,250 bbls TSC: 12,500 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 30,000*ft EDRC: 12,500 bbls TSC: 25,000 bbls	All Ports: 36 hours	All Ports: 42 hours
W 3	Protective Boom: 30,000*ft EDRC: 25,000 bbls TSC: 50,000 bbls	All Ports: 60 hours	All Ports: 66 hours

Figure A.3 (Cont'd)

REVISED USCG OSRO CLASSIFICATIONS

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

Figure A.3 (Cont'd)

REVISED USCG OSRO CLASSIFICATIONS

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Offshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 15,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 24 hours Other Ports: 48 hours	High Volume Ports: 24 hours Other Ports: 48 hours
W [2]	Protective Boom: 15,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 15,000 ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Open Ocean			
MM	Protective Boom: 0 ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 0 ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 0 ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 0 ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours

[1] Rivers/canals include bodies of water, including the Intracoastal Waterway and other bodies artificially created for navigation, confined within an inland area and having a project depth of 12 feet (3.66 meters).

[2] EDRC stands for "effective daily recovery capacity," or the calculated recovery capacity of oil recovery devices determined by using a formula that takes into account limiting factors such as daylight, weather, sea state, and emulsified oil in the recovered material.

[3] TSC stands for "temporary storage capacity," meaning sufficient storage capacity equal to twice the EDRC of an OSRO. Temporary storage may include inflatable bladders, rubber barges, certified barge capacity, or other temporary storage that can be utilized on scene at a spill response and which is designed and intended for the storage of flammable or combustible liquids. It does not include vessels or barges of opportunity for which no pre-arrangements have been made. Fixed shore-based storage capacity, ensured available by contract or other means, will be acceptable.

* In addition, 1,000 feet of containment boom plus 300 feet per skimming system.

FIGURE A.4

Marine Spill Response Corporation

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT

EXECUTION INSTRUMENT

The MSRC SERVICE AGREEEMENT attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement amended and restated as of September 27, 1996, is hereby entered into by and between

Kinder Morgan Energy Partners, L.P.

[Name of COMPANY]

a Delaware Limited Partnership

[Type of entity and place of organization]

with its principal offices located at 1001 Lousiana St; Ste 1000; Houston, TX 77002 (the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. 6MPA374 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of DECEMBER 31, 2013

KINDER MORGAN [COMPANY]

By: W. H. Simmons [signature]

WAYNE G. SIMMONS [print name]

Title: VICE-PRESIDENT OPERATIONS

1001 LOUISIANA ST

Address: SUITE 1000

HOUSTON, TX 77002

Telephone: 713 420 6330 Fax: _____

MARINE SPILL RESPONSE CORPORATION:

By: Judith A. Roos

Judith A. Roos
Vice President
Marketing, Customer Services & Corporate Relations
220 Spring Street, Suite 500
Herndon, VA 20170
(703) 326-5617; Fax: (703) 326-5660

GLOBAL
Diving & Salvage Incorporated

April 23rd 2014

KINDERMORGAN LIQUIDS TERMINAL
2720 13th Ave SW
Seattle, WA 98134

Attn: David Rowland

Re: Environmental Response Under OPA-90

Work Scope and Performance:

Thank you for your inquiry into Global Diving & Salvage, Inc.'s response capabilities. You have our permission to list Global among the response resources in your facility/vessel contingency plans. It does not guarantee a performance standard or obligate Global to respond. Any response would be subject to the availability of our personnel and equipment. This authorization extends only to pollution services. Global's personnel, equipment and materials will be billed out in accordance with our most current tariff rates.

Period of Performance:

This listing is valid from January 1st 2014 through January 1, 2015.

For your records, Global Diving & Salvage, Inc. is currently registered as a Washington State Department of Ecology Primary Response Contractor. Please contact Global directly should you require a copy of this certification. A current Certificate of Insurance is also available upon request.

Respectfully Submitted,

Connie Alvarez
Office Manager
Pacific Northwest Region
Global Diving & Salvage, Inc.

Encl: Current tariff

APPENDIX B

WORST CASE DISCHARGE ANALYSIS AND SCENARIOS

Page

B.1 Discharge Scenarios B-2

B.2 EPA Planning Distance Calculation B-7

B.3 Response Capability Scenarios B-7

Small Discharge B-9

Medium Discharge B-14

Worst Case Discharge B-16

Oil Spill Trajectory B-23

B.1 DISCHARGE SCENARIOS

The Facility is classified as a "Complex Facility" which operates in a High Volume Port Area.

"Complex" means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act (CWA).

Complexes must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. The EPA, WDOE and USCG discharge volume calculations are described as follows:

EPA Discharge Volume Calculation
• **Worst Case Discharge** *100% of the largest single tank* **WCD** = (b) (7)(F), (b) (2)
• **Medium Discharge** *Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD* **MD** = 857 bbls
• **Small Discharge** *Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD* **SD** = 50 bbls

WDOE Worst Case Spill Volume Calculation
(b) (7)(F), (b) (3)

B.1 DISCHARGE SCENARIOS (Cont'd)

USCG Discharge Volume Calculations
- Worst Case Discharge (WCD)
(b) (7)(F), (b) (3)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

	F
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

WDOE – RESPONSE PLANNING STANDARDS		
Areas Impacted:		Duwamish River/Elliott Bay
Product Type:		Gasoline
Product Group:		1
Worst Case Spill (bbls)		(b) (7)(F), (b)
Category	Boom Requirements	Recovery Requirements
6-Hour	(b) (7)(F), (b) (3)	
12-Hour		
24-Hour		
48-Hour		
All Recovery Capacities listed are Derated Barrels Per Day		
Minimum Storage		
6-Hour	(b) (7)(F), (b) (3)	
12-Hour		
24-Hour		
Additional temporary storage may be made available in Facility tankage depending on operations and nature of the incident.		
Non-dedicated work vessels may be obtained for arrival within forty-eight hours of a spill from MSRC, Puget Sound Gill-netters ((206) 252-6699) and/or Crowley Maritime ((206) 332-8242/8201(after hours)).		

Plan Holder: Kinder Morgan Harbor Island

Planning Standard Summary Analysis: WAC 173-182-355 Transfer sites for covered vessels and facilities with vessel terminal.

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecololgy upon request.The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **4/4/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): MSRC

Plan Holder owned equipment: Yes

Worst Case Spill Volume (bbls): (b) (7)(F),

Oil Products Handled by Group (Group 1-5): 1: Diesel, Ethanol, Gasoline, Jet-A, Transmix. 3: Biodiesel, Heavy Fuel Oil, Marine Diesel Oil. 4:

Mutual Aid/Letters Of Intent: summary and/or description of where they can found in the plan

Analysis point description: Kinder Morgan Harbor Island Facility

Marine 50% or Freshwater 65% shore side storage credit: YES/NO? No.

Alternative Planning Standard: N/A

	On-water Storage (bbls)	Shore side Storage (bbls)	On-water Total Storage (bbls)	Calm Water (EDRC)	Protected Water (EDRC)	Open Water (EDRC)	Total Recovery (EDRC)	B1 Boom (ft)	B2 Boom (ft)	B3 Boom (ft)	Total Boom (ft)	Personnel (12 hour shift)
6 hr available	(b) (7)(F), (b) (3)			0	38,472	21,540	60,012	11,240	46,070	6,600	63,910	115
6 hr required							8,240				10,000	
meets standard							**Yes**				**Yes**	
12 hr available				110	60,000	58,849	118,959	25,140	76,150	6,600	107,890	184
12 hr required							12,360				30,000	
meets standard							**Yes**				**Yes**	
24 hr available				110	60,000	91,256	151,366	30,150	77,150	6,600	113,900	197
24 hr required							16,480				50,000	
meets standard							**Yes**				**Yes**	
48 hr available				110	60,000	91,256	151,366	30,810	77,150	6,600	114,560	199
48 hr required							20,600				50,000	
meets standard							**Yes**				**Yes**	

Harbor Island Terminal
EPA – Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b) (3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)
On-Shore Recovery Volume (bbls)	
Total Recovery Volume (bbls)	

	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bbls/day)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bbls/day)			
Storage Capacity (bbls/day)			
On-Water Response Caps (bbls/day)			
Additional Response Req'd (bbls/day)			
Response Time (hrs)			

B.2 EPA PLANNING DISTANCE CALCULATION

In lieu of planning distances, the Company has provided a 72-hour Spill Trajectory as required by the State of Washington Department of Ecology. The trajectory depictions are located at the end of this section.

B.3 RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Appendix A. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls
A Small Discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons). ***Description*** This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to, • Pump seal leak • Truck loading rack hose rupture • Valve leak • Container rupture • Storage spill The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline. This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge. ***Prevention*** Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures. ***Additional Comments*** While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks. The closest waterway is the Duwamish Waterway East, which is east of the Facility. The storage tanks and truck loading racks have adequate secondary containment so it is unlikely that a spill would reach the river. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom (or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater) and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Appendix A.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Duwamish Waterway East, which is east of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be deployed at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage tanks, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Appendix A.
- Telephone references are provided in Section 2.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

This section outlines a fictitious incident involving a small spill scenario which illustrates how the KMEP Harbor Island Terminal could be expected to respond to a small oil spill. It must be noted that, due to the number of spill containment devices and features in place, and the fact that most areas within the Facility are monitored on a 24-hour basis, this scenario is extremely unlikely to occur and should be viewed only as a hypothetical situation.

While the Barge *Roseanne* unloads diesel to the KMEP tank farm, a hose ruptures. At the time of the rupture, two Terminal Operators are on duty at the Facility. Heavy rain and wind interfere with detection of the spill and communication between Facility personnel and the tankerman. Approximately 500 gallons of diesel is spilled onto the dock and into the water before the tankerman can hit the emergency shut-off for the transfer pump.
Time: 4:00 am.
Tide: Low.
Current: Negligible.
Wind: From S at 15 knots.
Weather: Rain, 50°

Time	Action
	Day 1
4:00 am	The Terminal Operator follows the established emergency procedures posted on the wall of the control house on the dock, i.e. 1. Stop the product flow. 2. Warn personnel in area. 3. Shut off ignition sources. 4. Contact the Area Manager. 5. Initiate containment on the deck and in the water.
4:15 am	The Area Manager is notified and assumes the role of KMEP Incident Commander (IC) and activates the notification procedures outlined in Section 2.2. The IC's report includes weather conditions and an estimate of spill size and direction of movement and other pertinent information and is recorded on an Initial Reporting Details form (Figure 2.2). Initial spill volume is reported as 100 gallons. The IC activates Marine Spill Response Corporation (MSRC). ETA of MSRC personnel and equipment is 2

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Time	Action
	Day 1 (Cont'd)
4:30 am	Facility personnel use the Facility's response boat to deploy 1500' of containment boom and available sorbent boom around the barge.
4:45 am	MSRC Cleanup Manager arrives at the Harbor Island Terminal. A command post is established inside the terminal office using the portable VHF radios, telephones and cellular telephones. As a precautionary measure, the IC notifies the Seattle Aquarium located at Pier 59, Elliott Bay Marina located below Magnolia Bluff--just west of the Pier 90/91 complex, and the Washington State Ferries at Colman Dock about the spill.
5:00 am	The tankerman advises that, based on pre- and post-spill tank soundings, the estimated spill size is 500 gallons. The IC requests additional equipment and personnel from MSRC. A skimmer, on trailer; 100 gpm/1,200 gallon capacity), with crew of two, and a 3,000 gallon vacuum truck are dispatched from MSRC. ETA on-scene (with skimmer in water, operational) is about 2-2.5 hours from time of notification.
5:30 am	USCG personnel arrive on scene from the Marine Safety Office to investigate the spill and monitor cleanup operations. The IC and Coast Guard personnel form a Unified Command and form up an ICS Organization with personnel from the Terminal, Kinder Morgan, and supported by USCG personnel. The MSRC Representative operates under the Operations Section.
5:45 am	MSRC work vessel with 1000' of containment boom arrive on scene. The Unified Command directs the immediate deployment of this boom from the NE tip of Terminal 18 to the NW tip of Pier 36 to contain the majority of the product within the East Waterway.
6:00 am	The local fire department, notified of spill by the Washington State Emergency Management Division (WEMD), conducts own air/vapor analysis in the spill area for volatility levels, with special emphasis under the dock. They find no abnormal readings, but will, as a precaution, stand by to monitor cleanup operations.
6:15 am	Four (4) additional MSRC HAZWOPER trained personnel arrive at the Terminal to assist with clean up operations.
6:40 am	The Coast Guard establishes a safety zone in the vicinity of the spill and broadcasts a Local Notice to Mariners concerning the closure of the East Waterway of the Duwamish River.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Time	Action
	Day 1 (Cont'd)
7:00 am	Representatives from WDOE arrive on scene from Northwest Regional Office in Bellevue to manage the Environmental Unit under Planning Section as well as investigate and monitor situation. The IC conducts an initial briefing to all response personnel including Federal On-Scene Coordinator (FOSC) State On-Scene Coordinator (SOSC), and representatives from all participating organizations at the Terminal. Local police, fire and HAZMAT teams are contacted for assistance in restricting access to shorelines determined likely to be impacted.
7:15 am	MSRC' 3,000 gallon vac-truck arrives at the Terminal with a crew of two (2) HAZWOPER trained personnel, and begins recovery operations alongside the dock -- inside the containment boom. MSRC' 28' Marco 1C skimmer arrives off the end of Terminal 18 with a crew of two (2) HAZWOPER trained personnel. The skimmer first makes several passes at small ribbons of sheen floating just north of Terminal 18.
	Day 2 and Beyond
	Containment, recovery and cleanup operations continue as before. Response operations will continue until cleanup is judged satisfactory by USCG and WDOE representatives.
NOTE:	There are MSRC skimmers capable of arriving on scene within 3.5 hours after notification. They would arrive by water from Anacortes, Bellingham and Port Angeles. The combined maximum recovery capacity of these vessels (Cormorant, Crane, Heron and Western Gull) is 76,980 gph (x 20% efficiency factor = 15,396). Nine (9) additional contractor or MSRC skimmers could arrive fpr planning purposes, overland and by water from Port Angeles, Port Ludlow, Seattle and Tacoma, within 6 hours. The combined maximum recovery capacity of these nine (9) vessels is 136,200 (x 20% efficiency factor - 27,240 gph). Within 12 hours, MSRC could have another 36,700' of boom as defined in regulations.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A Medium Discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Duwamish Waterway East. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a Medium Discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 3.

The closest waterway is the Duwamish Waterway East so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity (EDRC) equal to 50% of the Medium Discharge volume that is capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Appendix A and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) is capable of being on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage tanks.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Appendix A.
- Telephone references are provided in Section 2.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Appendix C.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow east toward the Duwamish Waterway East.

For a spill that is confined to the land along the pathway, Facility personnel would contain the spill using dams or trenches.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Ditch Containment

A spill may be contained in stormwater ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located west of the Duwamish Waterway East. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate initial boom deployment and anchoring at the waterway within a reasonable time. Several recreation areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity (EDRC) equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.
- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage tanks.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

Notes:

- Equipment and manpower resources are detailed in Appendix A.
- Telephone references are provided in Section 2.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

This section outlines a fictitious incident involving a worst case discharge scenario which illustrates how the KMEP Harbor Island Terminal could be expected to respond to a major oil spill. It must be noted that, due to the number of spill containment devices and features in place, and the fact that most areas within the Facility are monitored on a 24-hour basis, this scenario is extremely unlikely to occur and should be viewed only as a hypothetical situation.

A 12" transfer line ruptures within the tank yard area as the containment wall suffers a structural failure. The worst case quantity of marine fuel oil (bunker C) is spilled in the tank farm area and moves through breaks in the containment wall across the street to Terminal 18 and into the water.
Time: 1:00 pm.
Tide: Flooding, 2 hours till peak.
Current: Negligible.
Wind: From N at 10 knots.
Weather: Rain, 50°.
Southwesterly winds continue into early evening and then shift toward the south.

Time	Action
	Day 1
1:15 pm	The Area Manager is onsite to act as the KMEP Incident Commander (IC). The Area Manager makes an initial assessment of explosion or safety hazards and spill conditions and then initiates notification of emergency contacts as outlined in Section 2.2. The IC's report includes weather conditions and an estimate of spill size and direction of movement and other pertinent information and is recorded on an Initial Reporting Details form (Figure 2.2).
1:25 pm	Marine Spill Response Corporation (MSRC) dispatch initiates the internal call down procedure. The MSRC Cleanup Manager is contacted and in turn notifies spill response personnel to begin mobilization from both the Puget sound area spill response centers and other local response contractors and coops (e.g. Global Environmental, Clean Sound) for assistance through their agreements.
2:15 pm	MSRC response van and FRV (32' fast response vessel, containing 1000' of containment boom) arrives on scene.
2:25 pm	The local fire department, notified of spill by the Washington State Emergency Management Division (WEMD), conducts own air/vapor analysis in the spill area for volatility levels, with special emphasis under the dock. They find no abnormal readings, but will, as a precaution, stand by to monitor cleanup operations.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Time	Action
	Day 1 (Cont'd)
2:30 pm	MSRC Cleanup Manager arrives at the Harbor Island Terminal. A command post is established inside the terminal office using the portable VHF radios, telephones and cellular telephones. As a precautionary measure, the IC notifies the Seattle Aquarium located at Pier 59 about the spill, Elliott Bay Marina located below Magnolia Bluff--just west of the Pier 90/91 complex, and the Washington State Ferries at Colman Dock.
2:35 pm	Four (4) additional MSRC HAZWOPER trained personnel arrive at the Terminal to assist with clean up operations. USCG personnel arrive on scene from the Marine Safety Office to investigate the spill and monitor cleanup operations. The IC and Coast Guard personnel form a Unified Command and form up an ICS Organization with personnel from the Terminal, Kinder Morgan, and supported by USCG personnel. The MSRC Representative operates under the Operations Section. The Unified Command directs the immediate deployment of approximately 1000' containment boom from the NE tip of Terminal 18 to the NW tip of Pier 36 to contain the majority of the product within the East Waterway. The southerly wind will push the oil to the north of the boom. When additional boom arrives, 1000' will be placed at the northern end of the East Waterway.
2:40 pm	The Coast Guard establishes a safety zone in the vicinity of the spill and broadcasts a Local Notice to Mariners concerning the closure of the East Waterway of the Duwamish River.
3:00 pm	Representatives from WDOE arrive on scene from Northwest Regional Office in Bellevue to investigate and monitor situation. The IC conducts an initial briefing to all response personnel including Federal On-Scene Coordinator (FOSC) State On-Scene Coordinator (SOSC), and representatives from all participating organizations at the Terminal. The U.S. Coast Guard, acting as the FOSC, issues a notice to vessels not involved in response to stay out of the spill area.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Time	Action
	Day 1 (Cont'd)
3:00 pm (Cont'd)	Local police, fire and HAZMAT teams are contacted for assistance in restricting access to shorelines determined likely to be impacted. The Port of Seattle is contacted for permission to use Terminals 18, 25, 102 and 106 and Piers 48, 56, 69, 70, 90 and 91 for the attachment of containment boom and recovery operations. The Scientific Support Coordinator from NOAA has been notified and will arrive within the hour from Sand Point with a team to assist in oil spill trajectories. The Unified Command is concerned given the southwest wind, if the spilled oil will remain in Elliott Bay. It is determined that initial spill response strategy should focus on minimizing oil movement into Elliott Bay during slack tide and preventing oil from reaching the wetland at Foster's Island.
3:15 pm	MSRC' 3,000 gallon vac-truck arrives at the Terminal with a crew of two (2) HAZWOPER trained personnel, and begins recovery operations alongside the dock -- inside the containment boom. MSRC' 28' Marco 1C skimmer arrives off the end of Terminal 18 with a crew of two (2) HAZWOPER trained personnel. The skimmer first makes several passes at small ribbons of sheen floating just north of Terminal 18.
5:00 pm	Oil recovery from contained areas in the East Waterway using vacuum trucks is initiated. Monitoring slick size and movement by helicopter is initiated. The East Waterway remains closed to commercial vessel movement. Primary and secondary staging areas are established at the terminal and across the waterway at Terminal 18. Sites for staging areas are chosen based on proximity to the spill site, slick position and availability of facilities for boat launching and equipment setup. Additional containment boom and a skimmer arrive from MSRC Puget sound area with eight (8) HAZWOPER trained response team members. Given the strong southwest wind, the Unified Command has given priority to the GRP exclusion booming strategies north of the Terminal.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Time	Action
	Day 1 (Cont'd)
5:00 pm (Cont'd)	MSRC continues mobilization of crews and equipment. Crews begin a cascading boom deployment north of the Terminal to contain and recover oil moving toward Elliott Bay with the falling tide and changing wind direction. Pier 48 is used as a collection point by deploying 1200' of boom along the south side anchored to the southwest of the end of the Pier. A Desmi weir skimmer is deployed from a crane truck between Pier 46 and Pier 48. A Baker Tank is placed in the parking lot at Pier 48 and used for temporary storage of the recovered product. Crews continue skimming and vacuum recovery of oil from the water surface. MSRC has subcontractor agreements with Baker Tank (2 m gallons) and Pacific Northern Oil (210,000 gallons) for temporary storage of recovered product. In addition, Foss Maritime Company has numerous tank vessels and tugs located in Puget Sound which may be available for temporary storage for recovered product. It is evident that there is ample storage capacity readily available in the Puget Sound region.
	Day 2 and Beyond
	Containment, recovery and cleanup operations continue as before. Response operations will continue until cleanup is judged satisfactory by USCG and WDOE representatives.
NOTE:	There are four (4) MSRC skimmers capable of arriving on scene within 3.5 hours after notification. They would arrive by water from Anacortes, Bellingham and Port Angeles. The combined maximum recovery capacity of these vessels (Cormorant, Crane, Heron and Western Gull) is 76,980 gph (x 20% efficiency factor = 15,396). Nine (9) additional contractor or Clean Sound skimmers could arrive, overland and by water from Port Angeles, Port Ludlow, Seattle and Tacoma, within 6 hours. The combined maximum recovery capacity of these nine (9) vessels is 136,200 (x 20% efficiency factor - 27,240 gph). Within 12 hours, MSRC could have another 36,700' of boom and three more FRV's (7 total) on-scene. KINDER MORGAN is not a member of Clean Sound, however in view of such an event in Elliott Bay, the FOSC and SOSC could ask for their participation.

[redacted]

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)

APPENDIX C

HAZARD EVALUATION

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Drainage Diagram

C.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Marine Transfer Operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

- The Terminal Facility is located in Seattle, WA, approximately 400 yards west of the Duwamish Waterway East which is the closest navigable waterway.
- The Marine Transfer Facility is located on the waterfront at the northeast corner of Harbor Island at Terminal 18, Berth 1.

Tanks

- Secondary Containment volumes for all bulk storage containers are detailed in the Potential Spill Sources and Container Identification table in this Section.

Loading/Unloading Rack Containment System

Main Loading/Unloading Rack

The loading/unloading rack areas are designed and operated as follows:

- Drainage from the truck rack loading and unloading facilities is contained in a depressed area with engineered emergency containment.

The following systems are in place to eliminate spills at the loading rack:

- The truck loading/unloading rack areas are constructed on a contoured concrete slab designed to inhibit the flow of product out of the loading rack area in the case of a spill. If a spill did occur, liquids would enter the containment system consisting of one (1) 10,000 gallon underground collection sump at each of the two (2) truck loading/unloading areas. This capacity is more than enough to handle a complete failure of a tank truck storage compartment.

C.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Main Loading/Unloading Rack (Cont'd)

- Each truck rack has warning signs and an Interlock System to prevent overfill and vehicular departure before complete disconnect of flexible or fixed product transfer lines. Dry brake connection systems are in place on all truck loading arms. The terminal also requires truck drivers to place a traffic cone at the front of their truck while loading.

- Truck loading/unloading rack valving and piping systems are inspected daily by Facility operators.

- All tanker trucks loading/unloading at the racks are owned and operated by companies independent from the Company. Truck valves are to be inspected by the vehicle operators prior to and at the completion of loading before departing from the loading area.

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage areas are controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.

- Stormwater which accumulates within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures detailed in the Storm Water Pollution Prevention Plan (SWPPP).

- Flapper-type drain valves are not used to drain diked areas.

- Stormwater from diked areas is emptied by gravity.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is detailed in the SWPPP as follows:

- Stormwater is not drained from the secondary containment areas.

C.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

General Drainage (Cont'd)

- Water is visually inspected for product and discharged only if no product sheen is visible.
- Facility drainage does not flow directly into an open watercourse.
- No stormwater drainage system is in place for the aboveground storage tank secondary containment areas for the B-Yard and C-Yard. These two areas do not require displacement of normal stormwater. Water naturally percolates into the ground within the tank farm walls. If an unusually large amount of rainwater were to collect, water would be removed by vacuum trucks and disposed of by a permitted contract service contractor.
- The A-Yard, which is fully paved with concrete or asphalt, contains operational areas and non-operational areas. The operational areas include the truck loading/unloading racks, and the laboratory in the main building. The rack areas are covered with permanent canopies which keeps most of the rainfall from impacting them. Any water which does collect is piped to a 10,000 gallon underground collection tank for each rack area. This contact water is regularly removed and treated by a permitted contractor.
- Surface runoff from non-operational areas in A-Yard (parking lots, driveways, building roof drains) goes to one of five stormwater catch basins located around the perimeter of the yard. Each catch basin is equipped with a manual flap valve located beneath the surface grate to impede flow into the storm sewer. Additionally, in the event of an emergency or release in this non-operational area, the surface of the catch basins would be blocked using a HDPE cover mat, which are stored in the Spill Response Locker. The Spill Response Locker is located in the southeastern portion of the A-Yard. Any product released to non-operational areas will be removed and the area will be cleaned prior to allowing stormwater to be diverted into the basins. The catch basins drain to one main basin with a 12-inch stormwater isolation valve on the outflow side which is closed in case of a spill. This basin then flows into the city storm sewer system under 13th Avenue.
- Stormwater can also collect in a partially-buried tank in the D-Yard. Should an unusually large stormwater event occur, any significant accumulation of stormwater in the D-Yard would be visually inspected and pumped to the city storm drain per the SWPPP.
- The Facility does not have a wastewater treatment plant nor does it treat water prior to discharge off site. The stormwater enters the city rainwater system.
- Since the Facility does not have a wastewater treatment plant nor chemically treat its water prior to discharge off site:
  - Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
  - Adequate records are kept of such drainage events and records of drainage events are maintained at the Facility.

C.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Harbor Island Terminal	(b) (7)(F), (b) (3)		

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan and State of Washington Oil Spill Prevention Plan, which detail additional discharge detection measures

Detection by Personnel

- Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.
- Monthly inspection of tank gauges and cathodic protection readings.
- Annual Secondary Containment Inspection as part of the SPCC Plan.
- Tank Inspections as part of the SPCC Plan.
- The loading rack is equipped with warning and instruction signs.
- The entire plant is adequately illuminated to provide security and safe operations at night.

(b) (3), (b) (7)(F)

C.1 HAZARD IDENTIFICATION (Cont'd)

Security

(b) (7)(F), (b) (3)

[redacted]

C.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – B-YARD										
18	MFO (120' x 40.8')	(b) (7)(F), (b) (3)		CRT	1937	Leak/ Rupture	Instantaneous	None	Radial	(b) (7)(F), (b) (3)
19	JET A (78' x 40.8')			CRT	1940	Leak/ Rupture	Instantaneous	None	Radial	
20	MDO (78' x 40.8')			CRT	1937	Leak/ Rupture	Instantaneous	None	Radial	
21	MFO (120' x 40.7')			CRT	1940	Leak/ Rupture	Instantaneous	None	Radial	
22	JET A (60' x 40.9')			CRT	1940	Leak/ Rupture	Instantaneous	None	Radial	
23	OOS (36' x 41.1')			CRT	1937	Leak/ Rupture	Instantaneous	None	Radial	
24	Vapor (36' x 41.2')			CRT	1937	Leak/ Rupture	Instantaneous	None	Radial	
25	Diesel (120' x 40.7')			CRT	1937	Leak/ Rupture	Instantaneous	None	Radial	
26	OOS (60' x 40.9')			CRT	1937	Leak/ Rupture	Instantaneous	None	Radial	
27	OOS (48' x 41')			CRT	1948	Leak/ Rupture	Instantaneous	None	Radial	
28	Transmix (48' x 41)			CRT	1947	Leak/ Rupture	Instantaneous	None	Radial	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

CRT	=	Cone Roof Tank	EF	=	Earthen Floor
VFR	=	Vertical Fixed Roof	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	VT	=	Vacuum Trucks
MV	=	Manual Valves	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – B-YARD (Cont'd)										
29	Biodiesel (36' x 41.1)	(b) (7)(F), (b) (3)		CRT	1948	Leak/ Rupture	Instantaneous	None	Radial	(b) (7)(F), (b) (3)
31	Diesel (78' x 43)			IFR	1949	Leak/ Rupture	Instantaneous	None	Radial	
32	Ethanol (78' x 42.2)			IFR	1949	Leak/ Rupture	Instantaneous	None	Radial	
33	Ethanol (78' x 42)			IFR	1949	Leak/ Rupture	Instantaneous	None	Radial	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

CRT	=	Cone Roof Tank	EF	=	Earthen Floor
VFR	=	Vertical Fixed Roof	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	VT	=	Vacuum Trucks
MV	=	Manual Valves	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – C-YARD										
35	Gasoline (118.4' x 41.8)	(b) (7)(F), (b) (3)		IFR	1953	Leak/ Rupture	Instantaneous	None	Radial	(b) (7)(F), (b) (3)
37	Gasoline (118.5' x 41)			IFR	1954	Leak/ Rupture	Instantaneous	None	Radial	
39	Gasoline (118.5' x 41.3)			IFR	1954	Leak/ Rupture	Instantaneous	None	Radial	
42	Gasoline (102' x 40.5)			IFR	1955	Leak/ Rupture	Instantaneous	None	Radial	
43	MFO (118.4' x 41.8)			VFR	1953	Leak/ Rupture	Instantaneous	None	Radial	
44	MFO (102' x 41')			VFR	1951	Leak/ Rupture	Instantaneous	None	Radial	
62	OOS			VFR	Circa 1967	Leak/ Rupture	Instantaneous	None	Radial	
OPL	(Analyzer Samples) Process			H	Unknown	Leak/ Rupture	Instantaneous	None	Radial	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

CRT	=	Cone Roof Tank	EF	=	Earthen Floor
VFR	=	Vertical Fixed Roof	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	VT	=	Vacuum Trucks
MV	=	Manual Valves	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
53	Additive (10' x 16.3')	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/ Rupture	Instantaneous	None	Radial	(b) (7)(F), (b) (3)
54	OOS (10' x 20')			VFR	Unknown	Leak/ Rupture	Instantaneous	None	Radial	
55	Additive (10' x 20')			VFR	Unknown	Leak/ Rupture	Instantaneous	None	Radial	
56	Additive (9.9' x 34.8')			H	Unknown	Leak/ Rupture	Instantaneous	None	Radial	
57	Additive (10.5' x 20')			VFR	Unknown	Leak/ Rupture	Instantaneous	None	Radial	
58	Lubricity Additive			H	2006	Leak/ Rupture	Instantaneous	None	Radial	
63	Mixed Hydrocarbon Samples			VFR	Unknown	Leak/ Rupture	Instantaneous	None	Radial	
Prover Tank	Additive			Piping	1979	Leak/ Rupture	Instantaneous	None	Radial	
Red Dye	Red Dye			Square Stainless Steel	2001	Leak/ Rupture	Instantaneous	None	Radial	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

CRT	=	Cone Roof Tank	EF	=	Earthen Floor
VFR	=	Vertical Fixed Roof	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	VT	=	Vacuum Trucks
MV	=	Manual Valves	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION							
Rack I.D.	**Substance Transferred** *(Oil & Haz. Substance)*	**Truck Maximum Capacity** *(Gallons)*	**Potential Failure** *(Equipment Failure/ Rupture/Leak/Overfill)*	**Rate of Flow**	**Failure / Cause** *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	**Direction of Flow**	**Secondary Containment Capacity** *(Volume – Gallons)* *(Secondary containment, curbing , sorbents)*
TRUCK LOADING/UNLOADING RACK							
Light Oil Loading Rack	Biodiesel, Diesel, Ethanol, Gasoline	11,500	Leak/Rupture/Overfill	600 gpm	None	To low spot drain	Contoured area plus sump
Additive truck pump off area	Additive	5,000	Leak/Rupture/Overfill	245 gpm	None	To low spots	Contoured area plus sump
Vacuum truck loading area	Storm, maintenance use & lab waters	5,000	Leak/Rupture/Overfill	Instantaneous	None	To low spots	Contoured area plus sump

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
OTHER POTENTIAL SPILL SOURCES										
Drum Storage	Hazardous Waste	(b) (7)(F), (b) (3)		Drums	Various	Leak/Rupture	Instantaneous	None	Radial	(b) (7)(F), (b) (3)
Warehouse Drums	Solvents & Lubricants			Drums	Various	Leak/Rupture	Instantaneous	None	Radial	
Hot Oil Heater	M. Therm			Piping	1979	Leak/Rupture	Instantaneous	None	Radial	
Transformer	Oil			Equipment	1981	Leak/Rupture	Instantaneous	None	Radial	

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
(A2) UG1	Process	(b) (7)(F), (b) (3)		Fiberglass	1977	Leak/ Rupture	Instantaneous	None	N/A
(A3) UG2	Process			Fiberglass	1977	Leak/ Rupture	Instantaneous	None	N/A
(D2) UG3	Process			Fiberglass	1977	Leak/ Rupture	Instantaneous	None	N/A
(A1) UG4	Process			Fiberglass	1977	Leak/ Rupture	Instantaneous	None	N/A
	TOTAL								

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SI)
(*Surface Impoundment = natural topographic depression, man-made excavation, or diked storage area*)

SI Number	Substance Stored	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Surface Area	Year Built	Failure / Cause *(Record cause and date of any SI failure which has resulted in the loss of SI contents)*
		There are no Surface Impoundments				

C.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity "10-Year Program".
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per Company policy, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated (see Sample Log in Appendix B).
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested. The systems are tested monthly to ensure operability.

C.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are visually inspected daily during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

FIGURES C.5 AND C.6

Note: The following Kinder Morgan forms comprise the typical tank and secondary containment Inspection Checklists for this Facility. These forms may change over time to accommodate the specific operations of the Facility.

TANK INTEGRITY REPORT

LOCATION _____

QUARTERLY

FIRST	SECOND	THIRD	FORTH

BI-ANNUAL

FIRST	SECOND

REFERENCE NUMBER	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required
1. Shell Plates & Paint																				
2. Shell-Bottom Weld																				
3. Tank Foundation																				
4. Apron Around Tank																				
5. Grounding System																				
6. Auto Gauge Equipment																				
7. Shell Manways																				
8. Bottom Leak Detection																				
9. Stairway Handrails & Ladders																				
10. Lighting																				
11. Walkways & Platforms																				
12. Rain Gutter & Down Spout																				
13. Shell Rim Angle																				
14. Fixed Roof & Paint																				
15. Foam Hole Covers																				
16. Gauge & View Hatches																				
17. Vents																				
18. Liquid Level Control & Alarms																				
19. Wind Girders																				
20. Floating Roof & Pontoons																				
21. Roof Drain Mechanism																				
22. Roof Manways																				
23. Anti-Rotation Pole/Bar																				
24. Vapor Recovery Pipe																				
25. Foam Injection																				

LEGEND

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

_____

_____

REPORT PREPARED BY: _____ DATE: _____

TANK SEAL INSPECTION SUMMARY

LOCATION: ______________________

INSPECTION PERFORMED BY: ______________

DATE: ______________

REFERENCE NUMBER

1. Primary Seal
2. Secondary Seal
3. Anti-Rotation Pole/Bar Seal
4. Apron Seal
5. Floating Roof Deck
6. Floating Roof Drain Sump
7. Floating Roof Legs
8. Floating Pan Compartments
9. Vapor Recovery Pipe Seal
10. Center Column Seal
11. Gauge Pipe Float Seal
12. Emergency Drain
13. Pressure/Vacuum Vent
14. Sampling Funnel Cover
15. Sampling Hatch
16. Floating Roof Pontoons
17. Auto Gauge Float Well Cover

STATUS

N = NEW

R = REPEAT

Tank Number	Tank Type	Product	Status N or R	Reference Number	DESCRIPTION	Priority A or B	Cost Estimate	Responsibility

TANK SEAL INSPECTION REPORT

QUARTERLY | FIRST | SECOND | THIRD | FORTH |

SEMI-ANNUAL | FIRST | SECOND |

LOCATION _____

REFERENCE NUMBER																				
	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level	
	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required
1 Primary Seal																				
2 Secondary Seal																				
3 Anti-Rotation Pole/Bar Seal																				
4 Apron Seal																				
5 Floating Roof Deck																				
6 Floating Roof Drain Sump																				
7 Floating Roof Legs																				
8 Floating Pan Compartments																				
9 Vapor Recovery Pipe Seal																				
10 Center Column Seal																				
11 Gauge Pipe Float Seal																				
12 Emergency Drain																				
13 Pressure/Vacuum Vent																				
14 Sampling Funnel Cover																				
15 Sampling Hatch																				
16 Floating Roof Pontoons																				
17 Auto Gauge Float Well Cover																				

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

REPORT PREPARED BY: _____ DATE: _____

TANK FARM CONTAINMENT BERMS
INSPECTION REPORT

LOCATION : _____ DATE : _____

AREA OF LOCATION : _____

TYPE OF CONTAINMENT :

Dirt and Gravel	☐	Dirt With asphalt	☐
Dirt With Tar	☐	Dirt With Chip Rock	☐
Dirt With Tar and Chip Rock	☐	Dirt With Concrete	☐
Cinder Block	☐	Other	☐

COMMENTS : _____

CONDITION OF CONTAINMENT BERMS :

Excellent	☐	Good	☐	Fair	☐	Poor	☐
Wore Down / Ruts	☐			Erosion	☐	Gaps	☐
Animal Holes	☐			Cracks	☐	Other	☐
Cave-In / Under-Mined	☐						

COMMENTS : _____

RECOMMENDATIONS : _____

INSPECTED BY : _____

ADDITIVE TANK / SYSTEM INSPECTION REPORT

LOCATION : ______________________ DATE ______________

INSPECTOR : QUARTER

TANK NUMBER	SERVICE VACUUM BREAKER		CHECK TANK GAUGE		PUMP LEAK		PIPE/TUBE LEAKS		CONTAIN-MENT		COMMENTS
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	

TANK MAINTENANCE LOG

LOCATION: _____ INSPECTION PERFORMED BY: _____

DATE: _____

TANK NUMBER	TANK TYPE	DESCRIPTION
		.

TANK LEAK DETECTION REPORT

QUARTERLY	SEMI-ANNUALLY	ANNUALLY

LOCATION : **DATE :**

TANK NO.	TUBE NO.	P.P.M.	BATTERY CHECK	COMMENTS

READINGS TAKEN BY : ______________________________

INTERNAL FLOATER TANK

VAPOR REPORT

LOCATION : DATE :

TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING

INSPECTED BY : _____

C.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

The tank farm is protected with concrete block walls and earthen berms designed to withstand pressure from freestanding product. The floors of the tanks have impervious linings. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

- The Facility is located in Seattle, WA approximately 400 yards west of the Duwamish Waterway East.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

(b) (3), (b) (7)(F)

C.3 VULNERABILITY ANALYSIS (Cont'd)

Medical Facilities

No medical facilities were identified within the planning distance of the Facility.

Residential Areas

In general the area surrounding the Facility is commercial and industrial. In the event of an incident impact on residential areas would be minimal.

Businesses

The area surrounding the Facility is for the most part commercialized. There are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Kinder Morgan Energy Partners	0.00 miles *(approximate)*
Foreign Trade Zone No. 5	0.01 miles *(approximate)*
Shell Oil Products US	0.08 miles *(approximate)*
BP/Arco Fuels Distribution Terminal	0.08 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Northwest Area Contingency Plan for this area details these categories. Refer to Figure 4.1 of this Volume for details.

Review of the USF&W Wetlands Mapper and Terraserver_ data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
Harbor Island, Estuarine and Marine Wetlands	(b) (7)(F), (b) (3)
Puget Sound (shoreline), Estuarine & Marine Wetlands	
Puget Sound (shoreline), Estuarine & Marine Wetlands	

C.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments (Cont'd)

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Elliott Bay	0.5 miles N *(approximate)*
Duwamish River	1.0 SE miles *(approximate)*
Puget Sound	3.0 W miles *(approximate)*

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data__ determined that the following recreational areas are within the planning

Recreational Areas	Location
Hamilton Viewpoint Park	1.2 miles NW *(approximate)*
Klondike Gold Rush NHP	1.5 miles NE *(approximate)*
Alki Beach Park	2.0 miles W *(approximate)*
Bar S Playground	3.5 miles W *(approximate)*
Kinnear Park	4.0 miles NE *(approximate)*
Mee Kwa Mooks Park	4.5 miles SW *(approximate)*
Open Water Park	5.0 miles NE *(approximate)*

C.3 VULNERABILITY ANALYSIS (Cont'd)

Recreational Areas (Cont'd)

Recreational Areas	Location
Seacrest Park	1.0 miles NW *(approximate)*
Waterfront Park	2.0 miles NE *(approximate)*
Seattle Aquarium	2.2 miles NE *(approximate)*
Victor Steinbrueck Park	2.5 miles NE *(approximate)*
Regrade Park	2.6 miles NE *(approximate)*
Space Needle	3.0 miles NE *(approximate)*
Seattle Center	3.3 miles NE *(approximate)*
Richey Viewpoint	4.0 miles W *(approximate)*

Transportation Routes (air, land, and water)

Review of GIS Data__ determined that the following transportation routes are within the planning distance of the Facility:

Transportation Routes	Location
13th Avenue SW	Less than 1 mile *(approximate)*
SW Lander Street	Less than 1 mile *(approximate)*
16th Avenue SW	Less than 1 mile *(approximate)*
Klickitat Avenue SW	Less than 1 mile *(approximate)*
SW Hanford Street	Less than 1 mile *(approximate)*
11th Avenue SW	Less than 1 mile *(approximate)*
SW Florida Street	Less than 1 mile *(approximate)*
West Duwamish Waterway	Less than 1 mile *(approximate)*
East Duwamish Waterway	Less than 1 mile *(approximate)*
Elliott Bay	Less than 1 mile *(approximate)*
Berths 1 to 5	Less than 1 mile N, W, SW and NW *(approximate)*
Piers 3 to 91	Less than 5 miles N, W, SW and NW *(approximate)*

Utilities

No utilities were identified within the planning distance.

C.3 VULNERABILITY ANALYSIS (Cont'd)

Other Areas of Economic Importance

Review of GIS Data/OAEI determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Hiawatha Community Center	1.0 miles SW (approximate)
Duwamish Light	1.3 miles NE (approximate)
Rainier Club	1.4 miles NE (approximate)
Federal Office Building	1.5 miles NE (approximate)
Smith Tower	1.7 miles NE (approximate)
Seattle Tower	1.7 miles NE (approximate)
Olympic Hotel	2.0 miles NE (approximate)
Alki Point Lighthouse	3.5 miles West (approximate)
Schmitz Memorial Overlook	4.7 miles West (approximate)

C.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Any spilled material which might escape a diked area would be mitigated through the implementation of spill response activities by: Facility personnel, or if necessary, one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

C.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Vulnerability to a Natural Disaster

The Facility is located in a semi-active earthquake zone with occasional seismic activity.

The Company has historical data that defines the probability of seismic activity in the Seattle, Washington area. The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of tank farms away from slide prone areas, and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

The actions taken to lessen hazards at the Facility tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

C.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable. A list of known spills reportable under 40 CFR 110 during previous facility ownership is included below.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

REPORTABLE OIL DISCHARGE HISTORY (40 CFR 112.20 (h)(4))

Date of Discharge (Owner)	Location of Discharge	Cause of Discharge	Product Discharged	Amount Discharged	NRC Incident Report #
01/12/1996 (GATX)	Harbor Island Terminal – Spilled to Puget Sound.	Flowline dripping material.	Diesel	(b) (7)(F), (b) (3)	319842
05/28/1999 (Owner)	Harbor Island Terminal – Spilled to East Duwamish Waterway.	Leaking pipe connection between piping leading into the sump.	Bunker Fuel		485531

(b) (7)(F), (b) (3)

APPENDIX D

TRAINING AND DRILLS

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Assessment/Evaluation
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Measurement
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Public Relations

D.1 RESPONSE TEAM TRAINING

The Company requires that all response personnel, including Qualified Individual and Alternates, contractors and casual labor, have the appropriate training necessary to serve on a response team during an emergency. Team members will receive training in the following:

Integrated Contingency Plan Review

All Facility Response Team Members should review their Integrated Contingency Plan whenever their job position or responsibilities change under the Plan. A copy of this Plan will be available at all times to Team Members.

HAZWOPER (29 CFR 1910.120)

Federal and state regulations require that response team members maintain up-to-date HAZWOPER training necessary to function in their assigned positions. At a minimum, Team members will receive "First Responder Awareness Level" training. All personnel responding to an incident must satisfy the applicable HAZWOPER training requirements of 29 CFR 1910.120.

OSHA HAZWOPER TRAINING REQUIREMENTS		
Responder Classification	**Required Training Hours**	**Refresher**
29CFR 1910.120(q) Emergency Response		
First Responder - Awareness Level	2-4 hrs demonstration of competency	same
First Responder - Operations Level	8 hrs	8 hrs
Hazardous Materials Technician	24 hrs plus competency	8 hrs
Hazardous Materials Specialist	24 hrs plus competency in specialized areas	8 hrs
Incident Commander	24 hrs plus competency	8 hrs
29CFR 1910.120(e) Clean Up Sites		
General Site Workers	40 hrs / 3 days on the job training	8 hrs
Occasional Workers (Limited Tasks)	24 hrs / 1 day on the job training	8 hrs
General Site Workers (Low Hazard)	24 hrs / 1 day on the job training	8 hrs
Supervisors	8 hrs supervisor training	8 hrs
29CFR 1910.120(p)(7)(8) RCRA TSD Sites		
New Employees	24 hrs	8 hrs
Current Employees*	24 hrs	8 hrs

* Previous work experience and/or training certified as equivalent by employer.

Incident Command System

Response team members will receive ICS training and may also receive supplemental training in other related general topics.

D.1 RESPONSE TEAM TRAINING (Cont'd)

Training Records

Training records for local team members will be maintained at the Facility according to Federal, state, and local government requirements (three (3) years for the U.S. Coast Guard and five (5) years for the U.S. Environmental Protection Agency).

D.2 RESPONSE TEAM EXERCISES

The Company spill drill program is consistent with the National Preparedness for Response Exercise Program (NPREP) which is summarized below. The program is to be conducted by the Facility in cooperation with WDOE. The drill program includes internal and external drills conducted at the specific frequencies over a three (3) year cycle. Procedures for maintaining drill documentation and ensuring the availability of drill records for WDOE review are in place.

TRIENNIAL CYCLE		
Total Number	**Frequency**	**Exercise Type/Description**
12	Quarterly	QI Notification Exercise
6	Semi-Annual (Twice per Year)	Equipment Deployment Exercise *(Facility-owned equipment)*
3	Annual	Response Team Tabletop Exercise
3	Annual	Equipment Deployment Exercise *(facilities with OSRO-owned equipment)*
3	Annual	Unannounced Exercise *(not a separate exercise)* Actual response can be considered as an unannounced exercise.
NOTE: All response plan components must be exercised at least once in the Cycle.		

Quarterly QI Notification Exercise

- **Scope:** Exercise communication between facility personnel and the QI(s) and/or designated alternate(s). At least once each year, one of the notification exercises should be conducted during non-business hours.

- **Objective:** Contact must be made with a QI or designated alternate, as identified in the Plan.

- **General:** All personnel receiving notification shall respond to the notification and verify their receipt of the notification. Personnel who do not respond should be contacted to determine whether or not they received the notification.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

Semi-Annual Equipment Deployment Exercise (for facilities with equipment)

- **Scope:** Deploy and operate facility response equipment identified in the response plan. The equipment to be deployed must include the following, at a minimum:

  - 1,000 feet of representative type of boom;
  - one of each type of skimming system; or
  - the equipment necessary to respond to the facility's Small/Average Most Probable Discharge, whichever is less.

- **Objective:** Demonstrate personnel's ability to deploy and operate response equipment. Ensure that the response equipment is in proper working order.

- **General:** The Facility may take credit for actual equipment deployment to a spill, or for training sessions, as long as the activities are properly documented.

Annual Equipment Deployment Exercise (OSRO/PRC-owned equipment)

- **Review:** The Facility should verify that the OSRO/PRC has completed the equipment deployment exercise requirements and has maintained the necessary documentation. The OSRO/PRC may deploy equipment at any location, so long as it occurs within an operating environment similar to the Facility's.

- **Scope:** OSRO/PRC must deploy and operate response equipment identified in the response plan. The equipment to be deployed must include the following, at a minimum:

  - 1,000 feet of representative type of boom.
  - One of each type of skimming system.

- **Objective:** OSRO/PRC must demonstrate the ability of the personnel (OSRO/PRC) to deploy and operate response equipment (OSRO/PRC). Ensure that the response equipment (OSRO/PRC) is in proper working order.

Annual Response Team Tabletop Exercise

- **Scope:** Exercise the response team's organization, communication, and decision-making in managing a spill response. Each team identified within the plan must conduct an annual Response Team Tabletop Exercise.

- **Objective:** Exercise the response team in a review of the following:

  - Knowledge of the Plan.
  - Proper notifications.
  - Communications system.
  - Ability to access an OSRO/PRC.
  - Coordination of internal spill response personnel.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

- **Objective (Cont'd)**

  - Review of the transition from a local team to a regional team.
  - Ability to effectively coordinate response activity with the National Response System (NRS) Infrastructure.
  - Ability to access information in the NWACP.

- **General:** A minimum of one Response Team Tabletop Exercise in a triennial cycle will involve a Worst-Case Discharge scenario.

Government-Initiated Unannounced Exercise

- **Scope:** The Facility is required to participate in only one unannounced exercise every 36 months from the date of the last government-initiated unannounced exercise.

  - Exercises are limited to approximately four hours in duration.
  - Exercises would involve response to a Small/Average Most Probable Discharge scenario.
  - Exercise would involve equipment deployment to respond to a spill scenario.

- **Objective:** Conduct proper notifications to respond to unannounced scenario of a Small/Average Most Provable Discharge.

  - Demonstrate that the response is timely, conducted with an adequate amount of equipment for the scenario, and properly conducted.

- **General:** This exercise is only applicable to those facilities which are randomly chosen.

Area Exercises

- **Objective:** The purpose of the area exercise is to exercise the entire response community in a particular area. An area is defined as "that geographic area for which a separate and distinct Area Contingency Plan has been prepared, as described in OPA 90." The response community includes the federal, state, and local government and industry. The area exercises are designed to exercise the government and industry interface for spill response.

- **General:** The goal is to ensure that all areas of the country are exercised triennially. All of the area exercises will be developed by an exercise design team. The exercise design team is comprised of representatives from the federal, state, and local government and industry. A lead plan holder would lead each area exercise. The lead plan holder is the organization (government or industry) that holds the primary plan that is exercised in the area exercise. The lead plan holder would have the final word on designing the scope and scenario of the exercise.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

Exercise Documentation

- All exercises should be documented and maintained at the facility; documentation should specify:

  - The type of exercise;
  - Date and time of the exercise;
  - A description of the exercise;
  - The objectives met in the exercise;
  - The components of the response plan exercised; and
  - Lessons learned.

- Exercise documentation should be kept on file for the required length of time depending on the regulating agency (three (3) years for the U.S. Coast Guard and five (5) years for the U.S. Environmental Protection Agency).

D.3 PURPOSE OF REVIEW AND EVALUATION

This section provides procedures and information useful to responders for post incident/exercise review and evaluation. Post incident/exercise reviews should be conducted in a timely manner following an incident/exercise. In the event that a Unified Command was established, WDOE and other participating agency representatives should be debriefed, and their observations and recommendations should be incorporated. The Plan should be evaluated to determine its usefulness during the incident/exercise and appropriate revisions should be made. All incident/exercise documentation should be included in the Plan evaluation process.

Outline of Review

Given below are items a team composed of outside people knowledgeable in spill response and key members of the response teams should examine. These questions are intended as guidelines only; many other questions are likely to be appropriate at each stage of a critique.

- ***Detection***

  - Was the spill detected promptly?
  - How was it detected?
  - By whom?
  - Could it have been detected earlier? How?
  - Are any instruments or procedures available to consider which might aid in spill detection?

- ***Notification***

  - Were proper procedures followed in notifying government agencies? Were notifications prompt?
  - Was management notified promptly?
  - Was management response appropriate?
  - Was the Facility/company notified promptly? If so, why, how, and who? If not, why not?

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

- ***Assessment/Evaluation***
  - Was the magnitude of the problem assessed correctly at the start?
  - What means were used for this assessment?
  - Are any guides or aids needed to assist spill evaluation?
  - What sources of information were available on winds and on water currents?
  - Is our information adequate?
  - Was this information useful (and used) for spill trajectory forecasts? Were such forecasts realistic?
  - Do we have adequate information on product properties?
  - Do we need additional information on changes of product properties with time, i.e., as a result of weathering and other processes?
- ***Mobilization***
  - What steps were taken to mobilize spill countermeasures?
  - What resources were used?
  - Was mobilization prompt?
  - Could it have been speeded up or should it have been?
  - What about mobilization of manpower resources?
  - Was the local spill cooperative used appropriately?
  - How could this be improved?
  - Was it appropriate to mobilize the Facility/company resources and was this promptly initiated?
  - What other corporate resources are available and have they been identified and used adequately?
- ***Response - Strategy***
  - Is there an adequate spill response plan for the location?
  - Is it flexible enough to cope with unexpected spill events?
  - Does the plan include clear understanding of local environmental sensitivities?
  - What was the initial strategy for response to this spill?
  - Is this strategy defined in the spill plan?
  - How did the strategy evolve and change during this spill and how were these changes implemented?
  - What caused such changes?
  - Are there improvements needed? More training?

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

- ***Response - Resources Used***

  - What resources were mobilized?
  - How were they mobilized?
  - How did resource utilization change with time? Why?
  - Were resources used effectively?
    - Contractors
    - Government agencies
    - Company resources
    - Cooperatives
    - Volunteers
    - Consultants
    - Other (e.g., bird rescue centers)
  - What changes would have been useful?
  - Do we have adequate knowledge of resource availability?
  - Do we have adequate knowledge of waste disposal capabilities?

- ***Response - Effectiveness***

  - Was containment effective and prompt?
  - How could it have been improved?
  - Should the location or the local cooperative have additional resources for containment?
  - Was recovery effective and prompt?
  - How could it have been improved?
  - Should the location or the local cooperative have additional resources for recovery of spilled product?
  - Was contaminated equipment disposed of promptly and safely?
  - Was there adequate in-house product separation, recovery, and disposal?
  - How could it have been improved?
  - Was there adequate outside disposal resources available?

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

- ***Command Structure***
  - Who was initially in charge of spill response?
  - What sort of organization was initially set up?
  - How did this change with time? Why?
  - What changes would have been useful?
  - Was there adequate surveillance?
  - Should there be any changes?
  - Were communications adequate?
  - What improvements are needed? Hardware, procedures, etc.
  - Was support from financial services adequate? Prompt?
  - Should there be any changes?
  - Is more planning needed?
  - Should financial procedures be developed to handle such incidents?
- ***Measurement***
  - Was there adequate measurement or estimation of the volume of product spilled?
  - Was there adequate measurement or estimation of the volume of product recovered?
  - Was there adequate measurement or estimation of the volume of product disposed of?
  - Should better measurement procedures be developed for either phase of operations?
  - If so, what would be appropriate and acceptable?
- ***Government Relations***
  - What are the roles and effects of the various government agencies which were involved?
  - Was there a single focal point among the government agencies for contact?
  - Should there have been better focus of communications to the agencies?
  - Were government agencies adequately informed at all stages?
  - Were too many agencies involved?
  - Are any changes needed in procedures to manage government relations?

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

- ***Government Relations (Cont'd)***
  - Examples of affected agencies (there may be others):
    - U.S. Coast Guard
    - Environmental Protection Agency
    - National Oceanic Atmospheric Administration
    - Dept of Fish and Wildlife
    - Washington Department of Ecology
    - State Parks
    - Harbors and Marinas
    - Other State Agencies
    - Cities
    - Counties
  - Was there adequate agreement with the government agencies on disposal methods?
  - Was there adequate agreement with the government agencies on criteria for cleanup?
  - How was this agreement developed?
  - Were we too agreeable with the agencies in accepting their requests for specific action items (e.g., degree of cleanup)?
  - Should there be advance planning of criteria for cleanup, aimed at specific local environmentally sensitive areas? (Such criteria should probably also be designed for different types of product.)

- ***Public Relations***
  - How were relations with the media handled?
  - What problems were encountered?
  - Are improvements needed?
  - How could public outcry have been reduced? Was it serious?
  - Would it be useful to undertake a public information effort to "educate" reporters about product and effects to it if spilled?
  - These areas should be investigated shortly after the incident to assure that actions taken are fresh in peoples' minds.

APPENDIX E

EVACUATION PLAN

Page

E.1 Facility Evacuation E-2

Evacuation Diagram E-4

E.1 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which uses the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2720 13th Avenue SW
Seattle, WA 98134
c. Activate the Facility's employee emergency alarm system (siren).
d. Contact Olympic Pipeline to shut down inbound pipeline and cease all truck and marine loading/offloading. Do not start engines or move trucks. If emergency is at the marine dock, do not allow the vessel to move. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Burlington Northern if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the western exterior of the office building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility office building, or the north or south staging area.

4. Community Evacuation

The Company has confirmed with the Seattle Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to Harborview Medical Center

From the main terminal exit gate at the corner of SW Lander St. and 13th Avenue SW, proceed west on Lander to 16th Avenue SW, turn left on 16th Avenue SW. Travel approximately one quarter mile on 16th Avenue SW which becomes Klickitat Way SW, stay in to right lane and merge onto eastbound SW Spokane Street. Stay to the left to go up onto W Seattle Bridge towards I-5. Merge onto I-5 N via the ramp on the left, heading toward Vancouver, B.C. Travel approximately one mile on I-5 before taking the Dearborn Street/James Street exit, number 164A, toward Madison Street. Take the James Street exit and turn right onto James Street then right again onto 9th Avenue. The hospital is located at 325 9th Avenue.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located east of 13th Avenue SW. If the emergency is at the marine dock, access is via the Port of Seattle/SSA Terminal 18 – Gate 4 manned security checkpoint.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the aboveground storage tanks (ASTs) in the two main tank farms at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Appendix C.

8. Prevailing Winds

From October through May, winds are generally from the southwest at 10 to 20 mph. From June through September, winds are generally from the north at 0 to 9 mph.

9. Water Currents

Elliot Bay and the Duwamish River in the vicinity of the Facility are tidally influenced waters with net surface currents that flow generally toward the sea (north). Average currents in the area do not exceed much more than one knot. The mean tidal range for the Central Puget Sound area is 9.4 to 10.48 feet. The diurnal tidal range is 13.1 to 15.0 feet.

EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

APPENDIX F

DISPOSAL PLAN

Chapter 9620

Washington and Oregon State Disposal Guidance

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Washington State Disposal Guidance

9621 Washington State Disposal Guidance For Disposal of Waste from Spills of Oil and Other Potentially Hazardous Substances

Oil spill recovery and cleanup operations potentially can generate large quantities of recovered oil and oily wastes. Overlooked waste management issues or delayed actions can result in the cessation of recovery operations, delays in redeploying equipment, and potential violation of state and federal law.

The Oil and Hazardous Substance Spills Act of 1990 (HB2494), and the Spill Prevention Act of 1991 (ESHB 1027), commissions the Washington State Department of Ecology (Ecology) to develop effective oil spill response regulations and to support and complement the federal oil pollution act of 1990, especially those provisions relating to the national contingency plan. This document serves as part of the Washington Statewide Master Plan, which has been incorporated into the Northwest Area Contingency Plan.

9621.1 Purpose

This guidance provides a "Guideline" and a "Sample Disposal Plan" for developing incident specific disposal plans at oil spills, more specifically, the treatment and disposal of wastes generated from the cleanup of oil spills. This document's "Guideline" describes how waste must be handled, designated, segregated, tracked, stored, transported, treated, and finally disposed. The "Sample Disposal Plan", provided at the end of this section serves as a model format for incident specific disposal plans. The "Sample Disposal Plan" is designed to directly correspond with the "Guideline".

9621.2 Applicability

This document should be used when formulating a waste disposal plan during oil spills and oil spill drills. This document covers all oil and oily debris recovered and generated during oil spill cleanup operations. Oily debris includes but is not limited to: sorbents pads/booms, protective clothing/gear, soil, sand, rocks, logs, kelp, litter, plastics, mousse, oil/water mixture and animal carcasses.

It is the expectation of Ecology that incident specific disposal plans will be in accordance with the "Guideline" and will follow the "Sample Disposal Plan" format. As per the NWACP Section 4260, incident specific disposal plans should be developed by the Environmental Unit.

Historically, since most oily debris generated from oil spills has not designated as dangerous waste in Washington State, this document is focused primarily on solid waste disposal options. This does not preclude the use of this document in the event of hazardous material spills. If material is designated as extremely hazardous waste or dangerous waste the requirements for handling and treatment or disposal are more stringent, and it is essential to work with Ecology and local governments to ensure that the wastes are being managed appropriately.

9621.3 Regulatory Authority

Under the provisions of Chapter 90.56.340 RCW (Oil and Hazardous Substance Spill Prevention and Response Act) the **spiller** is responsible for immediately collecting and removing spilled oil and any contaminated debris and/or soil. It is important to recognize that, if the responsible party is unable or unwilling to fulfill this requirement, Ecology is authorized under the provisions of Chapter 90.56.350 RCW "to take such actions as are necessary to collect, investigate, perform surveillance over, remove, contain, treat, or disperse oil or hazardous substances discharged into waters of the state."

9622 Washington State Disposal Plan Guideline

9622.1 Section I Approved Waste Handlers

It is expected that the responsible party will be working closely with local approved waste handlers who are familiar with Washington State's rules and regulations as well as transport and disposal options in the state. The Washington State Department of Ecology Hazardous Waste Services Directory provides an online partial list of companies and the services that they provide (http://www.ecy.wa.gov/biblio/98412.html). This list is periodically updated. Updated lists can be obtained from any regional office. Only licensed transporters and approved (or permitted) treatment and disposal facilities are to be used for waste handling and disposition unless otherwise directed by Ecology.

9622.2 Section II Designation

The process of classifying wastes, as solid or dangerous waste is known as "designation". Laboratory tests or knowledge of the material must be used to determine if the material designates as dangerous waste. Consult with your spill contractor, chemical testing laboratory, and the Department of Ecology for advice on designating wastes as dangerous or solid. Designation procedures and waste management requirements are contained in Dangerous Waste Regulations (Chapter 173-303 WAC). The Dangerous Waste Regulations also apply to other wastes and are more stringent than Federal Hazardous Waste Regulations (40 CFR, Parts 261 to 279).

Petroleum products such as bunker, diesel, and kerosene generally do not designate as dangerous waste. Recovered oily liquids and other materials contaminated by oil that do not designate as dangerous waste may be recycled, burned, or blended for fuel, without following the requirements of hazardous waste. Recovered oily liquids may be managed as "off specification fuels" under the exemption in the dangerous waste rules, as long as it is used as fuel. Recovered oily liquids and other materials contaminated by oil that cannot be recycled, burned, or blended for fuel are considered solid waste and subject to designation. Testing is generally required to determine whether such mixtures designate as dangerous waste.

Oily waste may be designated as dangerous waste (dangerous waste or extremely hazardous waste) depending on characteristics such as: ignitability, corrosivity, reactivity, toxicity, and persistence.

Wastes may designate as "dangerous waste" because they are:

- listed (appear on lists for discarded chemical products or from specified industrial processes);
- ignitable (flash point <140 degrees F);
- corrosive (pH £ 2.0 or ³ 12.5) ;
- reactive (explosive, self-igniting, reactive with water);
- toxic (specific standards and test methods apply, i.e. Toxicity Characteristic Leaching Procedure (TCLP) and DW bioassay; and
- persistent (specific standards and test methods apply).

If a waste is classified as a dangerous waste the responsible party must ensure safe management procedures:

- the waste is placed in proper tanks or stored in closed compatible drums,
- has appropriate labels and markings,
- is transported by authorized haulers,
- is shipped using a Hazardous Waste Manifest,
- is delivered to an authorized recycler or permitted treatment, storage or disposal facility

If recovered oily liquids and other materials contaminated by oil do not designate as dangerous waste then they are classified as solid waste and subject to RCW 70.95.

9622.3 Section III Interim Storage, Segregation, and Tracking

A. Interim Storage Sites

Interim storage sites shall be specifically designated in the incident specific disposal plan. The location of interim storage sites is dependent on the approval of the On-Scene-Coordinator (OSC) and local health department. Interim storage sites shall be established with the goal of preventing additional contamination from being reintroduced to the environment or posing a public health threat. Interim storage sites, and roll-off boxes within these sites, should be lined with plastic tarps or visqueen, and bermed to prevent runoff or leakage of oily material. In addition oily debris should be covered with secured tarps or visqueen to prevent rainwater infiltration. Continued use of interim storage sites beyond 90 days is subject to approval by Ecology. Interim storage sites should be returned to the maximum extent feasible to the sites original condition. Interim storage sites are subject to periodic inspections.

B. Segregation

The segregation of wastes facilitates the determination of volume spilled and recovered. The purpose of segregation is to assist determining the volume spilled and recovered. It also helps simplify disposal procedures that may be required by incinerator or landfill operators. Material recovered must be segregated in the following manner unless otherwise directed by the State or Federal OSC:

- Oil collected from sources other than state waters/shorelines (e.g. on vessels or pier);
- Oil and oil/water mixtures recovered from state waters/shorelines;
- Oiled organic debris: wood, aquatic vegetation.. Oily debris should be placed in **clear plastic bags** for ease of identifying contents and segregation. To the extent possible efforts should be made to homogenize recovered organic debris, e.g., heavily oiled eel grass should be kept separate from dissimilar debris;
- Oiled sorbent material: oil snares, pads, and booms; and
- PPE and other typically non-sorbent materials.

C. Washington State Oil Recovery Credit for Natural Resource Damages

If the responsible party will seek credit for oil recovery under Washington State's Natural Resource Damage Assessment process, additional segregation is required

for product collected during the first 24 hours after the oil release. Detailed guidance on the credit and segregation/measurement methods can be obtained from the Washington Department of Ecology document "Compensation Schedule Credit for Oil Recovery, RDA Committee Resolution 96-1".

D. Tracking

Continually reporting and updating the Situation Unit with waste management data is a crucial aspect of response. Waste management data is used to assess the progress of the response and to determine potential response needs. Typically waste management data is summarized by the ICS Form 209, which includes total volumes recovered, stored, and disposed of. The Environmental Unit in conjunction with the Situation Unit must assure that this information is accurately reported. Clear lines of communication must be quickly established with Operations to assure that an adequate tracking system is in place. Waste disposal plans should describe the waste tracking system. The use of waste disposition tracking forms is highly recommended, e.g., (See Sample Disposal Plan, Section IIID and Appendix 1).

E. Decanting

Decanting is addressed in a separate section of the Northwest Area Contingency Plan (Section 4650). The decanting approval form should be attached to the Incident Specific Disposal Plan. The Environmental Unit should endeavor to assure that the intent of the decanting approval is followed.

9622.4 Section IV Decontamination

Decontamination areas for personnel and equipment, including oiled booms, need to be addressed in the disposal plan. In addition, areas may need to be set up for the decontamination of oiled vessels. Each area designated as a decontamination site should be addressed in the incident specific disposal plan. The location and set up of each decontamination area should be described in the incident specific disposal plan.

9622.5 Section V Animal Carcasses

The disposal of animal carcasses may need to be addressed in the disposal plan. The collection of animal carcasses is the responsibility of the Washington Department of Fish and Wildlife in conjunction with the U.S. Fish and Wildlife Service. Prior to the cleanup of any beach, an agent of the joint trustees should coordinate the removal of oiled carcasses. No oiled carcasses shall be disposed of until authorized by the appropriate natural resource trustee. With the approval of local Air and Health authorities, the Department of Ecology recommends incineration of oiled carcasses at a permitted facility.

9622.6 Section VI Waste Disposition and Final Disposal

It is important that the responsible party work closely with approved waste handler(s) in formulating an Incident Disposal Plan (sample plan in appendix). Local approved waste handlers should be knowledgeable in the appropriate rules and

regulations concerning proper waste management, transport, treatment, and disposal facilities. For clarification and assistance the regional office of Ecology and/or local government authorities should be consulted.

- **Hazardous Waste.** The following priorities for the collection, handling, and management of hazardous wastes are necessary, and should be followed in descending order as applicable (Chapter 70.105.150 RCW):
  Waste reduction;
  Waste recycling;
  Physical, chemical, and biological treatment;
  Incineration;
  Solidification/stabilization treatment. and
  Landfill.

- **Solid Waste.** The following priorities for the collection, handling, and management of solid wastes are necessary and should be followed in descending order as applicable (Chapter 70.95.010 RCW):
  Waste reduction:
  Recycling, with source separation of recyclable materials as the preferred method.
  Energy recovery, incineration, or land filling of separated wastes.
  Energy recovery, incineration, or land filling of mixed wastes.

- **Waste Reduction.** Waste reduction is attainable through prevention and minimization of waste generated during cleanup operations. Waste reduction is the responsibility of the responsible party, cleanup contractors and workers.

- **Recycling.** Recovered liquid oil that is exempt from the dangerous waste regulations should be recycled at a licensed refinery or recycling facility. Pads saturated with oil can be wrung out for recovery of liquid oil for recycling.

  Certain solid wastes recovered and generated during cleanup operations can be treated and used again as useful materials. An example is the use of oiled sand, rock and gravel in asphalt production. The waste may be handled at a treatment facility if it does not designate as a hazardous waste or extremely hazardous waste under Chapter 173-303-070.

  Additional options put forth by Hazardous Waste regulation 70.105, include:

  Bioremediation
  Thermal Desorption
  Asphalt Incorporation

- **Energy recovery, incineration, or land filling of separated wastes or mixed wastes.** Energy recovery facilities use the oily debris such as sorbent pads, booms, and oily rags, as a supplemental energy source in a rotary kiln.

Incineration refers to burning at an approved facility and open outdoor burning. These both require the approval of Ecology and the local air pollution control authority. Controlled burning can be conducted at an approved energy recovery facility or hog fuel burner.

- **Thermal desorption.** With this method heat does not destroy contaminants but separates them from the media. Sufficient heat is applied to vaporize water, organic compounds, and some volatile metals. Vapors can then be destroyed in an afterburner or collected as liquid for further treatment

- **Outdoor burning.** Open outdoor burning may be a viable option for disposal, if the waste is considered "dangerous material". Prohibited materials may only be burned in an outdoor fire when ordered by a fire protection authority and authorized by Ecology or the local air pollution control authority. However such approval may only be given when the material constitutes "dangerous material" (i.e. materials presenting a danger to life, property or public welfare) and no approved practical alternative method of disposal is available.

- **Land filling.** Upon attaining local health department approval, oily waste may be disposed of in accordance with landfill guidelines and regulations. Landfill disposition should be planned only for those wastes that other disposal options have been found to be unacceptable. Final approval and acceptance of waste material is at the discretion of the landfill operator.

9622.7 Final Report

In addition to daily updates of the disposal plan, at the conclusion of response activities and when all parties have signed off on the closure of the response, a final report shall be provided by the responsible party to Ecology within a timely manner. The final report should state in detail the amount of oily waste generated, disposed of and/or treated. The report should be broken down by how the oily waste material was segregated, e.g., oiled sorbents, free liquids recovered, contaminated soil and other material collected. Disposal receipts should be attached to the final report.

Sample Incident Disposal Plan

SAMPLE INCIDENT DISPOSAL PLAN
Model Disposal Plan for Oil Spills in Washington State

_____
(Incident Name)

Responsible Party: _____
Spilled Material: _____
Spill Volume (estimate): _____
Spill Location: _____
Spill Date/Time: _____
Report Update Time: _____

Disposal Plan Authorization

This plan is written at the request of the USCG and/or EPA and the Washington State Department of Ecology. The responsible party will recover the maximum feasible amount of oil spilled during the above named incident. In addition an unknown quantity of oily waste debris (including plastics, sands, etc.) will be recovered. When disposing of this material, the responsible party will abide by all applicable state, local and federal laws and regulations. Disposed material will be tracked to provide an accurate means of estimating total oil recovered. Each section of this incident specific disposal plan addresses and corresponds with the waste disposal "Guideline" found in Section 9620 of the NWACP.

This plan may be amended as necessary to ensure compliance with all applicable laws and regulations. Amendment may occur only upon mutual agreement of the responsible party, the Federal OSC (USCG/EPA), and/or the State OSC (WDOE).

Submitted By: _____ Date: _____

Approved by WDOE: _____ Date: _____

Reviewed by USCG/EPA: _____ Date: _____

Approved by Responsible Party: _____ Date: _____

Approved by other Local Government
Representative(s) (Optional): _____ Date: _____

SECTION I WASTE HANDLERS

The following licensed transporters and approved treatment and disposal facilities are to be used for waste handling and disposition unless otherwise directed by Ecology. All waste handlers have read and are working in accordance with this plan.

Name of Company	Disposal Functions	Company Representative Signature

SECTION II DESIGNATION

The spilled material was deemed (non-) dangerous waste based on the following:

SECTION III INTERIM STORAGE, SEGREGATION, and TRACKING

A. INTERIM STORAGE OF SOLID MATERIAL

Interim storage sites will be located at: _____

_____

_____

Provide a description each site, lined roll-off boxes, etc. Describe how each site was constructed, bermed, covered, etc. to minimize infiltration of rainwater and prevent leaching.
Describe measures that will be taken to return sites to their original condition

Ecology's authorization

B. SEGREGATION

Describe measures taken to ensure material recovered was properly segregated. Material recovered must be segregated in the following manner unless otherwise directed by the State or Federal OSC:

- *Oil collected from sources other than state waters/shorelines (e.g. on vessels or pier)*
- *Oil and oil/water mixtures recovered from state waters/shorelines*
- *Oiled organic debris: wood, aquatic vegetation... Oily debris should be placed in **clear plastic bags** for ease of identifying contents and segregation. To the extent possible efforts should be made to homogenize recovered organic debris e.g., heavily oiled eel grass should be kept separate from dissimilar debris*
- *Oiled sorbent material: oil snares, pads, and booms*

- *PPE and other typically non-sorbent materials*

C. WASHINGTON STATE OIL RECOVERY CREDIT FOR NATURAL RESOURCE DAMAGES

Detail measures taken to ensure segregation as per oil spill recovery credit. See Washington Department of Ecology document "Compensation Schedule Credit for Oil Recovery, RDA Committee Resolution 96-1".

D. TRACKING

Describe the waste tracking system used during this response. Include copies of waste tracking forms, (See Appendix 1 for example).

E. DECANTING

Decanting authorization form (if approved) should be attached.

SECTION IV DECONTAMINATION

Describe the areas designated for decontamination including location, set up, and pollution prevention measures.

SECTION V ANIMAL CARCASSES

If applicable describe the number of animal carcasses disposed of and methods used for their disposal.

SECTION VI WASTE DISPOSITION and FINAL DISPOSAL

ICS Form 209 Final Waste Status Summary

Type	Recovered	Stored	Disposed of
Oil (bbl)			
Oily Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

Include copies of waste tracking forms for final disposal if used, (See Appendix A for example). Also, include copies of receipts from disposal facilities.

A. RECOVERABLE OIL

Oil recovered will be transported by _____ to _____.

Company names and Contacts

_____

_____

_____

B. BURNABLE MATERIAL

Burnable material includes oily wood, debris, PPE, sorbents, oil snares and other suitable organic material collected during cleanup operations. The debris will be transported from the interim storage site by _____ to _____.

Transporter(s)	Facility
_____	_____
_____	_____
_____	_____

C. OTHER MATERIAL:

This material may consist of sand and tar balls and other assorted material that has been collected from the cleanup effort and has been stored at interim storage sites. All of this material will be transported to a licensed facility

Transporter(s)	Facility
_____	_____
_____	_____
_____	_____

9623 Oregon State Disposal Guidance

The general policy of the Department of Environmental Quality is that, whenever possible, recovered oil and oily debris be recycled and reused, thereby reducing the amount of oily debris to be burned on-site or disposed of at a solid waste landfill. Spilled oils and oil contaminated materials resulting from control, treatment, and clean up shall be handled and disposed of in a manner approved by the Department. General guidelines for the handling, storage, and recycling/reuse or disposal of wastes are discussed below.

9623.1 Classification and Segregation

The state of Oregon will utilize its access to federal samples taken by the Coast Guard. As necessary, the state will also utilize sampling capabilities of the DEQ laboratory. All oily waste and debris is classified as a specified waste in the state of Oregon.

The segregation of oily waste and debris is a key part of the disposal process. Oil recovered from an aquatic area will typically contain large amounts of water and debris. Excess water needs to be removed; it increases the amount of material to be transported and can cause problems for disposal facilities. It is most productive to segregate the waste on site to facilitate transportation and disposal. An oil/water separator or a vacuum truck should be available on site to complete this process. Oiled debris needs to be separated out as well. Oil and oily debris should be segregated into the following categories:

- Reuse/Recycle;
- Incinerate;

- Burn on site; and
- Landfill.

9623.2 Reuse/Recycle

Whenever possible, recovered oil and oily debris should be recycled and reused, thereby reducing the amount of oily debris to be burned on site or disposed of at a solid waste landfill.

9623.3 Incineration

Facilities are available which are capable of burning combustible, oiled debris, subject to any emission limits or restriction of the Air Containment Discharge Permit and Solid Waste Disposal Permit, if applicable.

A 60-day letter permit can be obtained immediately from the Air Quality Division of the Department of Environmental Quality in Portland by the facility to change fuel. In order to obtain this permit, a written request must be submitted including a statement of anticipated emissions based on the petroleum product contaminating the debris to be burned. Consecutive permits may be issued, but an evaluation will be conducted by DEQ prior to combustion.

For a list of facilities capable of incinerating oily debris, consult the appropriate Geographic Response Plan.

9623.4 On-Site Burning

Although no specific sites have been identified, the DEQ may authorize a 60-day letter permit for controlled open burning of combustible, oiled debris on the Oregon Coast and portions of the Columbia River in accordance with Oregon Administrative Rules, Division 23. The 60-day letter permit may be obtained from the Air Quality Division of the DEQ in Portland. A written request is required to obtain the permit, and must include the anticipated emissions based on the petroleum product contaminating the debris to be burned. Controlled open burning is defined as follows from most to least preferable:

- Forced air pit incineration;
- Tall stack burning with auxiliary air supply;
- Pile burning with auxiliary air supply; and
- Pile burning.

The DEQ would generally intend to require forced air pit incineration for burning proposed in or near any population center or sensitive area. Combustion efficiency enhancement through utilization of an air curtain or fan devices is generally recommended. There are several areas in Oregon currently regulated by local authorities. They are listed in Division 23 rules for open burning.

9623.5 Landfills

There are several landfills which may receive oiled debris, subject to the rules for disposal of spill cleanup materials, any restriction of the Solid Waste Permits, any

franchise restrictions, and the concurrence of the owner/operator. See Oregon Administrative Rules Chapter 340, Division 61 on solid waste management.

9623.6 Interim Storage

Interim storage site selection will be made on a case-by-case basis. Oregon Administrative Rules Chapter 340, Division 61 on solid waste management addresses the definition of and guidelines for a "disposal site" which includes temporary storage sites.

A letter of authorization for six months can be obtained from the DEQ by written application. The application must contain specific criteria regarding the site; these criteria can be found in Oregon Administrative Rules Chapter 340, Division 61, page 5.

Recovered oil should be stored in sealable containers such as 55-gallon drums, portable pillow tanks, empty fuel storage tanks, tank trucks, barges, or any other available container that can be sealed to prevent spillage. If necessary, a pit can be dug to hold the waste and lined with plastic or polymeric sheeting to prevent leaching.

Oily debris should be placed in leak-proof containers, such as plastic bags or debris boxes, provided they are lined with plastic. Debris should be stored on impermeable sheeting to prevent penetration into the soil should a breach of the container occur.

Temporary storage sites should be located with good access to the cleanup operations and nearby streets and highways. Good sites are flat areas such as parking lots or undeveloped lots, with a minimum of slope to reduce potential contamination from leaching oil. Sites should be at least three meters above mean sea level. A 1- to 1-1/2 meter high earth berm should be constructed around the perimeter of the site and the site lined with an impermeable liner to the top of the berm.

After oiled debris is in storage, a monitoring program should be set up to ensure that oil is not escaping outside the berm. Free oil accumulation within the bermed area should be monitored as well. For specific guidance on hazardous waste determination see 'How to Determine if Your Waste is Hazardous' at http://www.deq.state.or.us/lq/pubs/factsheets/hw/HazardousWasteDetermination.pdf

9623.7 Transportation

Transportation of oiled debris to its disposal destination is the contractor's responsibility. Certified haulers should be used. Trucks should be lined with plastic or otherwise made leak-proof in order to prevent leakage during transport.

Appendix A
Waste Management Tracking Forms

DISPOSAL.XLS

Waste Management Tracking For Incident X

Update Time:

Recovery Tracking

Recovery Location(s)	Time Recovered From:	To:	Volume (Gallons*)	Type of Waste	Projected Interim Storage Demand**
totals>					

* Cubic Yards for Solids

**Means to address demand per location per time

Interim Storage Tracking

Interim Storage Tracking					
	Interim Storage Location(s)	**Received From:** Location(s)	**Time:** Received	**Volume** (Gallons*)	**Type of Waste**
Totals>					

* Cubic Yards for Solids

**Means to address demand per location per time

Final Disposal

Final Disposal Tracking					
	Disposal Facility Location(s)	**Received From:** Location(s)	**Time:** Received	**Volume** (Gallons*)	**Type of Waste**
Totals>					

* Cubic Yards for Solids

**Means to address demand per location per time

APPENDIX G

MISCELLANEOUS FORMS

Page

Quarterly Notification Drill Form G-2

WDOE Drill Evaluation Checklist G-3

Field Notification Form G-4

Forms and Exercise Documentation File Maintenance Procedures

- Forms and exercise documentation records should be maintained in a separate file in the Facility's office filing system.
- These files must be available for presentation upon request by regulatory agency personnel.

This form provided for reference only. For Notification Drills use the Notification Drill Form available in the Forms and Documents Tab of the ePlan at:
http://kmonline.kindermorgan.com/operations/products/pacific_icp/KMEPICP.html

KINDER-MORGAN ENERGY PARTNERS, L.P.

NOTIFICATION DRILL

Purpose:
Periodic notification drills are required by federal and state regulations for designated members of the emergency response team to demonstrate the effectiveness of notification procedures in the ICP.

Notification Details

Location: _____

Date & Time Drill Started: _____

Person Initiating Notification

Name & Title: _____

Phone: _____

Notified Individual:	Time Contact Is Made:	Method of Contact: (Phone, pager, cell phone, fax, etc.)
Name & Title:		
Name & Title:		
Name & Title:		
Name & Title:		
Name & Title:		

Notes: _____

Distribution: Original: Originating Location
Copy: Manager – Emergency Response Programs (via email)

When complete retain this form for five (5) years.

February 2009

WDOE DRILL EVALUATION CHECKLIST

Ecology Spill Drill Evaluation Checklist

Put Plan Holder Name Here
Spill Management Team
Choose, one if not both, Deployment Drill and Tabletop Drill, Worst Case Tabletop

Exercise Overview

Location:
Type of drill:
Date:
Time started:
Time completed:
Estimated size of spill to water:

Scenario:

Note: The purpose of the drill is to test the Ecology approved contingency plan. Over the three year drill cycle, plan holders design drills that demonstrate the ability to meet the planning standards within the scope of the plan, including recovery systems and system compatibility.

Evaluation:

☐ 1. Notifications

Note: The notifications checkbox is checked only after components below are obtained.

☐ **1.1 Internal spill response team was notified following plan procedures.**
☐ Observed **OR** ☐ Verified documentation.

☐ **1.2 Entire spill response organization, including Primary Response Contractor, was notified in a timely manner, following plan procedures.**
☐ Observed **OR** ☐ Verified documentation.

☐ **1.3 Notifications to government agencies were made in a timely manner following plan procedures** (goal is within 1 hour).
☐ Observed **OR** ☐ Verified documentation **and** ☐ Verified with DEM.

☐ 2. Staff Mobilization

Note: The staff mobilization checkbox is checked only after components below are obtained.

☐ **2.1 The number of local/internal response team personnel identified in the contingency plan were mobilized and on-site appropriate to the scope of the drill.**

☐ **2.2 Regional/National ("away") response team members as identified in the contingency plan were mobilized in state within last five years for facilities and within the last three years for vessels.**
☐ Percent of away team transitioned into ICS as appropriate to scope of drill.
OR
☐ Cumulative item: the positions filled in this drill are listed below (this item only checked after all away positions per plan are filled throughout the triennial cycle)
OR
☐ Not applicable.

☐ 3. Initial Response Actions

Note: Initial Response Actions checkbox is checked only after components below are obtained.

☐ **3.1 Field Document including the initial response checklist in the contingency plan was used.**

☐ **3.2 Initial Site Safety addressed following plan procedures.**
☐ Briefing observed. ☐ Documentation developed (hazard worksheet).
☐ Air monitoring documented.

☐ **3.3 Performed initial assessment of spill status.**
- ☐ Spill volume calculated (for example, using mass balance).
- ☐ Environmental conditions assessed (weather, tides).
- ☐ Analyzed where product was going (using trajectory, river speed).
- ☐ Deployed or discussed use of limited visibility tracking devices as identified in the plan.
- ☐ Product type identified, or provided in scenario and MSDS acquired.

☐ **3.4 Population Protection: Demonstrated the ability to quickly identify health hazards associated with the discharged product and the population at risk.**
- ☐ Acquired knowledge of risks.
- ☐ Notified the public of possible health hazards.

OR
- ☐ Not applicable.

☐ **3.5 Water Intake Protection: Demonstrated the ability to quickly identify water intakes and followed the proper protection procedures from the contingency plan or developed a plan for use.**
- ☐ Identified intakes in vicinity of spill/trajectory and started notifications.

OR
- ☐ Not applicable.

☐ **3.6 Documented early actions on ICS 201 form.**
- Initial Incident Map is appropriately labeled (for example, scale, time, author, north arrow, date).
- Objectives developed.
- Current Actions documented including input from key team members.
- Initial Organization.
- Initial Resources ordered documented on ICS 201 form.

☐ **3.7 Demonstrated smooth transition of the key personnel from initial response team to the spill management team through completion of an Initial Incident Briefing (ICS 201).**
- ICS 201 or equivalent hand out available for Unified Command.
- Briefing followed ICS 201 format.
- Objectives identified during briefing.
- Observed transition from IIC to RPIC and Unified Command, key members present and identified/introduced.

☐ 4. Response Management

Note: Response Management checkbox is checked only after all of the Response Management components (A – J) have been obtained (cumulative).

☐ **4.A Overall Staffing and Coordination: Demonstrated the ability to field the team as described in the plan and ensure coordination between sections.**

Note: The overall staffing and coordination box (A) is checked only after all of the components below are obtained.

☐ **4.A1 Expanded response management team task assignments were consistent with the contingency plan and the Northwest Area Contingency Plan.**
- ☐ Away team was present. **OR** ☐ Not applicable.
- ☐ Away team members fill roles as indicated in Contingency Plan.

The following were designated/established (typically this credit is achieved during a worst case drill).

☐ Responsible Party Incident Commander	☐ Safety Officer	☐ Information Officer
☐ Liaison Officer	☐ Operations Section	☐ Planning Section
☐ Resource Unit	☐ Situation Unit	☐ Environmental Unit
☐ Documentation Unit	☐ Logistics Section	☐ Finance Section

☐ **4.A2 Coordination took place between the following ICS sections.**

Note: when credit is not given, examples will be provided in the checklist.

☐ Planning and Operations
☐ Planning and Logistics
☐ Operations and Logistics
☐ Operations and Safety
☐ Unified Command and Command and General Staff

☐ **4.B <u>Unified Command and Command Staff</u>:**

Note: The Unified Command and Command Staff checkbox (B) is checked only after all of the Unified Command components are obtained.

☐ **4.B1 Members of the Unified Command were identified and an Initial Incident Briefing was conducted (for example, using an ICS 201 format).**

☐ Responsible Party Incident Commander designated. ☐ Federal On Scene Coordinator present (or invited).
☐ State On Scene Coordinator present (or invited).
☐ Local On Scene Coordinator present/consulted (or invited).
☐ Tribal On Scene Coordinator present/consulted (or invited) or ☐ Not applicable.

☐ **4.B2 Unified Command discussed the following issues.**

☐ Staffing needs were discussed/clarified including the need for night operations or second shift staffing.
☐ Qualifications of staff were discussed for key positions—Command and General Staff.
☐ Meeting Schedule was discussed and approved, and included press conferences and other special purpose meetings.
☐ Role of deputies and others working within unified command discussed, if applicable.

☐ **4.B3 Operational Period discussed and established.**

☐ **4.B4 Unified Command developed and prioritized overall incident objectives and assessed if current and planned actions were consistent with those objectives.**

☐ Updated ICS 201 Objectives or completed ICS 202 for the current operational period.
☐ Completed ICS 202 for the next operational period (if applicable).

☐ **4.B5 Unified Command prepared for and participated in Press Conference.**

☐ Unified command attended pre-press conference meeting with Information Officer.

☐ **4.B6 Dedicated historian/scribe assigned for Unified Command.**

☐ **4.B7 Unified Command approved or authorized news releases and updates to the news media through the Information Officer.**

☐ Unified Command verified accuracy of press releases.
☐ Unified Command signatures were on press releases.

☐ **4.C <u>Information Officer/Joint Information Center (JIC)</u>:**
Note: The Information Officer/JIC checkbox (C) is checked only after all of Information Officer/JIC components are obtained.

☐ **4.C1 Information Officer designated.**
- ☐ Information Officer was a government representative **<u>OR</u>**
- ☐ Government representative invited but not present **<u>OR</u>**
- ☐ Other individual designated by Unified Command.

☐ **4.C2 The JIC was established.**
- JIC manager used Northwest Area Contingency plan JIC manual.

☐ **4.C3 News releases.**
- ☐ News releases were published as requested by Unified Command.
- ☐ New releases were accurate.
- ☐ JIC prepared at least one news release.

☐ **4.C4 Preparation for press conference.**
- Speakers identified.
- Questions from the media predicted and draft answers provided to speakers.
- Outline for the press conference discussed.
- Displays/Maps developed for press conference match command post maps and information.

☐ **4.C5 Ensured appropriate representatives and technical specialists were present and utilized at all news briefings.**
- Unified Command.
- Scientific Support Coordinator.
- Environmental Unit Leader.
- Wildlife expert.

☐ **4.C6 Information Officer attended meetings as appropriate.**

☐ **4.D <u>Liaison</u> :**
Note: The Liaison checkbox (D) is checked only after all of the Liaison components are obtained.

☐ **4.D1 Liaison Officer designated.**
- ☐ Liaison Officer was a government representative **<u>OR</u>**
- ☐ Government representative invited but not present **<u>OR</u>**
- ☐ Other individual designated by Unified Command.

☐ **4.D2 Liaison Officer, through coordination with the PIO, established contact and tracked input from stakeholders as appropriate.**

☐ **4.D3 Liaison Officer planned for or conducted Local Official Briefing.**

☐ **4.D4 Liaison Officer provided information regarding the spill cleanup effort to citizens.**
☐ Public outreach focused press release **OR** ☐ Public meeting / open house held.

☐ **4.D5 Liaison Officer attended meetings as appropriate.**

☐ **4.E Safety:**
Note: The Safety Officer checkbox (E) is checked only after all of the Safety components are obtained.

☐ **4.E1 Safety Officer designated.**

☐ **4.E2 Ensured safety plan was developed in a timely manner in accordance with the contingency plan (covers all operations of the response including command post and night operations).**

☐ **4.E3 Safety plan approved by the Unified Command and communicated to appropriate field staff.**
☐ Unified Command signature on Safety Plan
☐ Developed in writing, or described during a meeting the plan to ensure proper communication to field staff beyond timeframe of drill

☐ **4.E4 Safety Officer attended meetings as appropriate.**

General Staff

☐ **4.F Operations Section:**
Note: The Operations Section checkbox (F) is checked only after all of the Operations components are obtained.

☐ **4.F1 Operations Section was established following the contingency plan.**
☐ Operations Section staffed appropriately for scope of drill
☐ Operations Section Chief trained in ICS, Northwest Area Contingency Plan and GRP's

☐ **4.F2 Tactical assignments were made appropriate to the overall incident objectives developed by the Unified Command.**
☐ Operations Section Chief worked with the Planning Section Chief prior to the tactics meeting to develop draft ICS Form 215s for the next operational period.
- Contain/recover spilled material.
- Maximize protection of sensitive areas.
- Maximize removal of oil from impacted areas.
- Maximize primary and secondary storage for recovered product.
- Source control.
- Salvage.
- Wildlife recovery and rehabilitation.

☐ Tactics on the ICS 215s covered all operational incident objectives.

☐ **4.F3 Operations Section staff developed a plan to provide aircraft support.**

☐ Plan included aircraft for all aspects of the response.
☐ Ordered support resources including aircraft maintenance, fueling, and staging.
☐ Completed an ICS Form 220.
☐ Documentation was submitted or a general message was circulated that detailed the above information.

☐ **4.F4 Operations Section staff coordinated with the Planning Section on the following, if appropriate for plan holder and scope of the drill.**

- Develop division boundaries.
- GRPs and GRP revisions.
- Shoreline Cleanup Assessment Teams and shoreline cleanup teams.
- Disposal plans and logistics.
- Alternate technology.

☐ **4.F5 Operations Section staff coordinated with Planning and Logistics to develop resource orders, tracking, and documentation.**

☐ Equipment status change forms submitted.
☐ Check-in forms submitted.
☐ Identified needs for shoreline cleanup workers (if applicable).
☐ Identified needs for non-dedicated workboats (if applicable).

☐ **4.F6 Operations Section staff coordinated with the Planning Section to ensure situation status displays were accurate.**

☐ **4.F7 Operations Section staff coordinated with the Planning Section to ensure disposal plan is developed and accurate.**

☐ Provided input to Environmental Unit Leader.
☐ Coordinated on interim disposal locations.

☐ **4.F8 Operations Section Chief attended meetings as appropriate.**

☐ **4.F9 Coordinated with local, state and federal operations representatives as appropriate to the scope of the drill.**

- Local fire department/police department participated in Operations.
- Federal (FBI, NOAA, EPA, US F&W) representative participated in Operations.
- State (F&W, PARKS and ARCHEOLOGY, DNR) representative participated in Operations.

☐ **4.G <u>Planning Section</u>:**

Note: The Planning Section checkbox (G) is checked only after all of the Planning components are obtained.

☐ **4.G1 Planning Section was established following the contingency plan.**

☐ Planning Section staffed appropriately for scope of drill
☐ Planning Section Chief trained in ICS, Northwest Area Contingency Plan, and GRP's

☐ **4.G2 Planning Section staff utilized the appropriate tools.**

- Contingency plan.
- Northwest Area Contingency Plan.
- Geographic Response Plans, most current version.
- ESI Maps.

☐ **4.G3 Planning Section Chief established an appropriate meeting schedule.**

☐ Draft meeting schedule provided to Unified Command.
☐ Meeting schedule allowed time for staff to prepare and develop deliverables.
☐ Meeting schedule included all meetings appropriate to the scope of drill.

☐ **4.G4 Planning Section Chief facilitated and ensured appropriate attendance and participation at all scheduled meetings.**

☐ **4.G5 Prepared meeting room displays as needed or hand outs available including:**

☐ Agenda for the meeting.
☐ The following displays are developed, if applicable:

- Weather, tides, and currents for current and next operational period.
- Trajectory, situation, and planning maps for current and next operational period.
- Current overflight map.
- ICS 202 form.

☐ **4.G6 Prepared and maintained situation displays (this is typically achieved at a worst case drill)**

☐ Out of date or obsolete information is removed in a timely manner
☐ Set-up is well organized and the information is updated on a schedule

Situation displays included the following, as appropriate:

- Weather, tides
- Resources at risk
- Trajectory, situation and planning maps
- Response objectives
- Master resource list
- Organization chart
- Incident status summary (ICS Form 209)
- Overflight map
- Meeting schedule

☐ **4.G7 Developed, maintained, and posted a master list of all resources involved the incident including check-in, status, current location, assignment**.

☐ **4.G8 Documented the spill response effort.**

☐ Documentation flow and process established and communicated to Sections.
☐ Reviewed all documentation for signature, correct operational period, and incident name.

☐ **4.H <u>Environmental Unit:</u>**

Note: According to the Northwest Area Contingency Plan, the plan holder is not expected to lead the Planning Section's Environmental Unit. However, the plan holder is expected to assist with the core Environmental Unit tasks.

☐ **4.H1 Unit Leader designated.**

☐ Environmental Unit Leader was a government natural resource trustee agency representative **<u>OR</u>**
☐ Government representative invited but not present **<u>OR</u>**
☐ Other individual designated by Unified Command.

☐ **4.H2 Plan holder assisted state/federal agency staff with the following core Environmental Unit activities, as appropriate to the drill design.**

- Identify sensitive areas and recommended response priorities.
- Determined the extent, fate, and effects of contamination.
- Acquired, distributed, and provided analysis of weather forecasts.
- Monitored the environmental consequences of cleanup actions.
- Developed shoreline cleanup and assessment plans.
- Identified the need for, and prepare, any special advisories or orders.
- Identified the need for, and obtain, permits, consultations, and other authorizations.
- Identified and develop plans for protection of affected historical/cultural resources.
- Evaluated the opportunities to use various Response Technologies.
- Developed disposal plans with operations.
- Developed plan for collecting, transporting, and analyzing samples.

☐ **4.I <u>Logistics Section</u>:**

Note: The Logistics Section checkbox (I) is checked only after all of the Logistics components are obtained.

☐ **4.I1 Logistics Section was established following the contingency plan.**

☐ Logistics Section staffed appropriately for scope of drill.
☐ Logistics Section Chief trained in ICS, Northwest Area Contingency Plan and GRP's.

☐ **4.I2 Resource ordering process established.**

☐ Informed the Command and General staff on the process.
☐ Established signature authority.

☐ **4.I3 Developed, maintained, and posted an incident Radio Communications Plan (ICS Form 205) and communications list (ICS Form 205a).**

☐ **4.I4 Developed a Medical Plan that encompasses all areas of the response.**

☐ **4.I5 Developed or described a plan, and ordered all resources necessary, to ensure sufficient feeding, potable water, sanitary arrangements, and berthing was available to meet incident needs.**

☐ **4.I6 Provided personnel for all elements of the response, as applicable.**
- ☐ Command post staffing, day and night shift.
- ☐ Field staffing, day and night shift.

☐ **4.I7 Established a command post that accommodated the needs of the response organization.**
- ☐ Command post/facility was appropriate for the scope of the drill **OR**
- ☐ Plan was in place to move command post to more appropriate location as drill/spill ramps up.

☐ **4.I8 Identified and planned for staging areas and other areas as needed.**
- All staging areas were listed on the ICS Form 215.
- Ensured situation unit and operations identified the same staging areas.

☐ **4.I9 Developed a plan to provide ground support/traffic plan including; vehicle maintenance, fueling, and parking.**

☐ **4.I10 Developed a plan to provide support for all response vessels including; vessel maintenance, fueling, and berthing.**

☐ **4.I11 Logistics Section Chief attended meetings as appropriate.**

☐ **4.J <u>Finance Section</u>:**

Note: The overall Finance Section checkbox (J) is checked only after all of the Finance components are obtained.

☐ **4.J1 Finance section established following contingency plan.**

☐ **4.J2 Finance is able to provide a cost estimate (burn rate) if requested.**

☐ **4.J3 Compensation and claims numbers established, and information distributed.**

☐ 5. Response Operations

Note: The check items for Response Operations are for deployment drills only. The checkbox for Response Operations is checked only after all of the components of Response Operations are obtained. Where applicable, include WRRL ID, staging area, home base and owner.

☐ **5.A Initial Response Operations:**

☐ **5.A1 Initial Site Safety equipment deployed and Safety Officer established.**
- ☐ Briefing observed
- ☐ Documentation developed (hazard worksheet)
- ☐ Air monitoring documented
- ☐ Site safety assessed before deployment (list resources used, including home base or staging area)
- ☐ Assessed environmental conditions and determined that equipment is appropriate before deployment
- ☐ Deployed or discussed use of limited visibility tracking devices

☐ **5.A2 The local/internal response team members identified in the contingency plan were mobilized and on-site appropriate to the scope of the drill.**

☐ **5.A3 The number of personnel appropriate for the environmental conditions and the scope of the drill were mobilized (include the number and affiliation of the personnel).**

☐ **5.A4 Walk through of emergency shutdown procedures for each type of transfer identified in the contingency plan, by the appropriate trained personnel (at least once a triennial drill cycle).**
- ☐ Pipeline to/from facility
- ☐ Pipeline to/from vessel
- ☐ Vessel to vessel
- ☐ Truck racks
- ☐ Facility to/from vessel

☐ **5.A5 Field-tested plan holders initial response communication equipment and systems.**
- ☐ Observed utilization/coordination of all comms equipment (list equipment, system, and channels used).

☐ **5.A6 Plan holder and response contractor field-tested the compatibility of communications equipment and systems.**
- ☐ Observed utilization/coordination of all comms equipment (include equipment, system, and channels used).

☐ **5.B. Containment and Recovery:**

☐ **5.B1 Deployment drills are conducted in all operating environments within the scope of the contingency plan during the triennial cycle.**

Note: This is cumulative each deployment will be tracked and operating environment will be identified in the evaluation.
- ☐ Boom
- ☐ Recovery
- ☐ On-water Storage

☐ **5.B2 Plan holder began initial deployment of plan holder owned response equipment on-site (include operating environment/conditions on the drill day and check maintenance records for company owned response equipment at least once a year). May be through demonstration.**
- ☐ Deployed pre-boom configuration.
- ☐ Deployed other boom configuration.

☐ **5.B3 Deployed initial mechanical recovery resources identified in the contingency plan.**

☐ **5.B4 Set-up and demonstrated, or discussed, ability to transfer product from skimmer or temporary storage to on-shore storage facilities.**

☐ **5.B5 Demonstrated or described containment of a land spill from entering water by channeling, diverting, or berming.**
- ☐ Demonstrated or described one of the above techniques.
- ☐ Deployed resources (list resource used including home base or staging area).

☐ **5.B6 Demonstrated or described damage control procedures as identified in the contingency plan (such as plugging or patching a leak in a pipeline or storage tank).**
- ☐ Walked through the above procedures.
- ☐ Identified resources for damage control.

☐ **5.C <u>Protection:</u>**

☐ **5.C1 Plan Holder deployed GRP or protection strategy identified in the contingency plan (include operating environment/conditions on the drill day).**
- ☐ GRP deployed by plan holder as written **<u>OR</u>** ☐ GRP deployed by PRC as written **<u>OR</u>**
- ☐ Plan Holder or PRC deployed a modified version of the GRP strategy based on environmental conditions.

Summary:

It is not necessary to wait for all information before calling the NRC.
National Response Center - 800-424-8802.

Field Notification Form
Name and phone number of KM caller:
Name and phone number of designated KM employee for follow-up calls (Area Manager or Designee):
Company Name and Mailing Address: *Mailing address for reports: Kinder Morgan Energy Partners L.P. 1100 Town & Country Rd. Orange, CA 92868*
Date and Time of Incident:
Product Type:
Location of Release or Threatened Release (see facility address list as needed): ☐ Harbor Island Terminal 2730 13th Avenue SW Seattle, WA 98134-1040 ☐ Main Terminal Latitude/Longitude: (b) (7)(F), (b) (3) [redacted] ☐ Marine Terminal Latitude/Longitud [redacted]
County: King State: Washington Nearest City (Name and Distance): Seattle
Weather Conditions:
Description of what happened:
Amount Released estimate size of release area (i.e. 5ft by 5ft by 3in) or quantity (barrels or gallons): **Approximately = by by or barrels/gallons**
Water Affected or Threatened, if any:
Measures taken or plans to abate, contain and cleanup the spill:
Death, Injuries or Evacuations, if any:
Other Agencies Notified, if any:
Information provided in follow-up calls:

REGULATORY CROSS REFERENCE

	Page
U.S. EPA - OPA 90	Cross Ref-2
U.S. Coast Guard	Cross Ref-5
OSHA Emergency Action Plans	Cross Ref-11
OSHA HAZWOPER	Cross Ref-12
Washington Department of Ecology (WAC 173-182)	Cross Ref-14

U.S. EPA - OPA 90 *40 CFR Part 112.20 (h) and Appendix F*			
40 CFR § 112.20 (h)	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
-----	1.0	***Model Facility-Specific Response Plan***	-----
(1)	1.1	***Emergency Response Action Plan***	-----
(1)(i)		1. Qualified Individual Information	ERAP - QI Info
(1)(ii)		2. Emergency Notification Phone List	ERAP - Notifications
(1)(iii)		3. Spill Response Notification Form	ERAP - Notifications
(1) (iv)		4. Response Equipment List and Location	ERAP - Facility Equipment List
-----		5. Response Equipment Testing and Deployment	ERAP - Facility Equipment List
(1) (v)		6. Facility Response Team	ERAP - Local Response Team
(1) (vi)		7. Evacuation Plan	ERAP - Evacuation Diagram
(1) (vii)		8. Immediate Actions	ERAP - Initial Response Actions
(1) (viii)		9. Facility Diagram	ERAP - Facility Diagram
(2)	1.2	***Facility Information***	-----
	1.2.1	Facility name and location	Fig 1.3
	1.2.2	Latitude and Longitude	Fig 1.3
	1.2.3	Wellhead Protection Area	Fig 1.3
	1.2.4	Owner/operator	Fig 1.3
	1.2.5	Qualified Individual	Fig 1.3, 2.2
	1.2.6	Date of Oil Storage Start-up	Fig 1.3
	1.2.7	Current Operation	Fig 1.3, App C
	1.2.8	Dates and Types of Substantial Expansion	Fig 1.3
(3)	1.3	***Emergency Response Information***	-----
(3) (iii)	1.3.1	Notification	§ 2.0 (all)
(3) (i)	1.3.2	Response Equipment List / Location	App A
(3) (ii)	1.3.3	Response Equipment Testing/Deployment	App A
(3) (vi)	1.3.3	Response Equipment Testing/Deployment	App A
(3) (i)	1.3.4	Personnel	§ 4.3, Fig 2.2
(3) (iv)	----	A description of information to pass to response personnel	Fig 2.3
(3) (v)	----	A description of response personnel capabilities, including:	-----
	----	● duties of persons at the Facility during a response action	Fig 3.1, 4.3
	----	● response times and qualifications...	§ 4.5, Fig 2.2
(3) (ii)	----	● Evidence of Contractual Arrangements	App A
(3) (vii)	1.3.5	Evacuation Plan / Diagrams	App. E
(3) (viii)	1.3.5	Evacuation Plan / Diagrams	App. E
-----	1.3.6	Qualified Individual's Duties	§ 4.2
(3) (ix)	-----	A description of the duties of the qualified individual that include	-----

U.S. EPA - OPA 90 *40 CFR Part 112.20 (h) and Appendix F (Cont'd)*			
40 CFR § 112.20 (h)	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
(3) (ix) (A)	-----	Activate internal alarms and hazard communications systems	§ 4.2
(3) (ix) (B)	-----	Notify all response personnel, as needed	§ 4.2
(3) (ix) (C)	-----	Identify the character, exact source, amount, and extent of release	§ 4.2
(3) (ix) (D)	-----	Notify and provide necessary information to the appropriate Federal, State, and local authorities	§ 4.2
(3) (ix) (E)	-----	Assess the interaction of the spilled substance with water and/or other substances stored at the Facility	§ 4.2
(3) (ix) (F)	-----	Assess the possible hazards to human health and environment	§ 4.2
(3) (ix) (G)	-----	Assess and implement prompt removal actions	§ 4.2
(3) (ix) (H)	-----	Coordinate rescue and response actions	§ 4.2
(3) (ix) (I)	-----	Use authority to immediately access company funding	§ 4.2
(3) (ix) (J)	-----	Direct cleanup activities until properly relieved	§ 4.2
(4)	1.4	***Hazard Evaluation***	-----
	1.4.1	Hazard Identification	App C
	1.4.2	Vulnerability Analysis	§ 6.0
	1.4.3	Analysis of the Potential for an Oil Spill	App C
	1.4.4	Facility Reportable Oil Spill History	App C
(5)	1.5	***Discharge Scenarios***	-----
(5) (ii)	1.5.1	Small and Medium Discharges	§ 1.2, App B
(5) (iii)	1.5.2	Small and Medium Discharges	§ 1.2, App B
(5) (i)	1.5.3	Worst Case Discharge	§ 1.2, App B
(6)	1.6	***Discharge Detection Systems***	-----
	1.6.1	Discharge Detection by Personnel	App C
(3) (ix) (A)	1.6.2	Automated Discharge Detection	App C
(7)	1.7	***Plan Implementation***	-----
(7) (i)	1.7.1	Response actions to be carried out by facility personnel or contracted personnel, Response Resources for Small, Medium, and Worst Case Spills	§ 3.1, Fig 3.1, 3.2, 3.3, App A, B
(7) (iii)	1.7.2	Disposal Plans	App F
(7) (iv)	1.7.3	Containment and Drainage Planning	§ 3.1, Fig 3.1, App C

U.S. EPA - OPA 90 *40 CFR Part 112.20 (h) and Appendix F (Cont'd)*			
40 CFR § 112.20 (h)	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
(8)	1.8	***Self-Inspection, Drills/Exercises, and Response Training***	-----
(8) (i)	1.8.1	Facility Self-Inspection	App C
(8) (i)	1.8.1.1	Tank Inspection / Secondary Containment	App C
(8) (i)	1.8.1.2	Response Equipment Inspection	App A, D
(8) (ii)	1.8.2	Facility Drills/Exercises	App D
(8) (iv)	1.8.2.1	Qualified Individual Notification Drill Log	App G
(8) (iv)	1.8.2.2	Crisis Management Team Tabletop Exercise Log	App G
(8) (iii)	1.8.3	Response Training	App D
(8) (iv)	1.8.3.1	Personnel Response Training Log	App G
(8) (iv)	1.8.3.2	Discharge Prevention Meeting Log	App G
(9)	1.9	***Diagrams***	-----
		(1) Site Plan Diagram	Fig 1.2
		(2) Site Drainage Plan Diagram	App C
		(3) Site Evacuation Plan Diagram	App E
(10)	1.10	***Security***	App C
(11)	2.0	***Response Plan Cover Sheet***	Foreword, Fig 1.3
-----	3.0	***Acronyms***	Glossary and Acronyms tab
40 CFR § 112.21	**40 CFR § 112 APPENDIX F**	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
(a)	1.8.2	Develop a training and drill program that satisfies the requirements of this section	App D
(b)	1.8.3	Develop a facility response training program to train personnel involved in response activities.	App D
(b)(1)	1.8.3	Proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations`	App D
(b)(2)	1.8.3	Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel	App D
(b)(3)	1.8.2	Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup	App D
(c)	1.8.2	Develop a program of facility response drills/exercises, including evaluation procedures. Can follow PREP.	App D

U.S. COAST GUARD 33 CFR 154 ***FINAL RULE – July 1, 2010***		
§ 154.1030	**BRIEF DESCRIPTION**	**SECTION**
(a)	The plan must be written in English.	Entire Plan
(b)	A response plan must be divided into sections	---
(b)(1)	Introduction and plan contents.	§ 1.0
(b)(2)	Emergency response action plan:	ERAP
(b)(2)(i)	Notification procedures.	§ 2.0
(b)(2)(ii)	Facility's spill mitigation procedures.	§ 3.0
(b)(2)(iii)	Facility's response activities.	§ 3.0
(b)(2)(iv)	Fish and wildlife and sensitive environments.	§ 6.0
(b)(2)(v)	Disposal plan.	
(b)(3)	Training and Exercises:	App. D
(b)(3)(i)	Training procedures.	App. D
(b)(3)(ii)	Exercise procedures.	App. D
(b)(4)	Plan review and update procedures.	§ 1.4
(b)(5)	Appendices.	---
(b)(5)(i)	Facility-specific information.	Fig. 1.1, Fig. 1.2, Fig. 1.3
(b)(5)(ii)	List of contacts.	§ 2.0
(b)(5)(iii)	Equipment lists and records.	App. A
(b)(5)(iv)	Communications plan	
(b)(5)(v)	Site-specific safety and health plan.	Fig. 3.5
(b)(5)(vi)	List of acronyms and definitions.	Glossary of Terms/Acronyms
(b)(5)(vii)	A geographic-specific appendix ... mobile facility operates.	N/A
(c)	... contained in § 154.1035, 154.1040, and 154.1041, as appropriate.	N/A
(d)	...information required in § 154.1035, 154.1040, and 154.1041...	N/A
(e)	... cross-reference ...	Regulatory Cross Reference
(f)	... be consistent with the NCP and ACP ...	§ 1.5
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
	Introduction and plan content.	§ 1.0
	The Facility's name, street address, city, county, state, ZIP code, Facility telephone number, and tele-facsimile number, if so equipped...	Figure 1.3
	The Facility's location ...	Figures 1.1, 1.2, 1.3
	... name, address, and procedures ... owner or operator ... 24-hour basis.	Figure 1.3
	A table of contents.	Table of Contents
	... cross index	Regulatory Cross Reference
	A record of change(s) to record information and plan updates.	Revision Record
(b)	Emergency Response Action Plan...	---
(b)(1)	Notification procedures.	ERAP

U.S. COAST GUARD 33 CFR 154 FINAL RULE – July 1, 2010 (Cont'd)		
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
(b)(1)(i)	... a prioritized list identifying the person(s) ... to be notified of a discharge or substantial threat of a discharge of oil ...	ERAP
(b)(1)(i)(A)	Facility response personnel, and spill management team, oil spill removal organizations, and the qualified individual(s) ...	ERAP
(b)(1)(i)(B)	Federal, State, or local agencies, as required.	ERAP
(b)(1)(ii)	... a form, ... which contains information to be provided in the initial and follow-up notifications to Federal, State, and local agencies ...	ERAP
(b)(2)	Facility's spill mitigation procedures.	ERAP
(b)(2)(i)	..describe the volume(s) and oil groups..	App B
(b)(2)(i)(A)...(D)	...discharges from the MTR Facility ... non-transportation related...	App B
(b)(2)(ii)	... must contain prioritized procedures for Facility personnel to mitigate or prevent any discharge or substantial threat of a discharge of oil ...	ERAP
(b)(2)(ii) (A)..(G)	... Typical scenarios....	App B
(b)(2)(iii)	... a listing of equipment and the responsibilities of Facility personnel to mitigate an average most probable discharge.	App A
(b)(3)	Facility's response activities.	---
(b)(3)(i)	... a description of the Facility personnel's responsibilities ... pending the arrival of the qualified individual.	§ 3.0
(b)(3)(ii)	... a description of the responsibilities and authority of the qualified individual and alternate as required in § 154.1026.	§ 4.0
(b)(3)(iii)	... describe the corporate organizational structure that will be used to manage the response actions, including ...	§ 4.0
(b)(3)(iii)(A)..(H)	Command and control...Public Information...Safety... Liaison...Operations...Planning...Logistics...Finance.	§ 4.0
(b)(3)(iv)	... identify the oil spill removal organization(s) and the spill management team ...	Fig 2.2, Fig 2.3, App A
(b)(3)(iv)(A)	Be capable of providing the following response resources:	---
(b)(3)(iv)(A)(1)	Equipment and supplies to meet...§154.1045, §154.1047 or...	Fig 2.3, App A
(b)(3)(iv)(A)(2)	Trained personnel necessary to continue operation...first 7 days of the response.	Fig 2.3, App A
(b)(3)(v)	...job descriptions for each spill management team member...	§ 4.0
(b)(3)(vi) (b)(3)(vi)(A) through (D)	For facilities that handle, store or transport Group II through IV petroleum oils and that operate in waters where dispersant use is pre-authorized ...	N/A
(b)(3)(vii)	This subsection of the plan must also separately list resource providers and separate resources necessary to provide aerial oil tracking capabilities required in this subpart…	---
(b)(3)(vii)(A)	The identification of a resource provider; and	§ 2, App A
(b)(3)(vii)(B)	Type and location of aerial surveillance aircraft that are ensured available, through contract or other approved means, to meet the oil tracking requirements of 33 CFR 154.1045(j).	§ 2, App A
(b)(3)(viii) and (ix)	For mobile facilities that operate in more than one COTP zone …	N/A
(b)(4)	Fish and wildlife and sensitive environments.	---
(b)(4)(i)	...identify areas of economic importance and environmental sensitivity..	§ 6.0

U.S. COAST GUARD 33 CFR 154 ***FINAL RULE – July 1, 2010 (Cont'd)***		
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
(b)(4)(ii)	For a worst case discharge...this section must...	---
(b)(4)(ii)(A)	List all fish and wildlife and sensitive environments identified in the ACP... ...	Fig. 6.1
(b)(4)(ii)(B)	Describe all the response actions ... to protect these fish and wildlife and sensitive environments...	Fig 3.7, § 6.0
(b)(4)(ii)(C)	Contain a map or chart showing the location of those fish and wildlife and sensitive environments ...	§ 6.0
(b)(4)(iii)	For a worst case discharge, ... identify appropriate equipment and required personnel to protect these areas...	App A, App B
(b)(4)(iii)(A)	Identify the appropriate equipment and required personnel to protect all fish and wildlife and sensitive environments ...	App A, App B
(b)(4)(iii)(B)	Calculate the distances required by...by selecting one method described...	App B
(b)(4)(iii)(B)(1)	Distances calculated...	App B
(b)(4)(iii)(B)(2)	A spill trajectory or model may be substituted for distances...	App B
(b)(4)(iii)(B)(3)	The procedures contained in the Environmental Protection Agency's regulations...may be substituted for distances...	---
(b)(4)(iii)(C)	Based on historical. COTP may require the additional fish and wildlife and sensitive environments	---
(b)(5)	Disposal plan .. describe any actions to be taken or procedures to be used to ensure that all recovered oil and oil contaminated debris.	App F
(c)	Training and exercises. To be divided into the following subsections:	---
(c)(1)	Training procedures. ..must describe the training procedures ..	App D
(c)(2)	Exercise procedures. ... must describe the exercise program ...	App D
(d)	Plan review and update procedures. ... address the procedures ...	§ 1.4
(e)	Appendices. ...must include appendices described...	---
(e)(1)	Facility-specific information.. ... principal characteristics ...	---
(e)(1)(i)	There must be a physical description of the Facility...	Fig 1.3
(e)(1)(ii)	...must identify the sizes, types, and number of vessels...	Fig 1.3
(e)(1)(iii)	...must identify the first valve(s) ...inside the secondary containment...	Fig 1.2
(e)(1)(iv)	...must contain information on the oil(s) and hazardous material...	---
(e)(1)(iv)(A)	The generic or chemical name	Fig 3.6
(e)(1)(iv)(B)	A description of the appearance and odor	Fig 3.6
(e)(1)(iv)(C)	The physical and chemical characteristics	Fig 3.6
(e)(1)(iv)(D)	The hazards involved in handling the oil(s) and hazardous...	Fig 3.6
(e)(1)(iv)(E)	A list of firefighting procedures and extinguishing agents...	Fig 3.6
(e)(1)(v)	The appendix may contain any other information which the Facility owner or operator determines to be pertinent...	---
(e)(2)	List of contacts...	---
(e)(2)(i)	The primary and alternate qualified individual(s) for the Facility;	Fig 1.3, Fig 2.2
(e)(2)(ii)	The contact(s) ... for activation of the response resources; and	Fig 1.3, Fig 2.2, Fig 2.3, Fig 3.3

U.S. COAST GUARD 33 CFR 154 ***FINAL RULE – July 1, 2010 (Cont'd)***		
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
(e)(2)(iii)	Appropriate Federal, State, and local officials.	Fig 2.4
(e)(3)	Equipment list and records. ... must include ...	---
(e)(3)(i)	...list of equipment ... average most probable	Fig A.1
(e)(3)(ii)	...detailed listing of all the major equipment identified in the plan as belonging to an oil spill removal organization(s)...	App A
(e)(3)(iii)	It is not necessary to list response equipment from oil spill removal organization(s) ... classified by the Coast Guard ... When it is necessary ... the list must include for each piece of equipment -	---
(e)(3)(iii)(A)	The type, make, model, and year of manufacture ... of the equipment;	Fig A.1
(e)(3)(iii)(B)	For oil recovery devices, the effective daily recovery rate ...	Fig A.1
(e)(3)(iii)(C)	For containment boom, ...height and type of end connectors;	Fig A.1
(e)(3)(iii)(D)	The spill scenario in which the equipment will be used ...	Fig A.1
(e)(3)(iii)(E)	The total daily capacity for storage and disposal of recovered oil;	Fig A.1
(e)(3)(iii)(F)	For communication equipment, the type and amount of equipment ...	Fig A.1
(e)(3)(iii)(G)	Location of the equipment; and	Fig A.1
(e)(3)(iii)(H)	The date of the last inspection by the oil spill removal organization(s).	Fig A.1
(e)(4)	Communications plan ...	§ 4.0, 5.0
(e)(5)	Site-specific safety and health plan ...	§ 4.0, 5.0
(e)(6)	List of acronyms and definitions ...	Glossary of Terms/ Acronyms
§154.1045	**BRIEF DESCRIPTION**	**SECTION**
(a)	...Facility that handles...Group I through Group IV petroleum oils..	---
(a)(1)	..criteria in Table 1 ...identification of appropriate equipment..	---
(a)(2)	...resources must be evaluated...including, but not limited to -	---
(a)(2)(i)...(v)	Ice conditions; Debris; ... other appropriate....	---
(a)(3(i)..(ii)	The COTP may reclassify a specific body of water or location	---
(b)(1)...(3)	Response equipment must ---	
(c)	...identify response resources...average most probable discharge...	App A, App B
(c)(1)	1,000 feet of containment boom or two times the length of the largest vessel ... and the means of deploying and anchoring the boom ... within 1 hour of the detection of a spill;	App A, App B
(c)(2)	...recovery devices and oil storage capacity ... within 2 hours ...	App A, App B
(d)	... identify response resources ... maximum most probable discharge...	App A, App B
(d)(1)	... include sufficient containment boom, oil recovery devices, and storage capacity for any recovery of up to the maximum most probable discharge planning volume...	App A, App B
(d)(2)	... resources must be appropriate for each group of oil ...	App A, App B
(d)(3)	... must be positioned ... arrive ... scene of a discharge ...	App A, App B
(d)(3)(i)	... within the specified times ...	App A, App B
(d)(3)(ii)	In higher volume port areas ... within 6 hours ...	App A, App B

U.S. COAST GUARD 33 CFR 154 ***FINAL RULE – July 1, 2010 (Cont'd)***		
§154.1045	**BRIEF DESCRIPTION**	**SECTION**
(d)(3)(iii)	In all other locations, ... within 12 hours ...	App A, App B
(d)(4)	... COTP may impose additional operational restrictions ...	App A, App B
(e)	... identify the response resources ... worst case discharge ...	App A, App B
(e)(2)(i)	The volume of the Facility's worst case discharge;	App A, App B
(e)(2)(ii)	Group(s) of oil...handled, stored or transported by the Facility; and	Fig 1.3, App B, App C
(e)(2)(iii)	The geographic area(s) in which the Facility operates.	App A, App B
(e)(3)	... sufficient boom, oil recovery devices, and storage capacity to recover the worst case discharge planning volumes.	App A, App B
(e)(4)	... quantity of response resources ... to respond ... to the worst case discharge to the maximum extent practicable.	App A, App B
(e)(5)	... The following percentages of the response equipment ... must be capable of operating in waters of 6 feet or less depth.	App A, App B
(e)(5)(i)	Offshore - 10 percent.	App A, App B
(e)(5)(ii)	Nearshore/inland/Great Lakes/rivers and canals - 20 percent.	App A, App B
(e)(6)	... COTP may impose additional operational restrictions ...	App A, App B
(f)	Response equipment ... must be capable of arriving on scene within the times specified in this paragraph ...	App A, App B
(g)	... response equipment identified for Tier 1 plan credit must be capable of being mobilized and en route to the scene of a discharge within 2 hours of notification ...	App A, App B
(g)(1)	Either directly or through the qualified individual; and	App A, App B
(g)(2)	Within 30 minutes of a discovery ...	App A, App B
(h)	Response resources identified for Tier 2 and Tier 3 plan credit must be capable of arriving on scene within the time specified ...	App A, App B
(i), (i)(1), (i)(2)(i) – (iv), (i)(3)	The owner or operator of a facility that handles, stores, or transports groups II through IV petroleum oils within the inland, nearshore, or offshore areas where pre-authorization for dispersant use exists must identify in their response plan, and ensure the availability of, through contract or other approved means, response resources capable of conducting dispersant operations within those areas.	N/A
(j)	The owner or operator of a facility handling Groups I through IV petroleum oil as a primary cargo must identify in the response plan, and ensure the availability through contract or other approved means, of response resources necessary to provide aerial oil tracking to support oil spill assessment and cleanup activities. Facilities operating exclusively on inland rivers are not required to comply with this paragraph. Aerial oil tracking resources must:	§ 2, App A
(j)(1)	Be capable of arriving at the site of a discharge in advance of the arrival of response resources identified in the plan for tiers 1, 2, and 3 Worst-Case Discharge response times, and for a distance up to 50 nautical miles from shore (excluding inland rivers);	§ 2, App A
(j)(2)	Be capable of supporting oil spill removal operations continuously for three 10-hour operational periods during the initial 72 hours of the discharge;	§ 2, App A

U.S. COAST GUARD 33 CFR 154 ***FINAL RULE – July 1, 2010 (Cont'd)***		
§154.1035	**BRIEF DESCRIPTION**	**SECTION**
(j)(3)	Include appropriately located aircraft and personnel capable of meeting the response time requirement for oil tracking from paragraph (j)(1) of this section; and	§ 2, App A
(j)(4)	Include sufficient numbers of aircraft, pilots, and trained observation personnel to support oil spill removal operations, commencing upon initial assessment, and capable of coordinating on-scene cleanup operations, including dispersant and mechanical recovery operations. Observation personnel must be trained in: (i) The protocols of oil-spill reporting and assessment, including estimation of slick size, thickness, and quantity; and (ii) The use of assessment techniques in ASTM F1779–08 (incorporated by reference, *see* § 154.106), and familiar with the use of other guides …	§ 2, App A
(k)	… identify response resources with firefighting capability…	App A, App B
(l)	... identify equipment and required personnel ... to protect fish and wildlife and sensitive environments.	App A, App B
(l)(1)	... the identified response resources must include the quantities of boom sufficient to protect	App A, App B
(l)(2)	... resources and response methods ... must be consistent with the ... ACP in effect 6 months prior to initial plan submission or the annual plan review ...	§ 1.5; Fig 3.7, § 6.0
(m)	The response plan for a Facility that handles, stores, or transports Groups I through IV petroleum oils must identify an oil spill removal organization(s) with response resources that are available...	App A, App B
(m)(1)	Except as required in paragraph (l)(2) ... shoreline clean-up response resources required must be determined as described in Appendix C of this part.	App A, App B
(m)(2)	... resources and response methods ... must be consistent with the ... ACP in effect 6 months prior to initial plan submission or the annual plan review ...	§ 1.5; App A, App B
(n)	Appendix C ... quantity of response resources ... for the maximum most probable discharge volume, and for each worst case discharge response tier.	§ 1.5; App A, App B
(n)(1)	Included in Appendix C of this part is a cap that recognizes the practical and technical limits of response capabilities ...	§ 1.5; App A, App B
(n)(2)	... Appendix C of this part lists the caps that will apply in ... February 18, 1998. ...Facility whose estimated recovery capacity exceeds ... caps ... shall identify sources of additional equipment equal to twice the cap ... or the amount necessary to reach the calculated planning volume, whichever is lower.	§ 1.5; App A, App B
(o)(1)...(2)	The Coast Guard will initiate a review of cap increases and other requirements contained within this subpart ...	---

OSHA EMERGENCY ACTION PLANS *(29 CFR 1910.38(a)) and Process Safety (29 CFR 1910.119)*		
29 CFR	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
1910.38(a)	***Emergency action plan:***	
(1)	Scope and applicability	§1.0
(2)	Elements:	-----
(i)	Emergency escape procedures and emergency escape route assignments.	App E
(ii)	Procedures to be followed by employees who remain to operate critical terminal operations before they evacuate.	§ 3.0
(iii)	Procedures to account for all employees after emergency evacuation has been completed.	App E
(iv)	Rescue and medical duties for those employees who are to perform them.	§ 3.0, 5.0
(v)	The preferred means of reporting fires and other emergencies.	§ 2.0, 3.0
(vi)	Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.	§ 2.0
(3)	Alarm system	App E
(4)	Evacuation	App E
(5)	Training	App D
1910.165	***Employee alarm systems:***	-----
(b)	General requirements	App E
(b)(1)	Purpose of alarm system	App E
(b)(4)	Preferred means of reporting emergencies	§ 2.0, 3.0
(d)	Maintenance and testing	App E

OSHA HAZWOPER *(29 CFR 1910.120)*		
29 CFR	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
1910.120(q)	***Emergency response to hazardous substance releases:***	-----
(1)	Emergency response plan	Entire Plan
(2)	Elements of an emergency response plan:	-----
(i)	Pre-emergency planning and coordination with outside parties	§ 2.0
(ii)	Personnel roles, lines of authority, training, and communication	§ 2.0, 4,0, App D
(iii)	Emergency recognition and prevention	§ 3.0, SPCC
(iv)	Safe distances and places of refuge	App E
(v)	Site security and control	App C
(vi)	Evacuation routes and procedures	App E
(vii)	Decontamination procedures	§ 3.0, 5.0
(viii)	Emergency medical treatment and response procedures	§ 3.0
(ix)	Emergency alerting and response procedures	§ 2.0, 3.0
(x)	Critique of response and follow-up	§ 1.4
(xi)	PPE and emergency equipment	§ 3.0, 5.0
(xii)	Emergency response plan coordination and integration	§ 4.0, 5.0
(3)	Procedures for handling emergency response:	-----
(i)	The senior emergency response official responding to an emergency shall become the individual in charge of a site-specific Incident Command System (ICS).	§ 4.0
(ii)	The individual in charge of the ICS shall identify, to the extent possible, all hazardous substances or conditions, present and shall address as appropriate site analysis, use of engineering controls, maximum exposure limits, hazardous substance handling procedures, and use of any new technologies.	§ 3.0, 4.0
(iii)	Implementation of appropriate emergency operations and use of PPE.	§ 3.0, 5.0
(iv)	Employees engaged in emergency response and exposed to hazardous substances presenting an inhalation hazard or potential inhalation hazard shall wear positive pressure self-contained breathing apparatus while engaged in emergency response.	§ 3.0, 5.0
(v)	The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations.	§ 3.0, 4.0, 5.0
(vi)	Backup personnel shall stand by with equipment ready to provide assistance or rescue.	§ 3.0, 4.0, 5.0
(vii)	The individual in charge of the ICS shall designate a safety official, who is knowledgeable in the operations being implemented at the emergency response site.	§ 3.0, 4.0

OSHA HAZWOPER *(29 CFR 1910.120) (Cont'd)*		
29 CFR	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
(viii)	When activities are judged by the safety official to be an IDLH condition and/or to involve an imminent danger condition, the safety official shall have authority to alter, suspend, or terminate those activities.	§ 3.0, 5.0
(ix)	After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures.	3.0, 5.0
(x)	When deemed necessary for meeting the tasks at hand, approved self-contained compressed air breathing apparatus may be used with approved cylinders from other approved self-contained compressed air breathing apparatus provided that such cylinders are of the same capacity and pressure rating.	§ 3.0, 5.0
(4)	Skilled support personnel	§ 4.0
(5)	Specialist employees	§ 4.0
(6)	Training	App D
(7)	Trainers	App D
(8)	Refresher training	App D
(9)	Medical surveillance and consultation	§ 3.0, 5.0
(10)	Chemical protective clothing	§ 3.0, 5.0
(11)	Post-emergency response operations	§ 3.0, 5.0

STATE OF WASHINGTON *(WAC 173-182 Part II)* CROSS REFERENCE		
SECTION	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
140 (1)	**Plan Maintenance:** At least once annually, Plan holders shall review the plan…	§ 1.4
140 (2)	If no plan changes are needed…	§ 1.4
142 (1)	**Significant changes to approved plans require notification**. At any point during the five year period, if there is a temporary or permanent change…	§ 1.4
142 (2)	Changes that are considered significant include…	§ 1.4
142 (3)	Notification by facsimile or e-mail will be considered written notice.	---
142 (4)	Failure to report changes in the plan could result in the loss of plan approval.	---
142 (5)	If the proposed change … is to be made permanent, the plan holder then shall have thirty days from notification … to distribute the amended page(s) … to ecology for review and approval.	§ 1.4
142 (6)	If ecology finds that as a result of a change, the plan no longer meets approval criteria…	---
145	Every plan holder,…, is required to implement the Washington approved plan throughout to a spill and drill. A decision to use a different plan must first be approved by the state and federal on scene coordinators.	§ 1.1
150	Plan holders are required to conduct post-spill review procedures…	§ 1.4
210 (1)	Plan holders shall format and maintain plans to maximize their usefulness…	Entire Plan
210 (2)	Plans shall be divided into a system of numbered, tabbed…	TOC
210(3)	Plans shall be formatted to allow replacement of pages...	Entire Plan
220 (1)	Each plan shall include a written statement binding the plan holder to its use. …	FWD-ii
220 (2)	In the statement the signator will: …	FWD-ii
230 (1)	Contingency plans must include all the contents and all of the requirements in this section.	---
230 (2)	In Washington state, the NWACP serves as the statewide master oil and hazardous substance contingency plan…	§ 1.5
230 (3)	All contingency plans must include the following:	---
230 (3) (a)	Each plan shall state federal and state requirements…	§ 1.5
230 (3) (b)	Each plan shall state the size of the worst case spill.	Fig 1.3
230 (3) (c)	Each plan shall have a log sheet to record revisions…	FWD-iv
230 (3) (d)	Each plan shall have a cross reference…	Regulatory Cross Reference
230 (3) (e)	Each plan shall have the PRC's name, …	§ 2.3, App A
230 (3) (f)	Each plan must contain procedures to track and account for the entire volume of oil recovered…	App F
230 (4)	Additional facility plan content. Facility plans shall include:	-----
230 (4) (a)	The name, location, type and address of the facility.	Fig 1.3
230 (4) (b)	Starting date of operations	Fig 1.3

STATE OF WASHINGTON *(WAC 173-182 Part II)* CROSS REFERENCE (Cont'd)		
SECTION	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
230 (4) (c)	Description of operations covered by the plan	-----
	(i) List the oil handling operations …	Fig 1.3, App C
	(ii) Inventory all tanks and list the tank capacity	App C
	(iii) All oil(s) or product(s) handled by name and include …	Fig 1.3
	(iv) Include a written description and map …	Figures 1.1, 1.2, 1.3, App C
	(v) A description of the geographic area that could be impacted…	§ 6.0
230 (7)	Plans shall include concise procedures to establish a process to manage oil spill liability claims of damages to persons or property, public or private, for which a responsible party may be liable.	§ 7.0
240 (1)	Each plan shall contain a field document…	ERAP
240 (2)	At a minimum the field document will contain:	-----
240 (a)	A list of procedures to detect…	ERAP
240 (b)	Spill notification procedures and call out list…	ERAP
240(c)	A checklist that identifies significant steps to respond…	ERAP
250 (1)	Plan holders and responsible parties are required to document their initial spill actions…	§ 3.0, 5.0
250 (2)	The plan shall describe what equipment will be used to conduct initial assessment…	§ 3.1, § 6.3, App A
250 (3)	The plan must state how safety assessment, including initial air monitoring, will be conducted…	§ 3.2, 3.3, 3.8
250 (4)	The plan must list procedures that will be used to confirm the occurrence, and estimate the quantity of a spill…	§ 2.3, § 3.3, Fig 3.3a, § 6.3, Fig 6.3
260 (1)	Each plan shall include procedures which will be taken to immediately notify…	§ 2.0
260 (2)	Each plan shall include a list of the names and phone numbers of required notifications…	Fig. 2.3, Fig. 2.4
260 (3)	The procedure shall establish a clear order of priority for immediate notification.	§ 2.1, 2.2, Fig 2.1
264 (1-4)	Notification requirements for facility spills to ground or containment that threaten waters of the state.	§ 2.1, 2.2, Fig 2.1
270 (1)	Plan holders and PRCs are required to maintain response equipment…	App A
270 (2)	Plan holders and PRCs that own equipment shall develop schedules, methods and procedures…	App A
280 (1)	Each plan shall contain information on the personnel... to manage an oil spill response.	§ 4.0
280 (a)	An organization diagram…	Fig 4.1, Fig 4.2, Fig 4.3
280 (b)	For purposes of ensuring depth of spill management team, an organizational list…	Fig 4.2
280 (c)	A job description for each spill management position…	§ 4.9
280 (d)	A detailed description of the planning process…	§ 5.0
280 (2)	The plan shall address the type and frequency of training…	App D
280 (4)	The plan shall list a process for orderly transitions of initial response staff…	§ 4.9

STATE OF WASHINGTON *(WAC 173-182 Part II)* CROSS REFERENCE (Cont'd)		
SECTION	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
335	Planning standards for storage.	App B
345	Determining effectiveness of recovery systems.	App B
348	Determining effective daily recovery capacity.	App B
350	Documenting compliance with the planning standards.	App A
355	Transfer sites for covered vessels at locations where transfers occur, and for facilities with a vessel terminal.	App A, App B
360	General planning standards for… all of Puget Sound.	N/A
365	Transmission pipelines and pipeline tank farms.	N/A
370-450	Planning standards for various areas.	N/A
510	Requirements for response and protection strategies.	-----
510 (1)	…methods to track and contain spilled oil and enhance the recovery and removal operations that are described in the plan.	Fig 3.1, Fig 3.7, § 6.6, § 6.7
510 (2)	Each plan shall include a description of how environmental protection will be achieved including:	-----
510 (2) (a)	Protection of sensitive shoreline and island habitat …	§ 6.1
510 (2) (b)	…description of sensitive areas and develop strategies to protect …	§ 6.1
510 (2) (c)	Identification of public resources …	§ 6.2, Fig 6.2
510 (2) (d)	Identification of shellfish resources …	§ 6.2
510 (2) (e)	Identification of significant economic resources …	§ 6.2
510 (2) (f)	…"sole source" aquifer or public drinking water source …	N/A
510 (3)	…may refer to the NWACP…	Fig 3.7, § 6.1, § 6.2
510 (4)	…identify potential initial command post locations.	Fig 2.4, § 5.4
520	Planning standards for shoreline cleanup.	App A
530	Planning standards for ground water spills.	-----
530 (1)	…description of methods to immediately assess ground water spills.	
530 (2)	…contact information for resources to investigate, contain and remediate/recover ground water spills	§ 2.1, 2.2, Fig 2.1, Fig 2.3, Fig 2.4, App A
540	Planning standards for wildlife rescue and rehabilitation.	§ 6.3, App A
700	Drill participation, scheduling and evaluation.	App D
710	Type and frequency of drills	App D
720	Evaluation criteria	App D
730	Other ways to get drill credit	App D
740	Drill requirement waivers	App D

EMERGENCY RESPONSE ACTION

Kinder Morgan
Liquids Terminals LLC

Harbor Island Terminal

Prepared for:

Kinder Morgan Liquids Terminals LLC
Harbor Island
Terminal 2720
13th Avenue SW
Seattle, WA
98134-1040

Prepared by:

Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 ● Fax: (281) 320-9700
www.rmaworld.com

EMERGENCY RESPONSE ACTION PLAN

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- Incident Specific Response Actions
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Incident Management Team

Response Equipment Inventory

Contracted Response Resources

Evacuation Plan

ICS Forms

Site Safety Plan Forms

Evacuation Diagram

Facility Diagram

Drainage Diagram

Tactical Plans

FIGURE 1.3

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Harbor Island Terminal 2720 13th Avenue SW Seattle, WA 98134 (206) 682-4706 (206) 623-9023 *(24 hrs)* (206) 622-8003 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP-6A
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	Prior to 1937
Owner/Operator:	Kinder Morgan Liquid Terminals, LLC 1001 Louisiana Street, Suite 1000 Houston, TX 77002 or 1100 Town & Country Road Orange, CA 92868
Qualified Individual: ***(Emergency Coordinator)*** ***(On-Site Firefighting Coordinator)***	David Rowland – Area Manager (Home Address *) (206) 682-4706 *(Work)* (b) (6) *(Cell)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)***	Andrew Holbrook – Operations Manager (Home Address *) (503) 220-1257 *(Work)* (b) (6) *(Cell)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)***	Del Carey – Lead Operator (Home Address *) (206) 682-4706 *(Work)* (b) (6) *(Cell)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume 1.

* Company policy is to treat an employee's home address as confidential. This information is kept on file at the Regional Office (909) 877-2373, and Houston Corporate Office, Human Resources Dept. (713) 369-8876.

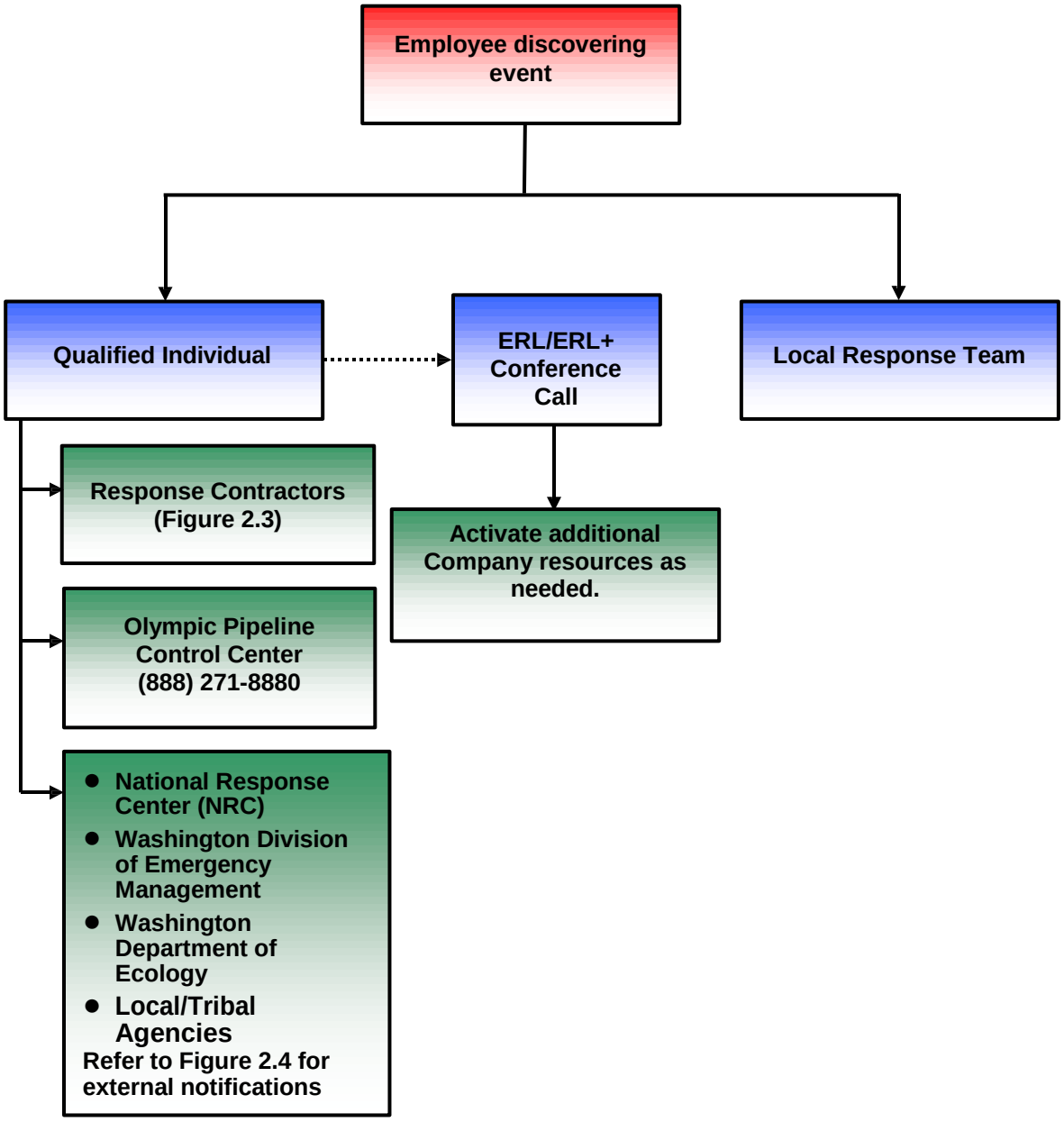
FIGURE 1.3

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	King County
Latitude:	(b) (7)(F), (b) (3)
Longitude:	
Area Map:	Provided in Figure 1.1
Facility Diagram:	Provided in Figure 1.2
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than 400 yards
Landside Directions:	Leave Seattle-Tacoma Airport going southwest on Alaskan Way toward Vine Street. Turn left onto Wall Street then right onto Elliott Avenue. Merge onto WA-99 S/Alaskan Way and travel approximately 2.5 miles. Take the W Seattle BR exit toward Harbor Island. Stay straight to go onto S Spokane Street. Turn left onto Klickitat Way SW, which becomes Klickitat Avenue SW. Turn right onto 13th Avenue SW. The Facility is approximately half a mile from the intersection of Klickitat Avenue SW and 13th Avenue SW.
Waterside Directions:	From Elliott Bay travel south on the Duwamish Waterway East for approximately one half mile. The Facility is on the left descending bank at the Port of Seattle Berth 18.

FIGURE 2.1

EMERGENCY RESPONSE NOTIFICATIONS PROCESS



- The sequence of notification depends on the type and severity of the situation, and is to be used for spills to navigable waters, state waters, and spills to ground or permeable secondary containment that threaten state waters..
- Judgment must be used.
- Public and employee safety must always be the first consideration.
- Notification of Olympic is dependent upon whether their operation is involved.

FIGURE 2.2

INTERNAL NOTIFICATION REFERENCES

INTERNAL NOTIFICATIONS - GENERAL			
FACILITY AREA	**ADDRESS**	**OFFICE**	**FAX**
Harbor Island Terminal	2720 13th Avenue SW Seattle, WA 98134	(206) 682-4706 (206) 623-9023*	(206) 622-8003

INTERNAL NOTIFICATIONS - LOCAL RESPONSE TEAM			
POSITION/TITLE	**NAME**	**OFFICE**	**OTHER**
Qualified Individual / Area Manager	David Rowland	(206) 682-4706	(b) (6)
Alt. Qualified Individual / Operations Manager	Andrew Holbrook	(503) 220-1257	
Alt. Qualified Individual / Lead Operator	Del Carey	(206) 682-4706	
Local Responders	Jerry Alverez	(206) 682-4706	
	Matt Failor	(206) 682-4706	
	Stuart Getz	(206) 682-4706	
	Wayne Hegg	(206) 682-4706	
	Reuben Hodges	(206) 682-4706	
	Jesse Lambert	(206) 682-4706	
	Evan McKee	(206) 682-4706	
	Jerry Severson	(206) 682-4706	
	Mat Strand	(206) 682-4706	

***** 24 Hour

FIGURE 2.2

INTERNAL NOTIFICATION REFERENCES (Cont'd)
CORPORATE CRISIS SUPPORT TEAM

INTERNAL NOTIFICATIONS – CRISIS SUPPORT TEAM			
POSITION	**NAME**	**OFFICE**	**OTHER**
Incident Commander			
	Ron McClain	(713) 369-9152	(b) (6)
	Wayne Simmons	(713) 420-6330	
	Ron Morones	(714) 560-4830	
	James Holland	(713) 369-9428	
	Mike Outlaw	(713) 369-9433	
Liaison			
Coast Guard	Rod Dillon	(713) 420-7633	
	Buzz Fant	(713) 369-9545	
DOT/Pipeline Safety	Buzz Fant	(713) 369-9545	
	Jaime Hernandez	(713) 369-9443	
	Yvette Abraham	(713) 369-9513	
	Quintin Frazier	(770) 751-4240	
	Steve Marositz	(909) 873-5146	
EPA/Environmental	Mike Hanak	(303) 914-7818	
	Robert Granado	(714) 560-4873	
OSHA/Employee Safety	Robert Granado	(714) 560-4873	
Planning			
Crisis Coordinator	Jerry Aycock	(770) 751-4165	
	Greg Dempsey	(770) 751-4143	
Human Resources	Roger Mosby	(713) 369-9466	
	Jim Street	(713) 369-9464	
	Debbie Conry	(714) 560-4733	
Engineering	Ron Morones	(714) 560-4830	
	Greg Coppola	(714) 560-4966	

INTERNAL NOTIFICATIONS – CRISIS SUPPORT TEAM			
POSITION	**NAME**	**OFFICE**	**OTHER**
Public Information			
Investor Relations	Kim Dang	(713) 369-9470	(b) (6)
	Mindy Mills Thornock	(713) 369-9449	
Media Relations	Emily Mir	(713) 369-8060	
	Larry Pierce	(713) 369-9407	
Webmaster	Emilio Perez	(713) 369-9020	
	Alberto Rodriquez	(713) 420-6151	
Finance			
Risk Management	Steve Hawes	(303) 914-7688	
	Bob Dillard	(713) 369-9492	
Operations			
Business Management/ Products Movement	Ed Hahn	(714) 560-4925	
	Tom Hooks	(714) 560-4841	
Control Center			
	Mark Jensen	(714) 560-4862	
	Jerry Coronado	(714) 560-4809	
Logistics			
Facilities	Guillermo Velasquez	(714) 560-4697	
	Geo Rivera	(714) 560-4696	
	Bob Scott	(303) 914-7609	
IT	Matt Schulz	(714) 560-4816	
	Bob Longo	(714) 560-4805	
Procurement	Jay Montgomery	(713) 369-8746	
	Lisa Shorb	(713) 369-9677	
	Gabrielle Butler	(713) 369-9876	
	Charlie Warren	(713) 420-3603	
	Travel Desk	(800) 801-3445	

FIGURE 2.3

EXTERNAL NOTIFICATION RESPONSE CONTRACTORS

USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)/ WDOE APPROVED PRIMARY RESPONSE CONTRACTORS (PRC)			
COMPANY	**LOCATION**	**OFFICE/ALTERNATE**	**RESPONSE TIME**
Marine Spill Response Corporation	1330 Industry St #100 Everett, WA 98203	800-645-7745 800-259-6772	2.0
Witt O'Brien's	Slidell, LA, Spring, TX Brea, CA, Seattle, WA	(985) 781-0804* (281) 320-9796	1.0

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES

REQUIRED NOTIFICATIONS	
NATIONAL RESPONSE CENTER	
c/o United States Coast Guard (CG-3RPF-2) 2100 2nd Street Southeast – Room 2111B Washington, DC 20593-0001	(800) 424-8802* (202) 267-2180* (202) 267-1322 (Fax)
REPORTING REQUIREMENTS TYPE: Any oil discharge that has impacted or threatens to impact navigable waters or release of a hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: Not required. Request fax confirmation of report.	
STATE OF WASHINGTON	
EMERGENCY MANAGEMENT DIVISION (EMD) Building 20, M/S: TA-20 Camp Murray, WA 98430-5122	(800) 258-5990*
DEPARTMENT OF ECOLOGY (WDOE) - NORTHWEST OFFICE 3190 160th Avenue Bellevue, WA 98008-5452	(425) 649-7000*
REPORTING REQUIREMENTS TYPE: All oil spills into state waters and on land within the state. Note: State waters include surface and ground waters. VERBAL: Immediately (within 1 hour) and shall include: a) Names of reporting party and company b) Contact phone(s) number(s) c) Material, quantity, concentration, and location of spill d) Cleanup status e) Responsible party, if known WRITTEN: As agency may request, a full written report may be submitted and shall include the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.	

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS (Cont'd)	
FIRE DEPARTMENT	
Seattle Fire Dept., Station 36 Seattle, WA	(206) 386-1436
REPORTING REQUIREMENTS TYPE: Any fire or unauthorized release of a flammable or hazardous material on property. VERBAL: Immediately WRITTEN: As requested by agency. NOTE: The Fire Department notifications will be handled by the Local Area Operations.	
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)	
200 Constitution Avenue Washington, DC 20210	(800) 321-6742 (404) 562-2300
OSHA Region 10 Seattle, WA	(206) 553-5930
REPORTING REQUIREMENTS TYPE: Fatality from a work related incident or the inpatient hospitalization of three (3) or more employees as a result of a work related incident VERBAL: Immediately WRITTEN: As requested by the Agency	
TRIBAL GOVERNMENT	
Muckleshoot Tribe Fisheries Department – Isabel Tinoco Government Affairs – Claudia Kauffman Preservation/Wildlife – Melissa Calvert	 (253) 876-3109 (253) 876-3167 (253) 876-3266
WASHINGTON DEPARTMENT OF FISH AND WILDLIFE	
Oil Spill Response Team North Puget Sound Region 4 (Mill Creek)	(800) 258-5990* (425) 775-1311

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER POTENTIAL REQUIRED NOTIFICATIONS	
U.S. ENVIRONMENTAL PROTECTION AGENCY REGION X	
1200 Sixth Avenue Suite 900 Seattle, WA 98101	(206) 553-1263*
REPORTING REQUIREMENTS TYPE: Immediately for all spills that impact or threaten navigable water or adjoining shoreline. VERBAL: Notification to the EPA is typically accomplished by the call to the NRC. WRITTEN: As the agency may request depending on circumstances.	
U.S. COAST GUARD SECTOR PUGET SOUND	
1519 Alaskan Way S., Building 1 Seattle, WA 98134	(206) 217-6001*
REPORTING REQUIREMENTS TYPE: Immediately for all spills that impact or threaten navigable water or adjoining shoreline. VERBAL: Notification to the Sector is typically accomplished by the call to the NRC. WRITTEN: As the agency may request depending on circumstances.	
STATE OF WASHINGTON	
Puget Sound Clean Air Agency 1904 Third Ave., Suite 105 Seattle, WA 98101	(206) 343-8800
REPORTING REQUIREMENTS TYPE: Any spills that violate air quality standards, report to WDOE Air Programs Division. WRITTEN: As agency may request, a full written report may be submitted and shall include the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.	
U.S. FISH AND WILDLIFE SERVICE	
Washington, DC 20240-0002	(202) 208-3100
Portland, OR	(706) 613-9493 Ext. 27 (503) 231-6120
REPORTING REQUIREMENTS TYPE: Wildlife Protection / Rehabilitation. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances	

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd)	
LOCAL EMERGENCY PLANNING COMMITTEE (LEPC)	
King County Office Of Emergency Management 7300 Perimeter Rd South Rm 128 Seattle, WA 98108-3848	(206) 296-3830*
REPORTING REQUIREMENTS TYPE: Any spill reportable to the NRC. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances	

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
Law Enforcement		
State Police	Seattle, WA	(206) 720-3040
Local Water Supply System		
King County Water Dept.	Seattle, WA	(206) 242-8535
Seattle Public Utilities (Water Supply)	Seattle, WA	(206) 684-3000
Weather Report		
National Weather Service	Seattle, WA	(206) 526-6087
Radio/Television		
KOMO - 1000 AM - Radio	Seattle, WA	(206) 223-5700
KPLZ 101.5 FM - Radio	Seattle, WA	(206) 223-5700
FOX - TV	Seattle, WA	(206) 441-4390
King Channel 5 - TV	Seattle, WA	(206) 448-5555
Hospitals/Ambulances		
Harborview Medical Hospital	Seattle, WA	(206) 731-3041
King County Emergency Medical	Seattle, WA	(206) 296-4693
Virginia Mason Medical Center	Seattle, WA	(206) 223-6877
American Medical Response	Seattle, WA	(253) 833-6030
AAA Air Ambulance Service	Seattle, WA	(206) 343-9263
Neighbors		
BP Seattle Terminal	Seattle, WA	(260) 623-4635
Crowley Marine Services	Seattle, WA	(206) 332-8201
Port of Seattle, Emergency Duty Officer	Seattle, WA	(206) 787-3688
Port of Seattle, Public Affairs	Seattle, WA	(206) 787-3446
Rainier Petroleum Corp.	Seattle, WA	(206) 623-3480
Shell Distribution Terminal	Seattle, WA	(206) 224-0489
SSA – Terminal 18 CEM Building	Seattle, WA	(206) 654-3770
Todd Shipyards	Seattle, WA	(206) 623-1635 Ext. 474

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (Cont'd)		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
Sensitive Area Contacts		
Chitten Lock Master	Seattle, WA	(206) 783-7000
Seattle Aquarium	Seattle, WA	(206) 386-4320
Washington Department of Natural Resources	Seattle, WA	(800) 527-3305
Washington Department of Parks and Recreation	Seattle, WA	(360) 902-8844
Alternate Command Post Locations		
Adelman Travel Group		(800) 525-3752 (303) 763-3170 (303) 763-2959 (Fax)
Hilton Seattle	1301 6th Ave. Seattle, WA 98101	(206) 624-0500*
Port of Seattle	Pier 69	(206) 728-3296
Sheraton Seattle Hotel	1400 6th Ave. Seattle, WA 98101	(206) 621-9000* (206) 621-8441 (Fax)

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES

ADDITIONAL CONTRACTED RESPONSE RESOURCES

COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Environmental Consultants			
O'Brien's Response Management Inc. *	Consultants	Slidell, LA Spring, TX	(981) 781-0804*/ (281) 320-9796
Delta Environmental	Consultants	Redwood, WA	(425) 498-7700
Hart Crowser *	Consultants	Lake Oswego, OR	(503) 620-7284
Pipeline Contractors			
C. M. Emeis & Company *	Pipeline Contractor	Portland, OR	(503) 282-0091
Hickey Marine Enterprises *	Pipeline Contractor	Vancouver, WA	(360) 695-3731
Northwest Metal Fabrication & Pipe *	Pipeline Contractor	Wilsonville, OR	(503) 692-0995
Alaska Continental Pipeline, Inc.	Pipeline Contractor	Toledo, WA	(360) 864-8866
Armadillo Underground, Inc.	Pipeline Contractor	Salem, OR	(503) 588-8050
Snelson	Pipeline Contractor	Sedro-Woolley, WA	(360) 856-5816
San Juan Industries	Welding and Fitting	Portland, OR	(503) 294-1100 (971) 563-1595
Terra Hydro Inc.	Environmental/Pipeline Contractor	Portland, OR	(503) 625-4000 (b) (6) Cell
Cleanup Contractor			
Shaver Transportation	Water Cleanup	Portland, OR	(503) 228-8847*
Thermo Fluids Environmental	Cleanup Contractor	Portland, OR	(503) 788-4612
Heavy Equipment			
Forslund Construction & Co.	Excavating	Albany, OR	(541) 926-4157

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES (Cont'd)

ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING)

COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Helicopter/Aerial Surveillance Providers			
Classic Helicopters	Helo/Aerial Surveillance	Seattle, WA	(206) 767-0515
Eagle Air Helicopters	Helo/Aerial Surveillance	Forks, WA	(360) 374-9276
Helicopters Northwest	Helo/Aerial Surveillance	Seattle, WA	(253) 208-0402
Northwest Helicopters	Helo/Aerial Surveillance	Olympia, WA	(360) 701-5892
World Wind Helos	Helo/Aerial Surveillance	Renton, WA	(425) 271-8441
Waste Transporters/Disposal Facilities			
Columbia Ridge Recycling and Landfill	Waste Trans. & Disposal	Arlington, OR	(541) 454-2030
PSC Phillips Corp.	Waste Trans. & Disposal	Washougal, WA	(360) 835-8594
Wildlife/Rescue			
Focus Wildlife	Wildlife Rescue & Rehab.	Anacortes, WA	(310) 386-5965
International Bird Rescue Research Center	Wildlife Rescue & Rehab.	Fairfield, CA	(707) 207-0380
Island Oil Spill Association	Wildlife Rescue & Rehab.	San Juan County, WA	(360) 378-5322
PAWS Wildlife	Wildlife Rescue & Rehab.	Lynwood, WA	(425) 787-2500 Ext. 817
Tri-State Bird Rescue & Research	Wildlife Rescue & Rehab.	Newark, DE	(302) 737-9543

FIGURE 2.5

It is not necessary to wait for all information before calling the NRC.
National Response Center - 800-424-8802.

Field Notification Form

Name and phone number of KM caller:	
Name and phone number of designated KM employee for follow-up calls (Area Manager or Designee):	
Company Name and Mailing Address: Kinder Morgan Energy Partners L.P., 1100 Town & Country Rd., Orange, CA 92868	
Date and Time of Incident:	**Were materials discharged?**
Product Type:	
Location of Release or Threatened Release D Harbor Island Terminal 2730 13th Avenue SW Seattle, WA 98134-1040	D Main Terminal Latitude/Longitude: (b) (7)(F), (b) (3) D
County: King **State:** Washington **Nearest City (Name and Distance):** Seattle	
Weather Conditions:	
Description of what happened:	
Amount Released estimate size of release area (i.e. 5ft by 5ft by 3in) or quantity (barrels or gallons): **Approximately = by by or barrels/gallons** **Container Type(if applicable):** **Container Storage Capacity (if applicable):**	
Water Affected or Threatened, if any:	
Measures taken or plans to abate, contain and cleanup the spill:	
Death, Injuries or Evacuations, if any:	
Other Agencies Notified, if any:	
Information provided in follow-up calls:	

3.1 RECOGNIZING AN EMERGENCY

Definition of an Emergency

An emergency is defined as any uncontrolled release, occurrence, or incident which requires the response of persons outside of the immediate area, including KMEP employees or response agencies. These may include leaks, spills, fires or explosions; or natural disasters or terror threats which could result in any of these situations.

Product Release

The Facility handles refined petroleum products, ethanol, biodiesel, and petroleum additives.

Refined petroleum fuels comprise a majority of the products handled by the Facility. A refined petroleum product release is recognized by any visual signs of liquid hydrocarbons the ground or water. Other signs may include:

- Staining of soil
- Dead or discolored vegetation near pipeline or right-of-way areas
- Product sheen on water
- Distinct odors of petroleum or hydrocarbons
- (b) (7)(F), (b) (3)

3.1.1 Fire/Explosion

Any unplanned fire is considered an emergency and requires some level of response action. If the fire is small enough and personnel are trained they may attempt to extinguish the fire prior to notifications. See KMEP Safety Manual, for more detail. Larger fires should be reported immediately and this ICP should be implemented.

3.1.2 Natural Disasters

Natural disasters may include the following:

- Earthquakes
- Floods
- Severe storms
- Tornados

Natural disasters may not necessarily constitute an emergency response. However, if the natural disaster results in a release or fire, as described above, implementation of this plan may be required.

3.1 RECOGNIZING AN EMERGENCY (Cont'd)

3.1.3 Bomb or Terrorist Threats

(b) (7)(F), (b) (3)

[redacted]

3.2 INITIAL PROTECTIVE MEASURES

Recognizing an emergency allows an initial responder to effectively determine protective measures. Protective measures are necessary to ensure the safety of personnel, environment and property. These measures may include:

- Evacuation of persons exposed to immediate hazards. Move personnel in an up-wind or cross-wind direction.

NEVER ALLOW PERSONS TO ENTER
THE VAPOR AREA DURING AN EMERGENCY

- Restrict access of the immediate area
- Eliminate and controlling ignition sources
- Shut down system to control release

Once these initial, protective measures are taken, the first employee on site should perform a site Risk Assessment.

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE

Incident Type	Mitigation Actions
Flange, Valve, or Hose Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* D Shut off flow to line D Move to safe area D Notify Qualified Individual D Notify ***Control Center*** D Notify local emergency agencies, as required D Notify local management D Secure area and eliminate ignition sources D Tighten connection, if possible D Initiate spill containment (if outside containment area) D Block and purge affected equipment D Initiate recovery/clean-up action as required.

Incident Type	Mitigation Actions
Tank Truck or Rack Valve Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* D Stop transfer operation D Move to safe area D Notify Qualified Individual D Notify ***Control Center*** D Notify local emergency agencies, as required D Notify local management D Secure area and eliminate ignition sources D Tighten connection, if possible D Offload the leaking compartment D Flush area into containment drains or other containment D Initiate other cleanup action as required

Incident Type	Mitigation Actions
Pipeline Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* D Shut down system to control release D Move to safe area D Notify Qualified Individual D Notify ***Control Center*** D Notify local emergency agencies, as required D Notify local management D Secure area and eliminate ignition sources D If possible, place containment under the leak D Initiate spill containment (if outside containment area) D Initiate other recovery/cleanup action as required

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE (Cont'd)

Incident Type	Mitigation Actions
Tank Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* D Stop flow into the tank D Ensure dike drains are closed D Move to safe area D Notify Qualified Individual D Notify ***Control Center*** D Notify local emergency agencies, as required D Notify local management D Secure area and eliminate ignition sources D Begin transferring contents to available tankage to reduce level D Organize temporary tank patch and begin repair D Initiate other response actions as required

Incident Type	Mitigation Actions
Tank Overfill	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* D Shut off transfer or flow to tank D Ensure dike drains are closed D Move to safe area D Notify Qualified Individual D Notify ***Control Center*** D Notify local emergency agencies, as required D Notify local management D Secure area and eliminate ignition sources D Begin transferring contents to available tankage to reduce level D Initiate other response actions as required

FIGURE 3.1b

INCIDENT SPECIFIC RESPONSE ACTIONS
FIRE/EXPLOSION

Incident Type	Initial Response Actions
Fire/Explosion	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* D Alert personnel D Move to safe area D Notify Qualified Individual D Notify ***Control Center*** D Notify local emergency agencies, as required D Notify local management D Activate alarm as required D Notify local fire department D Evacuate non-essential individuals D Identify cause/source/materials involved D Contain fire/spill material released D Consider potential for escalation D Protect exposures

FIGURE 3.1c

INCIDENT SPECIFIC RESPONSE ACTIONS
NATURAL DISASTERS

Incident Type	Response Action
Earthquake	Earthquakes may damage pipeline and terminal equipment. Damage may result in an emergency situation. The following are response actions that should be taken only when it is deemed safe to do so: During Earthquake D If indoors, stay inside and take refuge D Stay away from windows, glass, bookcases, heavy objects etc. D If outdoors, move to open area D If driving a vehicle, pull over and remain in car D Avoid parking near power lines or other overhead hazards After Earthquake D Identify immediate hazards D Evacuation building if impending collapse D Check for product releases D Check for injuries D Notify local authorities as appropriate D Be prepared for after-shocks D Use portable radios for news reports

FIGURE 3.1c

INCIDENT SPECIFIC RESPONSE ACTIONS
NATURAL DISASTERS (Cont'd)

Incident Type	Mitigation Actions
Severe Storm	Severe storms can hit west coast locations. Historically, severe storms have been documented on numerous occasions. They can involve high winds and tides, severe rainstorms and lightning and flooding. D Listen to local and national news of impending storm D Verify adequate emergency supplies D Shut down non-essential operations D Review evacuation plan D Provide alerting information to employees, contractors and others D Conduct planning meetings with appropriate personnel D Assess available emergency equipment: D Back-up generators D Portable water pumps D Earth moving equipment D Water, food provisions D Relocate important records D Safe guard hazardous materials D Prior to evacuation, turn off gas, water and electrical D Prepare to account for employees D Prepare for expected media coverage D Contact fire departments as necessary D Prepare vehicles for possible evacuation D Open tank roof drains D Verify that tank dikes are closed

FIGURE 3.1d

INCIDENT SPECIFIC RESPONSE ACTIONS
BOMB/TERROR THREATS

(b) (7)(E), (b) (3)

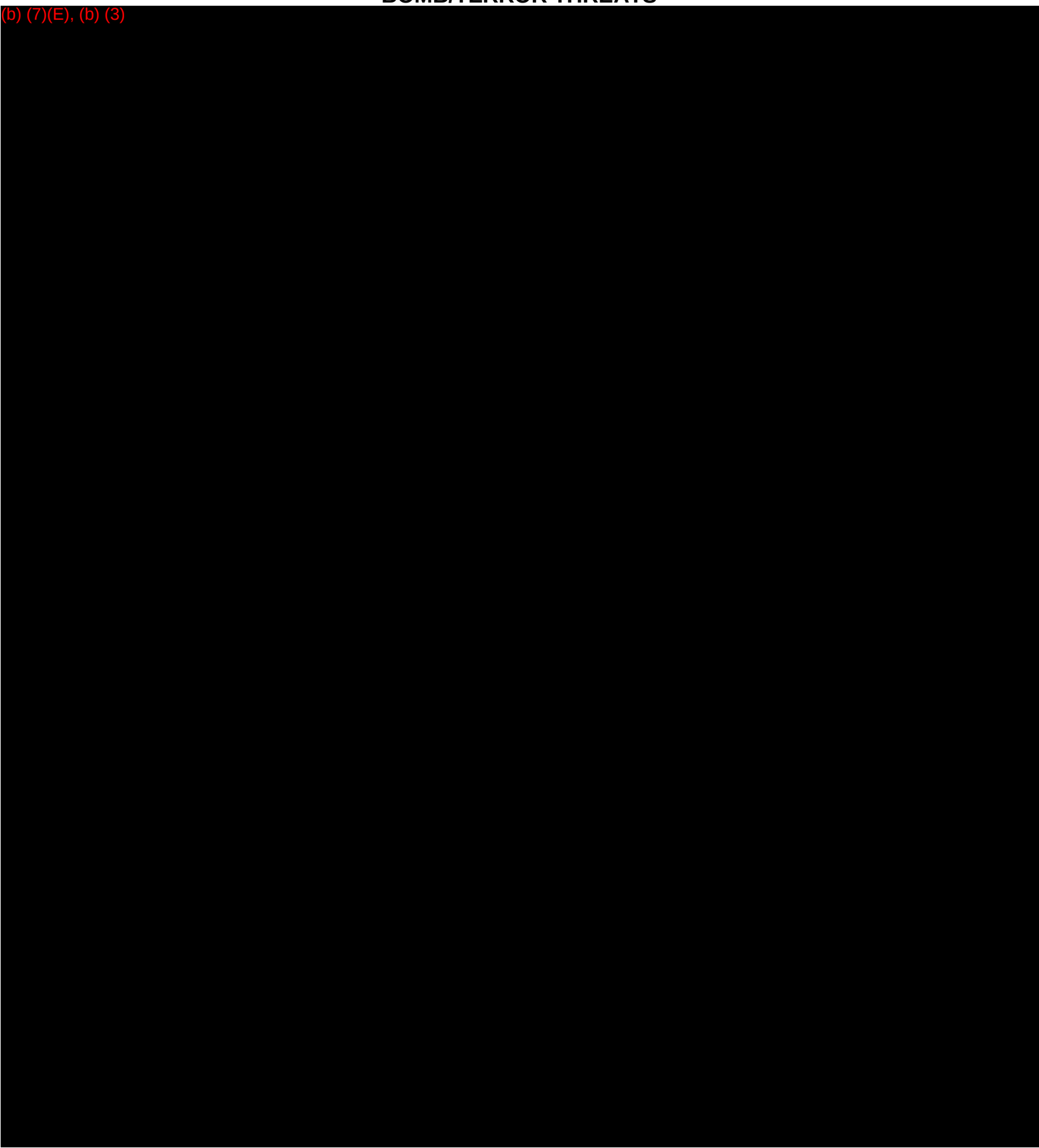


FIGURE 3.2

INITIAL RESPONSE ACTIONS

First Employee On Site

First employee on site is the KMEP Incident Commander until relieved by a more senior Company employee. The Incident Commander has the authority to make decisions and to take steps necessary to control the emergency. The following list will aid this person in establishing safe initial response actions in preparation of a larger response effort.

D Evacuate yourself and all persons exposed to immediate hazards. Move personnel in an up-wind or cross-wind direction.

NEVER ALLOW PERSONS TO ENTER
THE VAPOR AREA DURING AN EMERGENCY

D Perform initial notifications (Section 2.1)

- O Qualified Individual
- O Pipeline Control Center
- O 911
- O Manager
- O Verify external notifications (via Pipeline Control Center)

D Shut down system to control release, as appropriate

D Restrict access to the immediate area of the emergency

D Eliminate and control ignition sources

D Initiate Incident Command System (ICS)

D Establish Central Command Post

D Use Site Health and Safety Plan to conduct site assessment (Figure 3.5)

D Meet with arriving response authorities (fire department, police, etc.).

- O Introduce yourself as the KMEP Incident Commander.
- O Communicate critical incident information
  - Type of incident (fire, spill, release)
  - Product involved
  - Equipment involved
  - Location of personnel in immediate area
  - Known hazards
  - Wind direction

D Advise the federal, state and local authorities (Unified Command) of a safe place to locate the Command Post.

D Initial Reporting Details Form (Figure 2.5)

FIGURE 3.2

INITIAL RESPONSE ACTIONS (Cont'd)

First Employee On Site (Cont'd)

Designate additional IC positions as the situation dictates and/or the availability of additional personnel: _____

Note number of injuries if any: _____

Ambulance/emergency medical service needed: _____

Consider need for road closures: _____

Consider hazards to trains: _____

D Call Control Center to contact RR dispatcher - Time called: _____

D Consider extent of release (estimate area impacted, i.e. 50'x100'): _____

D Consider if product is in water, sewers, canals etc.: _____

D Consider if structures are in danger: _____

D Product still flowing: _____

D All appropriate valves closed? Valves closed: _____

D Agencies on site (note who, when): _____

D News media on-site: _____

FIGURE 3.6

FLAMMABLE LIQUIDS (Polar/Water-Miscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Ethanol**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 127

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.6 (Cont'd)

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Diesel Fuel** **Gasoline** **Gasoline Additives** **Jet Fuel** **Heavy Cycle Gas Oil** **Marine Diesel Fuel** **Marine Fuel Oil**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 128

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

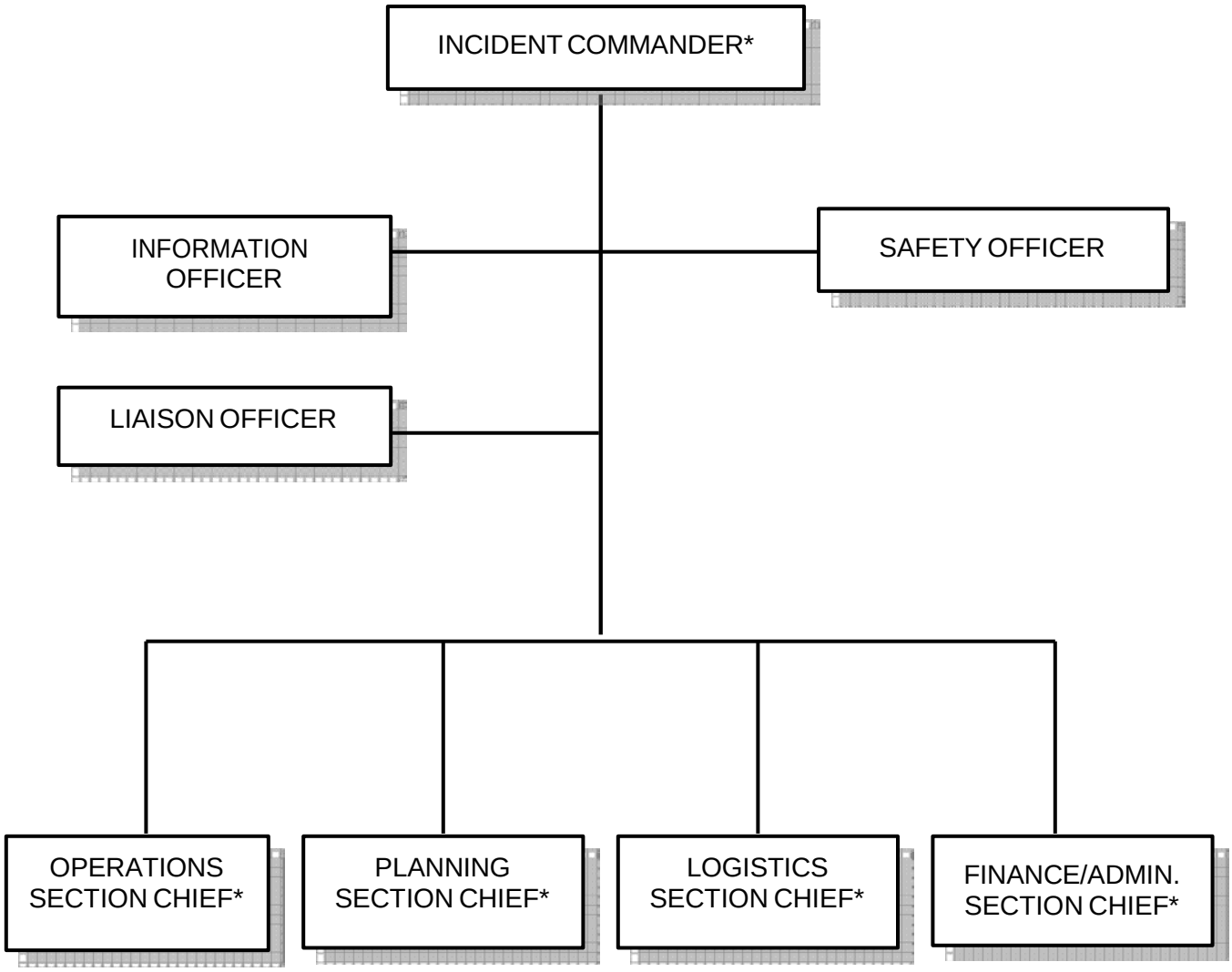
- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)



* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)

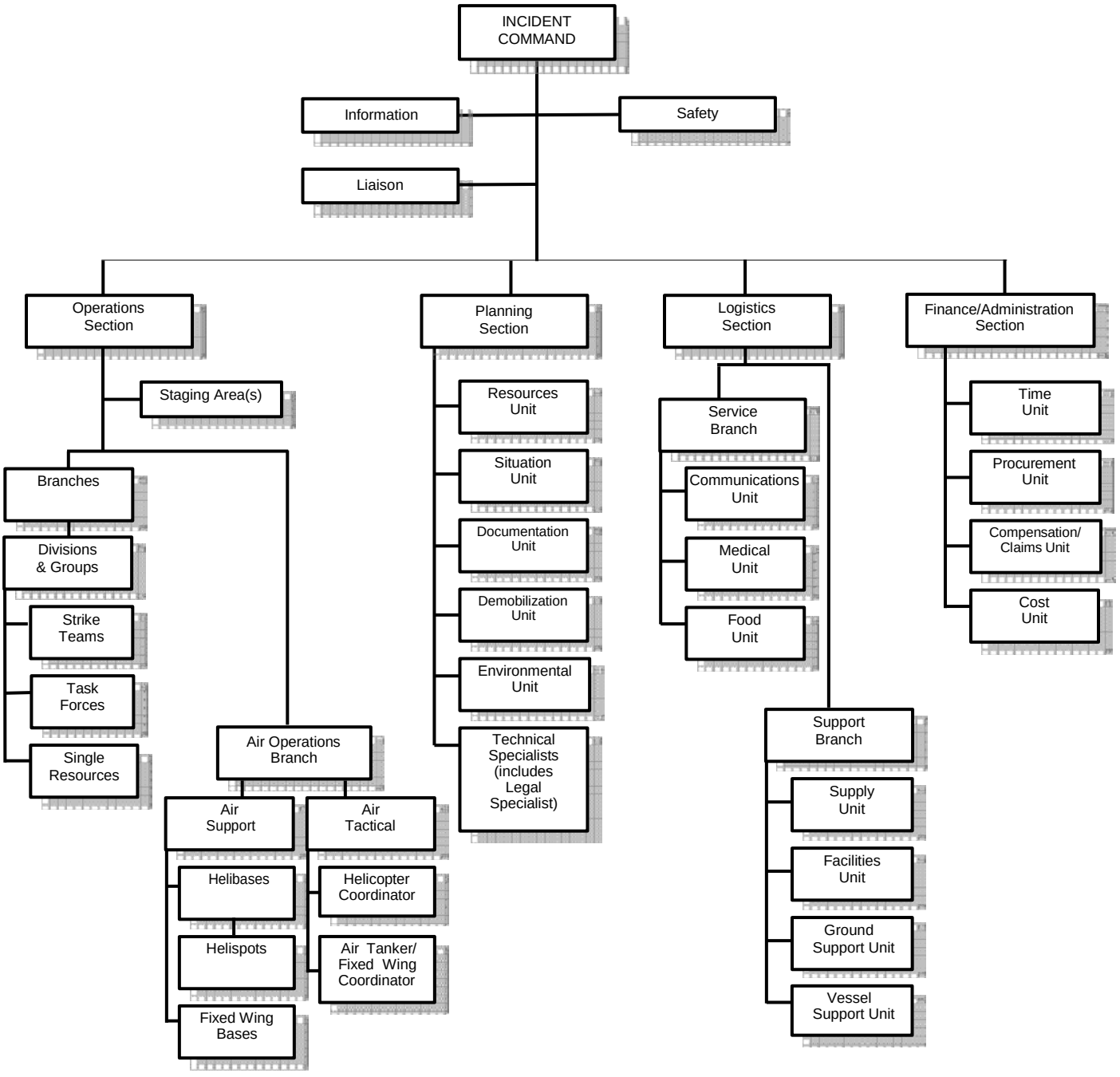


FIGURE A.1

RESPONSE EQUIPMENT INVENTORY

Item	Quantity	Location	Year Acquired
SPILL RESPONSE EQUIPMENT			
Spill Containment Boom 24" Petrobarrier	400'	Dock Response Trailer	Approximately 1990 & 2008
Spill Containment Boom 18" Kepner	1,500'	Dock Response Trailer	Approximately 1990
Spill Containment Boom 24" Petrobarrier	1,100'	In Water	Approximately 1990
19' Oil Spill Response Boat w/130 hp outboard	1	At Dock	2005
14' Skiff w/14 hp Outbooard	1	Maintenance Shop	1990
Misc.	4 ea. 3M Sorbent Pads (100 ct. - HP 156) 2 ea SPC1900 Sorbent Sweep 2 ea. SXT638 Sorbent Roll 2 ea. SPC 150 sorbent roll 4 ea. Ergon Sorbent Boom E810 8" x 10"	A Yard Emergency Response Supplies South End of Storage Building	Replaced as needed.
100' Sorbent Sweep Boom	3 each	Dock Storage	Replaced as needed.
Sorbent Pads	5 Bales	Dock Storage Container	Replaced as needed.

All contractor response equipment to be available during a spill event can be found on the Western Response Resource List (WRRL) website: www.wrrl.us/index.html

Note: All Facility emergency response equipment is maintained in an operable status at all times. Equipment is inspected quarterly. All equipment maintenance records are maintained at the Facility for five (5) years. A sample inspection form is located in Appendix G.

The Company primarily relies on its Primary Response Contractor during spill scenarios.

FIGURE A.2

CONTRACTED RESPONSE RESOURCES

AMPD INFORMATION

- **AMPD response provider**

OSRO / Clean-up Contractor
Harbor Island Terminal

(Equipment deployment personnel are located at equipment site.)

Contract Expiration Date
Proprietary Equipment

- **Equipment Address (*1-hour response time):**

Boom: Harbor Island Terminal
2720 13th Ave. SW
Seattle, WA 98134

- **Equipment Address (*2-hour response time):**

Skimmer (Vacuum Trucks): Harbor Island Terminal
2825 NW Market St
Seattle, WA 98107

Temporary Storage: Harbor Island Terminal
2720 13th Ave. SW
Seattle, WA 98134

****Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 2 hours.*

Puget Sound Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Marine Spill Response Corporation	6MPA374	River/Canal	X	X	X	X	Yes
		Inland	X	X	X	X	

E.1 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which uses the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2720 13th Avenue SW
Seattle, WA 98134
c. Activate the Facility's employee emergency alarm system (siren).
d. Contact Olympic Pipeline to shut down inbound pipeline and cease all truck and marine loading/offloading. Do not start engines or move trucks. If emergency is at the marine dock, do not allow the vessel to move. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Burlington Northern if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the western exterior of the office building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility office building, or the north or south staging area.

4. Community Evacuation

The Company has confirmed with the Seattle Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to Harborview Medical Center

From the main terminal exit gate at the corner of SW Lander St. and 13th Avenue SW, proceed west on Lander to 16th Avenue SW, turn left on 16th Avenue SW. Travel approximately one quarter mile on 16th Avenue SW which becomes Klickitat Way SW, stay in to right lane and merge onto eastbound SW Spokane Street. Stay to the left to go up onto W Seattle Bridge towards I-5. Merge onto I-5 N via the ramp on the left, heading toward Vancouver, B.C. Travel approximately one mile on I-5 before taking the Dearborn Street/James Street exit, number 164A, toward Madison Street. Take the James Street exit and turn right onto James Street then right again onto 9th Avenue. The hospital is located at 325 9th Avenue.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located east of 13th Avenue SW. If the emergency is at the marine dock, access is via the Port of Seattle/SSA Terminal 18 – Gate 4 manned security checkpoint.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the aboveground storage tanks (ASTs) in the two main tank farms at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Appendix C.

8. Prevailing Winds

From October through May, winds are generally from the southwest at 10 to 20 mph. From June through September, winds are generally from the north at 0 to 9 mph.

9. Water Currents

Elliot Bay and the Duwamish River in the vicinity of the Facility are tidally influenced waters with net surface currents that flow generally toward the sea (north). Average currents in the area do not exceed much more than one knot. The mean tidal range for the Central Puget Sound area is 9.4 to 10.48 feet. The diurnal tidal range is 13.1 to 15.0 feet.

ICS FORMS

NRC Incident No. #_____

1. Incident Name	**2. Operational Period to be covered by IAP (Date/Time)** From: To:	**CG IAP COVER SHEET**

3. Approved by Incident Commander(s):

ORG	NAME

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☐ ICS 202-CG (Response Objectives)
- ☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- ☐ ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- ☐ ICS 205-CG (Communications Plan)
- ☐ ICS 206-CG (Medical Plan)
- ☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____
- ☐ Map/Chart
- ☐ Weather forecast / Tides/Currents

Other Attachments

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by: **Date/Time**

NRC Incident No. #_____

1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

4. Current Situation:

NRC Incident No. #_____

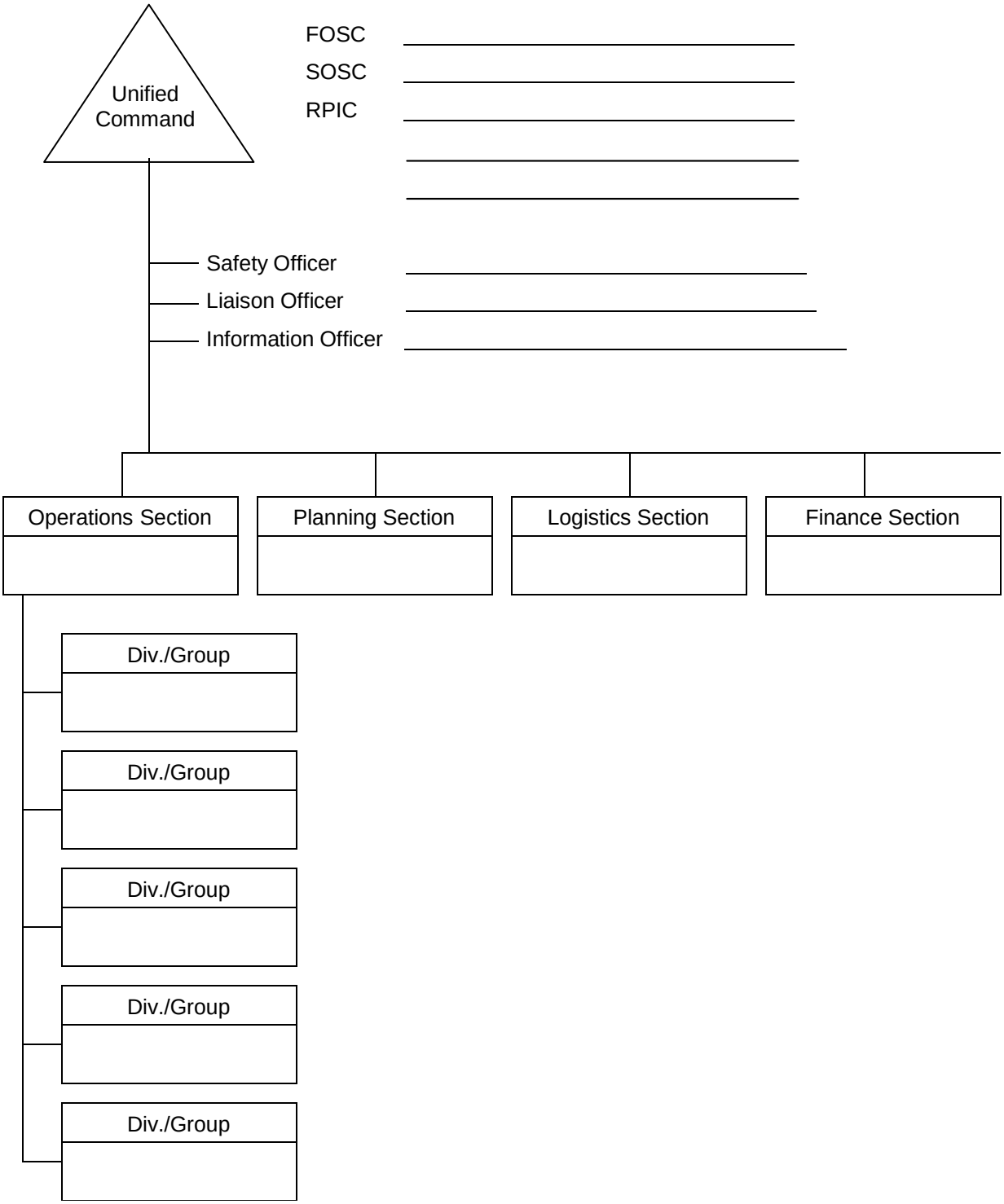
1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Initial Response Objectives, Current Actions, Planned Actions

NRC Incident No. #_____

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Current Organization



NRC Incident No. #____________________

1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Resources Summary

Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	**INCIDENT OBJECTIVES** **ICS 202-CG**

3. Objective(s)

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

Approved Site Safety Plan Located at:

5. Prepared by: (Planning Section Chief) **Date/Time**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**ORGANIZATION ASSIGNMENT LIST ICS 203-CG**

3. Incident Commander(s) and Staff

Agency	IC	Deputy

Safety Officer:	
Information Officer:	
Liaison Officer:	

4. Agency Representatives

Agency	Name

5. PLANNING/INTEL SECTION

Chief	
Deputy	
Resources Unit	
Situation Unit	
Environmental Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION

Chief	
Deputy	

a. Support Branch

Director	
Supply Unit	
Facilities Unit	
Vessel Support Unit	
Ground Support Unit	

b. Service Branch

Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION

Chief	
Deputy	
Deputy	
Staging Area Manager	
Staging Area Manager	
Staging Area Manager	

a. Branch – Division Groups

Branch Director		
Deputy		
Division Group		
Division Group		
Division Group		
Division/Group		
Division/Group		

b. Branch – Division/Groups

Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		

c. Branch – Division/Groups

Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		

d. Air Operations Branch

Air Operations Br. Dir	
Helicopter Coordinator	

8. FINANCE/ADMINISTRATION SECTION

Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit) **Date/Time**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**Assignment List ICS 204-CG**
3. Branch	**4. Division/Group/Staging**	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical_____ Evacuation_____ Other _____

10. Prepared by: **Date/Time**	**11. Reviewed by (PSC):** **Date/Time**	**12. Reviewed by (OSC):** **Date/Time**

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

9. Other Attachments (as needed)

☐ **Map/Chart** ☐ **Weather Forecast/Tides/Currents** ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date / Time) From: To:	INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared by: (Communications Unit) **Date / Time**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To:	**COMMUNICATIONS LIST** **ICS 205A-CG**

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date / Time) From: To:	**MEDICAL PLAN** **ICS 206-CG**

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

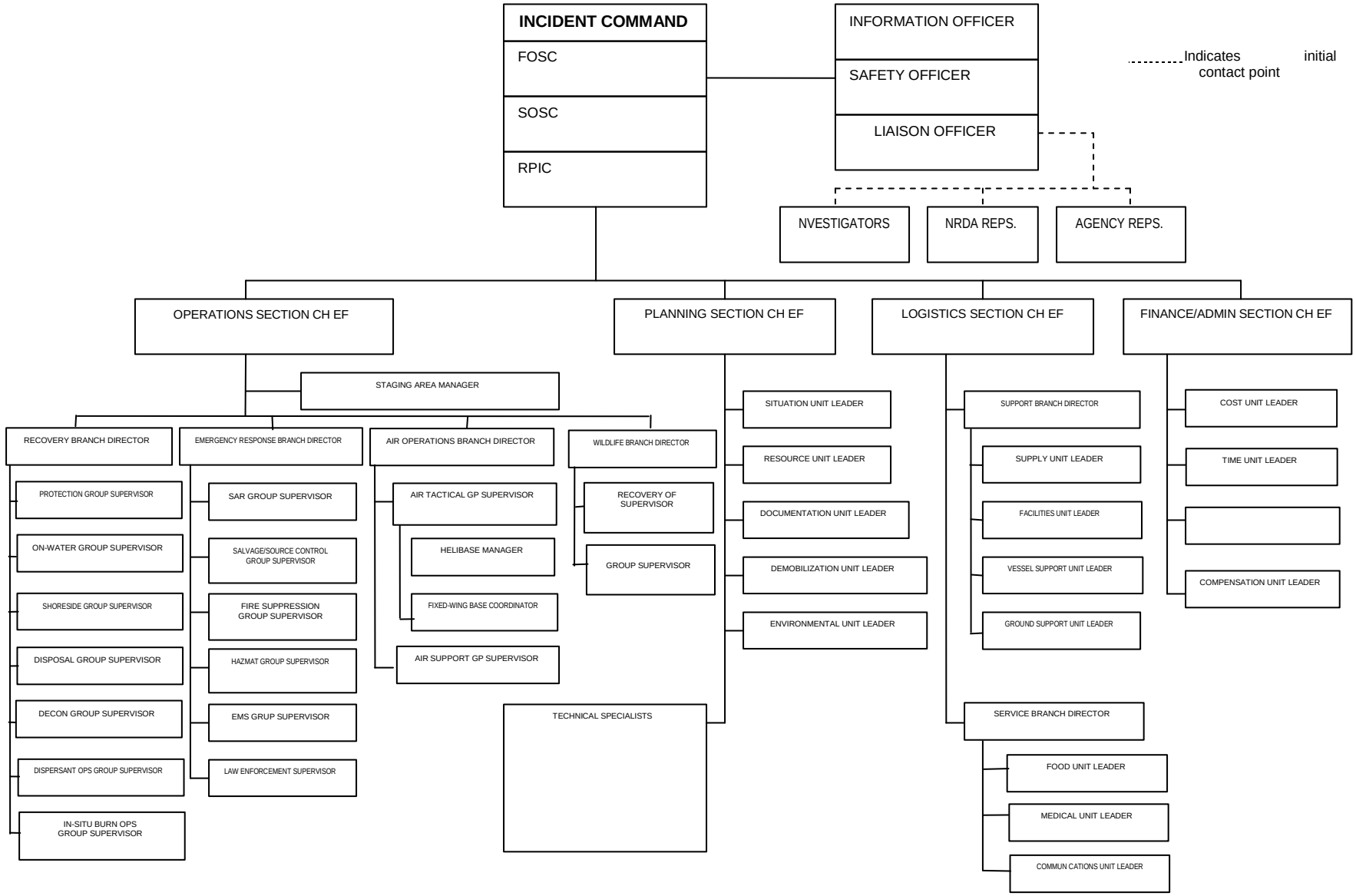
5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared by: (Medical Unit Leader) Date/Time	8. Reviewed by: (Safety Officer) Date/Time

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT ORGANIZATION CHART ICS 207-CG



INCIDENT ORGANIZATION CHART 03/05)	ICS 207-CG (Rev

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To: Time of Report	**INCIDENT STATUS SUMMARY ICS 209-CG**

3. Type of Incident

☐	Oil Spill	☐	HAZMAT	☐	AMIO
☐	SAR/Major SART	☐	SI/Terrorism	☐	Natural Disaster
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload
☐	Planned Event	☐	Maritime HLS/Prevention	☐	

4. Situation Summary as of Time of Report:

5. Future Outlook/Goals/Needs/Issues:

6. Safety Status/Personnel Casualty Summary

	Since Last Report	Adjustments To Previous Op Period	Total
Responder Injury			
Responder Death			
Public Missing (Active Search)			
Public Missing (Presumed Lost)			
Public Uninjured			
Public Injured			
Public Dead			
Total Public Involved			

7. Property Damage Summary

Vessel	$
Cargo	$
Facility	$
Other	$

8. Attachments with clarifying information

☐	Oil/HAZMAT	☐	SAR/LE	☐	
☐		☐		☐	
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload

NRC Incident No. #_____

9. Equipment Resources					
Kind	Notes	# Ordered	# Available	# Assigned	# Out of Service
USCG Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – USCG Cutter					
Vessels – Boat					
Vehicles – Car					
Vehicles – Truck					
Pollution Equip – VOSS/SORS					
Pollution Equip – Portable Storage					
Pollution Equip – Boom					
Non-CG/Other Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – SAR/LE Boat					
Vessels – Work/Crew Boat					
Vessels – Tug/Tow Boat					
Vessels – Pilot Boat					
Vessels – Deck Barge					
Vessels –					
Vehicles – Car					
Vehicles – Ambulance					
Vehicles – Truck					
Vehicles – Fire/Rescue/HAZMAT					
Vehicles – Vac/Tank Truck					
Vehicles –					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/ Barge					
Pollution Equip – Portable Storage					
Pollution Equip – OSRV					
Pollution Equip – Boom					
Pollution Equip –					

10. Personnel Resources	
Agency	**Total # of People**
USCG	
DHS (other than USCG)	
NOAA	
FBI	
DOD (USN Supsalv, CST, etc.)	
DOI (US Fish & Wildlife, Nat Parks, BLM, etc.)	
RP	
State	
Local	
Total Personnel Resources Used From all Organizations:	

11. Prepared by:	**Date/Time Prepared:**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To: Time of Report	**ICS 209-CG OIL/HAZMAT ATTACHMENT**

3. HAZMAT/Oil Spill Status (Estimated, in gallons)

Common Name(s):

UN Number:	☐ Secured	☐ Unsecured
CAS Number:	Remaining Potential (bbl):	
	Rate of Spillage (bbl/hr):	

	Adjustments To Previous Operational Period	Since Last Report	Total
Volume Spilled/Released			
Mass Balance - HAZMAT/Oil Budget			
Recovered HAZMAT/Oil			
Evaporation/Airborne			
Natural Dispersion			
Chemical Dispersion			
Burned			
Floating, Contained			
Floating, Uncontained			
Onshore			
Total HAZMAT/Oil accounted for:	N/A	N/A	

Comments:

4. HAZMAT/Oil Waste Management (Estimated, Since Last Report)

	Recovered	Disposed	Stored
HAZMAT/Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

Comments:

5. HAZMAT/Oil Shoreline Impacts (Estimated in miles)

Degree of Impact	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

Comments:

6. HAZMAT/Oil Wildlife Impacts (Since Last Report)

					Died in Facility	
Type of Wildlife	Captured	Cleaned	Released	DOA	Euthanized	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

Comments:

7. Prepared by:	**Date/Time Prepared:**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To: Time of Report	**ICS 209-CG** **SAR/LE ATTACHMENT**

3. Evacuation Status

	Since Last Report	Adjustments To Previous Operational Period	Total
Total to be Evacuated			
Number Evacuated			

4. Migrant Interdiction Status

	Since Last Report	Adjustments To Previous Op Period	Total
Vessels Interdicted			
Migrants Interdicted at Sea			
Migrants Interdicted Ashore			
Injured			
MEDEVAC'd			
Deaths			
Migrants Repatriated			

5. Sorties/Patrols Summary (List of Sorties Since Last Report)

	Since Last Report	Total
Number of Sorties/Patrols		
Area Covered (square miles)		
Total Time On-Scene (In Hours)		
	Since Last Report	Total
Number of Sorties/Patrols		
Area Covered (square miles)		
Total Time On-Scene (In Hours)		

6. Use of Force Summary

Category	Since Last Report	Total
III - Soft Empty Hand Control		
IV - Hard Empty Hand Control		
V - Intermediate Weapons		
VI - Deadly Force		
VSL - Force to Stop Vessel from Cutter/Boat		
A/C - Force to Stop Vessel From Aircraft		
Arrests		
Seizures		
Deaths		

7. Operational Controls Summary

Currently In Force

Type	Initiating Unit	Initiated Date	Activity #

Removed Since Last Report

Type	Initiating Unit	Initiated Date	Date Removed	Activity #

18. Prepared by:	**Date/Time Prepared:**

1. Incident Name	2. Operational Period (Date / Time) From: To:	STATUS CHANGE ICS 210-0S

3. Personnel / Resource Name or I.D.

4. New status

D Available / staged D Assigned D Out of Service

5. FROM Location or Status	6. TO Location or Status

7. Time of Location / status Change

8. Comments

9. Prepared by: Date / Time

10. Processed by: (Resource Unit) Date / Time

NRC Incident No. #_____

CHECK-IN LIST	1. INCIDENT NAME:	2. CHECK-IN LOCATION:	3. DATE/T ME:

CHECK-IN INFORMATION

4. LIST PERSONNEL (OVERHEAD) BY AGENCY NAME – OR LIST EQU PEMENT BY THE FOLLOW NG FORMAT:
S=Supplies H=Helicopter
O=Overhead VL=Vessels
E=Equipment C=Crew
A=Aircraft VH=Vehicle

AGENCY	**RESOURCE IDENTIFIER**	KIND	5. ORDER/ NUMBER	6. DATE/TIME CHECK-IN	7. LEADER'S NAME	8. TOTAL NO. PERSONNEL	9. INCIDENT CONTACT INFORMATION	10. INCIDENT LODGING INFO/CONTACT INFO	11. HOME UNIT	12. METHOD OF TRAVEL	13. INCIDENT ASSIGNMENT	14. SENT TO RESTAT TIME/INT

15.

ICS 211-CG PAGE_____ of _____

16. PREPARED BY (Name and Position) USE BACK FOR REMARKS OR COMMENTS

NRC Incident No. #_____

1. Incident Name	**2. Date and Time of Message**	**GENERAL MESSAGE ICS 213-CG**
3. TO:	ICS Position	
4. FROM:	ICS Position	
5. Subject:		
6. Message		
7 Reply		
8. Signature/Position (person replying)	**Date/Time of reply**	

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	**UNIT LOG ICS 214-CG**
3. Unit Name/Designators	**4. Unit Leader (Name and ICS Position)**	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

NRC Incident No. #____________________

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

OPERATIONAL PLANNING WORKSHEET

1.INCIDENT NAME

2. DATE & TIME PREPARED

3. OPERATIONAL PERIOD (DATE & T ME)

4. DIVISION/ GROUP/ OTHER LOCATION	5. WORK ASSIGNMENTS	6. KINDS OF RESOURCES																	7. OVERHEAD	8. SPECIAL EQU PMENT & SUPPLIES	9. REPORTING LOCATION	10. REQUESTED ARRIVAL TIME
		REQ																				
		HAVE																				
		NEED																				
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ICS 215 USCG 12-02	11. TOTAL RESOURCES REQUIRED																		14. PREPARED BY (NAME & POSITION)
	12. TOTAL RESOURCES ON HAND																		
	13. TOTAL RESOURCES NEEDED																		

RADIO REQUIREMENTS WORKSHEET ICS 216	1. INCIDENT NAME	2. DATE	3. TIME

4. BRANCH	5. AGENCY	6. OPERATIONAL PERIOD	7. TACTICAL FREQUENCY

8. DIVISION/ GROUP: AGENCY:	DIVISION/ GROUP: AGENCY:	DIVISION/ GROUP: AGENCY:

9. AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS

216 ICS	PAGE of	5. PREPARED BY (COMMUNICATIONS UNIT)

RADIO FREQUENCY ASSIGNMENT WORKSHEET ICS 217

1 INCIDENT NAME	2 DATE	3 OPERATIONAL PERIOD (DATE/TIME)

4 RADIO DATA / 5 INCIDENT ORGANIZATION																										
SOURCE	FUNCTION	CH #	FREQUENCY																							TOTAL BY REQ
6 AGENCY	ID	CH #	FREQUENCY																							
7 TOTAL RADIOS REQUIRED																										

217 ICS		7 PREPARED BY (NAME/POSITION)

SUPPORT VEHICLE INVENTORY ICS 218	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

VEHICLE INFORMATION

a. TYPE	b. MAKE	c. CAPACITY/SIZE	d. AGENCY/OWNER	e. I.D. NO.	f. LOCATION	g. RELEASE TIME

ICS 218	PAGE	5. PREPARED BY (GROUND SUPPORT UNIT)

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To:	**AIR OPERATIONS SUMMARY** **ICS 220-CG**

3. Distribution

☐ Fixed-Wing Bases_____ ☐ Helibase _____

4. Personnel and Communications

	Air Operations Director	Air / Air Frequency	Air / Ground Frequency
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. Location / Function	**7. Assignment**	**8. Fixed-Wing**		**9. Helicopter**		**10. Time**		**11. Aircraft Assigned**	**12. Operating Base**
		NO.	TYPE	NO.	TYPE	Available	Commence		
	13. TOTALS								

14. Air Operation Support Equipment	**15. Prepared by** **Date / Time**

NRC Incident No. #_____

DEMOBILIZATION CHECKOUT		
1. Incident Name/Number	2. Date/Time	3. Demob. No.
4. Unit/Personnel Released		
5. Transportation Type/No.		
6. Actual Release Date/Time	7. Manifest? ☐ Yes ☐ No Number	
8. Destination	9. Notified: ☐ Agency ☐ Region ☐ Area ☐ Dispatch Name: Date:	
10. Unit Leader Responsible for Collecting Performance Rating		

11. Unit/Personnel

You and your resources have been released subject to sign off from the following:
Demob. Unit Leader check the appropriate box

Logistics Section

- ☐ Supply Unit
- ☐ Communications Unit
- ☐ Facilities Unit
- ☐ Ground Support Unit Leader

Planning Section

- ☐ Documentation Unit

Finance Section

- ☐ Time Unit

Other

- ☐
- ☐

12. Remarks

13. Prepared by (include Date and Time)

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	DAILY MEETING SCHEDULE ICS 230-CG

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	
	Command & General Staff Meeting	IC/UC gives direction to Command & General staff including incident objectives and priorities	IC/UC, Command & General Staff	
	Tactics Meeting	Develop/Review primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OSC, LSC, RESL & SITL	
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for he next Operational Period.	Determined by the IC/UC	
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command & General Staff, Branch Directors, Div/Gru Sups., Task Force/Strike Team Leaders and Unit Leaders	

4. Prepared by: (Situation Unit Leader) **Date/Time**

NRC Incident No. #_____

1. Incident Name	2. Meeting Date / Time	MEETING SUMMARY ICS 231-0S
3. Meeting Name		
4. Meeting Location		
5. Facilitator		
6. Attendees		
7. Notes (with summary of decisions and action items)		
8. Prepared by:	Date / Time	

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**RESOURCES AT RISK SUMMARY** **ICS 232-CG**

3. Environmentally-Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

_____

_____

_____

_____

_____

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

_____

_____

_____

_____

_____

5. Prepared by: (Environmental Unit Leader) **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	ACP Site Index ICS 232a-CG

3. Index to ACP/GRP sites shown on Situation Map

Site #	Priority	Site Name and/or Physical Location	Action	Status

Note: This form is designed to be posted next to the situation map. Use additional sheets, as needed.

4. Prepared by: **Date/Time**

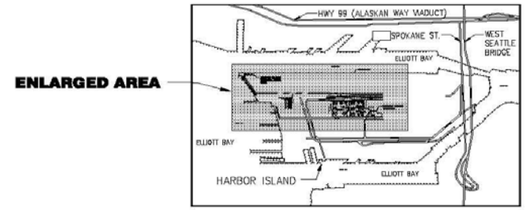
EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

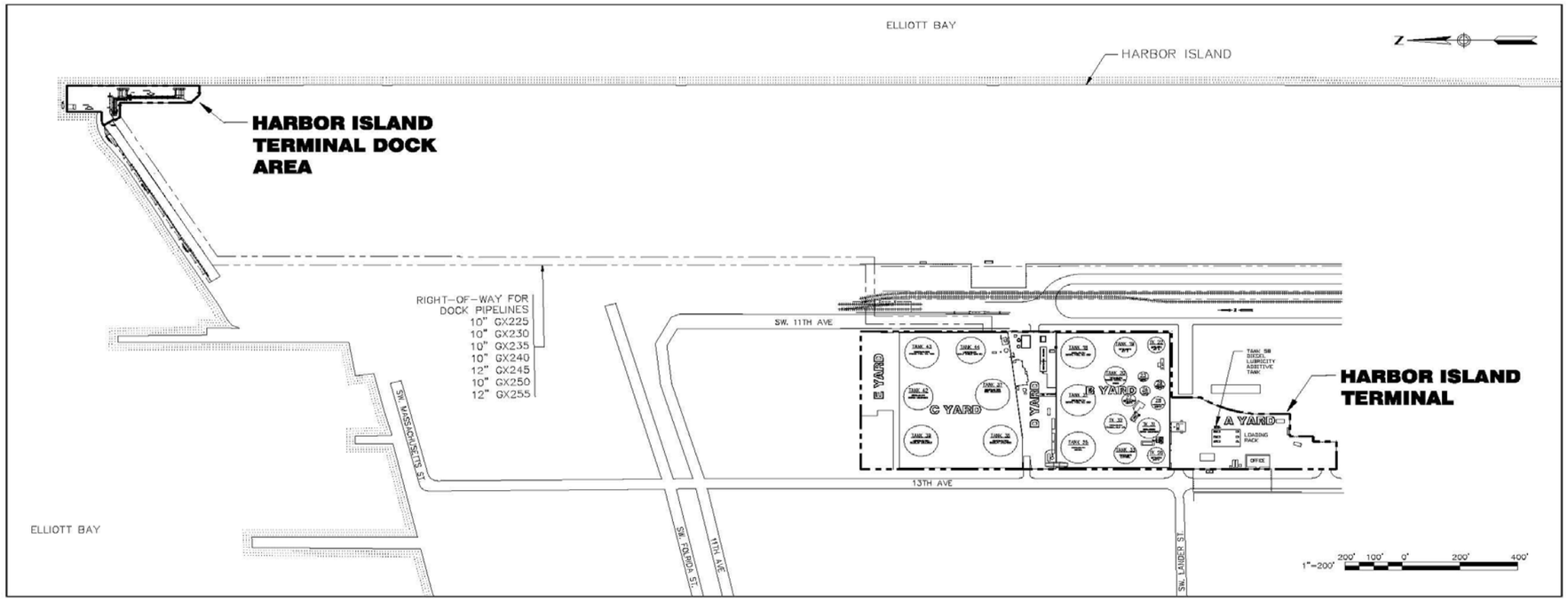
FIGURE 1.2

FACILITY DIAGRAM

D-HI-00-003



AREA MAP
SCALE: NONE



ENLARGED MAP
SCALE: 1"=200'-0"

REVISION NUMBER	DATE	REVISION DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT MGR.
1	12/11/08	AS-BUILT PER AFE-28185 (DIESEL LUBRICITY ADD.)	SUN	CLV	VFV
0	02/07/06	AS-BUILT PER AFE 24622 (DOCKLINE)	CLV	VFV	VFV

KINDER MORGAN
LIQUIDS TERMINALS
ENERGY PARTNERS, L.P.

DRAWN BY: CLV
DATE: 10-26-06
SCALE: AS NOTED

GENERAL LAYOUT

HARBOR ISLAND TERMINAL

RECORD DRAWING No. D-HI-00-003

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

–J…
–J…

Harbor Island Terminal
September 2008

TACTICAL PLANS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

INTEGRATED CONTINGENCY PLAN

Kinder Morgan
Liquids Terminals LLC

Harbor Island Terminal

Prepared for:

Kinder Morgan Liquids Terminals LLC
Harbor Island Terminal
2720 13th Avenue SW
Seattle, WA 98134-1040

Prepared by:

Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 ● Fax: (281) 320-9700
www.rmaworld.com

Washington State Department of Ecology
Spill Prevention, Preparedness and Response Program
P.O. Box 47600, Olympia, WA 98504-7600
For information, please contact SPPR Program at 360-407-7455.

DEPARTMENT OF ECOLOGY
State of Washington

WAC 173-182-220. Binding Agreement
Each plan shall contain a written statement binding the plan holder to its use. The binding agreement shall be signed by the owner or operator, or a designee with authority to bind the owners and operators of the facility or vessel covered by the plan. The agreement is submitted with the plan.

Submitting Party Information

Company Name:	Kinder Morgan Liquids Terminals LLC - Harbor Island Terminal		
Contact Name:	David Rowland		
Address:	2720 13th Ave SW Seattle, WA 98134-1040		
Phone Number:	(206) 682-4706	**Fax Number:**	(206) 622-8003
Email:	david_rowland@kindermorgan.com	**Website:**	www.kindermorgan.com

Binding Agreement

I certify that I reviewed and am familiar with the information submitted in this Plan. I verify acceptance of the plan and commit to (a) a safe and immediate response to spills and to substantial threats of spills that occur in, or could impact Washington waters or Washington's natural, cultural and economic resources; (b) having an incident commander in the state within six hours after notification of a spill; (c) the implementation and use of the plan during a spill and substantial threat of a spill, and to the training of personnel to implement the plan; (d) the authority and capability to make the necessary and appropriate expenditures in order to implement plan provisions; (e) working in unified command within the incident command system to ensure that all personnel and equipment resources necessary to the response will be called out to clean up the spill safely and to the maximum extent practicable.

Authorized Signature

4/18/2013
Date

David Rowland
Print Name

Area Manager
Title

ECY 070-217 (Rev. 1-13) January 2013 Printed on recycle paper

If you need this publication in an alternate format, call the Spills Program at 360-407-7455. Persons with hearing loss, call 711 for Washington Relay Service. Persons with a speech disability, call 877-833-6341.

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: KMEP, L.P. Harbor Island Terminal
2720 13th Avenue SW
Seattle, WA 98134

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 1.3)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes: X**	**No:**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date.
- This Integrated Contingency Plan fulfills the requirements of 33 CFR Subpart F and the information and procedures are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

Signature: _____ Date: 4/25/2012

David W. Rowland, Area Manager

NOTE: It is the responsibility of the holder of this Plan to insure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.
- Record each change on this form.

REVISION RECORD

CHANGE DATE	AFFECTED PAGES	DESCRIPTION OF CHANGE(S)	NAME	ECOLOGY NOTIFIED (Y/N)
September 2008	All	New plan distribution by RMA		
March 2009	ERAP-17 thru ERAP-20, iv, vi, 1-2, 1-4, 2-15 thru 2-18, 3-2, 3-7, 3-11, 3-12, 3-39 and Tactical Plans, 4-1, 4-2, 4-4, 4-9 thru 4-54, 5-1, 6-4, 6-6, 6-7, Appendix A-Insert NRCES Amendment 3 following Contract, B-5, D-6, D-10, Cross Ref-15, Cross Ref-16	Updates to address WDOE review.	C. V. Mathis, Manager – Emergency Response Programs	**Y**
October 2009	ERAP-2, ERAP-5, ERAP-17, iv, v, 1-7, 2-3, and 2-15	Annual Review. Update QI and contact information.	C. V. Mathis, Manager – Emergency Response Programs	Y
December 2009	ERAP-11, ERAP-15, ERAP-18, iv, v, TOC-iv, 2-9, 2-13, 6-4 through 6-15, A-6, B-5 and WAC 173-182 Planning Standard Calculations (2 pages)	Updates to address WDOE review.	C. V. Mathis, Manager – Emergency Response Programs	Y
April 2010	ERAP-2, ERAP-5, ERAP-11, ERAP-18, ERAP-36, ii, iii, iv, 1-7, 2-3, 2-9, 2-16	Updates for new Area Manager, PRC Contract Number and SMT Support Contractor	C. V. Mathis, Manager Emergency Response Programs	Y
June 2010	iv, A-10, NRC Work Directive, Agency Correspondence, WDOE Approval Letter and Certificate	Replace NRC contract with current Work Directive. Add WDOE Approval.	C. V. Mathis, Manager Emergency Response Programs	Y
August 2010	iv, ERAP, TOC-1, 1-7, Section 2	Update QI/AQI information, revised notification procedures.	C. V. Mathis, Manager Emergency Response Programs	Y

REVISION RECORD				
CHANGE DATE	**AFFECTED PAGES**	**DESCRIPTION OF CHANGE(S)**	**NAME**	**ECOLOGY NOTIFIED (Y/N)**
November 2010	ii through vii, ERAP-2, ERAP-5, ERAP-12, 1-7, 2-3, 2-10	New Area Manager/QI, update notification information.	C. V. Mathis, Manager Emergency Response Programs	Y
December 2010	v, ERAP-5 , 2-3	Personnel changes.	C.V. Mathis, Manager Emergency Response Programs	Y
February 2011	v, A-6, Appendix G (all), Cross Ref-5 through Cross Ref-10	USCG Regulatory changes. Update forms.	C.V. Mathis, Manager Emergency Response Programs	Y
April 2011	V, A-10 and NRCES Work Directive	Update OSRO information.	C.V. Mathis, Manager Emergency Response Programs	Y
May 2011	v, 1-11, C-24, Appendix F.	Correct history of Substantial Expansion, update Reportable Discharge History, and update Disposal Plan.	C.V. Mathis, Manager Emergency Response Programs	Y
January 2012	ii, iii, v, ERAP-2, ERAP-5, 1-7, 2-3	Replace Qualified Individual and Alternate, update notification information.	C.V. Mathis, Manager Emergency Response Programs	Y
March 2012	Ii, iii, v, ERAP-2, ERAP-5, 1-7, 2-3	Replace Qualified Individual and Alternate, update notification information.	C.V. Mathis, Manager Emergency Response Programs	Y
May 2012	iii, v, TOC-iv, ERAP -16, 1-10, 2-15, 6-1, 6-16 and Environmental Sensitivities Maps, B-3	Revisions to address USCG Sector Puget Sound ICP Review	C.V. Mathis, Manager Emergency Response Programs	Y
November 2012	v, Corresp-1, USCG Sector Puget Sound Ltr dated August 21, 2012	USCG Sector Puget Sound ICP approval	C.V. Mathis, Manager Emergency Response Programs	Y
June 2013	ii, v, vi, vii, ERAP-2, ERAP-4, ERAP-6 and Crisis Support Team list, ERAP-7, TOC-iv, 1-6 and Fire Protection Diagram, 1-7, 1-9, 2-2, 2-4, 2-5, 2-12, Section 7.0, E-4 and Evacuation Diagram, Cross Reference-14, Cross Reference-15	Revisions to address WAC 173-182 changes, updated facility diagrams, internal and external contact information, and owner/operator address.	C.V. Mathis, Manager Emergency Response Programs	Y

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GLOSSARY OF TERMS/ACRONYMS

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This glossary contains definitions of terms that will be used frequently during the course of response operations.

Activate: The process of mobilizing personnel and/or equipment within the response organization to engage in response operations.

Activator: An individual in the response organization whose responsibilities include notifying other individuals or groups within the organization to mobilize personnel and/or equipment.

Adverse Weather: The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice, temperature, weather - related visibility, and currents within the Captain of the Port (COTP) zone in which the systems or equipment are intended to function.

Agency Representative: Individual assigned to an incident from an agency who has been delegated full authority to make decisions on all matters affecting that agency's participation in response operations.

Area Committee: As defined by Sections 311(a)(18) and (j)(4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for the area designated by the President. The Area Committee may include ex-officio (i.e., non-voting) members (e.g., industry and local interest groups).

Area Contingency Plan: As defined by Sections 311(a)(19) and (j)(4) of CWA, as amended by OPA, means the plan prepared by an Area Committee, that in conjunction with the NCP, shall address the removal of a discharge including a worst-case discharge and the mitigation or prevention of a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President.

Average Most Probable Discharge: A discharge of the lesser of 50 barrels or 1% of the volume of the worst case discharge.

Barrel (bbl): Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit.

Bioremediation Agents: Means microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation to mitigate the effects of the discharge.

Boom: A piece of equipment or a strategy used to either contain free floating oil to a confined area or protect an uncontaminated area from intrusion by oil.

Booming Strategies: Strategic techniques which identify the location and quantity of boom required to protect certain areas. These techniques are generated by identifying a potential spill source and assuming certain conditions which would affect spill movement on water.

Bulk: Material that is stored or transported in a loose, unpackaged liquid, powder, or granular form capable of being conveyed by a pipe, bucket, chute, or belt system.

Chemical Agents: Means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the oil pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include solvents.

Clean-up Contractor: Persons contracted to undertake a response action to clean up a spill.

Cleanup: For the purposes of this document, cleanup refers to the removal and/or treatment of oil, hazardous substances, and/or the waste or contaminated materials generated by the incident. Cleanup includes restoration of the site and its natural resources.

Coastal Waters: For the purpose of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

Coastal Zone: As defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Coast Guard District Response Group (DRG): As provided for by CWA sections 311(a)(20) and (j)(3), means the entity established by the Secretary of the department in which the USCG is operating within each USCG district and shall consist of: the combined USCG personnel and equipment, including firefighting equipment, of each port within the district; additional prepositioned response equipment; and a district response advisory team.

Command: The act of controlling manpower and equipment resources by virtue of explicit or delegated authority.

Command Post: A site located at a safe distance form the spill site where response decisions are made, equipment and manpower deployed, and communications handled. The Incident Commander and the On-Scene Coordinators may direct the on-scene response from this location.

Communications Equipment: Equipment that will be utilized during response operations to maintain communication between the Company employees, contractors, Federal/State/Local agencies. (Radio/ telephone equipment and links)

Containment Boom: A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.

Contingency Plan: A document used by (1) federal, state, and local agencies to guide their planning and response procedures regarding spills of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.

Contract or Other Approved Means: For OPA 90, a written contract with a response contractor; certification by the facility owner or operator that personnel and equipment are owned, operated, or under the direct control of the facility, and available within the stipulated times; active membership in a local or regional oil spill removal organization; and/or the facility's own equipment.

Critical Areas to Monitor: Areas which if impacted by spilled oil may result in threats to public safety or health.

Cultural Resources: Current, historic, prehistoric and archaeological resources which include deposits, structures, ruins, sites, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to the historical or prehistorical culture of people in the state as well as to the natural history of the state.

Damage Assessment: The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.

Decontamination: The removal of hazardous substances from personnel and their equipment necessary to prevent adverse health effects.

Discharge: Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Dispersants: Means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Diversion Boom: A floatation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert the product towards a pick up point, or away from certain areas.

Drinking Water Supply: As defined by Section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

Economically Sensitive Areas: Those areas of explicit economic importance to the public that due to their proximity to potential spill sources may require special protection and include, but are not limited to: potable and industrial water intakes; locks and dams; and public and private marinas.

Emergency Service: Those activities provided by state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.

Environmentally Sensitive Areas: Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.

Facility: Either an onshore facility or an offshore facility and includes, but is not limited to structures, equipment, and appurtenances thereto, used or capable of being used to transfer oil to or from a vessel or a public vessel. A facility includes federal, state, municipal, and private facilities.

Facility Operator: The person who owns, operates, or is responsible for the operation of the facility.

Federal Fund: The spill liability trust fund established under OPA.

Federal Regional Response Team: The federal response organization (consisting of representatives from selected federal and state agencies) which acts as a regional body responsible for planning and preparedness before an oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill.

Federal Response Plan (FRP): Means the agreement signed by 25 federal departments and agencies in April 1987 and developed under the authorities of the Earthquake Hazards Reduction Act of 1977 and the Disaster Relief Act of 1974, as amended by the Stafford Disaster Relief Act of 1988.

First Responders, First Response Agency: A public health or safety agency (e.g., fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.

Handle: To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.

Harmful Quantity Of Oil: The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen upon or discoloration of the surface of the water or a shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

Hazardous Material: Any nonradioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.

Hazardous Substance: Any substance designed as such by the Administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act; regulated pursuant to Section 311 of the Federal Water Pollution Control Act, or discharged by the SERC.

Hazardous Waste: Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.

HAZMAT: Hazardous materials or hazardous substances, exposure to which may result in adverse effects on health or safety of employees.

HAZWOPER: Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of response operations.

Heat Stress: Dangerous physical condition caused by over exposure to extremely high temperatures.

Hypothermia: Dangerous physical condition caused by over exposure to freezing temperatures.

Incident: Any event that results in a spill or release of oil or hazardous materials. Action by emergency service personnel may be required to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Briefing Meeting: Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world.

Incident Command Post (ICP): That location at which all primary command functions are executed.

Incident Command System (ICS): The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of assigned resources at an incident.

Incident Commander (IC): The one individual in charge at any given time of an incident. The Incident Commander will be responsible for establishing a unified command with all on-scene coordinators.

Indian Tribe: As defined in OPA section 1001, means any Indian tribe, band, nation, or other organized group or community, but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the Tribe.

Initial Cleanup: Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of cleanup increases significantly without timely remedial action. All sites must be evaluated to determine whether initial cleanup is total cleanup, however, this will not be possible in all cases due to site conditions (i.e., a site where overland transport or flooding may occur).

Initial Notification: The process of notifying necessary the Company personnel and Federal/ State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.

Initial Response Actions: The immediate actions that are to be taken by the spill observer after detection of a spill.

Inland Area means the area shoreward of the boundary lines defined in 46 CFR part 7, except that in the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) as defined in §80.740 through 80.850 of this chapter. The inland area does not include the Great Lakes.

Inland Waters: State waters not considered coastal waters; lakes, rivers, ponds, streams, underground water, et. al.

Inland Zone: Means the environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Interim Storage Site: A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.

Lead Agency: The government agency that assumes the lead for directing response activities.

Lead Federal Agency: The agency which coordinates the federal response to incident on navigable waters. The lead federal agencies are:

- **U.S. Coast Guard:** Oil and chemically hazardous materials incidents on navigable waters.
- **Environmental Protection Agency:** Oil and chemically hazardous materials incidents on inland waters.

Lead State Agency: The agency which coordinates state support to federal and/or local governments or assumes the lead in the absence of federal response.

Loading: Transfer from Facility to vehicle.

Local Emergency Planning Committee (LEPC): A group of local representatives appointed by the State Emergency Response Commission (SERC) to prepare a comprehensive emergency plan for the local emergency planning district, as required by the Emergency Planning and Community Right-to-know Act (EPCRA).

Local Response Team: Designated Facility individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil or hazardous substance spill. They will supervise and control all response and clean-up operations.

Lower Explosive Limit: Air measurement utilized to determine the lowest concentration of vapors that support combustion. This measurement must be made prior to entry into a spill area.

Marinas: Small harbors with docks, services, etc. for pleasure craft.

Medium Discharge: Means a discharge greater than 2,100 gallons (50 Bbls) and less than or equal to 36,000 gallons (85+ Bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD.

National Contingency Plan: The plan prepared under the Federal Water Pollution Control Act (33 United State Code §1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code § 9601 et seq), as revised from time to time.

National Pollution Funds Center (NPFC): Means the entity established by the Secretary of Transportation whose function is the administration of the Oil Spill Liability Trust Fund (OSLTF). Among the NPFC's duties are: providing appropriate access to the OSLTF for federal agencies and states for removal actions and for federal trustees to initiate the assessment of natural resource damages; providing appropriate access to the OSLTF for claims; and coordinating cost recovery efforts.

National Response System (NRS): Is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Area Committees, and Special Teams and related support entities.

National Strike Force (NSF): Is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team (PIAT), and the National Strike Force Coordination Center. The NSF is available to assist OSCs in their preparedness and response duties.

National Strike Force Coordination Center (NSFCC): Authorized as the National Response Unit by CWA section 311(a)(23) and (j)(2), means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina, with responsibilities that include administration of the USCG Strike Teams, maintenance of response equipment inventories and logistic networks, and conducting a national exercise program.

Natural Resource: Land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality.

Navigable Waters: As defined by 40 CFR 110.1 means the waters of the United States, including the territorial seas. The term includes:

All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

Interstate waters, including interstate wetlands;

All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters;

That are or could be used by interstate or foreign travelers for recreational or other purposes;

From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; and

That are used or could be used for industrial purposes by industries in interstate commerce. All impoundments of waters otherwise defined as navigable waters under this section;

Tributaries of waters identified in paragraphs (a) through (d) of this definition, including adjacent wetlands; and

Wetlands adjacent to waters identified in paragraphs (a) through (e) of this definition: Provided, that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency,

for the purposes of the Clean Water Act jurisdiction remains with EPA.

Nearshore Area: For OPA 90, the area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation defined in §80.740 - 80.850 of title 33 of the CFR.

Non-persistent or Group I Oil: A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

1. At lease 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F);
2. At least 95% of which volume, distill at a temperature of 370 degrees C (700 degrees F).

Ocean: The open ocean, offshore area, and nearshore area as defined in this subpart.

Offshore area: The area up to 38 nautical miles seaward of the outer boundary of the nearshore area.

Oil or Oils: Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR Part 302 adopted August 14, 1989, under Section 101(14) of the federal comprehensive environmental response, compensation, and liability act of 1980, as amended by P. L. 99-499.

Oil Spill Liability Trust Fund: Means the fund established under section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509).

Oily Waste: Product contaminated waste resulting from a spill or spill response operations.

On-Scene Coordinator (OSC): Means the federal official predesignated by the EPA or the USCG to coordinate and direct response under subpart D.

On-site: Means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action.

Open Ocean: means the area from 38 nautical miles seaward of the outer boundary of the nearshore area, to the seaward boundary of the exclusive economic zone.

Owner or Operator: Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character.

Persistent Oil: A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:

1. Group II specific gravity less than .85
2. Group III specific gravity between .85 and less than .95
3. Group IV specific gravity .95 and including 1.0
4. Group V specific gravity greater than 1.0

Plan Holder: The plan holder is the industry transportation related facility for which a response plan is required by federal regulation to be submitted by a vessel or facility's owner or operator.

Post Emergency Response: The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.

Post Emergency: The phase of response operations conducted after the immediate threat of the release has been stabilized, and cleanup operations have begun.

Primary Response Contractors or Contractors: An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil.

Qualified Individual (QI): That person or entity who has authority to activate a spill cleanup contractors, act as liaison with the "On-Scene Coordinator" and obligate funds required to effectuate response activities.

Recreation Areas: Publicly accessible locations where social/sporting events take place.

Regional Response Team (RRT): The Federal response organization (consisting of representatives from selected Federal and State agencies) which acts as a regional body responsible for overall planning and preparedness for oil and hazardous materials releases and for providing advice to the OSC in the event of a major or substantial spill.

Remove or Removal: As defined by section 311(a)(8) of the CWA, refers to containment and removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare (including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes monitoring of action to remove discharge.

Response Activities: The containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to public health or welfare, or the environment.

Response Contractors: Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Response Guidelines: Guidelines for initial response that are based on the type of product involved in the spill, these guidelines are utilized to determine clean-up methods and equipment.

Response Plan: A practical manual used by industry for responding to a spill. Its features include: (1) identifying the notifications sequence, responsibilities, response techniques, etc. in a easy to use format; (2) using decision trees, flowcharts, and checklists to ensure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from data required by regulatory agencies to prevent confusion during a spill incident.

Response Resources: All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Responsible Party: Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state.

Response Priorities: Mechanism used to maximize the effective use of manpower and equipment resources based upon their availability during an operational period.

Response Resources: All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Restoration: The actions involved in returning a site to its former condition.

Rivers and Canals: A body of water confined within the inland area that has a project depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

Securing the Source: Steps that must be taken to stop discharge of oil at the source of the spill.

Sinking Agents: Means those additives applied to oil discharges to sink floating pollutants below the water surface.

Site Characterization: An evaluation of a cleanup site to determine the appropriate safety and health procedures needed to protect employees from identified hazards.

Site Conditions: Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.

Site Safety and Health Plan: A site specific plan developed at the time of an incident that addresses:

- Safety and health hazard analysis for each operation.
- Personal protective equipment to be used.
- Training requirements for site workers.
- Medical surveillance requirements.
- Air monitoring requirements.
- Site control measures.
- Decontamination procedures.
- Emergency response procedures.
- Confined space entry procedures.

Site Security and Control: Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.

Skimmers: Mechanical devices used to skim the surface of the water and recover floating oil. Skimmers fall into four basic categories (suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices) which vary in efficiency depending on the type of oil and size of spill.

Snare Boom: Oil will adhere to the material of which this boom is made of and thus collect it.

Sorbents: Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.

Spill: An unauthorized discharge of oil or hazardous substance into the waters of the state.

Spill Observer: The first Facility individual who discovers a spill. This individual must function as the first responder and person-in-charge until relieved by an authorized supervisor.

Spill of National Significance (SONS): Means a spill which due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and cleanup the discharge.

Spill Management Team: The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Spill Response: All actions taken in responding to spills of oil and hazardous materials, e.g.: receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.

Spill Response Personnel: Federal, state, local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region.

Staging Areas: Designated areas near the spill site accessible for gathering and deploying equipment and/or personnel.

State Emergency Response Commission (SERC): A group of officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Re-authorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.

Surface Collecting Agents: Means those chemical agents that form a surface film to control the layer thickness of oil.

Surface Washing Agent: Is any product that removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not involve dispersing or solubilizing the oil into the water column.

Tanker: A self-propelled tank vessel constructed or adapted primarily to carry or hazardous material in bulk in the cargo spaces.

Tidal Current Tables: Tables which contain the predicted times and heights of the high and low waters for each day of the year for designated areas.

Trajectory Analysis: Estimates made concerning spill size, location, and movement through aerial surveillance or computer models.

Transfer: Any movement of oil to, from, or within a vessel by means of pumping, gravitation, or displacement.

Trustee: Means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the OPA, a foreign government official, who may pursue claims for damages under section 1006 of the OPA.

Underwriter: An insurer, a surety company, a guarantor, or any other person, other than an owner or operator of a vessel or facility, that undertakes to pay all or part of the liability of an owner or operator.

Unified Command: The method by which local, state, and federal agencies and the responsible party will work with the Incident Commander to:

- Determine their roles and responsibilities for a given incident.
- Determine their overall objectives for management of an incident.
- Select a strategy to achieve agreed-upon objectives.
- Deploy resources to achieve agreed-upon objectives.

Unified or Coordinated Command Meeting: Held to obtain agreement on strategic objectives and response priorities; review tactical strategies; engage in joint planning, integrate response operations; maximize use of resources; and minimize resolve conflicts.

Volunteers: An individual who donates their services or time without receiving monetary compensation.

Waste: Oil or contaminated soil, debris, and other substances removed from coastal waters and adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized discharge. Waste means any solid, liquid, or other material intended to be disposed of or discarded and generated as a result of an unauthorized discharge of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of their generation or if they are brought to a recycling facility within that time.

Waters of the U.S. - See Navigable Waters

Wetlands: Those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds (40 CFR 112.2(y)).

Wildlife Rescue: Efforts made in conjunction with Federal and State agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.

Worst Case Discharge: The largest foreseeable discharge under adverse weather conditions. For facilities located above the high water line of coastal waters, a worst case discharge includes those weather conditions most likely to cause oil discharged from the facility to enter coastal waters.

AC - Area Committee
AOR - Area of Review
AQI - Alternate Qualified Individual
BIA - Bureau of Indian Affairs
BLM - Bureau of Land Management
BPD - Barrels Per Day
BOD - Biological Oxygen Demand
BOM - Bureau of Mines
CAER - Community Awareness and Emergency Response
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CFR - Code of Federal Regulations
CHEMTREC - Chemical Transportation Emergency Center
COE - U. S. Army Corps of Engineers
COTP - Captain of the Port Zone
CPI - Corrugated Plate Interceptor
CRZ - Contamination Reduction Zone
CWA - Clean Water Act (Federal - Public Law 100-4)
CWS - Community Water System
CZM - Coastal Zone Management
DECON - Decontamination
DOC - Department of Commerce
DOD - Department of Defense
DOE - Department of Energy
DOI - Department of Interior
DOJ - Department of Justice
DOL - Department of Labor
DOS - Department of State
DOT - Department of Transportation
DRAT - District Response Advisory Team
DRG - District Response Group
EBS - Emergency Broadcast System
EHS - Extremely Hazardous Substance
EMA - Emergency Management Agency
EMS - Emergency Medical Service
EOC - Emergency Operations Center
EPA - U. S. Environmental Protection Agency
EPCRA - Emergency Planning and Community Right-to-Know Act of 1986 (Title III of SARA)
EQ - Environmental Quality
ERT - Environmental Response Team
ESA - Endangered Species Act
ETA - Estimated Time of Arrival
FAA - Federal Aviation Administration
FACT - First Assessment Crisis Team
FAX - Facsimile Machine
FCC - Federal Communications Commission
FEMA - Federal Emergency Management Agency
FOSC - Federal On-Scene Coordinator
FR - Federal Register
FRDA - Freshwater Resource Damage Assessment
FRF - Federal Revolving Fund
GIS - Geographic Information System
GSA - General Services Administration
HAZWOPER - Hazardous Waste Operations and Emergency Response
HHS - Department of Health and Human Services
HOPD - Head Office Products Distribution
IBRRC - International Bird Rescue Research Center
IOCC - Interstate Oil Compact Commission
LEPC - Local Emergency Planning Committee
LFL - Lower Flammable Limit
LOSC - Local On-Scene Coordinator
LRT - Local Response Team
MBL - Mobile
MER - Marine Emergency Response
MMS - Minerals Management Service
MMT - Marine Management Team
MOU - Memorandum of Understanding
MSDS - Material Safety Data Sheet
MSO - Marine Safety Office
MSRC - Marine Spill Response Corporation
NCP - National Contingency Plan
NCWS - Non-Community Water System
NEPA - National Environmental Policy Act

NIOSH - National Institute for Occupational Safety and Health
NMFS - National Marine Fisheries Service
NOAA - National Oceanic and Atmospheric Administration (Department of Commerce)
NPDES - National Pollution Discharge Elimination System
NPFC - National Pollution Funds Center
NPS - National Park Service
NRC - National Response Center
NRDA - Natural Resource Damage Assessment
NRS - National Response System
NRT - National Response Team
NSF - National Strike Force
NSFCC - National Strike Force Coordination Center
NTNCWS - Non -Transient Non-Community Water System
OPA - Oil Pollution Act
OPS - Office of Pipeline Safety (DOT)
OSC - On-Scene Coordinator
OSHA - Occupational Safety and Health Administration (USDL)
OSLTF - Oil Spill Liability Trust Fund
OSPRA - Oil Spill Prevention and Response Act
OSRO - Oil Spill Response Organization
PCB - Polychlorinated Biphenyls
PFD - Personal Flotation Device
PGR - Pager
PHMSA - Pipeline and Hazardous Material Safety Administration
PIAT - Public Information Assist Team
POLREP - Pollution Report
PPE - Personal Protective Equipment
PPM - Parts Per Million
PSD - Prevention of Significant Deterioration
QI - Qualified Individual
RACT - Reasonably Achievable Control Technology
RCP - Regional Contingency Plan
RCRA - Resource Conservation and Recovery Act
RECON - Reconnaissance
REP - Radiological Emergency Preparedness
RERT - Radiological Emergency Response Team
RQ - Reportable Quantity
RRT - Regional Response Team
SARA - Superfund Amendments and Reauthorization Act
SCBA - Self Contained Breathing Apparatus
SDWA - Safe Drinking Water Act
SERC - State Emergency Response Commission
SIC - State Implementation Plan
SMT - Spill Management Team
SONS - Spill of National Significance
SOP - Standard Operating Procedure
SPCC - Spill Prevention Control and Countermeasures
SSC - Scientific Support Coordinator (NOAA)
STEL - Short Term Exposure Limits
SUPSALV - United States Navy Supervisor of Salvage
SWD - Salt Water Disposal
TSCA - Toxic Substances Control Act
TSDF - Treatment, Storage or Disposal Facility
UCS - Unified Command System
USACOE - U.S. Army Corps of Engineers
USCG - U.S. Coast Guard
USDA - U.S. Department of Agriculture
USDL - U.S. Department of Labor
USDOD - U.S. Department of Defense
USDOE - U.S. Department of Energy
USDW - Underground Source of Drinking Water
USFWS - U. S. Fish and Wildlife Services
USGS - U. S. Geological Survey
WCD - Worst Case Discharge

1.0 INTRODUCTION AND PLAN CONTENT

1.1 PLAN PURPOSE/OBJECTIVES

The purpose of this Integrated Contingency Plan (“Plan") is to assist the Kinder Morgan Liquids Terminals LLC (“Company”) Harbor Island Terminal ("Facility") personnel prepare for and respond quickly and safely to a discharge originating from the Facility. The Plan provides techniques and guidelines for achieving an efficient, coordinated and effective response to a discharge incident, which may occur at the Facility.

The Company, in compliance with WAC 173-182-145, will implement this Plan throughout the response to a spill or drill.

The Incident Commander will seek approval from WDOE before conducting any spill response activities contrary to those outlined in this Plan unless these actions are necessary to protect human health and safety must be performed immediately in response to unforeseen conditions to avoid additional environmental damage, or when directed by the FOSC and/or SOSC.

The specific objectives of the Plan are to:

- Establish a Local Response Team, assign individuals to fill the positions on the team and define the roles and responsibilities of team members.
- Define notification, activation, and mobilization procedures to be followed when a discharge occurs.
- Define organizational lines of responsibility to be adhered to during a response operation.
- Ensure compliance with certain federal, state, and local regulatory requirements. A summary of the applicable regulations addressed by this plan is provided in Section 1.5.
- Ensure consistency with the National Contingency Plan and Area Contingency Plan(s) for the area of operation.

1.2 FORMAT AND SCOPE OF PLAN

This Plan has been developed under the general guidance published in the Federal Register by the EPA entitled “The National Response Team’s Integrated Contingency Plan” (61 FR 28642). The NRT guidance was developed in conjunction with the Environmental Protection Agency, Department of Transportation (U.S. Coast Guard, Research and Special Programs Administration), Department of the Interior (Minerals Management Service), and the Department of Labor (Occupational Safety and Health Administration). This guidance also provides for state and local contingency planning requirements to be incorporated into the Plan.

This Plan contains prioritized procedures for Facility personnel to mitigate or prevent any discharge resulting from the operations of the Facility. A description of the operations conducted at the Facility is provided in Figure 1.3 with additional information provided in the

1.2 FORMAT AND SCOPE OF PLAN (Cont'd)

"Hazard Evaluation" located in Appendix C. Facility spill mitigation procedures and response guidelines are provided in Section 3.0 for discharges that could result from a variety of sources including, but not limited to:

- Tank overfill/failure
- Piping rupture/leak
- Explosion and/or fire
- Equipment failure (e.g. system failure etc.)

1.3 PLAN DISTRIBUTION PROCEDURES

Distribution will be handled in the following manner:

- Distribution of the Plan is controlled by the number on the binder cover. A distribution list is provided in the Foreword to facilitate control.

- Company personnel who may be called upon to provide assistance during discharge response activities will have access to a copy of the plan for their use and training.

- It is the responsibility of any person holding a copy of the Plan to ensure that the copy is transferred to their replacement in the event of reassignment or change in responsibility.

- Various regulatory agencies will also be distributed a copy of the Plan. The list of agencies is provided in the Distribution List.

1.4 PLAN REVIEW AND UPDATE PROCEDURES

Annual Review/Update

- At least once each year review and make appropriate revisions as required by operational or organizational changes.

- At least once each year review and make appropriate revisions as required by changes in the names and telephone numbers detailed in Section 2.0.

- Plan review opportunities may occur during response team tabletop exercises or actual emergency responses.

- Following each spill or drill the Plan shall be reviewed for accuracy and effectiveness. The Incident Commander will debrief the Spill Management Team, participating agencies and PRCs. When significant plan updates are identified they will be forwarded to the Manager – Emergency Response Programs for inclusion in the next Plan update.

1.4 PLAN REVIEW AND UPDATE PROCEDURES (Cont'd)

Agency Review/Revision Requirements

AGENCY TIMING REQUIREMENTS	EPA	USCG	DOE
Timing for Plan reviews.	Periodically but not to exceed five (5) years.	Within one (1) month of the anniversary of COTP approval letter. If NO CHANGES are required, the Facility should submit a letter to the USCG stating "NO CHANGES REQUIRED."	At least once annually.
Timing for submission of significant Plan revisions as detailed in the following table.	60 days	30 days	24 hours
When submitting revisions to the applicable agencies always include the Facility identification number (see Figure 1.3) with the revisions.			

WDOE must be notified in writing as soon as possible and within 24 hours of any significant change that could affect implementation of the Plan, including a significant decrease in available spill response equipment or personnel. The Plan Holder must also provide a schedule for the prompt return of the Plan to full operational status. Plan revisions must be distributed within 30 days.

The Facility shall revise and resubmit revised portions of the Plan for each change that may materially affect the response to a Worst Case Discharge, including:

CONDITIONS REQUIRING CHANGES	EPA	USCG	DOE
Relocation or replacement of portions of the Facility (including the pipeline) which in any way substantially affect the information included in this Plan, such as a change to the Worst Case Discharge volume.	✓	✓	✓
Emergency response procedures.		✓	✓
A change in the listings of economically important or environmentally sensitive areas identified in the applicable ACP in effect six (6) months prior to the plan review.		✓	✓
Change in the Facility's configuration that materially alters the information included in the Plan.	✓	✓	✓
Change in the type of oil handled, stored, or transferred that materially alters the required response resources.	✓	✓	✓
A change in the name of the Oil Spill Removal Organization (OSRO).		✓	✓
Material change in capabilities of the Oil Spill Removal Organization(s) (OSROs) that provide equipment and personnel.	✓	✓	✓
Material change in the Facility's spill prevention and response procedures.	✓		✓
Any other changes that materially affect the implementation of the Plan.	✓	✓	✓

NOTE: Any agency may require revisions to this Plan at any time if deficiencies are found under their applicable regulations or during an actual response.

1.4 PLAN REVIEW AND UPDATE PROCEDURES (Cont'd)

Incorporation of Plan Revisions

The **Plan Holder**, immediately upon receipt of any revisions, shall:

- Review and insert the revised pages into the Plan.
- Discard the obsolete pages.

1.5 REGULATORY COMPLIANCE

The development, maintenance, and utilization of this Plan implements company policy and addresses the following regulatory requirements and guidelines:

- U.S. EPA - Non-Transportation Related On-Shore Facility Response Planning Rule (40 CFR 112.20).
- U.S. Coast Guard - Marine Transportation Related Facility Response Planning Rule (33 CFR 154).
- Washington Department of Ecology - Oil Spill Contingency Plan (WAC 173-182).
- OSHA's Emergency Action Plan Regulation (29 CFR 1910.38(a)).
- OSHA's HAZWOPER Regulation (29 CFR 1910.120).

This Plan is consistent with the most recent version of the applicable Area Contingency Plans (ACPs). The applicable ACP for the Facility is:

- Northwest Area Contingency Plan (NWACP).

This Plan is consistent with the most recent version of the National Contingency Plan (NCP). The NCP for the Facility is:

- U.S. Environmental Protection Agency; National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule.

Specific Regulatory Cross References are provided at the end of this document.

FIGURE 1.1
AREA MAP

(b) (7)(F), (b) (3)

FIGURE 1.2

FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

FIGURE 1.3

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Harbor Island Terminal 2720 13th Avenue SW Seattle, WA 98134 (206) 682-4706 (206) 623-9023 *(24 hrs)* (206) 622-8003 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP-6A
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	Prior to 1937
Owner/Operator:	Kinder Morgan Liquid Terminals, LLC 1001 Louisiana Street, Suite 1000 Houston, TX 77002 or 1100 Town & Country Road Orange, CA 92868
Qualified Individual: ***(Emergency Coordinator)*** ***(On-Site Firefighting Coordinator)***	David Rowland – Area Manager (Home Address *) (206) 682-4706 *(Work)* (b) (6) *(Cell)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)***	Andrew Holbrook – Operations Manager (Home Address *) (503) 220-1257 *(Work)* (b) (6) *(Cell)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)***	Del Carey – Lead Operator (Home Address *) (206) 682-4706 *(Work)* (b) (6) *(Cell)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2.

* Company policy is to treat an employee's home address as confidential. This information is kept on file at the Regional Office (909) 877-2373, and Houston Corporate Office, Human Resources Dept. (713) 369-8876.

FIGURE 1.3

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	King County
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 1.1
Facility Diagram:	Provided in Figure 1.2
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than 400 yards
Landside Directions:	Leave Seattle-Tacoma Airport going southwest on Alaskan Way toward Vine Street. Turn left onto Wall Street then right onto Elliott Avenue. Merge onto WA-99 S/Alaskan Way and travel approximately 2.5 miles. Take the W Seattle BR exit toward Harbor Island. Stay straight to go onto S Spokane Street. Turn left onto Klickitat Way SW, which becomes Klickitat Avenue SW. Turn right onto 13th Avenue SW. The Facility is approximately half a mile from the intersection of Klickitat Avenue SW and 13th Avenue SW.
Waterside Directions:	From Elliott Bay travel south on the Duwamish Waterway East for approximately one half mile. The Facility is on the left descending bank at the Port of Seattle Berth 18.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products. The Facility receives product by tanker truck, barge and ship, and the Olympic Pipeline. Product is transported out of the Facility by tanker truck, barge and ship.
- The aboveground storage tanks are contained in a bermed secondary containment area that, at a minimum, provides secondary containment for 110 percent of the largest tank. The tanks are filled or drawn down through a system of aboveground pipes that connect this Facility into the Company distribution network.

FIGURE 1.3

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Description of Operation (Cont'd):

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

Products Handled:

Trade Name	Density (lbs/gal)	Specific Gravity	API Gravity	Oil Group No.	Sulfur Content
Biodiesel	7.43	0.86-0.90	28.4 (average)	3	
Diesel (ULS)	6.94	0.81-0.88	25-36	1	<15.0 ppm
Ethanol	6.58	0.79	46.5 (average)	1	
Gasoline (RUL/PUL)	6.07	0.72-0.76	50-75	1	
Heavy Fuel Oil	8.25	0.98 (approx)	6-12	3, 4, 5	4.5% max
Intermediate Fuel Oil (180/380/500)	8.25	0.98 (approx)	10-11	4	1.8-2.0%
Jet-A	7.08 g/ml	0.81	25	1	
Marine Diesel Oil	7.34	0.80-0.90	11.2 (min)	3	5.0%
Transmix	6.58	0.79	46.5	1	Varies

Note: The Facility maintains a stand alone full encompassing MSDS reference binder. The Company maintains an MSDS database at http://kmonline.kindermorgan.com/ehs/Pages/msds.aspx

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with four (4) loading spots which handle various refined petroleum products.
- A maximum of four (4) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 1,200 trucks per week.

Loading Rate: 600 gpm

Truck Capacity: 11,500 gallons (maximum)

FIGURE 1.3

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - LOADING RACK (Cont'd)

Discharge Prevention:

- The curbed concrete slab drains directly to an underground tank.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

PHYSICAL DESCRIPTION - MARINE OPERATIONS

Description of Operation:

- The Facility operates seven (7) pipelines at the dock. Six (6) 12" diameter, and one (1) 10" diameter pipelines.

Simultaneous Transfers: Typically the Facility will transfer to or from one (1) barge or tanker at a time. In rare situations the Facility may transfer to or from two (2) barges at the same time.

Length: Tank Ships: Maximum 810 ft. length, 45 ft. maximum draft

Barges: 450 ft.

Average Shipment Size: 5,000 – 80,000 bbls

Discharging Rates: Approximately 1,860 – 5,750 bph

Amount of Transfer: 25,000 bbls *(typical)*

Frequency of Transfer: 30 transfers per month *(typical)*

Duration of Transfer: 2 - 18 Hours *(typical)*

Discharge Prevention:

- Each transfer at the dock is closely monitored by two (2) operators, one (1) at the dock area and one (1) at the Facility end of the line. Radio communication is maintained between the operators to assure a safe product transfer.
- The loading/unloading lines are equipped with drip pans under the pump header connections.
- The dock area is well lighted and operations conducted in this area are in strict accordance with USCG procedures. These procedures are written in the Facility's Dock Operations Manual.

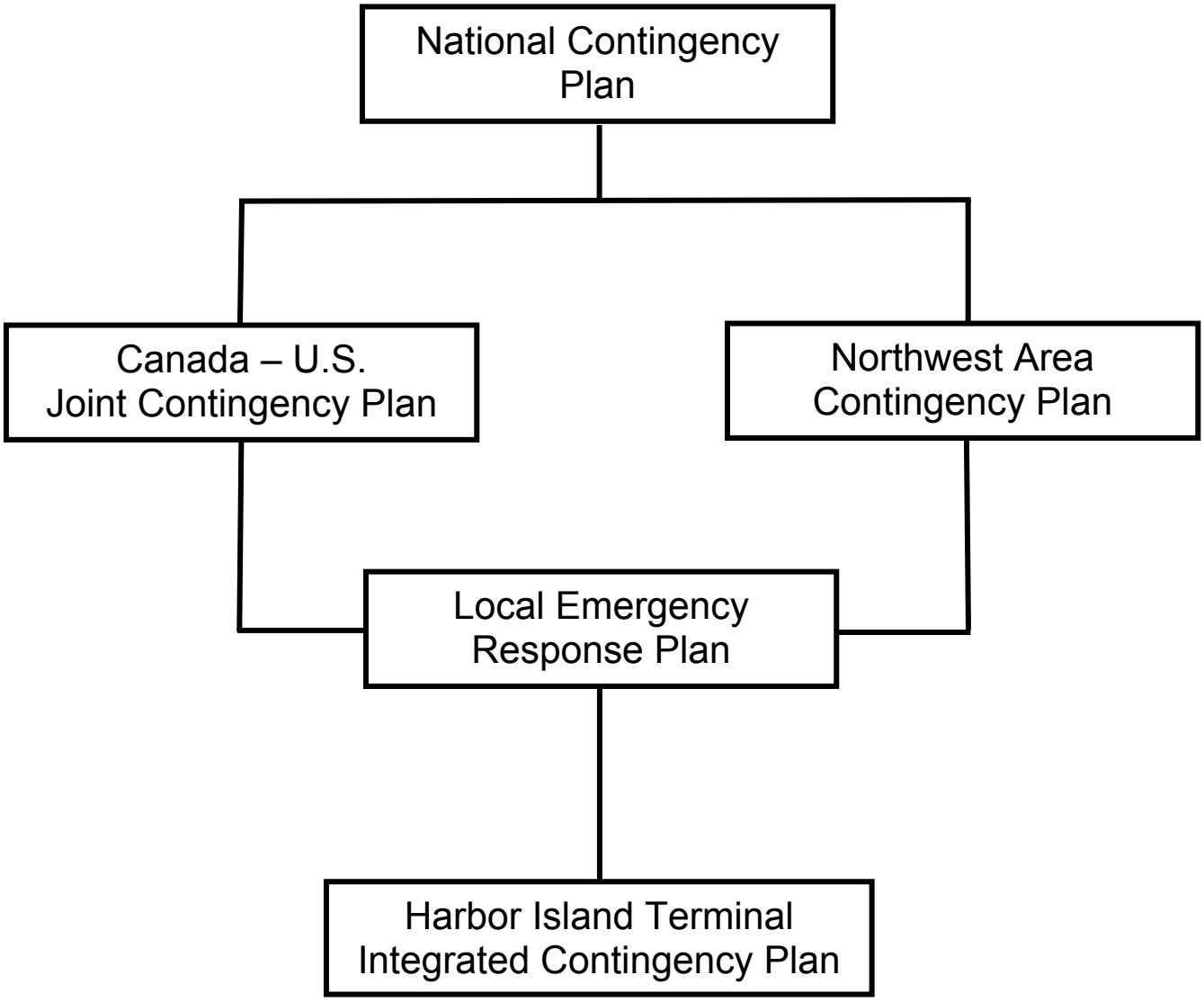
FIGURE 1.3

FACILITY INFORMATION (Cont'd)

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS
● 2002 Facility was acquired from GATX. ● 2005 Marine Transfer Facility and associated piping relocated to Terminal 18, Berth 1.

FIGURE 1.4

INTERFACE WITH OTHER PLANS



2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific internal notification sequence for both drills and spills to navigable waters, state waters or grounds, including permeable secondary containment, which threaten navigable waters, state waters or grounds including permeable secondary containment is detailed in Figure 2.1 which provides the following:

Person Discovering Event

- Immediately notify Qualified Individual (and 911, if necessary)

Qualified Individual

- Immediately notify (PRC) OSRO
- Activate ERL
- If the volume of the spill has not yet been determined use the appropriate Initial Release Volume Estimation formula from Attachment 5 of Liquids O&M Procedure 159 available at http://team/opseng/lom/L_OM%20Manual/L_Procedure_159.doc. In determining whether spills to ground, including permeable secondary containment, may threaten navigable or state waters – consider current and predicted weather conditions which may affect the rate of flow across the surface or rate of absorption into the ground.

Internal Notification References are detailed in Figure 2.2.

2.2 EXTERNAL NOTIFICATIONS

All external notifications for both spills and drills to navigable waters, state waters or grounds, including permeable secondary containment, which threaten navigable waters, state waters or grounds including permeable secondary containment are the responsibility of the Qualified Individual or his/her designated alternate.

Spills to ground greater than 42 gallons (1 barrel) shall be reported immediately using the contact information in Section 2. If the spilled quantity is unknown or the release is ongoing a report shall be made. The form in Figure 2.6 should be used to document the decision process for spills to ground notification and includes factors such as whether the spill is ongoing, whether it is in an area with environmental conditions that make ground water impact more likely.

A spill is considered to have not impacted ground if it occurs on a paved surface such as asphalt or concrete. A spill to dirt or gravel is considered to have impacted ground and is reportable. See Appendix C for surface water drainage, collection and discharge.

All spills are considered reportable spills except:

- Spills which are known to be less than forty-two gallons that do not impact surface or groundwater.
- CERCLA releases.
- On-facility air releases to the atmosphere only.
- Releases from underground storage tanks regulated under chapter 173-360 WAC.

2.0 NOTIFICATIONS

- Preexisting sources of releases identified as RCRA solid waste management units.
- Spills contained within areas controlled by NPDES
- Permitted systems that are not likely to threaten groundwater and do not exceed applicable federal reportable quantities.

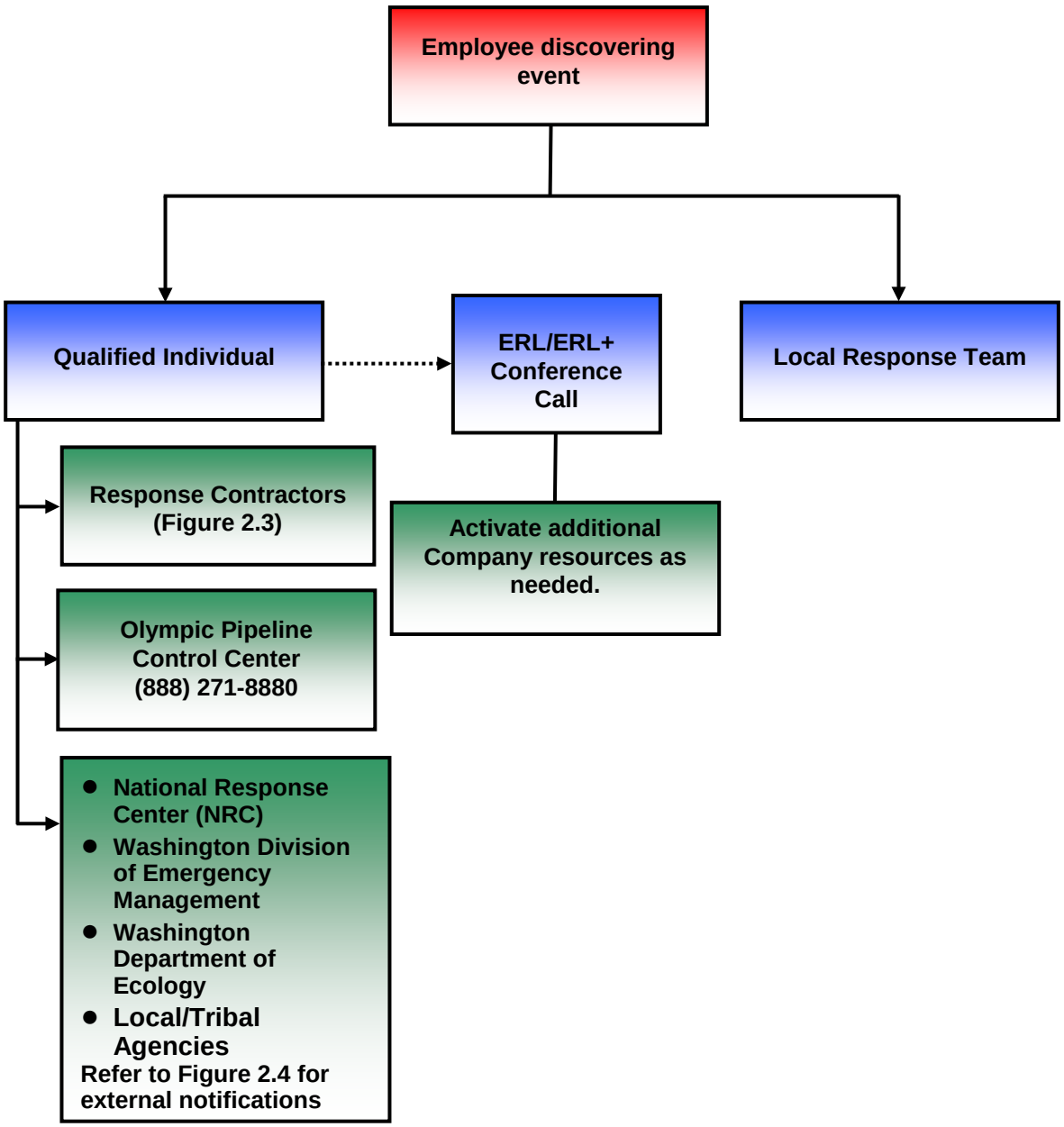
Spills to ground will be assessed as soon as practicable in accordance with Section 6.5, Figure 6.3 and Attachment 5 of Liquids O&M Procedure 159.

Qualified Individual

- Notify PRC (OSRO)
- Notify all required regulatory/governmental agencies and other external organizations (refer to Figure 2.4). The “Initial Reporting Details” form and instructions for its use are provided in Figure 2.5.

FIGURE 2.1

EMERGENCY RESPONSE NOTIFICATIONS PROCESS



- The sequence of notification depends on the type and severity of the situation, and is to be used for spills to navigable waters, state waters, and spills to ground or permeable secondary containment that threaten state waters.
- Judgment must be used.
- Public and employee safety must always be the first consideration.
- Notification of Olympic is dependent upon whether their operation is involved.

FIGURE 2.2

INTERNAL NOTIFICATION REFERENCES

INTERNAL NOTIFICATIONS - GENERAL			
FACILITY AREA	**ADDRESS**	**OFFICE**	**FAX**
Harbor Island Terminal	2720 13th Avenue SW Seattle, WA 98134	(206) 682-4706 (206) 623-9023*	(206) 622-8003

INTERNAL NOTIFICATIONS - LOCAL RESPONSE TEAM			
POSITION/TITLE	**NAME**	**OFFICE**	**OTHER**
Qualified Individual / Area Manager	David Rowland	(206) 682-4706	(b) (6)
Alt. Qualified Individual / Operations Manager	Andrew Holbrook	(503) 220-1257	
Alt. Qualified Individual / Lead Operator	Del Carey	(206) 682-4706	
Local Responders	Jerry Alverez	(206) 682-4706	
	Matt Failor	(206) 682-4706	
	Stuart Getz	(206) 682-4706	
	Wayne Hegg	(206) 682-4706	
	Reuben Hodges	(206) 682-4706	
	Jesse Lambert	(206) 682-4706	
	Evan McKee	(206) 682-4706	
	Jerry Severson	(206) 682-4706	
	Mat Strand	(206) 682-4706	

* 24 Hour

FIGURE 2.2

INTERNAL NOTIFICATION REFERENCES (Cont'd)
CORPORATE CRISIS SUPPORT TEAM

FIGURE 2.3

EXTERNAL NOTIFICATION RESPONSE CONTRACTORS

USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)/ WDOE APPROVED PRIMARY RESPONSE CONTRACTORS (PRC)			
COMPANY	**LOCATION**	**OFFICE/ALTERNATE**	**RESPONSE TIME**
Marine Spill Response Corporation	2720 13th Avenue, S.W. Seattle, WA 98134	(800) 259-6772*	2.0
SPILL MANAGEMENT TEAM SUPPORT			
Witt O'Brien's Inc.*	Slidell, LA Spring, TX Brea, CA Seattle, WA	(985) 781-0804* (281) 320-9796	1.0

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES

REQUIRED NOTIFICATIONS	
NATIONAL RESPONSE CENTER	
c/o United States Coast Guard (CG-3RPF-2) 2100 2nd Street Southeast – Room 2111B Washington, DC 20593-0001	(800) 424-8802* (202) 267-2180* (202) 267-1322 (Fax)
REPORTING REQUIREMENTS TYPE: Any oil discharge that has impacted or threatens to impact navigable waters or release of a hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: Not required. Request fax confirmation of report.	
STATE OF WASHINGTON	
EMERGENCY MANAGEMENT DIVISION (EMD) Building 20, M/S: TA-20 Camp Murray, WA 98430-5122	(800) 258-5990*
DEPARTMENT OF ECOLOGY (WDOE) - NORTHWEST OFFICE 3190 160th Avenue Bellevue, WA 98008-5452	(425) 649-7000*
REPORTING REQUIREMENTS TYPE: All oil spills into state waters and on land within the state. Note: State waters include surface and ground waters. VERBAL: Immediately (within 1 hour) and shall include: a) Names of reporting party and company b) Contact phone(s) number(s) c) Material, quantity, concentration, and location of spill d) Cleanup status e) Responsible party, if known WRITTEN: As agency may request, a full written report may be submitted and shall include the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.	

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS (Cont'd)	
FIRE DEPARTMENT	
Seattle Fire Dept., Station 36 Seattle, WA	(206) 386-1436
REPORTING REQUIREMENTS TYPE: Any fire or unauthorized release of a flammable or hazardous material on property. VERBAL: Immediately WRITTEN: As requested by agency. NOTE: The Fire Department notifications will be handled by the Local Area Operations.	
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)	
200 Constitution Avenue Washington, DC 20210	(800) 321-6742 (404) 562-2300
OSHA Region 10 Seattle, WA	(206) 553-5930
REPORTING REQUIREMENTS TYPE: Fatality from a work related incident or the inpatient hospitalization of three (3) or more employees as a result of a work related incident VERBAL: Immediately WRITTEN: As requested by the Agency	
TRIBAL GOVERNMENT	
Muckleshoot Tribe Fisheries Department – Isabel Tinoco Government Affairs – Claudia Kauffman Preservation/Wildlife – Melissa Calvert	 (253) 876-3109 (253) 876-3167 (253) 876-3266
WASHINGTON DEPARTMENT OF FISH AND WILDLIFE	
Oil Spill Response Team North Puget Sound Region 4 (Mill Creek)	(800) 258-5990* (425) 775-1311

* 24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER POTENTIAL REQUIRED NOTIFICATIONS	
U.S. ENVIRONMENTAL PROTECTION AGENCY REGION X	
1200 Sixth Avenue Suite 900 Seattle, WA 98101	(206) 553-1263*
REPORTING REQUIREMENTS TYPE: Immediately for all spills that impact or threaten navigable water or adjoining shoreline. VERBAL: Notification to the EPA is typically accomplished by the call to the NRC. WRITTEN: As the agency may request depending on circumstances.	
U.S. COAST GUARD SECTOR PUGET SOUND	
1519 Alaskan Way S., Building 1 Seattle, WA 98134	(206) 217-6001*
REPORTING REQUIREMENTS TYPE: Immediately for all spills that impact or threaten navigable water or adjoining shoreline. VERBAL: Notification to the Sector is typically accomplished by the call to the NRC. WRITTEN: As the agency may request depending on circumstances.	
STATE OF WASHINGTON	
Puget Sound Clean Air Agency 1904 Third Ave., Suite 105 Seattle, WA 98101	(206) 343-8800
REPORTING REQUIREMENTS TYPE: Any spills that violate air quality standards, report to WDOE Air Programs Division. WRITTEN: As agency may request, a full written report may be submitted and shall include the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.	
U.S. FISH AND WILDLIFE SERVICE	
1849 C Street NW Washington, DC 20240-0002	(202) 208-3100
911 NE 11TH Ave Portland, OR	(706) 613-9493 Ext. 27 (503) 231-6120
REPORTING REQUIREMENTS TYPE: Wildlife Protection / Rehabilitation. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances	

*24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd)	
LOCAL EMERGENCY PLANNING COMMITTEE (LEPC)	
King County Office Of Emergency Management 7300 Perimeter Rd South Rm 128 Seattle, WA 98108-3848	(206) 296-3830*
REPORTING REQUIREMENTS TYPE: Any spill reportable to the NRC. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances	

*24 Hour

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
Law Enforcement		
State Police	Seattle, WA	(206) 720-3040
Local Water Supply System		
King County Water Dept.	Seattle, WA	(206) 242-8535
Seattle Public Utilities (Water Supply)	Seattle, WA	(206) 684-3000
Weather Report		
National Weather Service	Seattle, WA	(206) 526-6087
Radio/Television		
KOMO - 1000 AM - Radio	Seattle, WA	(206) 223-5700
KPLZ 101.5 FM - Radio	Seattle, WA	(206) 223-5700
FOX - TV	Seattle, WA	(206) 441-4390
King Channel 5 - TV	Seattle, WA	(206) 448-5555
Hospitals/Ambulances		
Harborview Medical Hospital	Seattle, WA	(206) 731-3041
King County Emergency Medical	Seattle, WA	(206) 296-4693
Virginia Mason Medical Center	Seattle, WA	(206) 223-6877
American Medical Response	Seattle, WA	(253) 833-6030
AAA Air Ambulance Service	Seattle, WA	(206) 343-9263
Neighbors		
BP Seattle Terminal	Seattle, WA	(260) 623-4635
Crowley Marine Services	Seattle, WA	(206) 332-8201
Port of Seattle, Emergency Duty Officer	Seattle, WA	(206) 787-3688
Port of Seattle, Public Affairs	Seattle, WA	(206) 787-3446
Rainier Petroleum Corp.	Seattle, WA	(206) 623-3480
Shell Distribution Terminal	Seattle, WA	(206) 224-0489
SSA – Terminal 18 CEM Building	Seattle, WA	(206) 654-3770
Todd Shipyards	Seattle, WA	(206) 623-1635 Ext. 474

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (Cont'd)		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
Sensitive Area Contacts		
Chitten Lock Master	Seattle, WA	(206) 783-7000
Seattle Aquarium	Seattle, WA	(206) 386-4320
Washington Department of Natural Resources	Seattle, WA	(800) 527-3305
Washington Department of Parks and Recreation	Seattle, WA	(360) 902-8844
Alternate Command Post Locations		
Adelman Travel Group		(800) 525-3752 (303) 763-3170 (303) 763-2959 (Fax)
Hilton Seattle	1301 6th Ave. Seattle, WA 98101	(206) 624-0500*
Port of Seattle	Pier 69	(206) 728-3296
Sheraton Seattle Hotel	1400 6th Ave. Seattle, WA 98101	(206) 621-9000* (206) 621-8441 (Fax)

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL CONTRACTED RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Environmental Consultants			
Witt O'Brien's Inc. *	Consultants	Slidell, LA Spring, TX	(985) 781-0804*/ (281) 320-9796
Delta Environmental	Consultants	Redwood, WA	(425) 498-7700
Hart Crowser *	Consultants	Lake Oswego, OR	(503) 620-7284
Pipeline Contractors			
C. M. Emeis & Company *	Pipeline Contractor	Portland, OR	(503) 282-0091
Hickey Marine Enterprises *	Pipeline Contractor	Vancouver, WA	(360) 695-3731
Northwest Metal Fabrication & Pipe *	Pipeline Contractor	Wilsonville, OR	(503) 692-0995
Alaska Continental Pipeline, Inc.	Pipeline Contractor	Toledo, WA	(360) 864-8866
Armadillo Underground, Inc.	Pipeline Contractor	Salem, OR	(503) 588-8050
Snelson	Pipeline Contractor	Sedro-Woolley, WA	(360) 856-5816
San Juan Industries	Welding and Fitting	Portland, OR	(503) 294-1100 (971) 563-1595
Terra Hydr Inc.	Environmental/Pipeline Contractor	Portland, OR	(503) 625-4000 (b) (6) Cell
Cleanup Contractor			
Shaver Transportation	Water Cleanup	Portland, OR	(503) 228-8847*
Thermo Fluids Environmental	Cleanup Contractor	Portland, OR	(503) 788-4612
Heavy Equipment			
Forslund Construction & Co.	Excavating	Albany, OR	(541) 926-4157

FIGURE 2.4

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES (Cont'd)			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Helicopter/Aerial Surveillance Providers			
Classic Helicopters	Helo/Aerial Surveillance	Seattle, WA	(206) 767-0515
Eagle Air Helicopters	Helo/Aerial Surveillance	Forks, WA	(360) 374-9276
Helicopters Northwest	Helo/Aerial Surveillance	Seattle, WA	(253) 208-0402
Northwest Helicopters	Helo/Aerial Surveillance	Olympia, WA	(360) 701-5892
World Wind Helos	Helo/Aerial Surveillance	Renton, WA	(425) 271-8441
Waste Transporters/Disposal Facilities			
Columbia Ridge Recycling and Landfill	Waste Trans. & Disposal	Arlington, OR	(541) 454-2030
PSC Phillips Corp.	Waste Trans. & Disposal	Washougal, WA	(360) 835-8594
Wildlife/Rescue			
Focus Wildlife	Wildlife Rescue & Rehab.	Anacortes, WA	(310) 386-5965
International Bird Rescue Research Center	Wildlife Rescue & Rehab.	Fairfield, CA	(707) 207-0380
Island Oil Spill Association	Wildlife Rescue & Rehab.	San Juan County, WA	(360) 378-5322
PAWS Wildlife	Wildlife Rescue & Rehab.	Lynwood, WA	(425) 787-2500 Ext. 817
Tri-State Bird Rescue & Research	Wildlife Rescue & Rehab.	Newark, DE	(302) 737-9543

2.3 NOTIFICATIONS

Guidelines for Considerations When Initiating Notifications

The following are guidelines to be considered when initiating notifications:

- Do not report information that has not been verified or confirmed, usually by field personnel.
- Do not speculate as to the cause on an incident or make any statements about liability.
- Do not delay notifications because of incomplete information.
- When making notifications, document:
  - Agency notified, including telephone number
  - Date and time of notification
  - Person notified
  - Content of message
  - Incident number, if applicable

Periodic Follow-up Notification during Emergency Response

Periodic follow-up notification must be made within the Company as well as to Federal, State, Local and Tribal agencies. Responsibility for periodic follow-up notifications remains with each individual as initially assigned within the notification process flowchart provided in Figure 2.1, unless that responsibility has been transferred based on the magnitude of the response.

FIGURE 2.5

It is not necessary to wait for all information before calling the NRC.
National Response Center - 800-424-8802.

Field Notification Form	
Name and phone number of KM caller:	
Name and phone number of designated KM employee for follow-up calls (Area Manager or Designee):	
Company Name and Mailing Address: Kinder Morgan Energy Partners L.P., 1100 Town & Country Rd., Orange, CA 92868	
Date and Time of Incident:	**Were materials discharged?**
Product Type:	
Location of Release or Threatened Release ☐ Harbor Island Terminal 2730 13th Avenue SW Seattle, WA 98134-1040	☐ Main Terminal Latitude/Longitude: (b) (7)(F), (b) (3) ☐
County: King **State:** Washington **Nearest City (Name and Distance):** Seattle	
Weather Conditions:	
Description of what happened:	
Amount Released estimate size of release area (i.e. 5ft by 5ft by 3in) or quantity (barrels or gallons): **Approximately = by by or barrels/gallons** **Container Type(if applicable):** **Container Storage Capacity (if applicable):**	
Water Affected or Threatened, if any:	
Measures taken or plans to abate, contain and cleanup the spill:	
Death, Injuries or Evacuations, if any:	
Other Agencies Notified, if any:	
Information provided in follow-up calls:	

FIGURE 2.6

WDOE Potential Notification Trigger Checklist

Yes	No	Potential Notification Trigger	Notes
		The source of the spill is unknown	
		The volume of the spill is uncertain	
		The volume of the spill is known to be less than 42 gallons and does not threaten surface or ground water	
		The spill is contained	
		The spill is located in an area where there is a pathway to waters of the state, and environmental conditions, such as rain events, male an impact to state surface or ground waters likely	
		The spill has the potential to impact groundwater	
		As a result of the spill, actions have been taken to isolate the area from vehicle traffic, equipment, or human contact	
		A spill that indicated a systemic spill problem (for example is it the second time a spill resulted from a certain practice, or came from a piece or type of equipment/tank/pipe).	

SECTION 3.0 RESPONSE ACTIONS

This section addresses initial response actions at an incident site. These initial response actions will transition response efforts from initial "Notifications" as required in Section 2 to the Incident Command System that is addressed in Section 4. This section is divided into the following sub-sections:

Section

- Recognizing an Emergency 3.1
- Initial Protective Measures 3.3
- Assessing the Site 3.3
- General Response Actions 3.4
  - Incident Specific Response Actions (Figures 3.1a - d)
  - Initial Response Actions First Employee On Site (Figure 3.2)
- Mobilization of Resources 3.13
  - Mobilization of Resources (Figures 3.3a - d)
- Response Levels 3.18
  - Response Level Chart (Figure 3.4)
- Response Strategies 3.21
- Site Specific Health & Safety Plan 3.23
  - Site Specific Health and Safety Plan (Figure 3.5)
- Material Safety Data Sheets 3.36
  - Product Specific Response Considerations (Figure 3.6)
  - Tactical Plan (Figure 3.7)

3.1 RECOGNIZING AN EMERGENCY

Definition of an Emergency

An emergency is defined as any uncontrolled release, occurrence, or incident which requires the response of persons outside of the immediate area, including KMEP employees or response agencies. These may include leaks, spills, fires or explosions; or natural disasters or terror threats which could result in any of these situations.

Product Release

The Facility handles refined petroleum products, ethanol, biodiesel, and petroleum additives.

3.1 RECOGNIZING AN EMERGENCY (Cont'd)

Refined petroleum fuels comprise a majority of the products handled by the Facility. A refined petroleum product release is recognized by any visual signs of liquid hydrocarbons on the ground or water. Other signs may include:

- Staining of soil
- Dead or discolored vegetation near pipeline or right-of-way areas
- Product sheen on water
- Distinct odors of petroleum or hydrocarbons
- (b) (7)(F), (b) (3)
- Hydrocarbon detection in Monitoring Wells

3.1.1 Fire/Explosion

Any unplanned fire is considered an emergency and requires some level of response action. If the fire is small enough and personnel are trained they may attempt to extinguish the fire prior to notifications. See KMEP Safety Manual, for more detail. Larger fires should be reported immediately and this ICP should be implemented.

3.1.2 Natural Disasters

Natural disasters may include the following:

- Earthquakes
- Floods
- Severe storms
- Tornados

Natural disasters may not necessarily constitute an emergency response. However, if the natural disaster results in a release or fire, as described above, implementation of this plan may be required.

3.1.3 Bomb or Terrorist Threats

(b) (7)(F), (b) (3)

3.2 INITIAL PROTECTIVE MEASURES

Recognizing an emergency allows an initial responder to effectively determine protective measures. Protective measures are necessary to ensure the safety of personnel, environment and property. These measures may include:

- Evacuation of persons exposed to immediate hazards. Move personnel in an up-wind or cross-wind direction.

NEVER ALLOW PERSONS TO ENTER THE VAPOR AREA DURING AN EMERGENCY

- Restrict access of the immediate area
- Eliminate and controlling ignition sources
- Shut down system to control release

Once these initial, protective measures are taken, the first employee on site should perform a site Risk Assessment.

3.3 ASSESSING THE SITE

Assessing the site involves the determination of risk (safety) associated with the incident. This is necessary in order to begin the preparation of a larger response effort. The key component in conducting an organized site assessment is the use of the "Site Specific Health and Safety Plan" (Section 3.8). This plan will help guide the "first person" through the process effectively performing a site assessment.

Initial risk assessment elements should determine the following:

- Wind direction
- Preliminary hazard zones
- Product involved
- Proximity to sensitive receptors (residences, businesses, schools, water ways, etc.)
- Chemical, physical and health hazards

Current forecasts and other weather information is available through the NWS Interactive Weather Information Network at: http://iwin.nws.noaa.gov/iwin/main.html .

All of the weather data gathered for the U.S. can be found through NOAA's National Climatic Data Center in Asheville, NC ((828) 271-4800).

Note: These initial site assessment elements will be described in more detail in the Section 3.8 - Site Specific Health & Safety Plan.

3.4 GENERAL RESPONSE ACTIONS

For the purposes of this plan, this General Response Actions section includes the actions taken by the First Employee On-site. The First Employee On-site must be able to recognize an emergency, implement protective measures, assess the site and perform internal notifications. The Pipeline Controller is responsible for initial response actions associated with pipeline shutdown procedures and external notifications.

3.4.1 Incident Specific Response Actions

The following information provides guidelines when responding to varying types of incidents. These include:

- ***Product Release (Figure 3.1a)***
- ***Fire / Explosion (Figure 3.1b)***
- ***Natural Disasters (Figure 3.1c)***
- ***Bomb/Terror Threats (Figure 3.1d)***

The first employee functions as the IC until relieved of that responsibility.

NOTE: The following tables (Figure 3.1) provide general guidelines only for responding to various incidents. More detailed procedures may be available in other Company documents such as abnormal operating procedures.

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE

Incident Type	Mitigation Actions
Flange, Valve, or Hose Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off flow to line ❑ Move to safe area ❑ Notify Qualified Individual ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Initiate spill containment (if outside containment area) ❑ Block and purge affected equipment ❑ Initiate recovery/clean-up action as required.

Incident Type	Mitigation Actions
Tank Truck or Rack Valve Leak	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop transfer operations ❑ Move to safe area ❑ Notify Qualified Individual ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Tighten connection, if possible ❑ Offload the leaking compartment ❑ Flush area into containment drains or other containment ❑ Initiate other cleanup action as required

Incident Type	Mitigation Actions
Pipeline Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut down system to control release ❑ Move to safe area ❑ Notify Qualified Individual ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ If possible, place containment under the leak ❑ Initiate spill containment (if outside containment area) ❑ Initiate other recovery/cleanup action as required

FIGURE 3.1a

INCIDENT SPECIFIC RESPONSE ACTIONS
PRODUCT RELEASE (Cont'd)

Incident Type	Mitigation Actions
Tank Leak or Rupture	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Stop flow into the tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify Qualified Individual ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Organize temporary tank patch and begin repair ❑ Initiate other response actions as required

Incident Type	Mitigation Actions
Tank Overfill	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Shut off transfer or flow to tank ❑ Ensure dike drains are closed ❑ Move to safe area ❑ Notify Qualified Individual ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Secure area and eliminate ignition sources ❑ Begin transferring contents to available tankage to reduce level ❑ Initiate other response actions as required

FIGURE 3.1b

INCIDENT SPECIFIC RESPONSE ACTIONS
FIRE/EXPLOSION

Incident Type	Initial Response Actions
Fire/Explosion	*If safe, the following mitigating actions will be taken by any trained and qualified person(s):* ❑ Alert personnel ❑ Move to safe area ❑ Notify Qualified Individual ❑ Notify ***Control Center*** ❑ Notify local emergency agencies, as required ❑ Notify local management ❑ Activate alarm as required ❑ Notify local fire department ❑ Evacuate non-essential individuals ❑ Identify cause/source/materials involved ❑ Contain fire/spill material released ❑ Consider potential for escalation ❑ Protect exposed tanks and equipment

FIGURE 3.1c

INCIDENT SPECIFIC RESPONSE ACTIONS
NATURAL DISASTERS

Incident Type	Response Action
Earthquake	Earthquakes may damage pipeline and terminal equipment. Damage may result in an emergency situation. The following are response actions that should be taken only when it is deemed safe to do so: During Earthquake ❑ If indoors, stay inside and take refuge ❑ Stay away from windows, glass, bookcases, heavy objects etc. ❑ If outdoors, move to open area ❑ If driving a vehicle, pull over and remain in car ❑ Avoid parking near power lines or other overhead hazards After Earthquake ❑ Identify immediate hazards ❑ Evacuation building if impending collapse ❑ Check for product releases ❑ Check for injuries ❑ Notify local authorities as appropriate ❑ Be prepared for after-shocks ❑ Use portable radios for news reports

FIGURE 3.1c

INCIDENT SPECIFIC RESPONSE ACTIONS
NATURAL DISASTERS (Cont'd)

Incident Type	Mitigation Actions
Severe Storm	Severe storms can hit west coast locations. Historically, severe storms have been documented on numerous occasions. They can involve high winds and tides, severe rainstorms and lightning and flooding. ❑ Listen to local and national news of impending storm ❑ Verify adequate emergency supplies ❑ Shut down non-essential operations ❑ Review evacuation plan ❑ Provide alerting information to employees, contractors and others ❑ Conduct planning meetings with appropriate personnel ❑ Assess available emergency equipment: ❑ Back-up generators ❑ Portable water pumps ❑ Earth moving equipment ❑ Water, food provisions ❑ Relocate important records ❑ Safe guard hazardous materials ❑ Prior to evacuation, turn off gas, water and electrical ❑ Prepare to account for employees ❑ Prepare for expected media coverage ❑ Contact fire departments as necessary ❑ Prepare vehicles for possible evacuation ❑ Open tank roof drains ❑ Verify that tank dikes are closed

FIGURE 3.1d

INCIDENT SPECIFIC RESPONSE ACTIONS
BOMB/TERROR THREATS

(b) (7)(F), (b) (3)

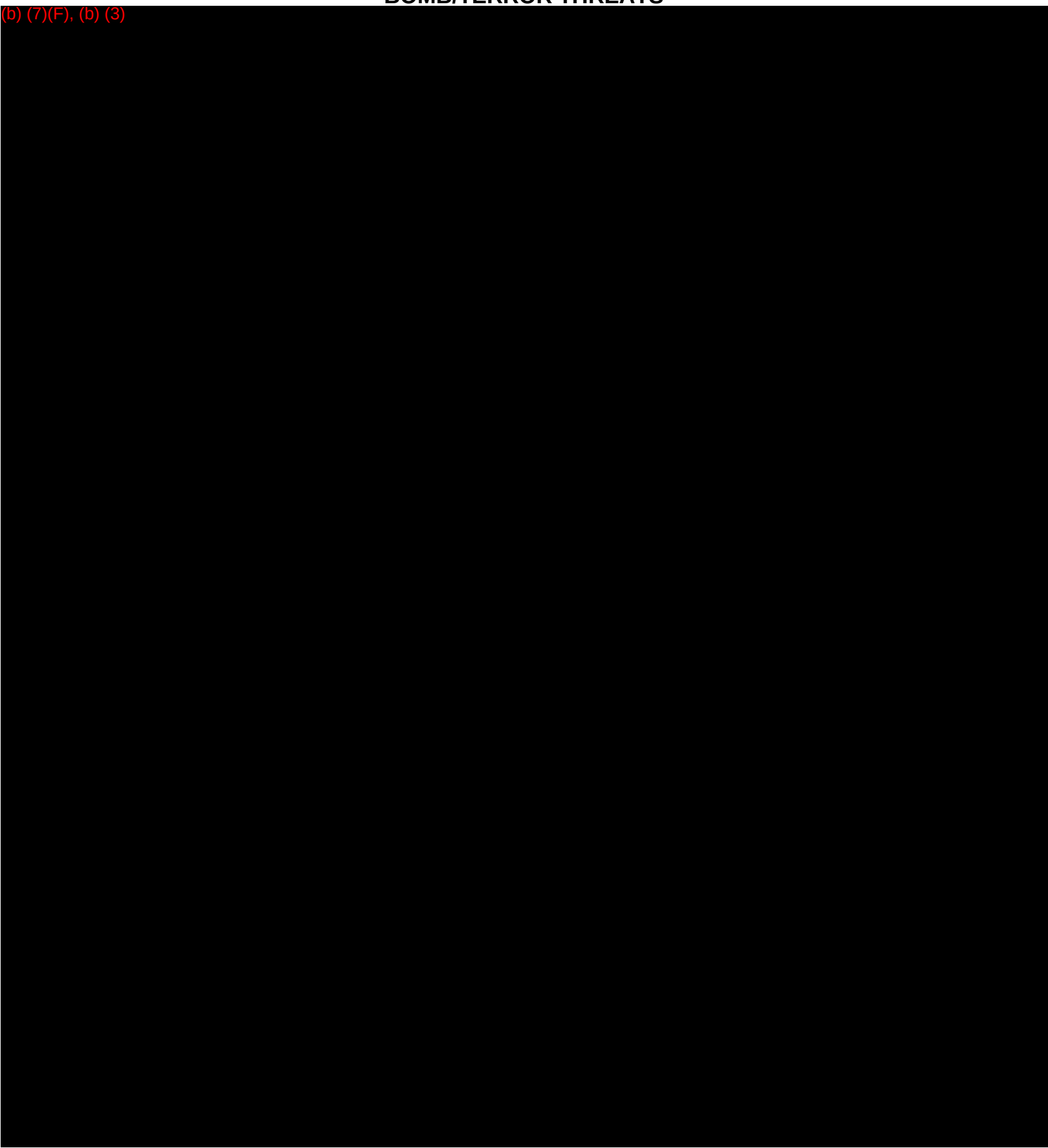


FIGURE 3.2

INITIAL RESPONSE ACTIONS

First Employee On Site

First employee on site is the KMEP Incident Commander until relieved by a more senior Company employee. The Incident Commander has the authority to make decisions and to take steps necessary to control the emergency. The following list will aid this person in establishing safe initial response actions in preparation of a larger response effort.

- ❑ Evacuate yourself and all persons exposed to immediate hazards. Move personnel in an up-wind or cross-wind direction.

NEVER ALLOW PERSONS TO ENTER THE VAPOR AREA DURING AN EMERGENCY

- ❑ Perform initial notifications (Section 2.1)
  - ❍ Qualified Individual
  - ❍ Pipeline Control Center
  - ❍ 911
  - ❍ Manager
  - ❍ Verify external notifications (via Pipeline Control Center)
- ❑ Shut down system to control release, as appropriate
- ❑ Restrict access to the immediate area of the emergency
- ❑ Eliminate and control ignition sources
- ❑ For spills to water, deploy sorbent pads as close to the leading edge as safe to facilitate tracking
- ❑ Initiate Incident Command System (ICS)
- ❑ Establish Central Command Post
- ❑ Use Site Health and Safety Plan to conduct site assessment (Figure 3.5)
- ❑ Meet with arriving response authorities (fire department, police, etc.).
  - ❍ Introduce yourself as the KMEP Incident Commander.
  - ❍ Communicate critical incident information
    - Type of incident (fire, spill, release)
    - Product involved
    - Equipment involved
    - Location of personnel in immediate area
    - Known hazards
    - Wind direction
- ❑ Advise the federal, state, local, and tribal authorities (Unified Command) of a safe place to locate the Command Post.
- ❑ Initial Reporting Details Form (Figure 2.5)

FIGURE 3.2

INITIAL RESPONSE ACTIONS (Cont'd)

First Employee On Site (Cont'd)

- ❑ Designate additional IC positions as the situation dictates and/or the availability of additional personnel: _____
- ❑ Note number of injuries if any: _____
- ❑ Ambulance/emergency medical service needed: _____
- ❑ Consider need for road closures: _____
- ❑ Consider hazards to trains: _____
- ❑ Call Control Center to contact RR dispatcher - Time called: _____
- ❑ Consider extent of release (estimate area impacted, i.e. 50'x100'): _____
- ❑ Consider if product is on ground or in water, sewers, canals etc.: _____
- ❑ Consider if structures are in danger: _____
- ❑ Product still flowing: _____
- ❑ All appropriate valves closed? Valves closed: _____
- ❑ Agencies on site (note who, when): _____
- ❑ News media on-site: _____

3.5 MOBILIZATION OF RESOURCES

This section describes how response resources are mobilized to the emergency scene. Resources may include:

- Company ICS (includes local/regional personnel and Crisis Support Team as needed)
- Appropriate agencies (fire departments, law enforcement, etc.)
- Contractors to support emergency response efforts
- Response equipment (containment of product and equipment repair)

To assess the need for adequate response resources, the Worst Case Discharge volumes are used in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the WDOE Response Planning Standards timeframes. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable Response Planning Standards detailed in Appendix A.

Once initial notifications are made, mobilization of resources is usually coordinated by management (Area Managers, Operations Managers, Pipeline Maintenance Manager, etc.).

These General Mobilization Actions should serve as general guidelines only. Additional actions may be required as the situation dictates. General Mobilization Actions for the various managers are detailed in the following checklists:

- ***Area Manager (Figure 3.3a)***
- ***Operations Manager (Figure 3.3b)***
- ***Director of Operations (Figure 3.3c)***
- ***V. P. of Operations (Figure 3.3d)***

FIGURE 3.3a

MOBILIZATION OF RESOURCES

Area Manager

The Area Manager will usually, but not always, be the first person called by the First Employee on-site. After receipt of the initial call, the Area Manager will evaluate the information and initiate appropriate mobilization of resources. In addition, the Area Manager will verify the level of the response and the appropriate response resources.

- ❑ Evaluate incident information
- ❑ Verify the level of the response (Level 1, 2 or 3; see Section 3.6)
- ❑ Notify of the following:
  - ❍ Local/regional response personnel
  - ❍ Operations Manager
  - ❍ Oil Spill Removal Organization/Primary Response Contractor
- ❑ Verify that the following personnel have been notified
  - ❍ Pipeline Control Center (usually called by First Employee On-site)
  - ❍ Director of Operations (usually called by Operations Manager)
- ❑ Verify that external notifications have been made (usually completed by Pipeline Controller)
- ❑ Consider notifying the following response support groups, as appropriate
  - ❍ Crisis Support Team (See Figure 2.2)

FIGURE 3.3b

MOBILIZATION OF RESOURCES

Operations Manager
The Operations Manager will usually be contacted by the Area Manager. After communicating with the Area Manager, the Operations Manager will evaluate the information and assist with appropriate mobilization of resources. In addition, the Operations Manager will assist with determining the level of the response and the appropriate response resources.
❑ Evaluate incident information
❑ Work with the Area Manager to determine the level of the response (Level 1, 2 or 3; see Section 3.6)
❑ Consider notification to Corporate Communications
❑ Notification of the following: ❍ Director of Operations ❍ Pipeline Maintenance Manager, as needed
❑ Verify that the following personnel have been notified ❍ Pipeline Control Center (usually called by First Employee On-site) ❍ Local/regional response personnel (usually called by Area Manager) ❍ V. P. of Operations
❑ Verify with Area Manager that external notifications have been made (usually completed by Pipeline Controller)
❑ Coordinate with Area Manager to ensure the following response support groups have been notified, as appropriate: ❍ Crisis Support Team (See Figure 2.2)

FIGURE 3.3c

MOBILIZATION OF RESOURCES

Director of Operations
The Director of Operations will usually be contacted by the Operations Manager. After communicating with the Operations Manager, the Director of Operations will evaluate the information and assist with appropriate mobilization of resources. In addition, the Director of Operations will assist with determining the level of the response and the appropriate response resources. ❑ Evaluate incident information ❑ Evaluates whether the appropriate level of response (Level 1, 2 or 3; see Section 3.6) has been declared ❑ Notification of the following: ❍ V. P. of Operations ❍ Consider notification to Corporate Communications ❑ Verify that the following personnel have been notified ❍ Pipeline Control Center (usually called by First Employee On-site) ❑ Verify with Operations Manager that external notifications have been made (usually completed by Pipeline Controller) ❑ Coordinate with Operations Manager that the following response support groups have been notified as appropriate: ❍ Crisis Support Team (See Figure 2.2)

FIGURE 3.3d

MOBILIZATION OF RESOURCES

V. P. of Operations
The V. P. of Operations will usually be contacted by the Director of Operations. After communicating with the Director of Operations, the VP of Operations will evaluate the information and notify personnel at the corporate level, as appropriate.

- ❑ Evaluate incident information
- ❑ Evaluate whether the appropriate level of response (Level 1, 2 or 3; see Section 3.6) has been declared
- ❑ Notification of the following:
  - ❍ Corporate level management, as appropriate
  - ❍ Consider notification to Corporate Communications
- ❑ Verify with Director of Operations that external notifications have been made (usually completed by Pipeline Controller)
- ❑ Coordinate with Director of Operations to determine if Crisis Support Team should be initiated
- ❑ If Crisis Support Team is deemed necessary:
  - ❍ Mobilize appropriate members of the Crisis Support Team
  - ❍ Establish corporate Emergency Operations Centers “EOC” as necessary
  - ❍ Coordinate with local city, county, state EOC, as appropriate

3.6 RESPONSE LEVELS

The following Response Levels and corresponding chart (see Figure 3.4 Response Level Chart) have been adopted from the Crisis Support Plan to assist local responders in determining if the Crisis Support Team should be activated. Every incident will be classified in one of three categories based on the specific nature and seriousness of the event.

3.6.1 Level 1 Response

A Level 1 response is an event that:

- Requires immediate response by the local field team but does not result in any injuries
- Involves little or no property damage
- Has little or no environmental impact
- Attracts no media attention
- Requires only routine or no reporting to regulatory agencies
- Is easily handled by the regional team and control center

A Level 1 response however, could develop into a Level 2 or Level 3 response if not immediately controlled (see Figure 3.4: Response Level Chart).

3.6.2 Level 2 Response

A Level 2 response is a more significant event that may:

- Involve injuries to an employee, contractor or the general public
- Result in significant property damage
- Involve a fire, explosion or significant environmental impact
- Involve local media attention
- Likely be reportable to some federal, state or local agencies

For the most part, Level 2 responses are within the capability of Operations, but may require certain Crisis Support Team resources to help mitigate the problem or conduct subsequent investigations. A Level 2 response can quickly escalate to a Level 3 response if not mitigated (see Figure 3.4: Response Level Chart).

3.6 RESPONSE LEVELS (Cont'd)

3.6.3 Level 3 Response

A Level 3 response is a major event that may include:

- Fatalities or serious injuries to employees or the public
- Extensive property damage or environmental impact
- Regional or national media attention
- Involvement of federal regulatory agencies.

Response to a Level 3 response requires significant additional resources/support beyond what may be locally available. A Level 3 will in most cases result in activation of the KMEP Crisis Support Center and mobilization of the Crisis Support Team (see Figure 3.4: Response Level Chart).

FIGURE 3.4

RESPONSE LEVEL CHART

CLASSIFICATION	Level 1	Level 2	Level 3
BODILY INJURY			
No bodily injury	●		
KMEP Employee or contractor employee injured; no hospitalization		●	
KMEP Employee or contractor employee injured; hospital admittance required		●	
General public; hospital admittance required		●	
General public, three or more injured			●
Fatality (any)			●
PROPERTY DAMAGE			
Insignificant	●		
Significant damage to property		●	
Extensive			●
ENVIRONMENTAL INCIDENTS			
Insignificant on site and no off-site impact	●		
Minor, but significant on-site or any off-site impact		●	
Extensive on-site and/or off-site impact			●
NEWS MEDIA COVERAGE			
No immediate attention	●		
Local attention only		●	
Regional or national attention			●
REGULATORY REPORTING			
No notification or routine or local level only (local emergency planning committee)	●		
State or Federal level		●	
OTHER (as example, strikes, riots, demonstrations, bomb threats, etc.)			
Incidents handled and corrected by local management only	●		
Complaints or actions by individuals or groups which could damage the Company's reputation but not threaten employees, property, or operations		●	
Actions taken by individuals or groups which threaten Company, employees, property, or operations			●
ECONOMIC IMPACT			
Insignificant	●		
Significant		●	
Extensive			●
REPORT ALL INSURANCE CLAIMS IN ACCORDANCE WITH ESTABLISHED PROCEDURES. CRISIS NOTIFICATION DOES NOT REPLACE INSURANCE CLAIMS REPORTING REQUIREMENTS AND REGULATORY REPORTING REQUIREMENTS.			

FOOTNOTE: Property damage and economic impact levels will be defined by Business Unit Management.

3.7 RESPONSE STRATEGIES

General Response Strategies

The general procedure for Company response is summarized as follows:

3.7.1 Response Action Plan:

Section 4.0 of this Plan includes specific duties for all personnel involved in a spill incident and uses the Incident Command System for Company personnel as well as the Unified Command System for the entire response structure including governmental and other agency representatives.

3.7.2 Notifications:

In the event of a spill, employees are trained to shut down operations and then make notifications as shown in Section 2.0 of this Plan. The initial report would be from the Operator to the Qualified Individual/Alternate (Area Manager, Operations Manager) and the local emergency responders (police and fire) and the Orange Control Center.

3.7.3 Actions:

The first person at the leak site will take the immediate actions detailed in this section.

To assess the need for adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the WDOE Response Planning Standards. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable WDOE Response Planning Standards.

SAFETY of all people, including the public as well as the responders, is the single most important item to keep before all people during all activities of the response and clean-up of a spill.

The Incident Commander (IC) is the Qualified Individual (QI) in the Kinder Morgan plan for emergency response. Typically the IC position would progress from the first person on site to the Area Manager to the Director of Operations. All responders in the company have the authority to commit necessary resources to deal with the emergency situation.

As more company personnel arrive at the site, the Incident Command System would go into action. The IC would appoint various trained persons to fill roles such as Safety, Operations, Logistics, Information Officer, Liaison, and Planning, Section 4.0 contains more information on both the Incident and Unified Command Systems (ICS and UCS).

3.7 RESPONSE STRATEGIES (Cont'd)

General Response Strategies (Cont'd)

3.7.4 Procedures to Stop the Discharge:

The IC would have a reconnaissance of the area done with appropriate safety precautions taken including personal protective equipment (PPE), if required, and would formulate a plan of action with the OSCs of agencies on site. Stopping the flow of product by closing valves, starting downstream pumps if appropriate, etc. and containing the product by constructing dikes, berms, pits, etc. would take place.

3.7.5 Managing the Leak Site:

The IC acting with agency OSCs would secure the area using local police and fire departments to keep all but required people out of the area and to take fire prevention actions as necessary. After recon, Kinder Morgan IC meeting with Operations, Planning, and Federal, State, Local and Tribal OSCs would agree on a plan of action to build dikes, deploy booms, vacuum trucks, and other equipment to contain and pick up the product.

All notifications would have been made by this time and agencies would continue to arrive at the site. Examples: U. S. Coast Guard, U.S. EPA, WDOE, State Fire Marshal, Dept. of Fish and Game, local water resources agency, etc. Periodic internal and external follow-up status reports will be made during the emergency response. The process will be repeated periodically.

Response contractors and Company maintenance personnel working under the direction of the Operations Section Chief would be working to contain the spill and clean it up. Staging and De-contamination areas would be set up. The Planning Section would be working to develop incident strategies, plan required resources for the next 12 hour period, as well as longer (several days or weeks) periods.

Safety would be monitoring all actions to assure that nothing was being done that might endanger the health or safety of any persons in the area. Other support areas acting under the Incident Command System would be set up including the Information Officer, Logistics section, and the Liaison section.

In addition, the Company Crisis Support Team may be activated to provide assistance, such as engineering information, drawings, calculations, drafting news releases, assisting in financial/accounting paperwork, insurance contacts, logistics assistance etc.

3.7 RESPONSE STRATEGIES (Cont'd)

General Response Strategies (Cont'd)

3.7.6 Extended Response Activities:

In all scenarios the extended response activities would be similar. After the initial situation has been stabilized and there is no threat of fire or significant health and safety problems, the Incident Command System would be fully in place and operational. The planning function would propose appropriate human and equipment resources to staff the continuing clean up and remediation efforts as appropriate. This would all be discussed and approved by the Unified Command System representatives. In the case of Company personnel, personnel would be brought in from other operating regions and/or HQ and would be supplemented by contract and/or consulting personnel.

Contractor personnel would be arranged for by the contractor under the direction of the Company IC acting in concert with the Unified Command.

3.8 SITE SPECIFIC HEALTH AND SAFETY PLAN

Health and Safety

It is the Company's policy that the health and safety of all personnel will be given the absolute highest priority. To insure this, all response decisions/actions should be based on the following three priorities:

- Safety of Company personnel
- Safety of surrounding community
- Safety/protection of environment

The Kinder Morgan Site Specific Health and Safety Plan (H&S Plan) was created to address these priorities. The H&S Plan is intended to guide company personnel through an assessment of the risk(s) associated with the emergency. Development of the H&S Plan, particularly the first six boxes, should take precedence during the initial stages of an emergency.

Examples of safety issues addressed in the H&S Plan include:

- Chemical Involved
- Specific and general hazards
- PPE
- Evacuation
- Hospital locations
- Air monitoring

3.8 SITE SPECIFIC HEALTH & SAFETY PLAN (Cont'd)

Health and Safety (Cont'd)

- Hazard zones
- MSDS

Site Specific Health & Safety Plan

The H&S Plan is an integral part of the Company emergency response effort. The H&S Plan is required, prior to and during all emergency response operations. Completion of the H&S Plan should occur within the first hour of a response. The first six boxes, at a minimum, should be completed as soon as possible. The information in these boxes will guide Company responders through an initial site assessment.

The H&S Plan serves several purposes:

- Assist in performing an initial risk assessment
- Gather critical incident information into an easy-to-read document (e.g. incident details, product involved, hazards, etc.)
- Establishes hazard zones
- Designates which responders are allowed to go where (e.g. Company vs. FD)
- Prompts responders to initiate the Incident Command System
- Once completed, the H&S Plan will be utilized to:
- Brief Company response personnel
- Coordinate initial response efforts with Fire Department and law enforcement
- Provide regulatory agency representatives and/or visitors with a concise and consistent overview of the incident
- Ensure that anyone that arrives onsite will receive a site-specific health & safety briefing before entering the emergency site
- Demonstrate Company ability to respond to an emergency in a safe and organized manner

The Health and Safety Plan is a dynamic and ever-changing plan that requires continuous updating.

It is important to communicate significant changes to the H&S plan to the appropriate responders.

This is best accomplished by scheduling regular safety meetings.

FIGURE 3.5

SITE SPECIFIC HEALTH & SAFETY PLAN

Complete Boxes 1 - 6 First

KINDER MORGAN ENERGY PARTNERS, L.P.

EMERGENCY RESPONSE SITE SPECIFIC HEALTH & SAFETY PLAN

Date / Time:_____/_____

1. Incident Information:

Incident Type:

- ❑ **Fire / Explosion**
- ❑ **Spill / Release**
- ❑ **Rescue**
- ❑ **Injury**

Date: _____
Location: _____
_____
Time of Incident: _____
Incident Name: _____
_____

2. Products / Chemical Involved:

❑ Gasoline ❑ Diesel ❑ Jet Fuel ❑ Methanol ❑ DRA
❑ Fuel Additive ❑ Ethanol ❑ Ethane ❑ Butane
❑ Natural Gas ❑ Isobutane ❑ MCC Lubricity
❑ Crude Oil ❑ Propane ❑ Ethyl Mercaptan
❑ Other _____
(see Table 1 on back for chemical & physical properties)

MSDS available and reviewed: ❑ Yes

3. Primary Hazards:

❑ Fire ❑ Vapor ❑ Respiratory ❑ Skin

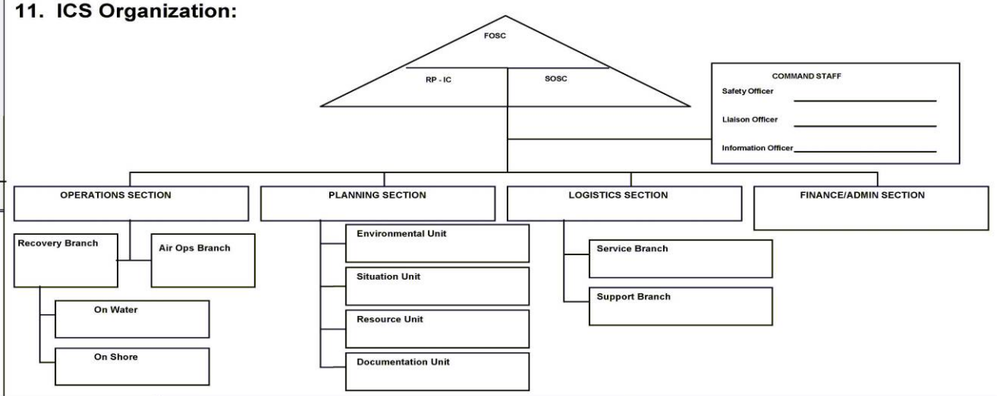
4. Personal Protective Equipment:

Cold Zone / Staging - ❑ Hardhat ❑ Safety Boots ❑ Traffic Vest
Warm Zone / Decon - Level ❑ A ❑ B ❑ C ❑ D
Hot Zone - Level ❑ A ❑ B ❑ C ❑ D
(see Table 2 on back for description of PPE by Level)

Incident Priority Checklist:

- ❑ 1. Evacuate self and others
- ❑ 2. Secure area/restrict access
- ❑ 3. Notification: Internal/External
- ❑ 4. Eliminate ignition sources
- ❑ 5. Initiate ICS
- ❑ 6. Conduct Site Assessment (H&S Plan)
- ❑ 7. Meet with arriving authorities
- ❑ 8. Mobilize response resources

11. ICS Organization:



5. Hot Zone Authorized Entrants:

❑ Fire Dept. ❑ KM
❑ Agency Reps. ❑ Contractors

6. Site Map:

Wind Direction (out of the ___)

❑ Weather Conditions: _____ ❑ Wind Direction ❑ Hazard Zones ❑ Staging
❑ Command Post ❑ Decon ❑ Cross streets ❑ Sensitive receptors (drainage, roadways, environmental sensitivity)

7. Secondary Hazards:

- ❑ Fire
- ❑ Excavations
- ❑ Confined Spaces
- ❑ Cold Stress
- ❑ Heavy Equipment
- ❑ Noise
- ❑ Heat Stress
- ❑ Rain/Lightning
- ❑ General (slip, trip, fall, established smoking area)
- ❑ Other: _____

(see Table 3 on back for secondary hazard precautions)

8. Evacuation Plan:

Evacuation signal : _____
Primary Evac. Area: _____
Secondary Evac. Area: _____

9. Nearest Hospital: Notified: ❑ Yes ❑ No

Address: _____
_____
Phone #: _____
Directions: _____
_____

10. PROP 65 Notices: (California only)

- ❑ Incident is within Terminal or Station; notice(s) are posted at facility entrance(s).
- ❑ Incident of outside KM property; notice(s) are posted along incident site boundaries.

12. Enforcement / Regulatory Agencies (On Site):

Agency (Fed/State/Local)	Name	Contact Number	Time of Arrival

13. Contractors (On Site):

❑ Environ. _____ ❑ Clean up _____
❑ Repair _____ ❑ Consultant _____

14. Hot Zone Entry Objectives:

Objectives:
Why are people entering the Hot Zone? What is their objective?

_____
_____
_____

15. Decon Checklist:

- ❑ Establish and communicate location
- ❑ Plastic tarps and trash bags provided
- ❑ Supervision of decon provided
- ❑ Entrant log maintained
- ❑ Container of absorbent material provided
- ❑ Boot brush provided
- ❑ Folding chairs provided
- ❑ Lighting provided (if needed)

16. Atmospheric Monitoring:

Completed by - ❑ KM ❑ Fire Dept. ❑ Contractor ❑ Other: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____

17. Authorization Signatures: Incident Commander: Safety Officer:

INCIDENT COMMANDER PRIORITIES - SAFETY of ❑ KMEP PERSONNEL ❑ SURROUNDING COMMUNITY ❑ ENVIRONMENT

Table 1. Chemical & Physical Properties

Chemical Hazards	Flammability Range		Toxicity	Chemical / Physical Properties				NFPA 704 Health/Flammable/Reactive
	LEL	UEL	PEL[a]/TLV[b]	Flash Pt.	Vapor Pressure	Vapor Density	Specific Gravity	
❑ Gasoline	1.3%	7.6%	300 ppm[a]	-45°F	~300 mmHg	5	0.74	1 / 3 / 0
❑ Diesel	0.9%	7.0%	NA	~150°F	~1 mmHg	>5	0.86	1 / 2 / 0
❑ Jet Fuel	~0.8%	~6.0%	500 ppm[a]	~110°F	5	>5	0.81	1 / 2 / 0
❑ Ethanol	3.3%	19.0%	1,000 ppm[b]	48°F	44 mmHg	>1	0.79	0 / 3 / 0
❑ Fuel Additive*								
❑ Drag Reducing Agent (DRA)*								2 / 2 / 0
❑ MCC Lubricity	Not Available	Not Available		>140°F	1.37 mmHg	>1	.93 - .94	2 / 2 / 0
❑ Natural Gasoline	1.4%	7.6%	--	-50°F	12-26 psi	2.7	0.66-0.75	1 / 3 / 0
❑ Butane	1.6%	8.4%	800 ppm[a]	-101°F	43 psi	2.05	.58	1 / 4 / 0
❑ Ethane	2.9%	13.0%	not established	-275°F	800 psi	1.1	0.36	
❑ Isobutane	1.8%	8.4%	800 ppm[a]	-126°F	62 psi	2.0	0.563	1 / 4 / 0
❑ Propane	2.1%	9.5%	1000 ppm[a]	-156°F	288 psi	1.53	0.51	1 / 4 / 0
❑ Crude Oil								
❑ Methanol	6.0%	36%	200 ppm	52°F	96 mm HG	1.1	.792	1 / 3 / 0
❑ Ethyl Mercaptan	2.8%	18%	10 ppm[a]/ .5 ppm[b]	-55°F	16.2 psi	2.1	.845	2 / 4 / 0
❑ Other*								

* Describe:

1 atm = 760 mmHg = 14.7 psi

Table 2. PPE Levels

LEVEL A	LEVEL B	LEVEL C	LEVEL D
Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Totally encapsulating, gas tight chemical resistant suit ❑ Inner chemical resistant gloves ❑ Chemical resistant safety boots Optional Equipment ❑ Hearing protection ❑ Hard Hat ❑ Disposable glove & boot covers	Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Non-encapsulating chemical resistant suit (Tyvek/Nomex) ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ Full / Half Face respirator w/: ❑ cartridge (gas/vapor): _____ ❑ filter (particulate): _____ Required Equipment ❑ Non-encapsulating chemical resistant suit ❑ Tyvek ❑ Nomex ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ None Required Equipment ❑ Coveralls ❑ Safety Boots ❑ Safety Glasses ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Gloves ❑ Face shield/safety glasses

Table 3. Secondary Hazards

Hazards	Recommended Precaution(s)
❑ Fire (potential)	• Remain safe distance away • Eliminate ignition sources • Keep upwind of vapor/smoke • Provide vapor suppression (if safe) • Do not impede Fire Dept. efforts
❑ Heavy Equipment	• Qualified operators only • Hardhats and safety boots needed around heavy equip. • Minimum 10ft. clearance from power lines • Make "one call" if excavating • Proper machine guarding in place
❑ Excavations	• Trenches/excavations equal to or greater than 5ft. deep must meet OSHA requirements • No one allowed to enter excavation > 5ft. unless shored, sloped or protected • Excavations < 5ft. and judged by competent person as cave-in hazard must also follow OSHA requirements
❑ Noise	• Portable generators & heavy equip. can generate potentially high noise levels • Hearing protection available to workers • Hearing protection must be worn in area with noise levels above 85dBA.
❑ Confined Spaces	• Site Safety Officer will determine whether confined space will be entered • All confined space entries must meet OSHA requirements (permits, atmospheric monitoring, attendants, etc.)
❑ Heat Stress	• Potential hazard when temp >80°F • Workers should take more breaks and drink plenty of appropriate liquids • More PPE = higher risk • Be aware of heat cramps (stomach cramps), heat exhaustion (excessive sweating, flushed/clammy skin) – treat with rest and liquids. Heat stroke (dry, hot, pale skin; no sweating) can be deadly – get medical help immediately, reduce core body temp by applying cold water to body & fanning.
❑ Cold Stress	• Skin takes on gray-glossy look • Appendages become non-responsive • Blisters or sores may appear • Do not rub • Submerse affected areas in warm water or wrap in warm cloth.
❑ Rain / Lightning	• Stop excavation activities during excessive rainfall • Avoid shock hazards by stopping work during thunderstorm or lightening • Prevent & control erosion & transport of soils out of incident area.
❑ General	• Slip, trip & fall hazards • Keep work area clear of debris • Smoking not permitted in work areas • Use hand tools safely
❑ Other:	

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS

KMEP employees who have received HAZWOPER training are familiar with how to complete and implement the H&S Plan. The following instructions are provided for those persons who have not received the same level of training.

The first 6 boxes of the H&S Plan are priority for filling out during the initial stages of an emergency.

BOX #1: Incident Information

This section is intended to provide general information about the incident.

Location can be a KMEP facility name, pipeline section, address with cross streets, etc.

Note the **date** (including year) and **approximate time** the incident occurred.

The "**Incident Name**" can be left blank until an appropriate name has been determined. Generally the name refers to the piece of equipment involved, location along the pipeline or some other way which will allow for easy recognition in the future. Fire Department responders may refer to the incident as the "Kinder Morgan Incident". However, avoid using this as the incident name because it is too generic and will not provide KMEP with adequate detail for future reference.

A description of **weather conditions** should be provided. Use simple and straightforward language (e.g. light rain, strong winds, sunny, etc.)

Check the appropriate "Incident Type" based on what has occurred. Some emergencies may involve one or more incident types. Check all that apply.

BOX #2: Chemical Hazards Involved

Most emergencies will involve the release of product. This section is intended to communicate what product involved in the particular incident. Most of the products KMEP handles or transports are listed. Place a check next to the products involved. Check "Other" if additional, unlisted chemicals are involved. In general, refined products pose a very low health risk. The first concern should be physical hazards (flash/fire/explosions).

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

There is a note referring to Table 1: Chemical & Physical Properties provided on the backside of the H&S Plan. This table lists the chemical and physical properties for several of KMEP products. Properties for some chemicals, such as fuel additive or DRA, are not provided because the products vary significantly in composition. In these cases, refer to the products Material Safety Data Sheet (MSDS).

Material Safety Data Sheet

A Material Safety Data Sheet (MSDS) is required for each chemical involved in the incident. Ensure that a copy of the MSDS is readily available. Later in the response effort, the MSDS can be attached to the H&S Plan. Check "Yes" once a MSDS has been made available.

Note: Table 1: Chemical & Physical Properties is intended as a reference but does not replace the need for a Material Safety Data Sheet (MSDS).

BOX #3: Physical / Health Hazards

The section is intended to inform responders or visitors of the **primary** physical or health hazards posed by the emergency situation. In general, refined products pose a very low health risk. The first concern should be physical hazards (flash/fire/explosions). Secondary hazards will be address in another part of the H&S Plan.

Physical Hazards	
Fire -	Check if the incident actually entails a fully involved fire.
Vapor -	Check if incident involves or has the likely potential to involve a vapor release and potential fire flashback.

Health Hazards	
Respiratory -	Check if incident involves a vapor release or if chemical involved poses specific inhalation hazard.
Skin -	Check if incident involves a splash hazard or if chemical involved poses specific skin hazard.

BOX #4: Personal Protective Equipment

The section is intended to designate what personal protective equipment (PPE) or what levels of PPE will be required within the various defined areas ("hazard zones") of the emergency site. It is important that the hazards zones are communicated to all responders so they understand the PPE requirements.

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

There is a note referring to Table 2: PPE Classes provided on the backside of the H&S Plan. This table describes the various levels of PPE. It should be used as a guideline when choosing PPE for personnel based on where they will be responding. KMEP's policy is that company employees may only respond in Level C or Level D. Mutual aid responders or emergency response contractors are permitted to don Level B or higher, according to their own SOP's.

All contractors shall wear the level of PPE required by the H&S Plan. It is the responsibility of the contractor to supply their personnel with the required PPE and ensure they are knowledgeable and skilled in its use. KMEP has the right to request proof of training, if deemed necessary.

The Table 2: PPE Classes is based on Appendix "B" of the HAZWOPER Standard. Therefore, it should be used as a guideline. All the pieces of PPE listed under a particular level may not be required (e.g. inner chemical resistant gloves, chemical resistant safety boots, etc.). However, the proper choice of respiratory protection is essential and should be used as a deciding factor when choosing between the different levels of PPE.

The following discussion will describe the different levels of PPE in greater detail:

Level A

KMEP personnel do not respond in Level A.

Level A is intended to provide the highest level of skin, eye and respiratory protection. It requires the use of a totally encapsulating chemical suit and SCBA. The product KMEP transports do not warrant the use of Level A. Should an incident involve such chemicals (e.g. train derailment), KMEP personnel are to remove themselves from the immediate area and assist in a defensive mode only.

Level B

KMEP personnel do not respond in Level B.

Level B is intended to provide the highest level of respiratory protection but a lower level of skin and eye protection than Level A. Respiratory protection can include an SCBA or airline. Skin protection will normally include fire resistant (Nomex) or Tyvex (splash resistant) coveralls. Nomex should be worn if the potential for ignition is greater than the potential for splashes. Tyvex, or equivalent, should be worn if the potential for splashes is greater than the potential for ignition. It is not recommended to wear both Nomex and Tyvex coveralls together.

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

Level B may also include the following PPE, as needed:

- Inner gloves and outer, chemical resistant (nitrile) gloves
- Safety boots (possibly chemical resistant)
- Hard hat
- Face shield / safety glasses
- Hearing Protection

Level C

Level C is the highest level of PPE KMEP personnel are permitted to wear.

Level C is a significant reduction in respiratory protection. Full- or half-face respirators should be selected when the type and concentration of the chemical(s) involved are known. Air monitoring is required to determine the amount of airborne chemical responders may be exposed to.

Once air monitoring is conducted, the appropriate respirator must be chosen. If the chemical hazard is in a gas/vapor form, the proper respirator cartridge must be identified. If the chemical poses a particulate/dust hazard, then a high efficiency particulate air (HEPA) filter is recommended. Cartridges and filters are universally color-coded:

Chemical Hazard	Universal Color Code
Organic vapors (petroleum products)	Black
Acid gases	Yellow
Particulate / dust (HEPA rated)	Bright Pink

If fitted properly, most full- and half-face respirators will provide protection up to 10 times (10x) the permissible exposure limit (PEL).

No person shall be required to wear a respirator or other PPE without proper training in its use and limitations. In the case of respiratory equipment, personnel must have:

Completed an annual, qualitative fit test (e.g. with irritant smoke)

Been trained on how to properly put on a respirator (e.g. field fit check)

Complete a medical evaluation form

Access to a new or properly cleaned and inspected respirator.

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

Level C skin protection may include fire resistant (Nomex) or Tyvex (splash resistant) coveralls. Do not enter Flash Area

Level C may also include the following PPE, as needed:

- Inner gloves and outer, chemical resistant (nitrile) gloves
- Safety boots (possibly chemical resistant)
- Hard hat
- Face shield / safety glasses
- Hearing Protection

BOX #5: Hot Zone Authorized Entrants

The intent of this section is to determine who is permitted to enter the Hot Zone. All other responders are not allowed to enter the Hot Zone without express permission from the Incident Commander. Place a check next to the responders permitted to enter the Hot Zone.

BOX #6: Site Map

The Site Map plays a key role in communicating essential incident information set forth in the H&S Plan. The open space in the center of the H&S Plan is intended for a hand-drawn version of the incident area. In the event the emergency occurs at a facility, a pre-printed facility plot plan can be used.

At a minimum, a Site Map should include:

Wind direction – Draw an arrow indicating wind direction. Include the actual bearing of the wind (N, S, E or W) and speed, if available

Hazard Zones

Hazard zones include the hot, warm and cold zones. These zones are utilized during an emergency to:

Outline the location of the greatest hazards, as well as, areas considered safe.

Communicate areas where certain personnel are (and are not) permitted to respond.

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- Communicate areas where visitors are (and are not) permitted to access.
- Provide a means to control the "flow" of response personnel into and out of the hot zone.
- Contain the released product within the smallest area possible.

In the initial stages of an emergency, the hazard zones may only be established through the use of landmarks (e.g. trees, fences, roads, etc.). However, this process is important because it creates a visual "foot print" of the hazardous areas, which can be communicated to responding agencies or personnel.

Hot Zone

Only personnel with proper HAZWOPER training are allowed to enter the hot zone. The Hot zone is an established area that encircles the released product or primary hazard of emergency. The size of the hot zone will depend on product involved, wind direction, terrain, etc. During early stages of an emergency, the hot zone will be an estimate. When doing so, estimate a much larger are to include a margin of safety. You can always move closer, but it is difficult to pull responders back. Upon arrival at the scene, Fire Departments will often consider an entire facility as the hot zone. This is to ensure all personnel are evacuated and site reconnaissance can begin.

Warm Zone

Only personnel who have been HAZWOPER trained are allowed to enter the warm zone. The warm zone is the area between the hot and cold zones. Like the hot zone, the size on the area depends on product involved, wind direction, terrain, etc. The warm zone should completely surround the hot zone. It acts as a buffer and transition area from the cold zone into the hot zone and visa versa. Whenever possible, the warm zone should be delineated with tape or barrier.

Cold Zone

The cold zone is a non-hazardous area where emergency management and support services are stationed. It is located beyond the warm zone and does necessarily need to be delineated with tape or signs. The cold zone generally contains the Staging area and the Command Post. If the emergency warrants, the cold zone will also support a liaison area and a media area.

- **Staging** - The Staging Area is located within the cold zone and will serve as the first control point into the emergency. Although the Staging Area may not be established in the initial phase of the response, it is important for it to be included on the Site Map once it is established. Indicate the location of the Staging Area on the Site Map.

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- **Command Post** - The Command Post is also located within the cold zone. It will serve as the main communication and action planning post for the duration of the emergency. Although the Command Post may not be established in the initial phase of the response, it is important for it to be included on the Site Map once it is established. More details regarding the Command Post and its role in the Incident Command System are provided. Indicate the location of the Command Post on the Site Map.

- **Decon** - A decontamination corridor ("decon area") is established at the edge of the hot zones and extends into the warm zone. Whenever possible, the decon area should be located upwind of the incident. Decontamination will be discussed further.

- **Cross Streets** - Identification of cross streets will provide a point of reference, particularly if the incident occurs along the pipeline.

- **Sensitive Receptors** - Sensitive receptors include creeks, storm channels, schools or any vulnerable conditions that could be impacted by the incident. Include the location of any sensitive receptors on the Site Map.

BOX #7: Secondary Hazards

This section is intended to communicate possible hazards that are secondary to the hazards directly posed by the incident. There is a note referring to Table 3: Secondary Hazards provided on the backside of the H&S Plan. This table lists possible secondary hazards that may deserve additional attention by the KMEP Safety Officer and provides some recommended precautions. Put a check next to all the secondary hazards that apply. Take the necessary precautions as they apply to each hazard. Use the "Other" box to describe additional secondary hazards, as necessary.

BOX #8: Evacuation Plan

This section is intended to clearly communicate where responders and/or visitors are to assemble in the event of an unexpected emergency or evacuation occurred during the response. The evacuation signal may be an existing facility alarm, three blasts of an air horn or any other easily identifiable and audible signal.

If the incident occurred at a facility and the existing evacuation areas are safe and appropriate (based on the established hazard zones), indicate these primary and secondary evacuation areas on the H&S Plan.

If the incident occurred outside a facility or along the pipeline, designate primary and secondary evacuation areas on the H&S Plan. These areas may be a simple as the Staging area or the corner of an intersection.

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

BOX #9: Nearest Hospital

Provide the address, phone number and driving directions for the hospital nearest to the incident area. It is advisable to contact the hospital and ask if they have an emergency room.

BOX #10: PROP 65 Notices

This section applies to incident occurring in California only. PROP 65 notices are required to warn people of potential toxicological effects of released products. At a minimum, PROP 65 notices are to be posted at the entrance to the incident (e.g. facility entrance or Staging area). PROP 65 notices do not need to be posted if they are already posted at facility entrances. Efforts also should be made to post them along the incident perimeter.

Check to appropriate box according to the incident location and posting needs.

BOX #11: KMEP ICS Organization

Fill-in and update the KMEP organization chart as responders arrive at the scene and assume ICS positions. See Section 4.0 for more details on ICS.

BOX #12: Enforcement / Regulatory Agencies (On-Site)

This section is intended to communicate what enforcement / regulatory agencies are on the scene. Include type of agency, representative's name and time of arrival. The KMEP Safety Officer may wish to coordinate with the KMEP Liaison Officer to complete and update this section.

BOX #13: Contractors (On Site)

This section is intended to keep track of the various contractors on site. The KMEP Safety Officer may wish to coordinate with the KMEP Operations and/or Logistics Officer(s) to complete and update this section. Check the type of contractor and fill-in the company name.

BOX #14: Hot Zone Entry Objectives

This section is intended to answer the following questions:

Why are "Hot Zone Authorized Entrants" (Box # 5) entering the Hot Zone?

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- What are they planning to do?
- Are the benefits of accomplishing objectives worth the risk of entering the Hot Zone?

Write the answer to the questions in the space provided. Use simple, straightforward language.

BOX #15: Decon Procedures

This section is to be used to develop decontamination procedures. Procedures need to be appropriate for the hazard involved.

During a response to a release, personnel and equipment may come into contact with the product. The purpose of decontamination is to minimize the spread of product. In order to accomplish this, it is important to practice effective decontamination that is appropriate to the hazards of the product. Decontamination includes the removal or neutralization of product from personnel and response equipment. The following are consideration for establishing an in-the-field decon system:

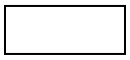
- Decon systems should be located up-wind of the Hot Zone. The decon system should extend from the edge of the Hot Zone into the Warm Zone.
- The decon system should be considered the entrance and exit (control point for personnel) into the Hot Zone.
- A secondary decon system should be considered for response equipment such as backhoes, vacuum trucks etc. Likewise, the "equipment" decon system should be used as the control point for response equipment.
- Design decon systems appropriate for the hazards involved. Refined petroleum products present a low health hazard. The approved Company decon system for refined petroleum products consists of the following components:

FIGURE 3.5 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

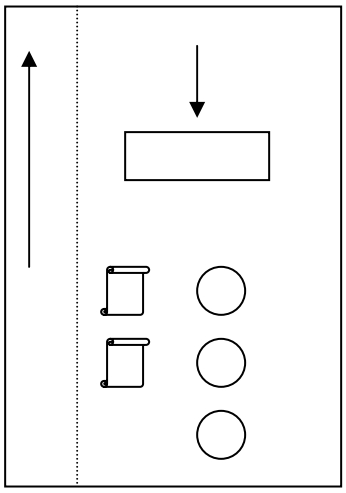
- o Plastic tarp floor to contain product
- o Tub of kitty litter absorbent
- o Boot brush
- o Folding chairs
- o Large plastic trash bags
- o Entrant log and supervision

A sample decon system includes:



= Container with 4" of absorbent material (i.e. kitty litter) and a boot brush.

= Several folding chairs lined up with trash bags in front.



BOX #16: Atmospheric Monitoring

Air monitoring should be conducted to ensure that appropriate hazard zone areas have been designed. KMEP, fire department or contractor personnel may perform air monitoring to establish levels where appropriate. These times include:

- Ensure warm/cold zones free of vapor
- Need for respiratory protection
- Determine safe levels for confined space entry and hot work

Air monitoring to establish the hot zone perimeter should be delegated to the lead agencies (Fire Dept., HazMat teams, etc).

BOX # 17: Authorization Signatures

Once completed, have the KMEP Incident Commander and Safety Officer sign the H&S Plan.

3.9 MATERIAL SAFETY DATA SHEETS

Product Specific Response Considerations for the major products are provided in Figure 3.6. The Facility maintains a more detailed and all-inclusive list of MSDS.

FIGURE 3.6

FLAMMABLE LIQUIDS (Polar/Water-Miscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Ethanol**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 127

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.6 (Cont'd)

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

PRODUCTS **Diesel Fuel** **Gasoline** **Gasoline Additives** **Jet Fuel** **Heavy Cycle Gas Oil** **Marine Diesel Fuel** **Marine Fuel Oil**

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 128

DANGERS

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2008.

FIGURE 3.7

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

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4.0 RESPONSE TEAMS

4.1 INTRODUCTION

This section describes organizational features and duties of the Local Response Team and the broader Company Incident Management Team.

The key to an effective emergency response is a rapid, coordinated, tiered response by the affected facility and the Incident Management Team, consistent with the magnitude of the incident.

First response to an incident at the Facility will be provided by the Local Response Team (LRT). The Incident Management Team will respond, to the degree necessary, to incidents exceeding local capability. If a response exceeds the Local Response Team's capabilities, the Local Incident Commander will activate the Incident Management Team.

These response teams will use the NIMS Incident Command System (ICS) to manage the emergency response activities. Because ICS is a management tool that is readily adaptable to incidents of varying magnitude, it will typically be used for all emergency incidents. Staffing levels will be adjusted to meet specific response team needs based on incident size, severity, and type of emergency.

An explanation of ICS and the roles and responsibilities for primary members of the response teams are provided in Section 4.9. The USCG Incident Management Handbook (IMH) can be referenced for an in-depth description of all ICS positions, ICS development, response objectives and strategies, command responsibilities, ICS specific glossary/acronyms, resource typing, the IAP process, and meetings (http://www.uscg.mil/hq/nsfweb/docs/FinalIMH18AUG2006.pdf).

Another important aspect of the ICS system is that individuals working on specific response tasks complete standard ICS forms. Accurate and complete documentation of a response activity using these standard forms is vital to the communication of information during any transition phase of responsibilities as well as post-incident assessments and follow-up. Standard ICS forms are included in Section 5.

4.2 QUALIFIED INDIVIDUAL

It is the responsibility of the Qualified Individual (QI) or his/her designee to coordinate with the Federal On-Scene Coordinator (FOSC), State On-Scene Coordinator (SOSC), Local On-Scene Coordinator (LOSC), Tribal On-Scene Coordinator (TOSC), and/or other On-Scene Coordinators throughout the response.

Vital duties of the Qualified Individual (QI) include:

- Activate internal alarms and hazard communication systems to notify all Facility personnel.
- Notify all response personnel, as needed.
- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification.

4.2 QUALIFIED INDIVIDUAL (Cont'd)

- Notify and provide necessary information to the appropriate Federal, State, Local, and Tribal authorities with designated response roles, including the National Response Center (NRC), State Emergency Response Commission (SERC), and local response agencies.

- Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify response personnel at the scene of that assessment.

- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion).

- Assess and implement prompt removal actions to contain and remove the substance released.

- Coordinate rescue and response actions as previously arranged with all response personnel.

- Activate and engage in contracting with oil spill removal organizations.

- Use authority to immediately access company funding to initiate cleanup activities.

- Direct cleanup activities until properly relieved of this responsibility.

- Arrangements will be made to ensure that the Qualified Individual (QI) or the Alternate Qualified Individual (AQI) is available on a 24-hour basis and is able to arrive at the Facility in a reasonable time.

- The AQI shall replace the QI in the event of his/her absence and have the same responsibilities and authority.

4.3 LOCAL RESPONSE TEAM

The first Company person on scene will function as the Incident Commander (IC) and person-in-charge until relieved by an authorized supervisor who will then assume the position of Incident Commander. Transfer of command will take place as more senior management respond to the incident. For response operations within the control of the Local Response Team, the role of IC will typically be assumed and retained by Terminal Management.

The number of positions/personnel required to staff the Local Response Team will depend on the size and complexity of the incident. The duties of each position may be performed by the IC directly or delegated as the situation demands. The IC is always responsible for directing the response activities and will assume the duties of all the primary positions until the duties can be delegated to other qualified personnel.

4.3 LOCAL RESPONSE TEAM (Cont'd)

A complete functional ICS organization is shown in Figure 4.1. The LRT should try to fill the necessary positions and request additional support from the Incident Management Team to fill/back up the positions necessitated by the incident may dictate. Detailed job descriptions of the primary response team positions are provided in Section 4.9.

4.4 INCIDENT MANAGEMENT TEAM

For spill response operations outside the capabilities of the Local Response Team (LRT), the QI/AQI or IC will determine the need for mobilization of the Incident Management Team (IMT). The members of the LRT will typically become members of the IMT.

The Incident Management Team (IMT), once fully staffed, is designed to cover all aspects of a comprehensive and prolonged incident response. The number of positions/ personnel required to staff the IMT will depend on the size and complexity of the incident. During a prolonged response, additional personnel may be cascaded in, and more than one level within the Team may be involved to sustain 24-hour operations.

The IMT is basically organized according to the NIMS Incident Command System principles (Figure 4.2). Led by the Incident Commander, the team is composed of the following principal components:

- Command
- Planning
- Finance/Administration
- Operations
- Logistics

The Incident Management Team is staffed by specially trained personnel from various facility/corporate locations, and by various contract resources as the situation requires (IMT organization chart is provided in Figure 4.2; telephone reference is provided in Figure 2.2.). Command and Unit Leader responsibilities are described in Section 4.9.

4.5 KM CRISIS SUPPORT TEAM (CST)

Kinder Morgan (KM) has established a Crisis Support Plan (CSP) to assist local field groups in responding to crises in their areas. In addition to typical emergencies such as releases, fires, and explosions, the plan may be used to address the response to less obvious crises such as negative media, national security threats and natural disasters that affect the overall well being of KM.

During most emergencies and crises, the local facility response plan provides the appropriate immediate response. If the situation warrants, the Crisis Support Plan would be implemented to supplement local response activities by using personnel (called the Crisis Support Team (CST)) in the Houston, Texas; Orange, California; Lakewood, Colorado; and/or Alpharetta, Georgia offices – all of which can operate 24 hours per day when activated.

The focus of the KM Crisis Support Team (CST) is to augment the company's various existing emergency response plans and capabilities with additional resources, equipment, and crisis response planning, at the KM management level. The CSP provides the mechanism for activating the KM CST and affiliated Crisis Support Center.

4.6 INCIDENT COMMAND SYSTEM

The Incident Command System is intended to be used as an emergency management tool to aid in mitigating all types of emergency incidents. This system is readily adaptable to very small emergency incidents as well as more significant or complex emergencies. The Incident Command System utilizes the following criteria as key operational factors:

- Assigns overall authority to one individual
- Provides structured authority, roles and responsibilities during emergencies
- The system is simple and familiar, and is used routinely at all incidents
- Communications are structured
- The system for response and assignment of resources is structured
- The system provides for expansion, escalation, and transfer/transition of roles and responsibilities
- The system allows for "Unified Command" where agency involvement at the command level is required

Effective establishment and utilization of the Incident Command System during response to all types of emergencies can:

- Provide for increased safety
- Shorten emergency mitigation time by providing more effective and organized mitigation
- Cause increased confidence and support from local, state, and federal public sector emergency response personnel
- Provide a solid cornerstone for emergency planning efforts

Section 4.9 provides a comprehensive list of every response team member's duty assignment.

4.7 UNIFIED COMMAND

As a component of an ICS, the Unified Command (UC) is a structure that brings together the Incident Commanders of all major organizations involved in the incident to coordinate an effective response while still meeting their own responsibilities (A UC organization chart is provided in Figure 4.3). The UC links the organizations responding to the incident and provides a forum for the Responsible Party and responding agencies to make consensus decisions. Under the UC, the various jurisdictions and/or agencies and responders may blend together throughout the organization to create an integrated response team. The ICS process requires the UC to set clear objectives to guide the on-scene response resources.

4.7 UNIFIED COMMAND (Cont'd)

Multiple jurisdictions may be involved in a response effort utilizing Unified Command. These jurisdictions could be represented by any combination of:

- Geographic boundaries
- Government levels
- Functional responsibilities
- Statutory responsibilities

The participants of Unified Command for a specific incident will be determined taking into account the specifics of the incident and existing response plans and/or decisions reached during the initial meeting of the UC. The UC may change as an incident progresses, in order to account for changes in the situation.

The UC is responsible for overall management of an incident. The UC directs incident activities and approves and releases resources. The UC structure is a vehicle for coordination, cooperation and communication which is essential to an effective response.

UC representatives must be able to:

- Agree on common incident objectives and priorities
- Have the capability to sustain a 24-hour-7-day-per-week commitment to the incident
- Have the authority to commit agency or company resources to the incident
- Have the authority to spend agency or company funds
- Agree on an incident response organization
- Agree on the appropriate Command and General Staff assignments
- Commit to speak with "one voice" through the Information Officer or Joint Information Center
- Agree on logistical support procedures
- Agree on cost-sharing procedures

4.8 DISCHARGE/INCIDENT CLASSIFICATION

The severity of a discharge/incident will have a bearing on the level of management involvement necessary and the extent of resource mobilization. The following definitions provide guidance in the early classification of discharges:

TIER I EVENT
Incident Command will normally be assumed by Terminal Management. Regional and Head Office support will be utilized on an as needed basis.
Exposure
The potential public and environmental exposure is moderate. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderate impact on the public and/or the environment.
Degree of Control
The incident can be controlled in a short period of time through implementation of the local resources available to the Facility (including contract resources).
Governmental Involvement
Government involvement will be moderate and generally restricted to State and local levels.
Media Involvement
Media interest will be moderate and generally restricted to State and Local levels.

4.8 DISCHARGE/INCIDENT CLASSIFICATION (Cont'd)

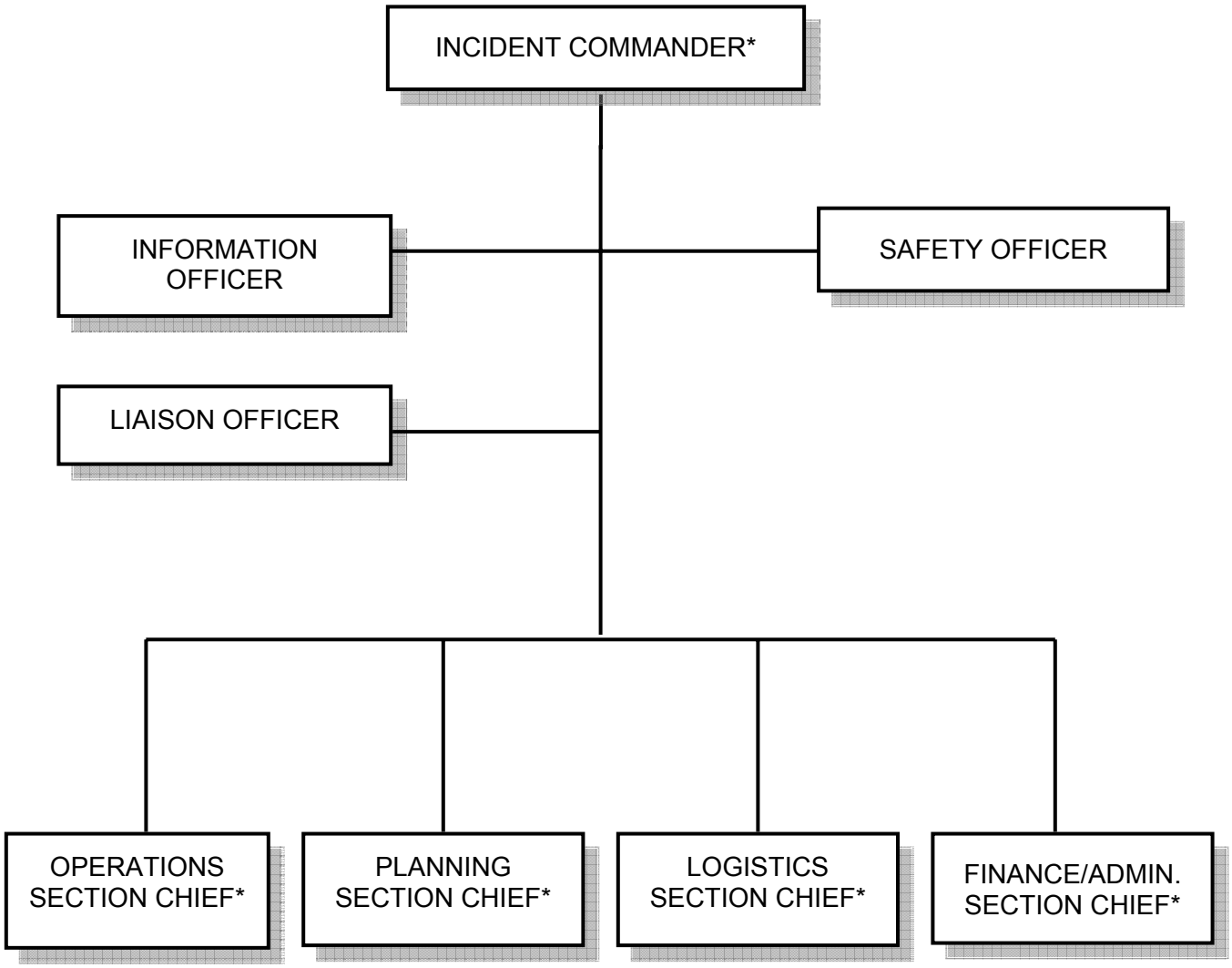
TIER II EVENT
Local Company resources may have to be supplemented with Head Office and external resources to manage the spill incident.
Exposure
The potential public and environmental exposure is moderately high. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderately high impact on the public and/or the environment.
Degree of Control
The incident can be brought under control in a moderate period of time through implementation of local resources available to the Facility (including contract resources) with possible implementation of regional resources.
Governmental Involvement
Government involvement will be moderately high and generally restricted to Regional levels.
Media Involvement
Media interest will be moderately high and generally restricted to Regional levels.

TIER III EVENT
Maximum Company and external resources must be implemented to respond to the spill incident. Activation of the Crisis Management Team would be anticipated during a Tier III incident.
Exposure
The potential public and environmental exposure is significant. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have significant impact on the public and/or the environment.
Degree of Control
Maximum Company and third party resources must be implemented in order to gain control of the incident.
Governmental Involvement
Government involvement will be high.
Media Involvement
Media interest will be high.

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)



* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)

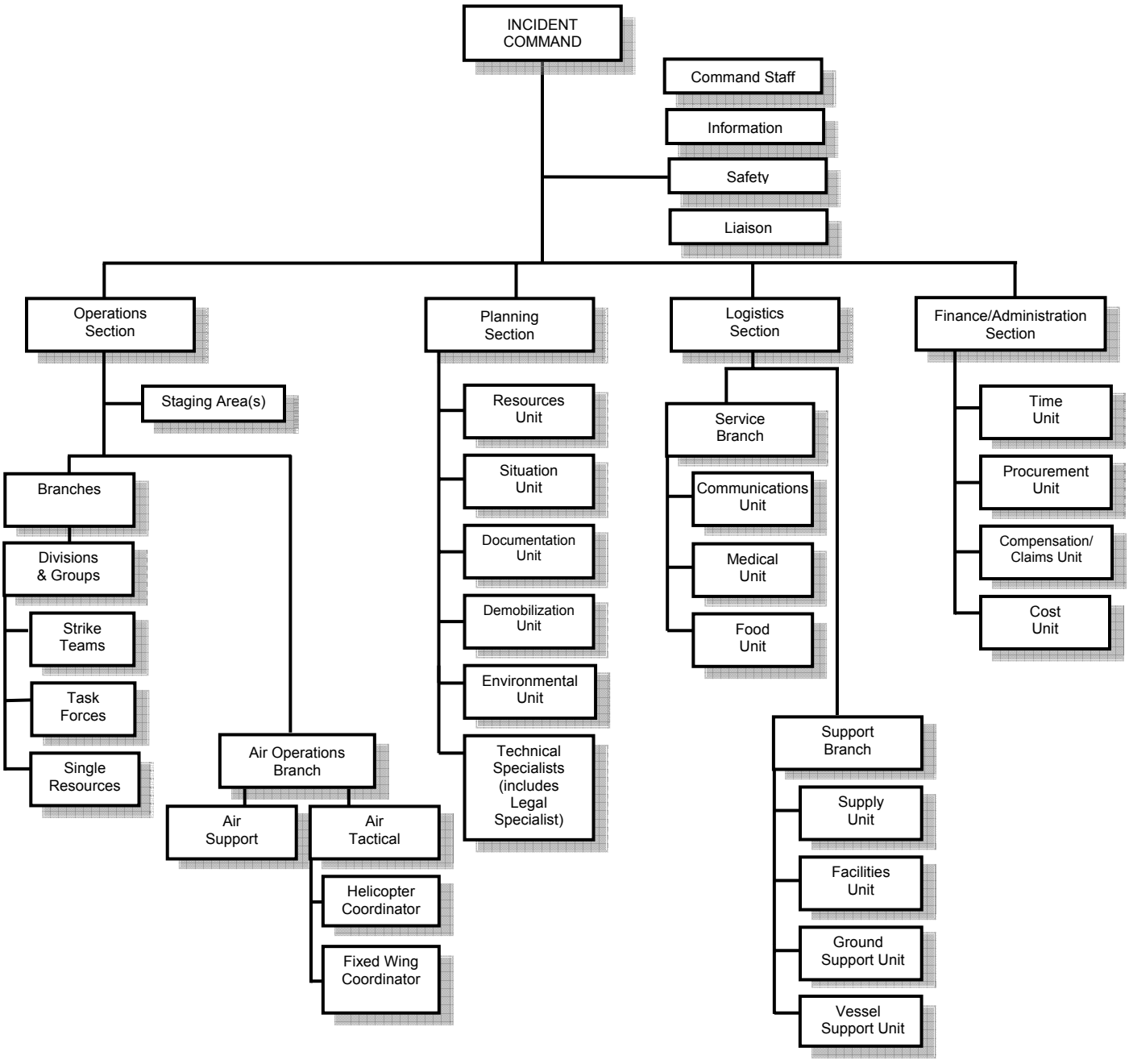
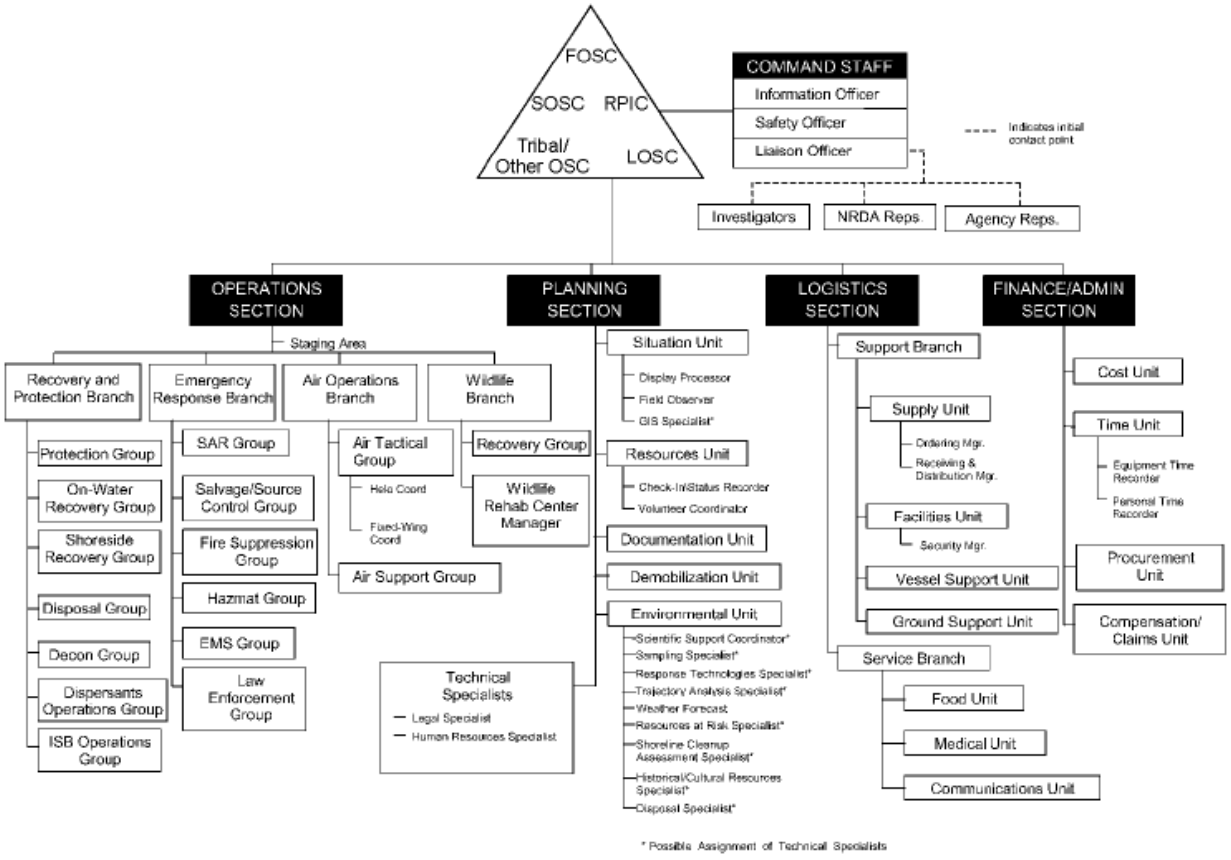


FIGURE 4.3

UNIFIED COMMAND



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Use IAP and Unit/Activity Log (ICS Form 214) to brief relief personnel.
- Respond to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

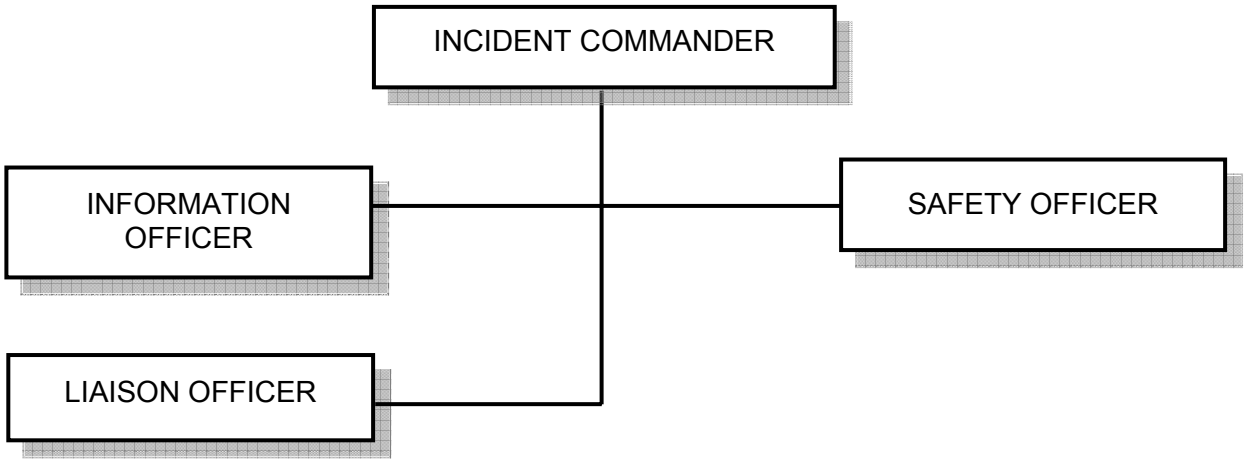
COMMAND

Incident Commander.....4-12

Safety Officer 4-15

Liaison Officer 4-17

Information Officer 4-18



INCIDENT COMMANDER

The Incident Commander (IC) has responsibility for overall management of the incident. The KM IC has the authority to approve the use of a contractor even if no "open-end" contract exists, as well as the authority to commit monies to initiate response and clean-up activities. The first employee on-site will assume the responsibilities of IC until properly relieved. Generally, the most senior employee on-site will assume the IC position. The IC also has overall responsibility for the health and safety of responders.

KM Initial IC Responsibilities (During the first few hours):

- Make internal Company notifications
- Conduct initial site assessment
- Initiate Incident Command System (assign ICS roles & complete org. chart)
- Ensure Site Specific Health & Safety plan is being developed within the first hour
- Maintain site control (establish hazard zones and appropriate corridors)
- Request Unified Command with lead agencies as appropriate
- Establish immediate priorities (i.e. control the discharge, initiate containment, ensure safety, etc.)

Overall IC Responsibilities:

- Assess the situation and/or obtain a briefing from the prior IC.
- Determine Incident Objectives and strategy.
  Objectives and strategies should be documented on ICS form 201or 202 and used to communicate Unified Command's expectations for the next operational period
- Establish the immediate priorities.
- Establish an Incident Command Post.
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
  The organization should be documented on ICS forms 201, 203 or 207, depending on the level of response.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an IAP.
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources. *This is usually accomplished through the approval of the Incident Action Plan.*
- Keep corporate offices and agency administrator(s) informed of incident status.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Ensure incident Status Summary (ICS Form 209) is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.

INCIDENT COMMANDER (Cont'd)

OIL SPILL

The IC for oil discharges will, whenever possible and practical, be organized under the Unified Command (UC) Structure that includes, but is not limited to:

- The pre-designated Federal On-Scene Incident Commander (FOSC)
- The pre-designated State On-Scene Incident Commander (SOSC)
- The representative of the Responsible Party (RP) IC

The UC is responsible for the overall management of the incident. The UC directs incident activities including the development and implementation of strategic decisions and approves the ordering and releasing of resources. The UC may assign a Deputy IC to assist in carrying out IC responsibilities. IC tasks specific to oil spill events are:

- Be cognizant of the primary objectives for oil spill response activities.
  - Ensure the safety of citizens and response personnel.
  - Control the source of the spill.
  - Manage a coordinated response effort.
  - Maximize protection of environmentally sensitive areas.
  - Contain and recover spilled material.
  - Recover and rehabilitate injured wildlife.
  - Remove oil from impacted areas.
  - Minimize economic impacts.
  - Keep stakeholders informed of response activities.
  - Keep the public informed of response activities.
  - Ensure that the source of a discharge is designated and that procedures by which claims may be presented are advertised.
  - All removal and damage claims must be handled appropriately.

HAZARDOUS SUBSTANCE RELEASE

Incident Commander and Safety Officer - The IC and SO for a hazardous substance incident will use the following guidance when preparing the Site Safety Plan:

- Assign site safety responsibility.
- Establish perimeter and restrict access.
- Characterize site hazards:
  - Identity pollutant
  - Obtain Material Safety Data Sheets
  - Conduct air monitoring
  - Identify physical and biological hazards i.e., slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants and biological waste
- Establish control zones:
  - Exclusion zone
  - Contamination reduction zone
  - Support zone

INCIDENT COMMANDER (Cont'd)

HAZARDOUS SUBSTANCE RELEASE (Cont'd)

- Assess training requirements:
  - Check HAZWOPER cards
  - Insure safety briefings
- Select personal protective equipment (PPE) Level A, B, C, or D.
- Establish decontamination stations.
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.

TERRORISM INCIDENT

(b) (7)(F), (b) (3)

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SAFETY OFFICER

The Safety Officer's (SO) function is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. Only one SO will be assigned for each incident; however, there may be assistants.

Overall SO Responsibilities:

- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the IAP for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
  Ensure information is relayed to the Situation Unit Leader in order to update incident status information (ICS form 209) on the display board.
- Review and approve the medical plan (ICS form 206).
- Develop the Site Safety Plan and publish Site Safety Plan summary (ICS Form 208) as required.
  This plan may be more detailed than the KM Site Specific Health and Safety Plan.

Additional KM Required SO Responsibilities:

- Ensure all initial response personnel are located in a safe location
- Complete the KM Site Specific Health and Safety Plan (**within the first hour**)
- Conduct initial briefing of the KM Site Specific Health and Safety Plan
- Establish regularly scheduled safety meetings
  - Ensure that an "attendance roster" is maintained during these meetings
  - Work with Staging Officer to conduct H&S Plan briefings with arriving response personnel
- Assess need for atmospheric monitoring – coordinate as needed
  - Ensure air monitoring results are accurately documented; use map of area to record results if necessary
- Coordinate with appropriate agencies to assess need for triage; suggest possible locations
- Establish smoking areas; communicate clearly
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.
- Control access to an offsite incident site by working within the Unified Command Structure to effect the necessary control measures for air, (FAA), marine(USCG) and ground (local law enforcement) traffic.
- In the event of a need to control traffic before the arrival of local, state, or federal authorities, the following methods of traffic control may be considered:
  - Vehicular and/or pedestrian access to an offsite incident should be controlled to the extent possible prior to the arrival of local law enforcement or other agency personnel trained to handle traffic control.
  - Until agencies respond to the scene and take control of access and traffic, vehicles can be used to block traffic flow on streets leading to the spill site, if it is safe to do so. Do not operate vehicles at the scene of a gasoline or other light hydrocarbon spill where a flammable vapor cloud may be present.
  - For an on water spill, control of marine traffic may be attempted prior to the arrival of the US Coast Guard response vessel by alerting vessel operators of the spill hazard by radio where possible.
  - Control of air traffic may be necessary due to operations aircraft. The local Federal Aviation Administration (FAA) office can be contacted by the Incident Commander, or coordinated with local authorities, to establish safe operations.

SAFETY OFFICER (Cont'd)

HAZARDOUS SUBSTANCE RELEASE

Incident Commander and Safety Officer - The IC and SO for a hazardous substance incident will use the following guidance when preparing the Site Safety Plan:

- Assign site safety responsibility.
- Establish perimeter and restrict access.
- Characterize site hazards:
  - Identity pollutant
  - Obtain Material Safety Data Sheets
  - Conduct air monitoring
  - Identify physical and biological hazards i.e., slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants and biological waste
- Establish control zones:
  - Exclusion zone
  - Contamination reduction zone
  - Support zone
- Assess training requirements:
  - Check HAZWOPER cards
  - Insure safety briefings
- Select personal protective equipment (PPE) Level A, B, C, or D.
- Establish decontamination stations.
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.

LIAISON OFFICER

The Liaison Officer (LO) serves as a "go-between" linking the IC to various agencies. These are agencies that do not have a direct tactical assignment within the Unified Command however, have an interest in the response activities or wish to offer assistance.

The Liaison Officer intercepts, greets and briefs agency representatives as they arrive on scene. It is the responsibility of the Liaison Officer to notify the IC before escorting anyone to the Command Post. A separate Liaison Area may need to be established to accommodate agency representatives not directly involved in the Unified Command.

Overall LO Responsibilities:

- Be a contact point for Agency Representatives.
  Agency Representatives are agency personnel who do not have direct tactical assignment but are present to assist in response efforts and have authority to make decision on matters affecting that agency's participation.

- Maintain a list of assisting and cooperating agencies and Agency Representatives.
  Obtain business cards or any other means of collecting contact information.

- Monitor check-in sheets daily to ensure that all Agency Representatives are identified.

- Assist in establishing and coordinating interagency contacts.
  Determine if there are any agencies that could assist in the response effort. Locate the contact information and make contact with the agencies.

- Keep agencies supporting the incident aware of incident status.

- Monitor incident operations to identify current or potential inter-organizational problems.
  Report any problems/conflicts to the IC.

- Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.

- Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the OPS during oil and HAZMAT responses.
  This generally involves working with agencies to evaluate the impact the incident had on the environment and wildlife.

- Coordinate response resource needs for incident investigation activities with the OPS.

- Ensure that all required agency forms, reports and documents are completed prior to demobilization.

- Coordinate activities of visiting dignitaries.

- Have a debriefing session with the IC prior to departure.

INFORMATION OFFICER

The Information Officer (IO) is responsible for developing and releasing information about the incident to the news media, incident personnel, and other appropriate agencies and organizations.

Only one IO will be assigned for each incident. The IO may have assistants as necessary. The assistants may represent assisting agencies, companies, or jurisdictions. The IO and assistants will establish a Joint Information Center to assist with developing information releases.

Overall IO Responsibilities:

- Determine from the IC if there are any limits on information release.
- Develop material for use in media briefings.
- Obtain IC approval of media releases.
- Inform media and conduct media briefings.
- Arrange for tours and other interviews or briefings that may be required.
- Obtain media information that may be useful to incident planning.
- Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

Additional KM Required IO Responsibilities:

- Receive briefing of incident
- Anticipate need for and establish a Media Area
- Coordinate with the KMEP Corporate Communications Office for development and release of appropriate media information
- Maintain a log of agency IOs, news media, news releases, etc.

TERRORISM INCIDENT

(b) (7)(F), (b) (3)

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INFORMATION OFFICER (Cont'd)

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OPERATIONS

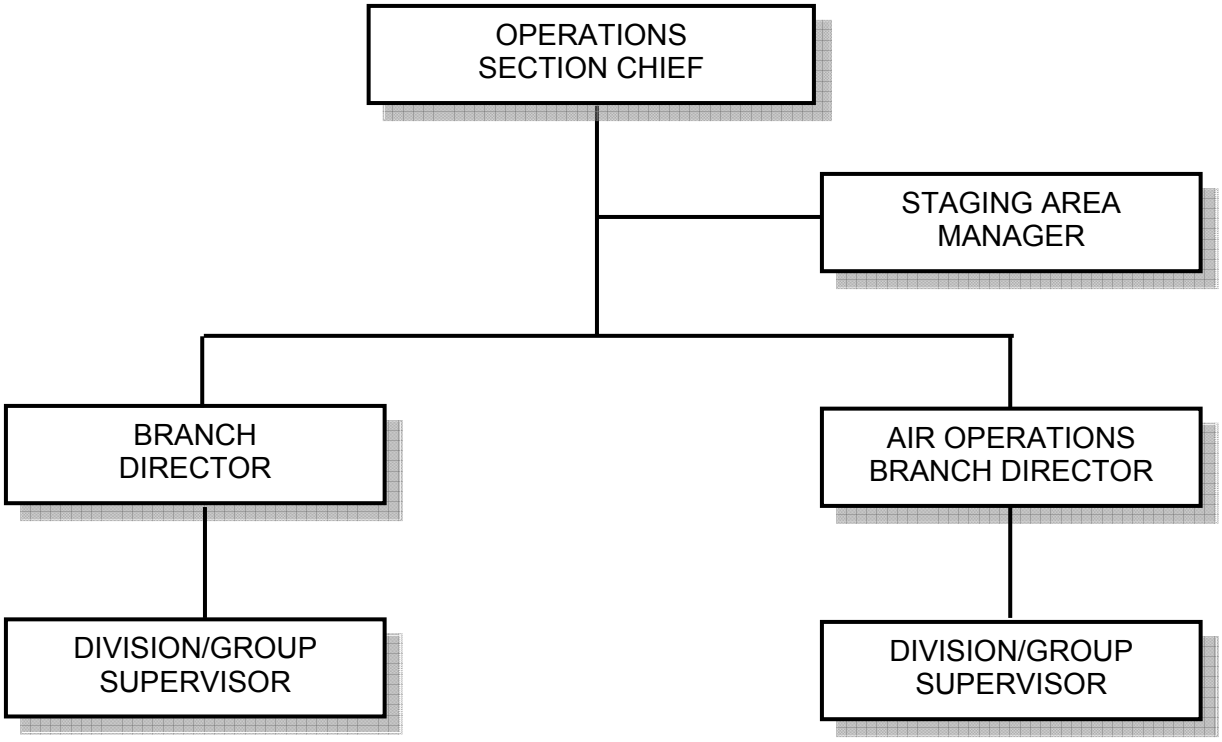
Operations Section Chief 4-21

Air Operations Branch Director 4-21

Staging Area Manager 4-25

Branch Director 4-25

Division/Group Supervisor 4-29



OPERATIONS SECTION CHIEF

The Operations Section Chief (OPS) is responsible for the management of all operations directly applicable to the primary mission (i.e. clean-up, recovery etc.). The OPS activates and supervises tactical response elements in accordance with the Incident Action Plan (IAP) and directs its execution. The OPS also requests or releases resources, makes expedient changes to the IAP, as necessary; and reports these actions to the IC.

Overall OPS Responsibilities

- Develop operations portion of IAP.
  This generally includes the designation of branches, divisions and groups, as well as input on required resources.
- Brief and assign Operations Section personnel in accordance with the IAP.
- Supervise Operations Section.
- Determine need and request additional resources.
- Review suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble strike teams assigned to the Operations Section.
- Report information about special activities, events, and occurrences to the IC.
- Respond to resource requests in support of NRDAR activities.

Additional KM Required OPS Responsibilities

- Directs KM personnel and emergency response contractors performing operations activities
- Review and ensure communication of the Site Specific H&S Plan to KM personnel and emergency response contractors performing operations activities
- Supervise the decontamination system
  - Ensure decontamination system is set-up and functional prior to Hot Zone entry
  - Request input from the Safety Officer, as necessary

AIR OPERATIONS BRANCH DIRECTOR

The Air Operations Branch Director (AIROPS), who is ground-based, is primarily responsible for preparing the air operations portion of the IAP. The plan will reflect agency restrictions that have an impact on the operational capability or utilization of resources (e.g., night flying, hours per pilot). After the plan is approved, the AIROPS is responsible for implementing its strategic aspects, which are those that relate to the overall incident strategy as opposed to those that pertain to tactical operations (specific target selection). Additionally, the AIROPS is responsible for providing logistical support to helicopters operating on the incident. The Air Tactical Group Supervisor, working in conjunction with ground and air resources, normally performs specific tactical activities, such as target selection and suggested modifications to specific tactical actions in the IAP.

Overall AIROPS Responsibilities:

- Organize preliminary air operations.
- Request declaration (or cancellation) of restricted air space
- Participate in preparation of the IAP through the OPS. Insure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
- Perform operational planning for air operations.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

Overall AIROPS Responsibilities (Cont'd):

- Prepare and provide Air Operations Summary Worksheet (ICS Form 220) to the Air Support Group and Fixed-Wing Bases.
- Determine coordination procedures for use by air organization with ground Branches, Divisions, or Groups.
- Coordinate with appropriate Operations Section personnel.
- Supervise all air operations activities associated with the incident.
- Evaluate helibase locations.
- Establish procedures for emergency reassignment of aircraft.
- Schedule approved flights of non-incident aircraft in the restricted air space area.
- Coordinate with the Operations Coordination Center (OCC) through normal channels on incident air operations activities.
- Inform the Air Tactical Group Supervisor of the air traffic situation external to the incident.
- Consider requests for non-tactical use of incident aircraft.
- Resolve conflicts concerning non-incident aircraft.
- Coordinate with FAA.
- Update air operations plans.
- Report to the OPS on air operations activities.
- Report special incidents/accidents.
- Arrange for an accident investigation team when warranted.

Air Tactical Group Supervisor - The Air Tactical Group Supervisor is primarily responsible for the coordination of aircraft operations when fixed and/or rotary-wing aircraft are operating on an incident. These coordination activities are performed by the Air Tactical Group Supervisor while airborne. The Air Tactical Group Supervisor reports to the AIROPS.

Overall Air Tactical Group Supervisor Responsibilities:

- Determine what aircraft (air tankers and helicopters) are operating within the area of assignment.
- Manage air tactical activities based upon the IAP.
- Establish and maintain communications and Air Traffic Control, with pilots, Air Operations, Helicopter Coordinator, Air Tanker/Fixed Wing Coordinator, Air Support Group (usually Helibase Manager), and fixed-wing Support Bases.
- Coordinate approved flights of non-incident aircraft or non-tactical flights in restricted air space area.
- Obtain information about air traffic external to the incident.
- Receive reports of non-incident aircraft violating restricted air space area (OPS, Branch Director, or Division/Group Supervisor).
- Make tactical recommendations to approved ground contact.
- Inform AIROPS of tactical recommendations affecting the air operations portion of the IAP.
- Report on air operations activities to the AIROPS. Advise air operations immediately if aircraft mission assignments are causing conflicts in the Air Traffic Control System.
- Report on incidents/accidents.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

Air Support Group Supervisor - The Air Support Group Supervisor is primarily responsible for supporting and managing helibase and helispot operations and maintaining liaison with fixed-wing air bases. This includes providing: 1) fuel and other supplies; 2) maintenance and repair of helicopters; 3) retardant mixing and loading; 4) keeping records of helicopter activity, and 5) providing enforcement of safety regulations. These major functions are performed at helibases and helispots. Helicopters during landing and take-off and while on the ground are under the control of the Air Support Groups Helibase or Helispot Managers. The Air Support Group Supervisor reports to the AIROPS.

Overall Air Support Group Supervisor Responsibilities:

- Obtain a copy of the IAP from the AIROPS including Air Operations Summary Worksheet (ICS Form 220).
- Participate in AIROPS planning activities.
- Inform AIROPS of group activities.
- Identify resources/supplies dispatched for the Air Support Group.
- Request special air support items from appropriate sources through Logistics Section.
- Identify helibase and helispot locations (from IAP) or from AIROPS.
- Determine need for assignment of personnel and equipment at each helibase and helispot.
- Coordinate special requests for air logistics.
- Maintain coordination with airbases supporting the incident.
- Coordinate activities with AIROPS.
- Obtain assigned ground-to-air frequency for helibase operations from the Communications Unit Leader (CUL) or Incident Radio Communications Plan (ICS Form 205).
- Inform AIROPS of capability to provide night flying service.
- Ensure compliance with each agency's operations checklist for day and night operations.
- Ensure dust abatement procedures are implemented at helibases and helispots.
- Provide crash-rescue service for helibases and helispots.
- Ensure that Air Traffic Control procedures are established between helibases and helispots and the Air Tactical Group Supervisor, the Helicopter Coordinator or the Air Tanker/Fixed-Wing Coordinator.

OIL SPILL

Air Tactical Group Supervisor - The coordination and scheduling of aircraft operations intended to locate, observe, track, survey, support dispersant applications, or to be used for other deliverable response application techniques, or report on the incident situation when fixed and/or rotary-wing aircraft are airborne at an incident. These coordination activities are normally performed by the Air Tactical Group Supervisor while airborne.

Overall Air Tactical Group Supervisor Responsibilities:

- Obtain a briefing from the Air Operations Branch Director or the OPS.
- Coordinate dispersant, in-situ burning, and bioremediation application through the Air Operations Branch Director.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

OIL SPILL (Cont'd)

- Coordinate air surveillance mission scheduling and observer assignments with the SUL.
- Identify remote sensing technology that may enhance surveillance capabilities.
- Coordinate air surveillance observations and provide reports by the most direct methods available.
- Report on air surveillance and operations activities to the Air Operations Branch Director.
- Coordinate application-monitoring requirements with the Helicopter and Fixed-Wing Coordinators and the Situation Unit.
- Report on air application activities to the Air Operation Branch Director.

STAGING AREA MANAGER

The Staging Area Manager works for the Operations Section Chief and is responsible for managing all activities within a Staging Area or areas. Since there may be more than one Staging Area for an incident, all personnel and equipment should check-in at one of these Staging Areas (sometimes referred to as a "base camp").

Overall Staging Area Manager Responsibilities:

- Proceed to Staging Area.
- Establish Staging Area layout.
- Consider assigning Assistant Staging Managers at each area.
- Determine any support needs for equipment, feeding, sanitation and security.
- Establish check-in function as appropriate.
- Post areas for identification and traffic control.
- Request maintenance service for equipment at Staging Area as appropriate.
- Respond to request for resource assignments.
  (Utilize ICS Forms 211, 211p, 211e)
- Obtain and issue receipts for radio equipment and other supplies distributed and received at Staging Area.
- Track resources distributed from the Staging Area(s) and resources received at the Staging Area(s).
- Determine required resource levels from the OPS.
- Advise the OPS when reserve levels reach minimums.
- Maintain and provide status to Resource Unit of all resources in Staging Area.
- Demobilize Staging Area in accordance with the Incident Demobilization Plan.

Additional KM Required Staging Area Manager Responsibilities:

- Determine whether multiple Staging Areas will be required
- Consider assigning Assistant Staging Managers at each area
- Ensure Staging Area(s) are maintained in orderly condition.
- Work with KM Safety Officer to conduct H&S Plan briefings with arriving response personnel.

BRANCH DIRECTOR

The Branch Directors when activated, are under the direction of the OPS, and are responsible for the implementation of the portion of the IAP appropriate to the Branches.

Overall Branch Director Responsibilities:

- Develop with subordinates alternatives for Branch control operations.
- Attend planning meetings at the request of the OPS.
- Review Division/Group Assignment Lists (ICS Form 204) for Divisions/Groups within the Branch. Modify lists based on effectiveness of current operations.
- Assign specific work tasks to Division/Group Supervisors.
- Supervise Branch operations.
- Resolve logistic problems reported by subordinates.

BRANCH DIRECTOR (Cont'd)

Overall Branch Director Responsibilities (Cont'd):

- Report to OPS when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- Approve accident and medial reports originating within the Branch.

OIL SPILL

Recovery and Protection Branch Director - The Recovery and Protection Branch Director is responsible for overseeing and implementing the protection, containment and cleanup activities established in the IAP.

Emergency Response Branch Director - The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation.

Wildlife Branch Director - The Wildlife Branch Director is responsible for minimizing wildlife injuries during spill responses; coordinating early aerial and ground reconnaissance of the wildlife at the spill site and reporting results to the SUL; advising on wildlife protection strategies, including diversionary booming placements, in-situ burning, and chemical countermeasures; removing of oiled carcasses, employing wildlife hazing measures as authorized in the IAP; and recovering and rehabilitating impacted wildlife. A central Wildlife Processing Center should be identified and maintained for, evidence tagging, transportation, veterinary services, treatment and rehabilitation storage, and other support needs. The activities of private wildlife care groups, including those employed by the RP, will be overseen and coordinated by the Wildlife Branch Director.

Overall Wildlife Branch Director Responsibilities:

- Review Branch Director Responsibilities.
- Develop the Wildlife Branch portion of the IAP.
- Supervise Wildlife Branch operations.
- Determine resource needs.
- Review the suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble teams/task forces assigned to the Wildlife Branch.
- Report information about special activities, events, and occurrences to the OPS.
- Assist the Volunteer Coordinator in determining training needs of wildlife recovery volunteers.

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BRANCH DIRECTOR (Cont'd)

Event Site Branch Director (Cont'd)

- Coordinate with Medical Unit for medical treatment and transport capability, including requesting county transit buses.
- Coordinate with Safety Officer for a site safety and control plan.
- Determine containment and control procedures to be used.
- Coordinate with other agencies (investigative/evident gathering)

Community Impact Branch Director – Tasks specific to terrorist incidents are:

- Review Branch Director Responsibilities
- Coordinate for perimeter security and traffic control.
- Determine hazards presented to the community through detection/monitoring.
- Determine best protective actions to use:
  - Rescue
  - Shelter-in-place (SIP)
  - Evacuation
  - Red Cross
  - Establish shelters and notify American Red Cross
- Establish emergency decontamination capability for off site personnel and public.
- Establish a medical treatment and transport capability for off-site personnel and the public.
- Coordinate with Safety Officer for site safety and control plan.
- Coordinate with Information Officer to develop emergency broadcast messages to alert and update the community.
- Determine re-entry procedures to be used
- Coordination with other agencies and notify the County Health Officer

MULTI-CASUALTY

Multi-Casualty Branch Director - The Multi-Casualty Branch Director is responsible for the implementation of the IAP within the Branch. This includes the direction and execution of branch planning for the assignment of resources within the Branch.

Overall Multi-Casualty Branch Director Responsibilities:

- Review Group/Division Assignments for effectiveness of current operations and modify as needed.
- Provide input to OPS for the IAP.
- Supervise Branch Activities.

Family Assistance Branch – The Family assistance Branch provides services to the victims' family members; coordinates activities, lodging, food, spiritual and emotional needs, and transportation to special events (press conferences, memorial services to the scene of the incident when authorized, etc.), and any special needs that arise during the incident that may assist the victims' family members.

NOTE: The National Transportation Safety Board (NTSB) provides this assistance for aircraft disasters.

BRANCH DIRECTOR (Cont'd)

Overall Family Assistance Branch Responsibilities:

- Coordinate with local and state authorities, to include the medical examiner, local law enforcement, emergency management, hospitals, and other emergency support personnel.
- Conduct daily coordination meetings with the local and Federal government representatives to review daily activities, resolve problem areas, and synchronize future family support operations and activities.
- Coordinate and provide briefings to families at the site and those who decide not to be at the site.

Overall Family Assistance Branch Responsibilities:

- Ensure adequate number of Family Assistance Team members present at all times to allow for rest, exercise and proper rotation.
- Establish and maintain working relationship with the CERT and CISM teams to cross-reference needs of the victims' families.
- Attend all staff briefings and planning meetings as required.
- Request necessary equipment and supplies through LSC.
- Ensure adequate lodging and/or sleeping arrangements.
- Ensure that security needs for the victims' family members are addressed.
- Ensure that all communications are centrally coordinated.
- Ensure that all transportation scheduling is centrally coordinated.
- The following agencies provide similar assistance during emergencies and may be of assistance:
  - American Red Cross (ARC)
  - Department of Health and Human Services (DHHS)
  - Federal Emergency Management Agency (FEMA)
  - NTSB
- Maintain Unit/Activity Log (ICS Form 214).

DIVISION/GROUP SUPERVISOR

The Division/Group Supervisor reports to the OPS (or Branch Director when activated). The Supervisor is responsible for the implementation of the assigned portion of the IAP, assignment of resources within the Division/Group, and reporting on the progress of control operations and status of resources within the Division/Group.

Overall Division/Group Supervisor Responsibilities:

- Implement IAP for Division/Group.
- Provide the IAP to Strike Team Leaders, when available.
- Identify increments assigned to the Division/Group.
- Review Division/Group assignments and incident activities with subordinates and assign tasks.
- Ensure that the IC and/or Resources Unit is advised of all changes in the status of resources assigned to the Division/Group.
- Coordinate activities with adjacent Division/Group.
- Determine need for assistance on assigned tasks.
- Submit situation and resources status information to the Branch Director or the OPS.
- Report hazardous situations, special occurrences, or significant events (e.g., accidents, sickness, discovery of unanticipated sensitive resources) to the immediate supervisor.
- Ensure that assigned personnel and equipment get to and from assignments in a timely and orderly manner.
- Resolve logistics problems within the Division/Group.
- Participate in the development of Branch plans for the next operational period.

OIL SPILL

Protection Group Supervisor - Group Supervisor is responsible for the deployment of containment, diversion, and adsorbent/absorbent materials in designated locations. Depending on the size of the incident, the Protection Group may be further divided into Teams, Task Forces and Single Resources.

Overall Protection Group Supervisor Responsibilities:

- Implement Protection Strategies in the IAP
- Direct, coordinate, and assess the effectiveness of protective actions.
- Modify protective actions, as needed.

On-water Recovery Group Supervisor - The On Water Recovery Group Supervisor is responsible for managing on water recovery operations in compliance with the IAP. The Group may be further divided into Teams, Task Forces and Single Resources.

Overall On-water Recovery Group Supervisor Responsibilities:

- Implement Recovery Strategies in the IAP.
- Direct, coordinate, and assess the effectiveness of on water recovery actions.
- Modify recovery actions as needed.

DIVISION/GROUP SUPERVISOR (Cont'd)

OIL SPILL (Cont'd)

Dispersant Operations Group Supervisor - The Dispersants Operations Group Supervisor is responsible for coordinating all aspects of a dispersant operation. For aerial applications, the Group works closely with the Air Tactical Group Supervisor.

Overall Dispersant Operations Group Supervisor Responsibilities:

- Determine resource needs.
- Assist the Planning Section in the development of dispersant operations and monitoring plans.
- Implement approved dispersant operations and monitoring plans.
- Manage dedicated dispersant resources and coordinate required monitoring.
- Coordinate required monitoring.

In-situ Burn Operations Group Supervisor - The In-Situ Burn Operations Group Supervisor is responsible for coordinating all aspects of an in-situ burn operation. For aerial ignition, the Group works closely with the Air Tactical Group Supervisor.

Overall In-situ Burn Operations Group Supervisors Responsibilities:

- Determine resource needs.
- Assist the Planning Section in the development of in-situ burn operations and monitoring plans.
- Implement approved in-situ burn operations and monitoring plans.

- Manage dedicated in-situ burning resources.
- Coordinate required monitoring.

Shoreside Recovery Group Supervisor - The Shoreside Recovery Group Supervisor is responsible for managing shoreside cleanup operations in compliance with the IAP. The Group may be further divided into Strike Teams, Task Forces, and Single Resources.

Overall Shoreside Recovery Group Supervisor Responsibilities:

- Implement Recovery Strategies in the IAP.
- Direct, coordinate, and assess effectiveness of shoreside recovery actions.
- Modify protective actions, as needed.

DIVISION/GROUP SUPERVISOR (Cont'd)

OIL SPILL (Cont'd)

Disposal Group Supervisor - The Disposal Group Supervisor is responsible for coordinating the on-site activities of personnel engaged in collecting, storing, transporting, and disposing of waste materials. Depending on the size and location of the spill, the Disposal Group may be further divided into Teams, Task Forces, and Single Resources.

Overall Disposal Group Supervisor Responsibilities:

- Implement the Disposal Portion of the IAP.
- Ensure compliance with all hazardous waste laws and regulations.
- Maintain accurate records of recovered material.

Decontamination Group Supervisor – The Decontamination Group Supervisor is responsible for decontamination of personnel and response equipment in compliance with approved statutes.

Overall Decontamination Group Supervisor Responsibilities:

- Implement Decontamination Plan.
- Determine resource needs.
- Direct and coordinate decontamination activities.
- Brief Site SO on conditions.

Salvage/Source Control Group Supervisor - Under the direction of the Emergency Response Branch Director, the Salvage/Source Control Group Supervisor is responsible for coordinating and directing all salvage/source control activities related to the incident.

Overall Salvage/Source Control Group Supervisor Responsibilities:

- Coordinate the development of Salvage/Source Control Plan.
- Determine Salvage/Source Control resource needs.
- Direct and coordinate implementation of the Salvage/Source Control Plan.
- Manage dedicated salvage/Source Control resources.

Wildlife Recovery Group Supervisor – The Wildlife Recovery Group Supervisor is responsible for coordinating the search for collection and field tagging of dead and live impacted wildlife and transporting them to the processing center(s). This group should coordinate with the Planning Situation Unit in conducting aerial and group surveys of wildlife population in the vicinity of the spill. They should also deploy acoustic and visual wildlife hazing equipment, as needed.

Overall Wildlife Recovery Group Supervisor Responsibilities:

- Determine resource needs.
- Establish and implement protocols for collection and logging of impacted wildlife.
- Coordinate transportation of wildlife to processing stations(s).

DIVISION/GROUP SUPERVISOR (Cont'd)

HAZARDOUS SUBSTANCE RELEASE

Decontamination Group Supervisor – The Decontamination Group Supervisor is responsible for the operations of the decontamination element and for providing decontamination, as required by the ICP.

Overall Decontamination Group Supervisor Responsibilities:

- Establish the Contamination Reduction Corridor(s).
- Identify contaminated people and equipment.
- Supervise the operations of the decontamination element in the process of decontaminating people and equipment.
- Maintain control of movement of people and equipment within the Contamination Reduction Zone.
- Maintain communications and coordinate operations with the Entry Leader.
- Maintain communications and coordinate operations with the Site Access Control Leader and the Safe Refuge Area Manager (if activated).
- Coordinate the transfer of contaminated patients requiring medical attention (after decontamination) to the Medical Group.
- Coordinate handling, storage, and transfer of contaminants within the Contamination Reduction Zone.

DIVISION/GROUP SUPERVISOR (Cont'd)

HAZARDOUS SUBSTANCE RELEASE (Cont'd)

Sampling Group Supervisor - The Sampling Group is assigned to the Operations Section because of the immediate communication and coordination they must have with the other field groups. The Field Sampling Group will normally include an Air Monitoring Team, Water Sampling Team, and a Soil Sampling Team. They will normally be responsible for perimeter monitoring and sampling, and will either coordinate sampling within the hot zone and warm zones with the Entry Group, or if properly trained and outfitted with PPE, they may take samples within the hot/warm zones themselves.

Overall Sampling Group Supervisor Responsibilities:

- Conducting all sampling required for immediate operation activity and communicating sampling data, such as results of routine air monitoring to on-site operational and safety personnel.
- Conducting air, water, and soil sampling as directed by the regulatory agencies and other interested parties through the Sampling Protocol Team.
- Ensuring that all samples are obtained following appropriate sample protocol and other special instructions they may obtain.
- Ensuring that all samples taken are properly documented and following the chain of custody procedures.
- Ensuring that the samples are properly transferred to the Sample Documentation and Tracking Teams for proper documentation, analysis, and final dissemination.

Technical Specialist Group Supervisor - There are a number of specialist positions that will be required for hazardous substance response operations. Because of their field locations and requirement for close coordination with the Operations Section Field Personnel, they are assigned to the Technical Group. The Technical Specialist Group Supervisor is responsible for coordinating the activities of these various specialists and ensuring that their services and information are made available to the appropriate field and command post activities.

Overall Technical Specialist Group Supervisor Responsibilities:

- Will oversee the activities of the following identified specialists.
  - Hazardous Substance/Materials Reference
  - Toxicologist
  - Industrial Hygienist
  - Chemical Engineer
  - Product Specialist
  - Marine Chemist

DIVISION/GROUP SUPERVISOR (Cont'd)

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DIVISION/GROUP SUPERVISOR (Cont'd)

TERRORISM INCIDENT (Cont'd)

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MULTI-CASUALTY

Medical Group/Division Supervisor – The Medical Group/Division Supervisor supervises the Triage Team Leader, Treatment Team Leader and Medical Supply Coordinator. The Medical Group/Division Supervisor establishes command and controls the activities within a Medical Group/Division, in order to assure the best possible emergency medical care to patients during a multi-casualty incident.

Overall Medical Group/Division Supervisor Responsibilities:

- Participate in Multi-Casualty Branch/Operations Section Planning Activities.
- Establish Medical Group/Division with assigned personnel. Request additional personnel and resources sufficient to handle the magnitude of the incident.
- Designate Treatment Team Leaders and treatment area locations as appropriate.
- Isolate Morgue and Minor Treatment Area from Immediate and Delayed Treatment Areas.
- Request law enforcement/coroner involvement as needed.
- Determine amount and types of additional medical resources and supplies needed to handle the magnitude of the incident (medical caches, backboards, litters, cots).
- Establish communications and coordination with the Patient Transportation Group Supervisor.
- Ensure activation of hospital alert system, local EMS/health agencies.
- Direct and/or supervise on-scene personnel from agencies such as Coroner's Office, Red Cross, law enforcement, ambulance companies, county health agencies, and hospital volunteers.
- Ensure proper security, traffic control, and access for the Medical Group/Division area.
- Direct medically trained personnel to the appropriate team leader.

DIVISION/GROUP SUPERVISOR (Cont'd)

MULTI-CASUALTY (Cont'd)

Patient Transportation Group Supervisor - The Patient Transportation Group Supervisor supervises the Medical Communications Coordinator and the Air and Ground Ambulance Coordinators. The Patient Transportation Group Supervisor is responsible for the coordination of patient transportation and maintenance of records relating to patient identification, injuries, mode of off-incident transportation and destination.

Overall Patient Transportation Group Supervisor Responsibilities:

- Establish communications with hospital(s).
- Designate ambulance staging area(s).
- Direct the transportation of patients as determined by Treatment Team Leaders.
- Assure that patient information and destination is recorded.
- Establish communications with Ambulance Coordinator(s).
- Request additional ambulances, as required.
- Notify Ambulance Coordinator(s) of ambulance requests.
- Coordinate requests for air ambulance transportation through the Air Operations Director.
- Establish Air Ambulance Helispot with the Multi- Casualty Branch Director and Air Operation Director.

PLANNING

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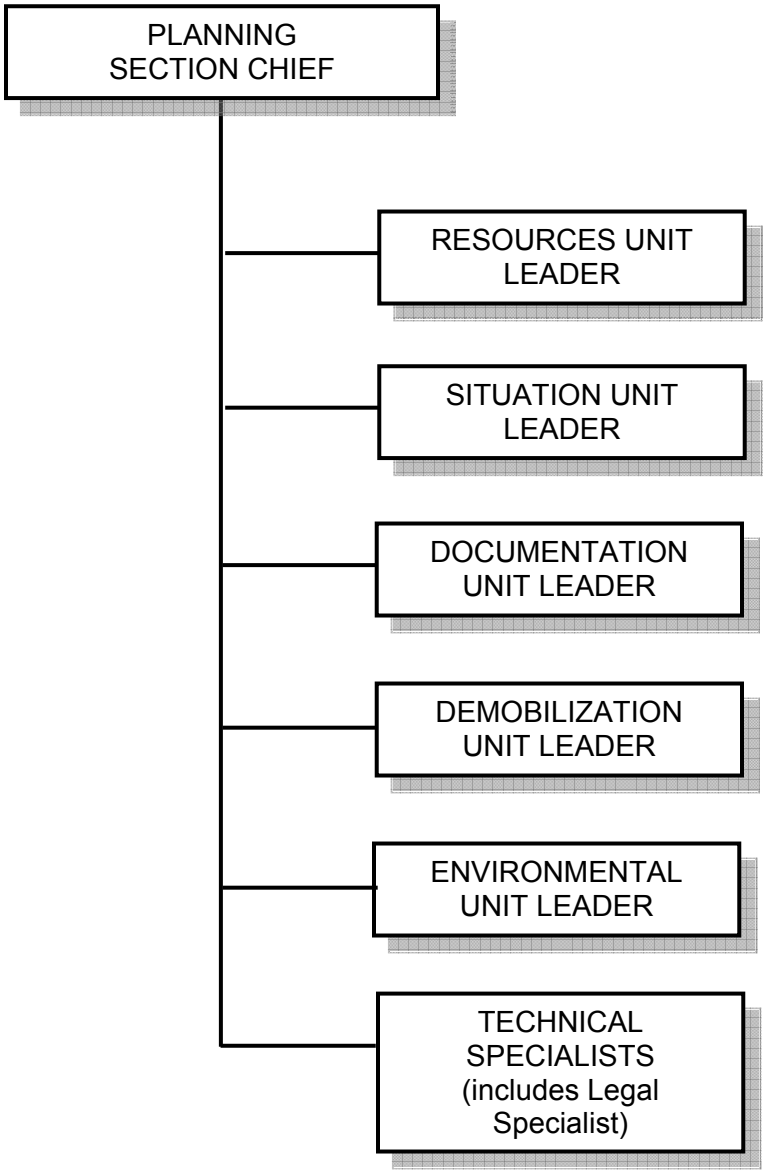

PLANNING SECTION CHIEF

The Planning Section Chief (PSC) is responsible for the collection, evaluation, dissemination and use of information; particularly with regard to the development of the incident and the status resources. This information is needed to: 1) understand the current situation, 2) predict the probable course of incident events; and 3) prepare alternative strategies for the incident.

Overall PSC Responsibilities:

- Collect and process situation information about the incident.
- Supervise preparation of the IAP.
- Provide input to the IC and the OPS in preparing the IAP.
- Chair planning meetings and participate in other meetings as required.
- Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.
- Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation Units).
- Determine the need for any specialized resources in support of the incident.
- If requested, assemble and disassemble Strike Teams and Task Forces not assigned to Operations.
- Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report any significant changes in incident status.
- Compile and display incident status information.
- Oversee preparation and implementation of the Incident Demobilization Plan.
- Incorporate plans (e.g., Traffic, Medical, Communications, Site Safety) into the IAP.

RESOURCES UNIT LEADER

The Resource Unit Leader (RUL) works within the Planning Section and is responsible for maintaining the status of all assigned resources (primary and support) at an incident. This is achieved by overseeing the check in/out of all resources, maintaining a status-keeping system indicating current location and status of all resources, and maintenance of a master list of all resources (e.g. key supervisory personnel, primary and support resources, etc.).

Overall RUL Responsibilities:

- Establish the check-in function at incident locations.
  The Staging Area Manager may already be tracking this on ICS Form 211-p and 211-e. However, the RUL should verify that tracking is being conducted and is accurate. Additionally, the RUL should determine how to gather this resource information from Staging Areas.
- Prepare Organization Assignment List (ICS Form 203) and Organization Chart (ICS Form 207).
- Prepare appropriate parts of Division Assignment Lists (ICS Form 204).
- Prepare and maintain the ICP display (to include organization chart and resource allocation and deployment).

RESOURCES UNIT LEADER (Cont'd)

Overall RUL Responsibilities (Cont'd):

- Maintain and post the current status and location of all resources.
  The RUL is responsible for developing a system to best track the resource status. Ensure information is relayed to the Situation Unit Leader in order to update incident status information on the display board (ICS Form 209)
- Maintain master roster of all resources checked in at the incident.
- Assign an additional person to fill the "Check-in/status Recorder" position to assist with the accounting of all resources assigned to the incident.
  If a Check-in/status Recorder is not assigned, the RUL is responsible for all functions.

SITUATION UNIT LEADER

The Situation Unit Leader (SUL) works within the Planning Section and is responsible for collecting, processing and organizing all incident information. The SUL may prepare future projections of incident growth and maps.

Overall SUL Responsibilities:

- Begin collection and analysis of incident data as soon as possible.
- Prepare, post, or disseminate resource and situation status information as required, including special requests.
  Establish location for situation status boards and displays. This is where maps, charts, and other incident information will be posted for responders to view.
- Prepare periodic predictions or as requested by the PSC.
- Prepare the Incident Status Summary Form (ICS Form 209).
  Acquire the information from various Command and General ICS Staff.
- Provide photographic services and maps if required.

The SUL may have a Display Processor and Field Observer reporting to him/her. However, if not assigned, the SUL will be responsible for their functions

Display Processor - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Display Processor Responsibilities:

- Determine:
  - Location of work assignment
  - Numbers, types and locations of displays required
  - Priorities
  - Map requirements for the IAP
  - Time limits for completion
  - Field Observer assignments and communications means
- Obtain necessary equipment and supplies.
- Obtain a copy of the IAP for each operational period.
- Assist SUL in analyzing and evaluating field reports.
- Develop required displays in accordance with time limits for completion.

SITUATION UNIT LEADER (Cont'd)

Field Observer - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Field Observer Responsibilities:

- Determine:
  - Location of assignment
  - Type of information required
  - Priorities
  - Time limits for completion
  - Method of communication.
  - Method of transportation.
- Obtain a copy of the IAP for the Operational Period.
- Obtain necessary equipment and supplies.
- Perform Field Observer responsibilities to include but not limited to the following:
  - Perimeters of incident
  - Locations of hot spots
  - Unburned islands
  - Rates of spread
  - Weather conditions
  - Hazards including escape routes and safe areas
  - Progress of operations resources
- Be prepared to identify all facility locations (e.g., Helispots, Division and Branch boundaries).
- Report information to the SUL by established procedure.
- Report immediately any condition observed that may cause danger and a safety hazard to personnel.
- Gather intelligence that will lead to accurate predictions.

DOCUMENTATION UNIT LEADER

The Documentation Unit Leader (DUL) works within the Planning Section and is responsible for the maintenance of accurate, up-to-date incident files. The DUL should ensure that each section is maintaining and providing appropriate documents. The DUL will provide duplication and copying services for all other sections. The DUL will store incident files for legal, analytical and historical purposes.

Overall DUL Responsibilities

- Set up work area; begin organization of incident files.
- Establish duplication service; respond to requests.
- File all official forms and reports.
- Review records for accuracy and completeness; inform appropriate units of errors or omissions.
  Ensure ICS forms and documentation are dated and signed, as necessary.
- Provide incident documentation as requested.
- Store files for post-incident use.

DEMOBILIZATION UNIT LEADER

The Demobilization Unit Leader works with the Planning Section and is responsible for developing the Incident Demobilization Plan. This position will be activated in order to ensure that resources are effectively demobilized when they are no longer required.

Overall Demobilization Unit Leader Responsibilities:

- Participate in planning meetings as required.
- Review incident resource records to determine the likely size and extent of demobilization effort.
- Based on the above analysis, add additional personnel, workspace, and supplies as needed.
- Coordinate demobilization with Agency Representatives.
- Monitor the on-going Operations Section resource needs.
- Identify surplus resources and probable release time.
- Develop incident check-out function for all units.
- Evaluate logistics and transportation capabilities to support demobilization.
  Ensure that there is sufficient transportation to effectively demobilize resources.
- Establish communications with off-incident facilities, as necessary.
  Off-incident facilities can include locations where resources will be returned to and off-site locations that are assisting the response (i.e. laboratories, oiled wildlife care facilities, etc.). These facilities will eventually be demobilized as well.
- Develop an Incident Demobilization Plan detailing specific responsibilities and release priorities and procedures.
- Prepare appropriate directories (e.g., maps, instructions, etc.) for inclusion in the demobilization plan.
- Distribute demobilization plan (on and off-site).
- Provide status reports to appropriate requestors.
- Ensure that all Sections/Units understand their specific demobilization responsibilities.
- Supervise execution of the Incident Demobilization Plan.
- Brief the PSC on demobilization progress.

ENVIRONMENTAL UNIT LEADER

The Environmental Unit Leader (EUL) works with the Planning Section and is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting . The EUL prepares environmental data for the situation unit.

Overall Environmental Unit Leader Responsibilities:

- Obtain a briefing and special instructions from the PSC.
- Participate in Planning Section meetings.
- Identify sensitive areas and recommend response priorities.
  Utilize ICS Form 232.
- Following consultation with natural resource trustees, provide input on wildlife protection strategies (e.g., removing oiled carcasses, pre-emptive capture, hazing, and/or capture and treatment).
- Determine the extent, fate and effects of contamination.
- Acquire, distribute and provide analysis of weather forecasts.
- Monitor the environmental consequences of cleanup actions.
- Develop shoreline cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
- Identify the need for, and obtain, permits, consultations, and other authorizations including Endangered Species Act (ESA) provisions.
- Following consultation with the FOSC's Historical/Cultural Resources Technical Specialist identify and develop plans for protection of affected historical/cultural resources.
- Evaluate the opportunities to use various response technologies.
- Develop disposal plans.
- Develop a plan for collecting, transporting, and analyzing samples.

TECHNICAL SPECIALISTS

Certain incidents or events may require the use of Technical Specialists who have specialized knowledge and expertise. Technical Specialists may function within the Planning Section, or be assigned wherever their services are required.

An example of a Technical Specialist is:

LEGAL SPECIALIST:

The Legal Specialist will act in an advisory capacity within the Planning Section.

Overall Legal Specialist Responsibilities:

- Participate in planning meetings, if requested.
- Advise on legal issues relating to in-situ burning, use of dispersants, and other alternative response technologies.
- Advise on legal issues relating to differences between Natural Resource Damage Assessment Restoration (NRDAR) and response activities.
- Advise on legal issues relating to investigations.
- Advise on legal issues relating to finance and claims.
- Advise on legal issues relating to response.
- Utilize ICS Form 214.

LOGISTICS

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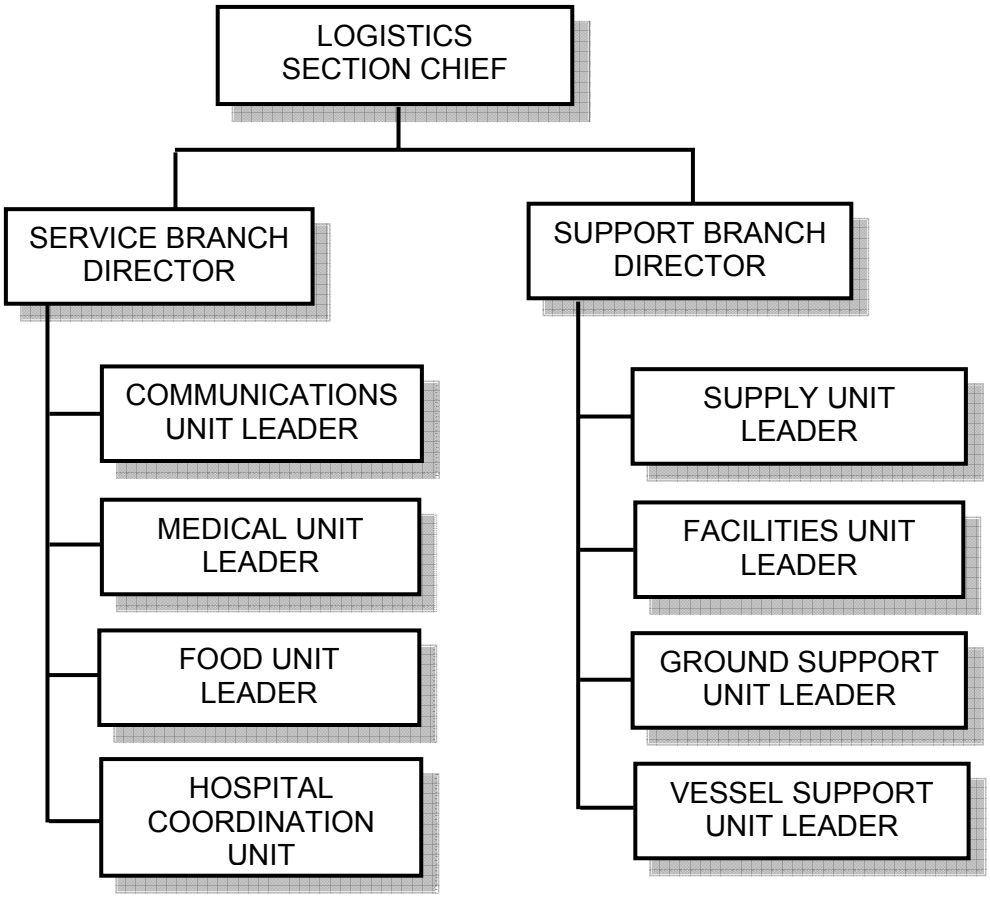

LOGISTICS SECTION CHIEF

The Logistics Section Chief (LSC) is responsible for providing facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the Incident Action Plan (IAP). The LSC activates and supervises the Branches and Units within the Logistics Section.

Resources are divided into Support and Services. Support resources are used in support of the IAP (i.e. boom, vacuum trucks, skimmers etc.). Service resources include food/water, communication and medical resources.

Overall LSC Responsibilities:

- Plan the organization of the Logistics Section.
- Assign work locations and preliminary work tasks to Section personnel.
- Notify the Resources Unit of the Logistics Section units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input to and review the Communications Plan (ICS Form 205), Medical Plan (ICS Form 206) and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive Incident Demobilization Plan from Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of Logistics Section personnel.

SERVICE BRANCH DIRECTOR

The Service Branch Director, when activated, is under the supervision of the LSC, and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical and Food Units.

Overall Service Branch Director Responsibilities:

- Determine the level of service required to support operations.
- Confirm dispatch of Branch personnel.
- Participate in planning meetings of Logistics Section personnel.
- Review the IAP.
- Organize and prepare assignments for Service Branch personnel.
- Coordinate activities of Branch Units.
- Inform the LSC of Branch activities.
- Resolve Service Branch problems.

SERVICE BRANCH DIRECTOR (Cont'd)

Communications Unit Leader – The Communications Unit Leader is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.

Overall Communications Unit Leader Responsibilities:

- Prepare and implement the Incident Radio Communications Plan (ICS Form 205).
- Ensure the Incident Communications Center and the Message Center is established.
- Establish appropriate communications distribution/maintenance locations within the Base/Camp(s).
- Ensure communications systems are installed and tested.
- Ensure an equipment accountability system is established.
- Ensure personal portable radio equipment from cache is distributed per Incident Radio Communications Plan.
- Provide technical information as required on:
  - Adequacy of communications systems currently in operation.
  - Geographic limitation on communications systems.
  - Equipment capabilities/limitations.
  - Amount and types of equipment available.
  - Anticipated problems in the use of communications equipment.
- Supervise Communications Unit activities.
- Maintain records on all communications equipment as appropriate.
- Ensure equipment is tested and repaired.
- Recover equipment from Units being demobilized.

Medical Unit Leader - The Medical Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for the development of the Medical Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparation of reports and records.

Overall Medical Unit Leader Responsibilities:

- Participate in Logistics Section/Service Branch planning activities.
- Prepare the Medical Plan (ICS Form 206).
- Prepare procedures for major medical emergency.
- Declare major emergency as appropriate.
- Respond to requests for medical aid, medical transportation, and medical supplies.
- Prepare and submit necessary documentation.

SERVICE BRANCH DIRECTOR (Cont'd)

Food Unit Leader - The Food Unit Leader is responsible for supplying the food needs for the entire incident, including all remote locations (e.g., Camps, Staging Areas), as well as providing food for personnel unable to leave tactical field assignments.

Overall Food Unit Leader Responsibilities:

- Determine food and water requirements.
- Determine the method of feeding to best fit each facility or situation.
- Obtain necessary equipment and supplies and establish cooking facilities.
- Ensure that well-balanced menus are provided.
- Order sufficient food and potable water from the Supply Unit.
- Maintain an inventory of food and water.
- Maintain food service areas, ensuring that all appropriate health and safety measures are being followed.
- Supervise caterers, cooks, and other Food Unit personnel as appropriate.

TERRORISM INCIDENT

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SUPPORT BRANCH DIRECTOR

The Support Branch Director, when activated, is under the direction of the LSC, and is responsible for the development and implementation of logistics plans in support of the Incident Action Plan. The Support Branch Director supervises the operations of the Supply, Facilities and Ground Support Units.

Overall Support Branch Director Responsibilities:

- Obtain work materials.
- Identify Support Branch personnel dispatched to the incident.
- Determine initial support operations in coordination with the LSC and Service Branch Director.
- Prepare initial organization and assignments for support operations.
- Assemble and brief Support Branch personnel.
- Determine if assigned Branch resources are sufficient.
- Maintain surveillance of assigned units work progress and inform the LSC of their activities.
- Resolve problems associated with requests from the Operations Section.

Supply Unit Leader - The Supply Unit Leader is primarily responsible for ordering personnel, equipment and supplies; receiving and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.

Overall Supply Unit Leader Responsibilities:

- Participate in Logistics Section/Support Branch planning activities.
- Determine the type and amount of supplies en route.
- Review the IAP for information on operations of the Supply Unit.
- Develop and implement safety and security requirements.
- Order, receive, distribute, and store supplies and equipment.
- Receive and respond to requests for personnel, supplies, and equipment.
- Maintain an inventory of supplies and equipment.
- Service reusable equipment.
- Submit reports to the Support Branch Director.

Facilities Unit Leader - The Facilities Unit Leader is primarily responsible for the layout and activation of incident facilities, (e.g., Base, Camp(s), and ICP). The Facilities Unit Leader provides sleeping and sanitation facilities for incident personnel and manages Base and Camp(s) operations. Each facility (Base, Camp) is assigned a manager who reports to the Facilities Unit Leader and is responsible for managing the operation of the facility. The basic functions or activities of the Base and Camp Managers are to provide security service and general maintenance. The Facility Unit Leader reports to the Support Branch Director.

SUPPORT BRANCH DIRECTOR (Cont'd)

Overall Facilities Unit Leader Responsibilities:

- Obtain a briefing from the Support Branch Director or the LSC.
- Receive and review a copy of the IAP.
- Participate in Logistics Section/Support Branch planning activities.
- Determine requirements for each facility, including the ICP.
- Prepare layouts of incident facilities.
- Notify Unit Leaders of facility layout.
- Activate incident facilities.
- Provide Base and Camp Managers and personnel to operate facilities.
- Provide sleeping facilities.
- Provide security services.
- Provide facility maintenance services (e.g., sanitation, lighting, clean up).
- Demobilize Base and Camp facilities.
- Maintain facility records

Ground Support Unit Leader - The Ground Support Unit Leader is primarily responsible for: 1) support out-of-service resources; 2) transportation of personnel, supplies, food, and equipment 3) fueling, service, maintenance, and repair of vehicles and other ground support equipment; and 4) implementing the Traffic Plan for the incident.

Overall Ground Support Unit Leader Responsibilities:

- Participate in Support Branch/Logistics Section planning activities.
- Develop and implement the Traffic Plan.
- Support out-of-service resources.
- Notify the Resources Unit of all status changes on support and transportation vehicles.
- Arrange for and activate fueling, maintenance, and repair of ground resources.
- Maintain Support Vehicle Inventory and transportation vehicles (ICS Form 218).
- Provide transportation services, IAW requests from the LSC or Support Branch Director.
- Collect information on rented equipment.
- Requisition maintenance and repair supplies (e.g., fuel, spare parts).
- Maintain incident roads.
- Submit reports to Support Branch Director as directed.

SUPPORT BRANCH DIRECTOR (Cont'd)

Vessel Support Unit Leader - The Vessel Support Unit Leader is responsible for implementing the Vessel Routing Plan for the incident and coordinating transportation on the water and between shore resources. Since most vessels will be supported by their own infrastructure, the Vessel Support Unit may be requested to arrange fueling, dockage, maintenance, and repair of vessels on a case-by-case basis.

Overall Vessel Support Unit Leader Responsibilities:

- Obtain a briefing from the Support Branch Director or the LSC.
- Participate in Support Branch/Logistics Section planning activities.
- Coordinate development of the Vessel Routing Plan.
- Coordinate vessel transportation assignments with the Protection and Recovery Branch or other sources of vessel transportation.
- Coordinate water-to-land transportation with the Ground Support Unit, as necessary.
- Maintain a prioritized list of transportation requirements that need to be scheduled with the transportation source.
- Support out-of-service vessel resources, as requested.
- Arrange for fueling, dockage, maintenance and repair of vessel resources, as requested.
- Maintain inventory of support and transportation vessels.

FINANCE/ADMINISTRATION

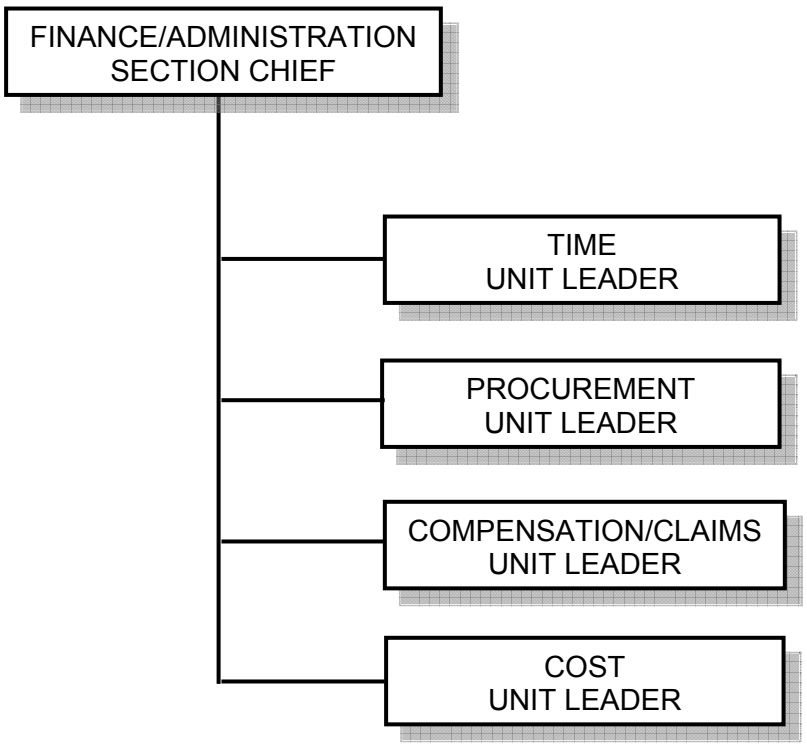
Finance/Administration Section Chief 4-51

Time Unit Leader 4-52

Procurement Unit Leader 4-52

Compensation/Claims Unit Leader 4-53

Cost Unit Leader 4-53



FINANCE/ADMINISTRATION SECTION CHIEF

The Finance/Administration Section Chief (FASC) is responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section. Depending on the incident, the FASC position may or may not be assigned. Agencies within the Unified Command may require and staff the FASC position. In either case, it is always beneficial to establish a system to oversee financial aspects of an incident.

Overall FASC Responsibilities:

- Attend planning meetings as required.
- Manage all financial aspects of an incident.
- Provide financial and cost analysis information as requested.
- Gather pertinent information from briefings with responsible agencies.
- Develop an operating plan for the Finance/Administration Section; fill supply and support needs.
- Determine the need to set up and operate an incident commissary.
- Meet with Assisting and Cooperating Agency Representatives, as needed.
- Maintain daily contact with agency(s) administrative headquarters on Finance/Administration matters.
- Ensure that all personnel time records are accurately completed and transmitted, according to policy.
- Provide financial input to demobilization planning.
- Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- Brief administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.

Additional KM Required FASC Responsibilities:

- Ensure compensation/claims are being managed for the incident.
  If necessary or required by the agencies, establish a claims telephone number.
- Arrange on-site legal counsel.
- Work with insurance adjusters.
- Track and assess charges related to the related effort.
- Coordinating activities with other Section Chiefs
- Providing cost authorization.
- Supervising daily activities of the Finance Section.
- Analyzing contract bids, management and payroll.

The FASC may have a Time Unit Leader, Procurement Unit Leader, Compensation/Claim Unit Leader, and Cost Unit Leader reporting to him/her. However if not assigned, the FASC will be responsible for their functions.

TIME UNIT LEADER

The Time Unit Leader is responsible for equipment and personnel time recording and for managing the commissary operations.

Overall Time Unit Leader Responsibilities:

- Determine incident requirements for time recording function.
- Determine resource needs.
- Contact appropriate agency personnel/representatives.
- Ensure that daily personnel time recording documents are prepared and in compliance with policy.
- Establish time unit objectives.
- Maintain separate logs for overtime hours.
- Establish commissary operation on larger or long-term incidents as needed.
- Submit cost estimate data forms to the Cost Unit, as required.
- Maintain records security.
- Ensure that all records are current and complete prior to demobilization.
- Release time reports from assisting agency personnel to the respective Agency Representatives prior to demobilization.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

PROCUREMENT UNIT LEADER

The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts, leases, and fiscal agreements.

Overall Procurement Unit Leader Responsibilities:

- Review incident needs and any special procedures with Unit Leaders, as needed.
- Coordinate with local jurisdiction on plans and supply sources.
- Obtain the Incident Procurement Plan.
- Prepare and authorize contracts and land-use agreements.
- Draft memoranda of understanding as necessary.
- Establish contracts and agreements with supply vendors.
- Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
- Interpret contracts and agreements; resolve disputes within delegated authority.
- Coordinate with the Compensation/Claims Unit for processing claims.
- Coordinate use of impress funds, as required.
- Complete final processing of contracts and send documents for payment.
- Coordinate cost data in contracts with the Cost Unit Leader.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

COMPENSATION/CLAIMS UNIT LEADER

The Compensation/Claims Unit Leader is responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims related activities (other than injury) for an incident.

Overall Compensation/Claims Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Establish contact with the incident SO and LO (or Agency Representatives if no LO is assigned).
- Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
- Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
- Review Incident Medical Plan (ICS Form 206).
- Ensure that Compensation/Claims Specialists have adequate workspace and supplies.
- Review and coordinate procedures for handling claims with the Procurement Unit.
- Brief the Compensation/Claims Specialists on incident activity.
- Periodically review logs and forms produced by the Compensation/Claims Specialists to ensure that they are complete, entries are timely and accurate and that they are in compliance with agency requirements and policies.
- Ensure that all Compensation for Injury and Claims logs and forms are complete and routed appropriately for post-incident processing prior to demobilization.
- Keep the Finance/Administration Section Chief briefed on Unit status and activity.
- Demobilize unit in accordance with the Incident Demobilization Plan.

COST UNIT LEADER

The Cost Unit Leader is responsible for collecting all cost data, performing cost effectiveness analyses and providing cost estimates and cost saving recommendations for the incident.

Overall Cost Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Coordinate cost reporting procedures.
- Collect and record all cost data.
- Develop incident cost summaries.
- Prepare resources-use cost estimates for the Planning Section.
- Make cost-saving recommendations to the Finance/Administration Section Chief.
- Ensure all cost documents are accurately prepared.
- Maintain cumulative incident cost records.
- Complete all records prior to demobilization.
- Provide reports to the Finance/Administration Section Chief.

5.0 NIMS INCIDENT COMMAND SYSTEM

5.1 INTRODUCTION

Section 4.0 described the typical NIMS response structure that KMEP would follow. This Section describes the planning cycle and Incident Action Plan forms necessary for properly documenting an incident response within that structure.

Section 5.2 and 5.3 provide the basic guidance and framework to preparing, facilitating executing, assessing and documenting the response activities associated with the incident. Section 5.2 explains the Operational Period Planning Cycle toward assembling an Incident Action Plan (IAP). Section 5.3 assembles the necessary standard ICS forms for completion during the incident so that the incident lifespan is captured and communicated in written form.

5.2 PLANNING CYCLE, MEETINGS, BRIEFINGS, AND THE PLANNING CHART

The Operational Period Planning Cycle delineates those events most related to assembling an Incident Action Plan (IAP). The explanation of the planning cycle, meetings, briefing and the planning chart provides the guidance for effective facilitation of the meeting process to establish goals and objectives, develop strategies and responses, prioritize assignments and responsibilities, assign available resources, execute plans and assess outcomes.

5.3 NIMS ICS FORMS

When responding to an incident, the accurate and complete documentation of a response activity is vital for the communication of information during the incident itself, during any transition phase of responsibilities and at the post incident assessments and follow-ups. This section provides the most common NIMS ICS Standard Forms to be used by KMEP to comply with NIMS ICS documentation guidelines during an on-water release. Regulator response agencies will expect KMEP to recognize and apply NIMS ICS forms.

5.4 INCIDENT COMMAND POST

In the event that the Facility office is not safe or too small for use as the Incident Command Post during an incident alternate Incident Command Post locations should be considered. Potential locations should be evaluated based on accessibility, availability of sufficient working space (breakout rooms, briefing rooms, etc.) and availability of support services (electrical service, communications systems, HVAC, restrooms, berthing, meals, etc.).

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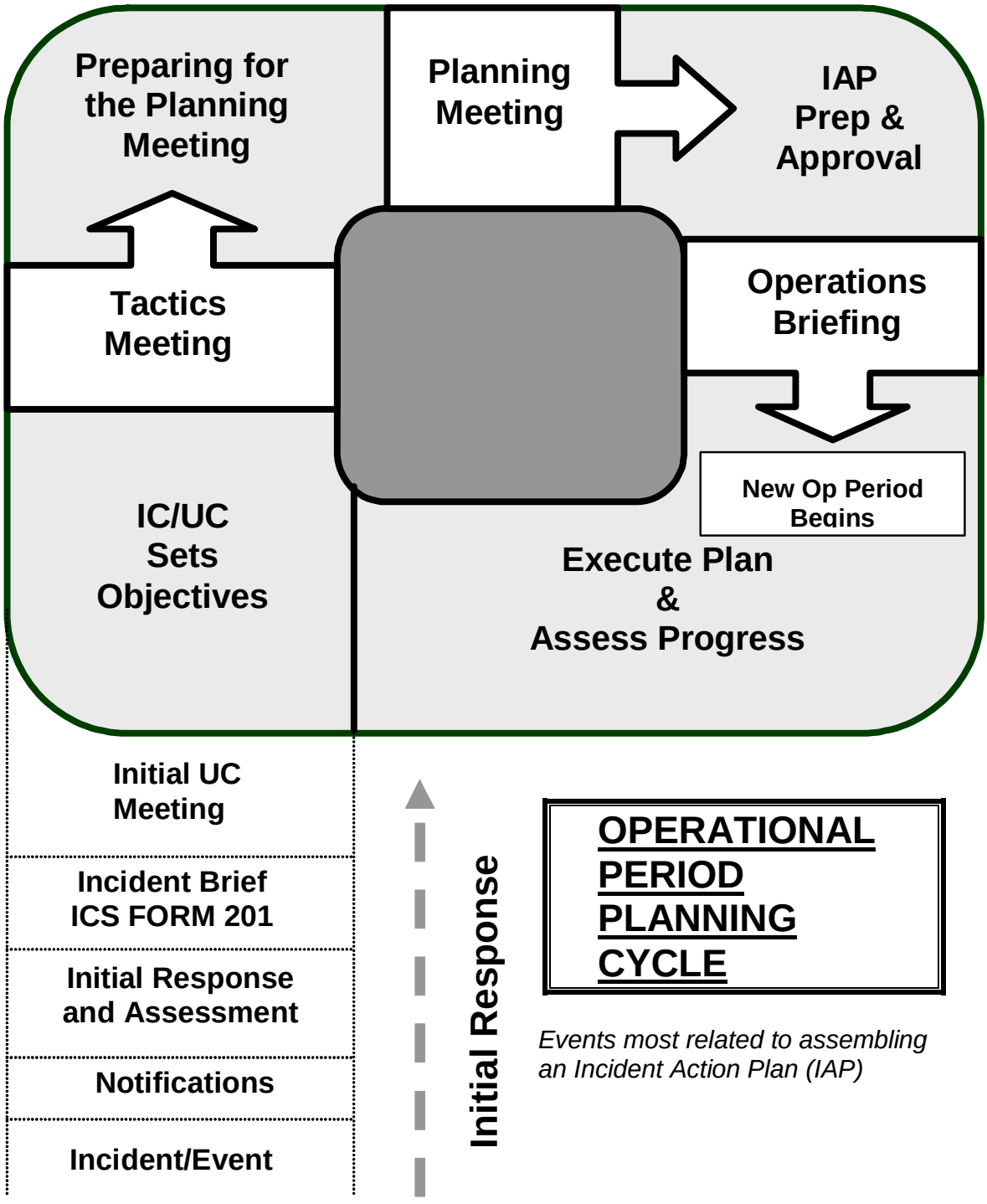
PLANNING CYCLE, MEETINGS, BRIEFINGS, AND THE PLANNING CHART



INITIAL RESPONSE AND ASSESSMENT

The period of **Initial Response and Assessment** occurs in all incidents. Short-term responses, which are small in scope and/or duration (e.g., a few resources working one operational period) can often be coordinated using only ICS Form 201 (Incident Briefing Form).

INCIDENT BRIEFING (ICS Form 201) - During the transfer-of-command process, an ICS Form 201-formatted briefing provides the incoming Incident Commander (IC)/Unified Commander (UC) with basic information regarding the incident situation and the resources allotted to the incident. Most importantly it functions as the Incident Action Plan (IAP) for the initial response and remains in force and continues to develop until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to the Command and General Staff as well as needed assessment briefings for the staff.

ICS Form 201 facilitates documentation of response objectives, situational awareness, resource employment and deployment, and significant actions taken. This form is essential for future planning and the effective management of initial response activities.

When:	New IC/UC; staff briefing as required
Facilitator:	Current IC/UC
Attendees:	Prospective IC/UC; Command and General Staff, as required

General Tasks

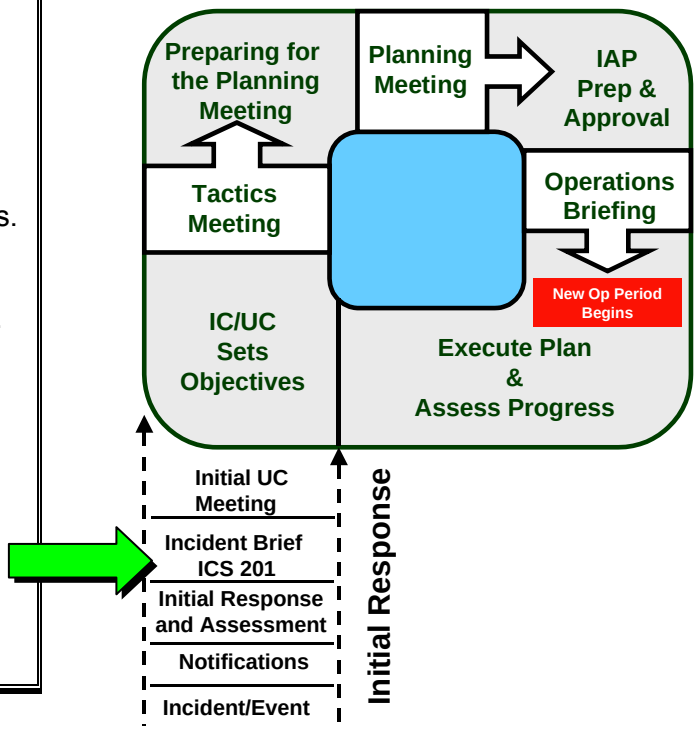
Incident Commander (IC)
- ❑ Obtain incident brief using ICS-201.
- ❑ Assess operational requirements.
- ❑ Determine organizational and response requirements and objectives.

Operations (OPS)
- ❑ Obtain briefing from IC.
- ❑ Consider available Contingency Plan.
- ❑ Develop strategies and tactics.
- ❑ Assemble resources.
- ❑ Conduct response using ICS-201.

Planning
- ❑ If/when activated orders staff.

Logistics
- ❑ If/when activated orders staff.

Finance/Admin
- ❑ If/when activated orders staff.



Agenda:

Using ICS Form 201 as an outline, include:

1. Situation (note territory, exposures, safety concerns, etc.; use map/charts).
2. Current priorities.
3. Strategy(s) and tactics.
4. Current organization.
5. Resource assignments.
6. Resources en-route and/or ordered.
7. Facilities established.

INITIAL UNIFIED COMMAND MEETING - Provides UC officials with an opportunity to discuss and concur on important issues prior to joint incident action planning. The meeting should be brief and important points documented. Prior to the meeting, parties should have an opportunity to review and prepare to address the agenda items. Planning meeting participants will use the results of this meeting to guide the operational efforts prior to the first tactics meeting.

When: The UC is formed prior to the first meeting
Facilitator: UC member
Attendees: Only ICs that will comprise the UC

General Tasks

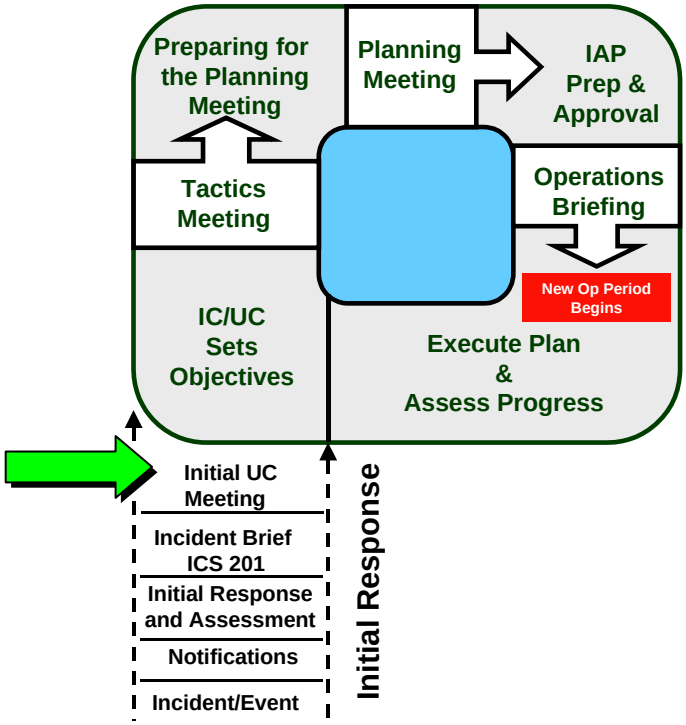
Incident Commander (IC)
- ❑ Determine need for UC.
- ❑ Negotiate/facilitate UC participation.
- ❑ Clarify UC roles & responsibilities.
- ❑ Negotiate and agree on response organization, facilities, and support.
- ❑ Determine Op Period length/start time.

Operations (OPS)
- ❑ Brief UC members on current operations.

Planning
- ❑ If activated, contact UC members as directed by IC.

Logistics
- ❑ May not be activated at this time.

Finance/Admin
- ❑ May not be activated at this time.



Agenda:

1. Identify UC, based on Chapter 6 criteria.
2. Identify jurisdictional priorities and objectives.
3. Present jurisdictional limitations, concerns and restrictions.
4. Develop a collective set of incident objectives.
5. Establish and agree on acceptable priorities.
6. Agree on basic organization structure.
7. Designate the best-qualified and acceptable Operations Section Chief (OPS).
8. Agree on General Staff personnel designations and planning, logistical, and financial agreements and procedures.
9. Agree on resource ordering procedures to follow.
10. Agree on cost-sharing procedures.
11. Agree on informational matters.
12. Designate a Unified Command Information Officer.

UNIFIED COMMAND OBJECTIVES MEETING - The IC/UC will identify/review and prioritize objectives for the next operational period on the ICS Form 202. Objectives from the previous operational period are reviewed and any new objectives are identified.

When: Prior to tactics meeting.
Facilitator: UC Member
Attendees: UC Members; Command and General Staff as appropriate

General Tasks

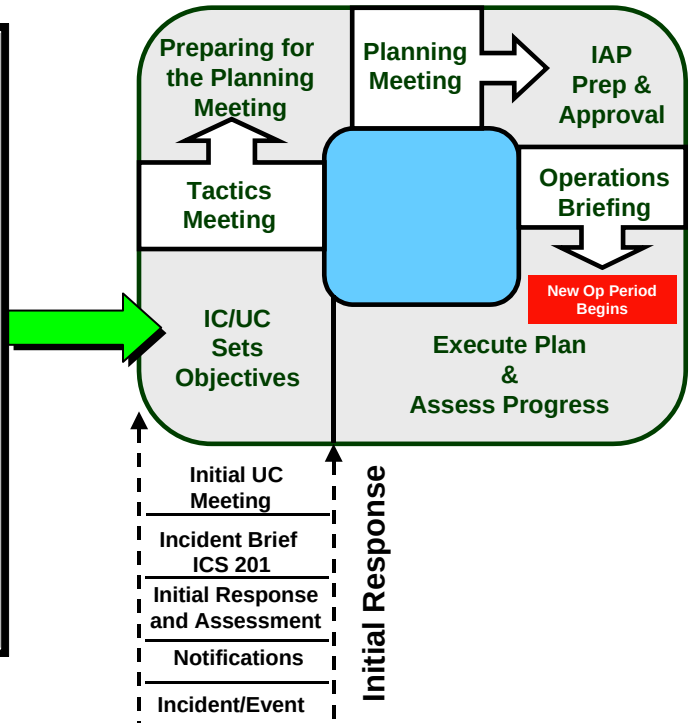
Incident Commander (IC/UC)
- Develop SMART incident objectives.
- Consider "Best Response".
- Delegate and provide guidance to Command and General Staff.

Operations (OPS)
- May be present if invited.

Planning
- May be present if invited.
- Propose draft SMART objectives to IC/UC.

Logistics
- May be present if invited.

Finance/Admin
- May be present if invited.



Agenda:

1. Review/identify objectives for the next operational period (Clearly stated and attainable with the resources available, yet flexible enough to allow members to choose tactics).
2. Review any open agenda items from initial/previous meetings.

TACTICS MEETING - This 30-minute meeting creates the blueprint for tactical deployment during the next operational period. In preparation for the Tactics Meeting, the Planning Section Chief (PSC), and OPS review the first stage of response operations or the current IAP situation status information as provided by the Situation Unit to assess work progress against IAP objectives. The OPS/PSC will jointly develop primary and alternate strategies to meet objectives for consideration at the next Planning Meeting.

When: Prior to Planning Meeting.
Facilitator: PSC
Attendees: PSC, OPS, Logistics Section Chief (LSC), and Resources Unit Leader (RUL)

General Tasks

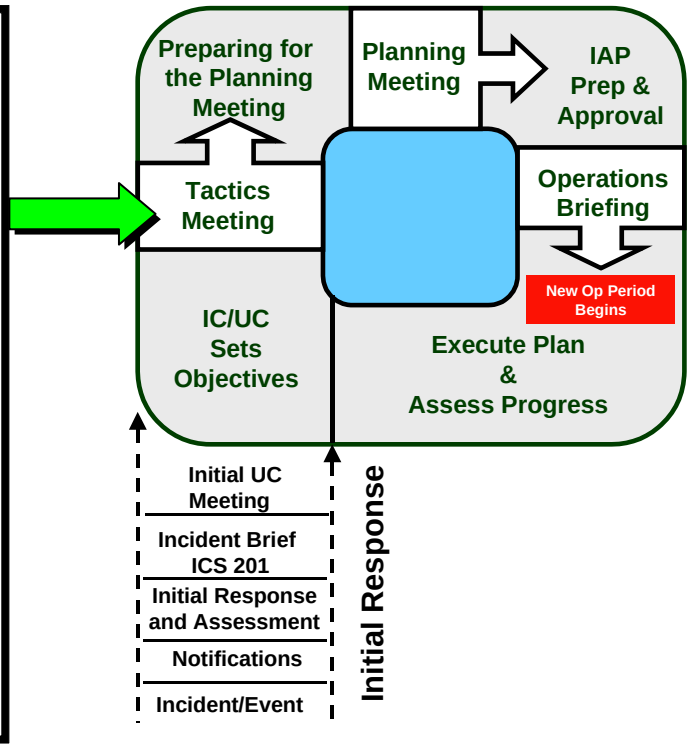
Incident Commander (IC/UC)
- Provide guidance/clarification.

Operations:
- Be prepared!
- Brief current operations.
- Develop strategies, tactics, and resource needs using ICS-215.

Planning
- Facilitate meeting.
- Determine support requirements for ICS-215.
- Consider alternative strategies.

Logistics
- Participate/contribute logistics information as necessary.
- Verify support requirements.

Finance/Admin
- Not normally present.



Agenda:

1. Review the objectives for the next operational period and develop strategies (primary and alternatives).
2. Prepare a draft of ICS Form 215 (used in planning meeting) to identify resources that should be ordered through Logistics.

PREPARE FOR THE PLANNING MEETING - During this phase of the Planning Cycle, the Section Chiefs and their associated staff members begin the work of preparing for the upcoming Planning Meeting. Each Section Chief is responsible for ensuring that his/her Planning meeting responsibilities are met. The PSC should facilitate this to the greatest extent possible to ensure that the material, information, resources, etc., to be used or discussed in the Planning Meeting is organized and prepared. There are to be no surprises in the Planning Meeting.

When: After the Tactics Meetings
Facilitator: PSC

General Tasks

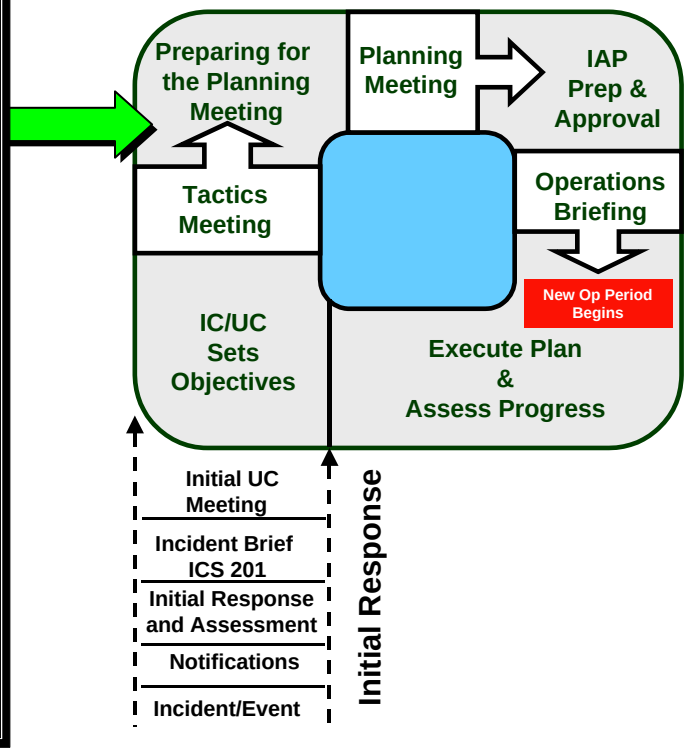
Incident Commander (IC/UC)
- Provide guidance/clarification.
- Monitor on-going operations.

Operations (OPS)
- Continue Operations.
- Prepare for Planning Meeting

Planning
- Facilitate General Staff and attendees' preparations for Planning Meeting.
- Publish/distribute meeting schedule and ensure attendees know roles.
- Allow no surprises.

Logistics
- Prepare for Planning Meeting.
- Verify support requirements.

Finance/Admin
- Prepare for Planning Meeting.
- Verify financial and administrative requirements.



PLANNING MEETING - This meeting defines incident objectives, strategies, and tactics and identifies resource needs for the next operational period. Depending on incident complexity, this meeting should last no longer than 45 minutes. This meeting fine tunes objectives and priorities, identifies and solves problems, and defines work assignments and responsibilities on a completed ICS Form 215 (Operations Planning Worksheet). Displays in the meeting room should include Objectives ICS Form 202 for the next period, large sketch maps or charts clearly dated and timed, a poster-sized ICS Form 215, a current resource inventory prepared by the Resource Unit, and current situation status displays prepared by the Situation Unit.

After the meeting, ICS Form 215 is used by the LSC to prepare the off incident tactical and logistical resource orders, and used by the PSC to develop IAP assignment lists.

When: After the UC and Tactics Meetings
Facilitator: PSC
Attendees: Determined by IC/UC, generally IC/UC, Command Staff, General Staff, Air Operations Branch Director (Air Ops), the RUL, Safety Officer (SO), and Technical Specialists, as required.

General Tasks

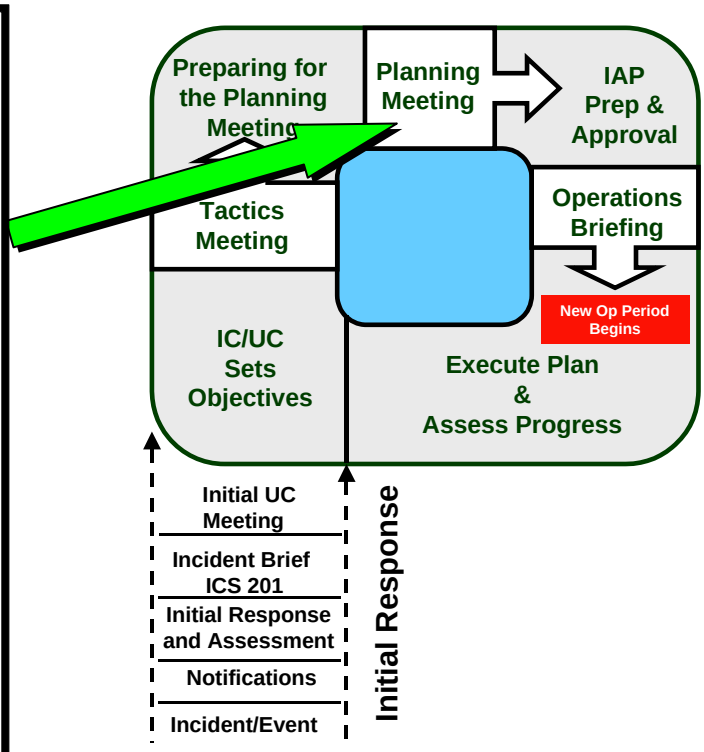
Incident Commander (IC/UC)
- ❑ Provide appropriate leadership.
- ❑ Brief incident objectives.

Operations (OPS)
- ❑ Brief operational strategies, and tactics using ICS-215, maps, charts, etc.
- ❑ Brief Branch/Division/Group functions and boundaries

Planning
- ❑ Facilitate Planning Meeting agenda.
- ❑ Brief present situation.
- ❑ Address/resolve response coordination issues as needed, gain consensus.

Logistics
- ❑ Brief logistical support and resource ordering status.

Finance/Admin
- ❑ Brief administrative and financial status/projections, etc.



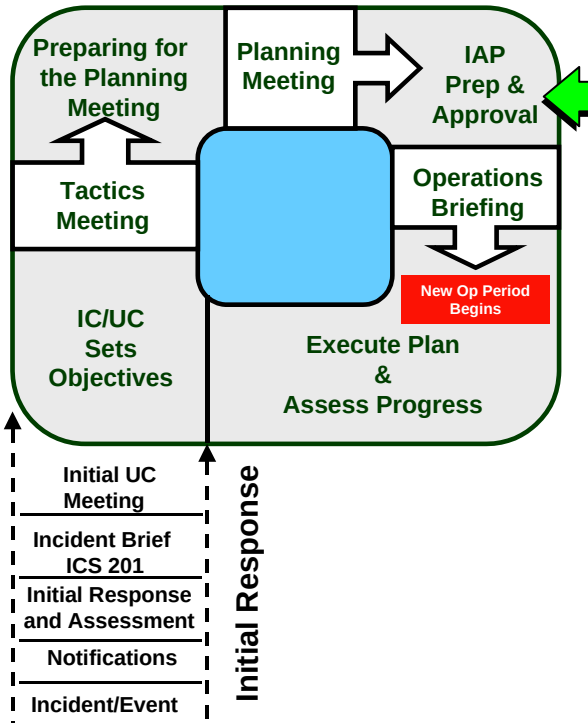
PLANNING MEETING (Cont'd)

	Agenda:	Primary Responsibility
1.	State incident objectives and Policy issues.	IC/UC
2.	Briefing of situation, critical and sensitive areas, weather/sea forecast, and resource status/availability.	SUL
3.	State primary and alternative strategies to meet objectives.	OPS
4.	Designate Branch, Division, and Group boundaries and functions as appropriate, use maps and ICS form 215.	OPS
5.	Specify tactics for each Division, note limitations.	OPS
6	Specify resources needed by Divisions/Groups.	OPS
7.	Specify operations facilities and reporting locations and plot on map.	OPS/LSC
8.	Develop resources, support, and overhead order (orders).	LSC
9.	Consider support: communications, traffic, safety, medical, etc.	LSC
10.	Contributing organization/agency considerations regarding work plan.	LO
11	Safety considerations regarding work plan.	SO
12	Media considerations regarding work plan.	IO
13.	Report on expenditures and claims.	F/ASC
14.	Finalize and approve work plan for the next operational period.	IC/UC

INCIDENT ACTION PLAN (IAP) PREPARATION - Attendees immediately prepare their assignments for the IAP to meet the PSC deadline for assembling the IAP components. The deadline will be early enough to permit timely IC/UC approval and duplication of sufficient copies for the Operations Briefing and for overhead.

When: Immediately following the Planning Meeting, the PSC assigns the deadline

Facilitator: PSC



General Tasks

Incident Commander (IC/UC)
- ❑ Review, approve and sign IAP

Operations (OPS)
- ❑ Provide required information for inclusion into IAP.
- ❑ Communicate incident status changes.

Planning
- ❑ Facilitate General Staff's IAP input.
- ❑ Ensure assignments and expectations are clear.
- ❑ Provide completed IAP to IC/UC for review/approval.
- ❑ Distribute completed IAP.

Logistics
- ❑ Provide logistics information for IAP.
- ❑ Verify resources ordered.

Finance/Admin
- ❑ Verify financial and administrative requirements for IAP.

Common Components	Primary Responsibility
1. Incident Objectives (ICS form 202).	Resources Unit
2. Organization List/Chart (ICS FORMS 203/207).	Resources Unit
3. Assignment List (ICS form 204).	Resources Unit
4. Communication Plan (ICS form 205).	Communications Unit
5. Medical Plan (ICS form 206).	Medical Unit
6. Incident Map.	Situation Unit
7. Safety Plan.	Safety Officer
8. Decontamination Plan.	Technical Unit
9. Waste Management or Disposal Plan.	Technical Unit

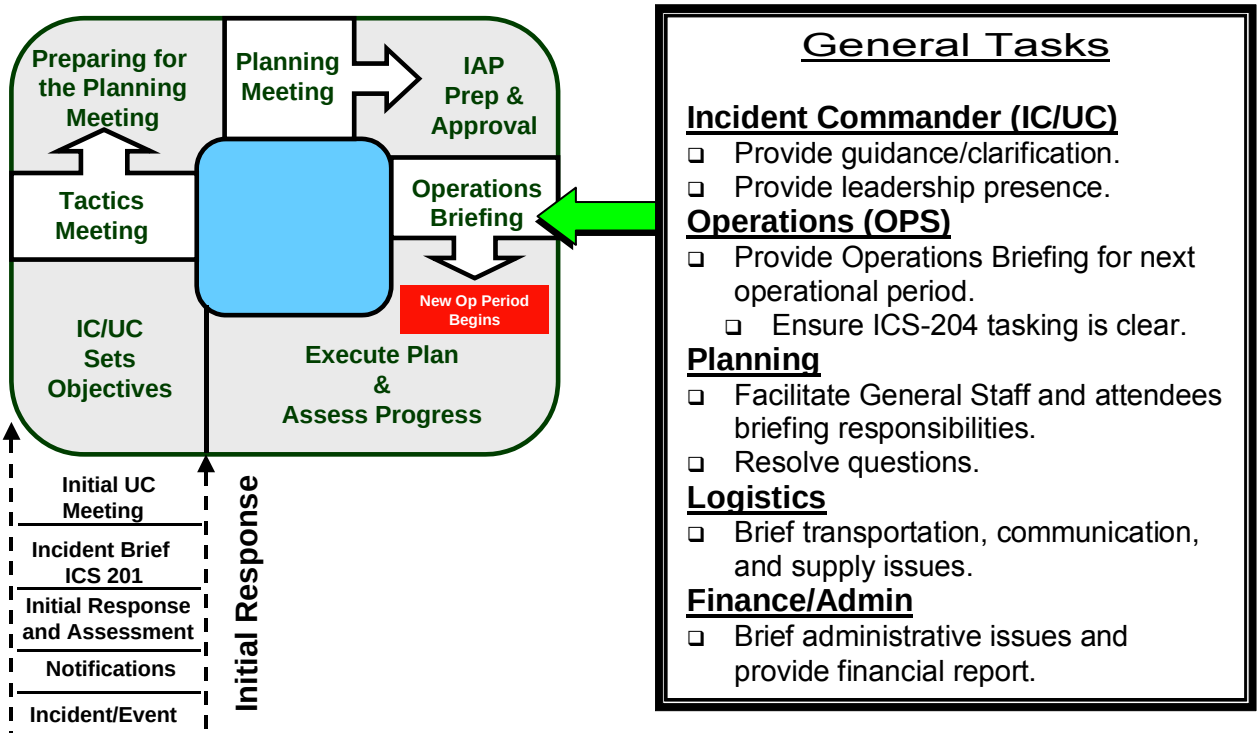
INCIDENT ACTION PLAN (IAP) PREPARATION (Cont'd)

Optional Components (use as pertinent):

1. Air Operations Summary (ICS form 220).	Air Operations Branch Director
2. Traffic Plan.	Ground Support Unit
3. Demobilization Plan.	Demobilization Unit

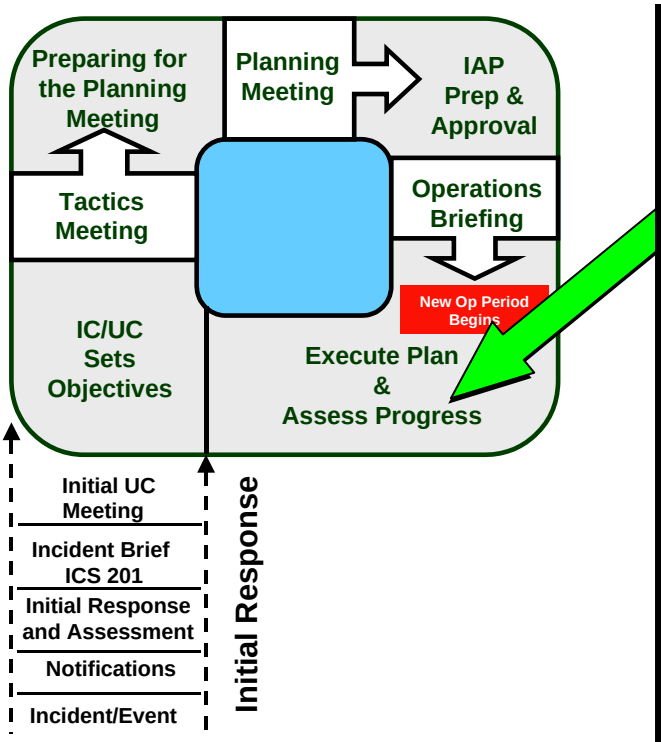
OPERATIONS BRIEFING - This 30-minute, or less, meeting presents the IAP to the oncoming shift of the response organization. After this meeting, off-going supervisors should be interviewed by their relief and by OPS in order to further confirm or adjust the course of the oncoming shift's IAP. Shifts in tactics may be made by the Division/Group supervisor in whose purview they are. Similarly, a supervisor may reallocate resources within that division to adapt to changing conditions.

When: About an hour prior to each shift change
Facilitator: PSC
Attendees: IC/UC, Command Staff, General Staff, Branch Directors, Division/Group Supervisors, Task Force/Strike Team Leaders (if possible), Unit Leaders, others as appropriate.



Agenda:	**Primary Responsible**
1. Review IC/UC objectives and changes to IAP.	PSC
2. Discuss current response actions and last shift's accomplishments.	OPS
3. Review weather and sea conditions forecast.	SUL
4. Division/Group and Air Operations assignment.	OPS
5. Trajectory analysis.	SUL
6. Transport, communications, and supply updates.	LSC
7. Safety message.	SO
8. Incident Action Plan (IAP) approval and motivational remarks.	IC/UC

ASSESS PROGRESS - Following the operation brief, all Section Chiefs will review the incident response progress and make recommendations to the IC/UC in preparation for the next UC Objective Meeting for the next operational period. This feedback/information is gathered from various sources, including Field Observers, responder debriefs, stakeholders, etc.



General Tasks

Incident Commander (IC/UC)
- Monitor on-going operations.
- Measure progress against stated objectives.
- Consider "Best Response."

Operations (OPS)
- Monitor on-going operations and make tactical changes as necessary.
- Measure/ensure progress against stated objectives.

Planning
- Facilitate General Staff's effectiveness and efficiency as appropriate.
- Provide response objectives recommendations to IC/UC.

Logistics
- Verify resources, resolve logistical problems.

Finance/Admin
- Facilitate smooth administrative and financial reporting.

SPECIAL PURPOSE MEETINGS

The **Special Purpose** meetings are most applicable to larger incidents requiring an **Operational Period Planning Cycle**, but may be useful during **Initial Response and Assessment**.

COMMAND STAFF MEETING - Coordinate Command Staff functions, responsibilities, and objectives. It is held before the Tactical Meeting. Command Staff (IC/UC, SO, LO, IO) attend.

COMMAND & GENERAL STAFF MEETING - An opportunity for the Command & General staffs to gather under informal conditions (breakfast/dinner) to discuss developing issues.

BUSINESS MANAGEMENT MEETING - This under-30-minute meeting develops and updates the operating plan for finance and logistical support. The agenda could include: documentation issues, cost sharing, cost analysis, finance requirements, resource procurement, and financial summary data. Attendees include: F/ASC, Cost Unit Leader (CUL), LSC, SUL, DUL.

AGENCY REPRESENTATIVE MEETING - This meeting is held to update Agency Representatives and ensure that they can support the IAP. It is conducted by the LO, and attended by Agency Representatives. It is most appropriately held after the Planning Meeting in order to announce plans for the next operational period. It allows for changes should the plan not meet the expectations of the Agency Representatives.

NEWS BRIEFING - This meeting briefs media and the public on the most current and accurate facts. It is set up by the IO, moderated by a UC spokesperson, and features selected spokespersons. This brief must be held away from the ICP. Spokespersons should be prepared by the IO to address anticipated issues. The briefing should be well-planned, organized, and scheduled to meet the media's needs.

NIMS ICS Forms

Another important aspect when implementing NIMS ICS during releases is the use of NIMS ICS forms. Regulatory response agencies will expect KMEP to recognize and apply NIMS ICS and forms during on water emergencies. Some of these response agencies may include:

- US Coast Guard
- Environmental Protection Agency
- Department of Ecology (Washington)
- Department of Fish and Game/Oil Spill Prevention and Response (California)
- Department of Environmental Quality (Oregon)
- Texas General Land Office (Texas)
- Texas Railroad Commission (Texas)

The following table provides a list of NIMS ICS forms to be used during an on-water release. Copies of these forms are also included.

NIMS ICS Forms		
ICS Form #	**Form Title**	**Prepared By**
ICS-201-OS	Incident Briefing	Incident Commander (IC)
ICS-202-OS	Response Objectives	Planning Section Chief (Planning)
ICS-203-OS	Organization Assignment List	Resources Unit Leader (Planning)
ICS-204-OS	Assignment List	Resources Unit Leader (Planning)
ICS-204a-OS	Assignment List Attachment	Resources Unit Leader (Planning)
ICS-205-OS	Incident Radio Communications Plan	Communications Unit Leader (Logistics)
ICS-205A-OS	Communications List	Communications Unit Leader (Logistics)
ICS-206-OS	Medical Plan	Medical Unit Leader (Logistics)
ICS-207-OS	Incident Organization Chart	Resources Unit (Planning)
ICS-209-OS	Incident Status Summary	Situation Unit Leader (Planning)
ICS-210-OS	Status Change Card	Communications Center (Logistics)
ICS-211	Check-In List	Resources Unit (Planning)
ICS-211e-OS	Check-In List (Equipment)	Resources Unit (Planning)
ICS211-p-OS	Check-In List (Personnel)	Resources Unit (Planning)
ICS-213-OS	General Message	Any message originator
ICS-214-OS	Unit Log	All sections and units
ICS-214a-OS	Individual Log	All sections and units
ICS-215-OS	Operational Planning Worksheet	Operations Section Chief (Operations)
ICS-216	Radio Requirements Worksheet	Communications Unit (Logistics)
ICS-217	Radio Frequency Assignment Worksheet	Communications Unit (Logistics)
ICS-218	Support Vehicle Inventory	Ground Support Unit (Logistics)
ICS-220-OS	Air Operations Summary	Operations Section Chief or Air Branch Director (Operations)
ICS-221 -OS	Demobilization Check-Out	Demobilization Unit (Planning)
ICS-230-OS	Daily Meeting Schedule	All sections and units
ICS-231-OS	Meeting Summary	All sections and units
ICS-232	Resources at Risk Summary	Situation Unit Leader (Planning)
ICS-232a-OS	ACP Site Index	Situation Unit Leader (Planning)

ICS FORMS

NRC Incident No. #_____

1. Incident Name	**2. Operational Period to be covered by IAP (Date/Time)** From: To:	**CG IAP COVER SHEET**

3. Approved by Incident Commander(s):

ORG	NAME

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

☐ ICS 202-CG (Response Objectives)

☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)

☐ ICS 204-CGs (Assignment Lists)
One Copy each of any ICS 204-CG attachments:

☐ ICS 205-CG (Communications Plan)

☐ ICS 206-CG (Medical Plan)

☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____

☐ Map/Chart

☐ Weather forecast / Tides/Currents

Other Attachments

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

4. Prepared by: **Date/Time**

NRC Incident No. #_____

1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

4. Current Situation:

NRC Incident No. #_____

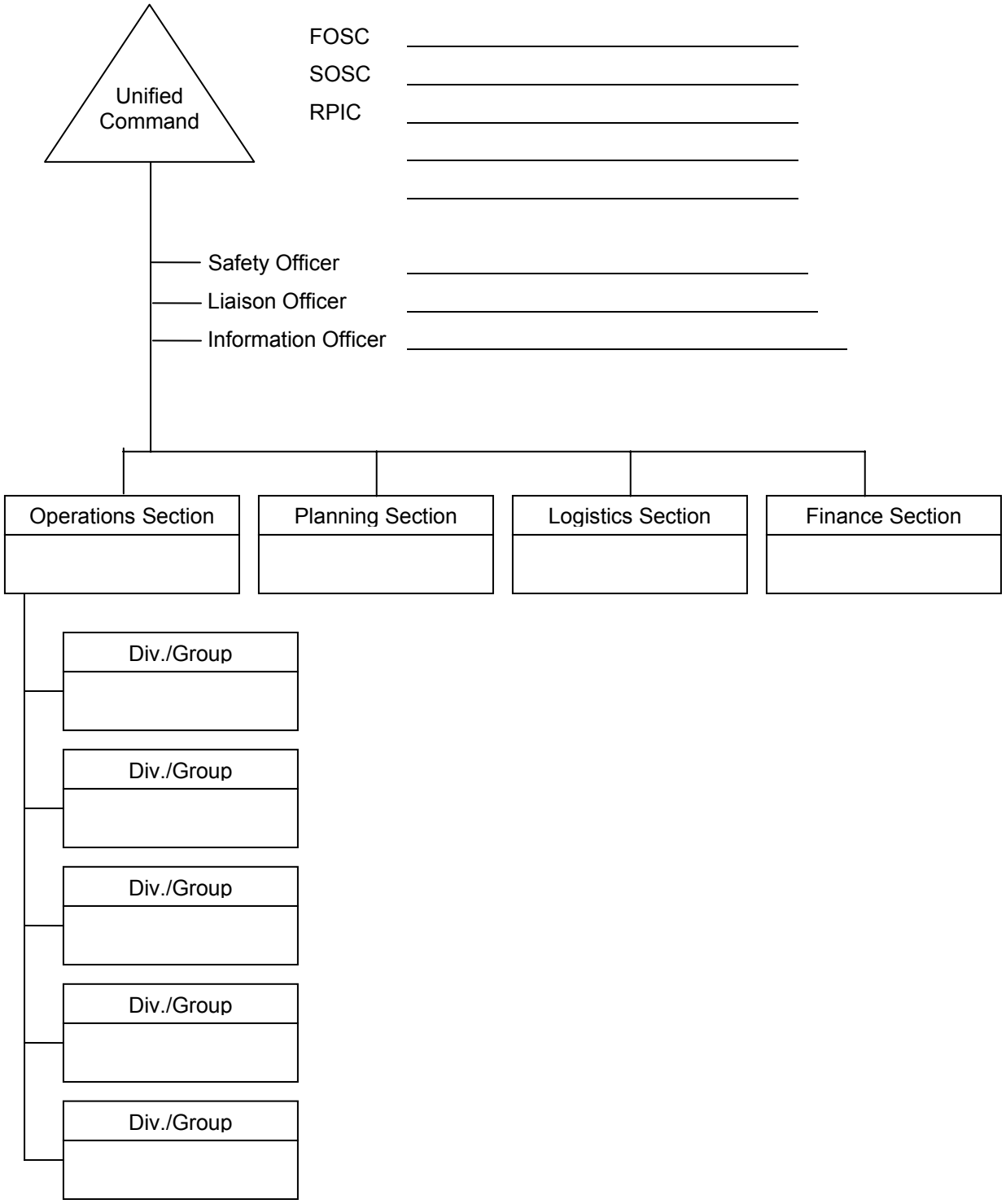
1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Initial Response Objectives, Current Actions, Planned Actions

NRC Incident No. #_____

1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Current Organization



NRC Incident No. #______________________________

1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Resources Summary

Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	**INCIDENT OBJECTIVES** **ICS 202-CG**

3. Objective(s)

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

Approved Site Safety Plan Located at:

5. Prepared by: (Planning Section Chief) **Date/Time**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**ORGANIZATION ASSIGNMENT LIST ICS 203-CG**

3. Incident Commander(s) and Staff

Agency	IC	Deputy
Safety Officer:		
Information Officer:		
Liaison Officer:		

4. Agency Representatives

Agency	Name

5. PLANNING/INTEL SECTION

Chief		
Deputy		
Resources Unit		
Situation Unit		
Environmental Unit		
Documentation Unit		
Demobilization Unit		
Technical Specialists		

6. LOGISTICS SECTION

Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Vessel Support Unit	
Ground Support Unit	
b. Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION

Chief		
Deputy		
Deputy		
Staging Area Manager		
Staging Area Manager		
Staging Area Manager		
a. Branch – Division Groups		
Branch Director		
Deputy		
Division Group		
Division Group		
Division Group		
Division/Group		
Division/Group		
b. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
c. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
d. Air Operations Branch		
Air Operations Br. Dir		
Helicopter Coordinator		

8. FINANCE/ADMINISTRATION SECTION

Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit) **Date/Time**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**Assignment List ICS 204-CG**
3. Branch	**4. Division/Group/Staging**	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by: **Date/Time**	**11. Reviewed by (PSC):** **Date/Time**	**12. Reviewed by (OSC):** **Date/Time**

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

9. Other Attachments (as needed)

☐ **Map/Chart** ☐ **Weather Forecast/Tides/Currents** ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To:	**INCIDENT RADIO COMMUNICATIONS PLAN** **ICS 205-CG**

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared by: (Communications Unit) **Date / Time**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To:	**COMMUNICATIONS LIST** **ICS 205A-CG**

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date / Time) From: To:	MEDICAL PLAN ICS 206-CG

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

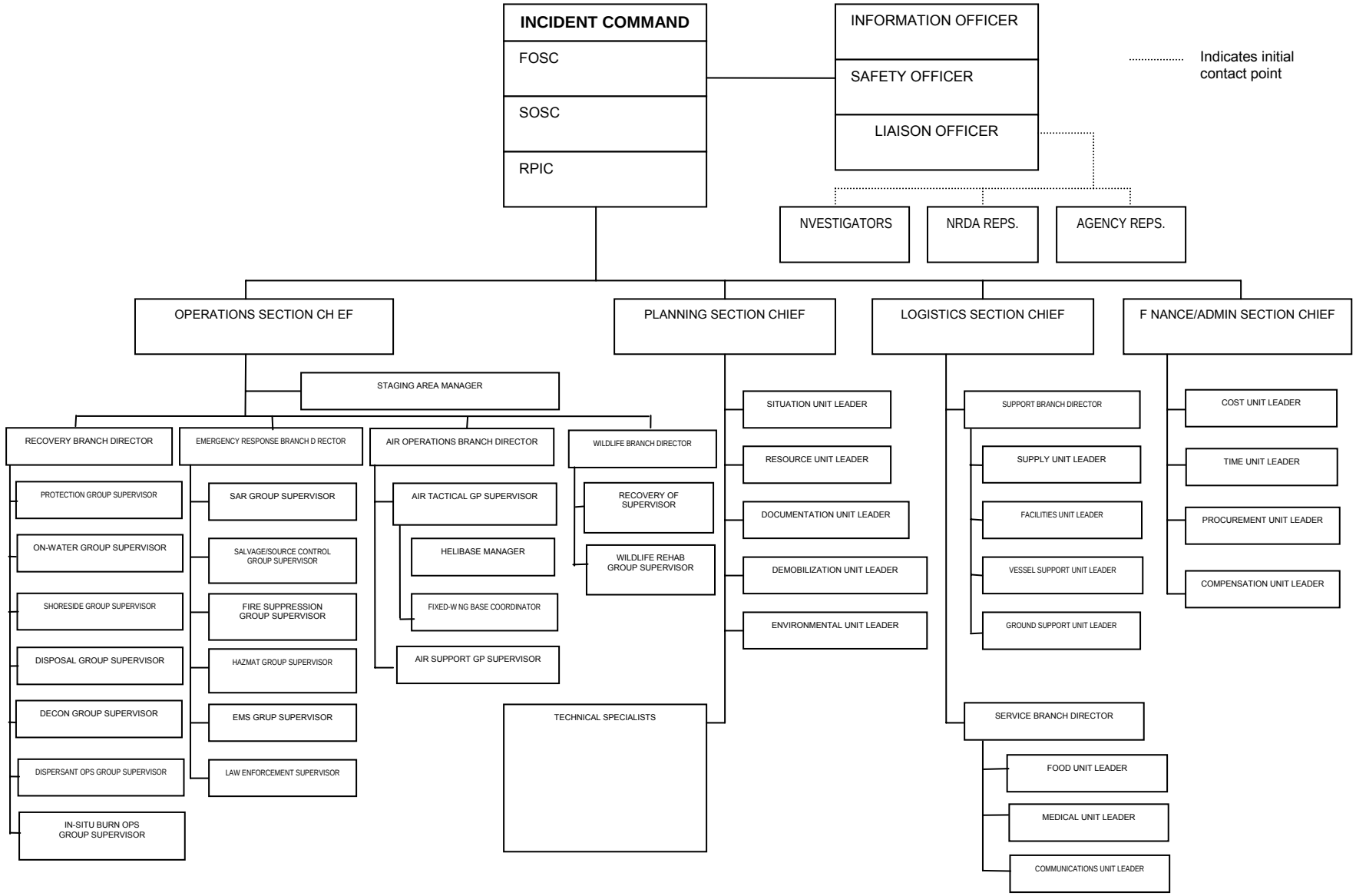
5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared by: (Medical Unit Leader) Date/Time	8. Reviewed by: (Safety Officer) Date/Time

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT ORGANIZATION CHART ICS 207-CG



INCIDENT ORGANIZATION CHART 03/05)	ICS 207-CG (Rev

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To: Time of Report	**INCIDENT STATUS SUMMARY ICS 209-CG**

3. Type of Incident

☐	Oil Spill	☐	HAZMAT	☐	AMIO
☐	SAR/Major SART	☐	SI/Terrorism	☐	Natural Disaster
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload
☐	Planned Event	☐	Maritime HLS/Prevention	☐	

4. Situation Summary as of Time of Report:

5. Future Outlook/Goals/Needs/Issues:

6. Safety Status/Personnel Casualty Summary

	Since Last Report	Adjustments To Previous Op Period	Total
Responder Injury			
Responder Death			
Public Missing (Active Search)			
Public Missing (Presumed Lost)			
Public Uninjured			
Public Injured			
Public Dead			
Total Public Involved			

7. Property Damage Summary

Vessel	$
Cargo	$
Facility	$
Other	$

8. Attachments with clarifying information

☐	Oil/HAZMAT	☐	SAR/LE	☐	
☐		☐		☐	
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload

NRC Incident No. #_____

9. Equipment Resources					
Kind	Notes	# Ordered	# Available	# Assigned	# Out of Service
USCG Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – USCG Cutter					
Vessels – Boat					
Vehicles – Car					
Vehicles – Truck					
Pollution Equip – VOSS/SORS					
Pollution Equip – Portable Storage					
Pollution Equip – Boom					
Non-CG/Other Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – SAR/LE Boat					
Vessels – Work/Crew Boat					
Vessels – Tug/Tow Boat					
Vessels – Pilot Boat					
Vessels – Deck Barge					
Vessels –					
Vehicles – Car					
Vehicles – Ambulance					
Vehicles – Truck					
Vehicles – Fire/Rescue/HAZMAT					
Vehicles – Vac/Tank Truck					
Vehicles –					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/ Barge					
Pollution Equip – Portable Storage					
Pollution Equip – OSRV					
Pollution Equip – Boom					
Pollution Equip –					

10. Personnel Resources	
Agency	**Total # of People**
USCG	
DHS (other than USCG)	
NOAA	
FBI	
DOD (USN Supsalv, CST, etc.)	
DOI (US Fish & Wildlife, Nat Parks, BLM, etc.)	
RP	
State	
Local	
Total Personnel Resources Used From all Organizations:	

11. Prepared by:	**Date/Time Prepared:**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To: Time of Report	**ICS 209-CG OIL/HAZMAT ATTACHMENT**

3. HAZMAT/Oil Spill Status (Estimated, in gallons)

Common Name(s):

UN Number:	☐ Secured	☐ Unsecured
CAS Number:	Remaining Potential (bbl):	
	Rate of Spillage (bbl/hr):	

	Adjustments To Previous Operational Period	Since Last Report	Total
Volume Spilled/Released			
Mass Balance - HAZMAT/Oil Budget			
Recovered HAZMAT/Oil			
Evaporation/Airborne			
Natural Dispersion			
Chemical Dispersion			
Burned			
Floating, Contained			
Floating, Uncontained			
Onshore			
Total HAZMAT/Oil accounted for:	N/A	N/A	

Comments:

4. HAZMAT/Oil Waste Management (Estimated, Since Last Report)

	Recovered	Disposed	Stored
HAZMAT/Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

Comments:

5. HAZMAT/Oil Shoreline Impacts (Estimated in miles)

Degree of Impact	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

Comments:

6. HAZMAT/Oil Wildlife Impacts (Since Last Report)

					Died in Facility	
Type of Wildlife	Captured	Cleaned	Released	DOA	Euthanized	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

Comments:

7. Prepared by:	**Date/Time Prepared:**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To: Time of Report	**ICS 209-CG** **SAR/LE ATTACHMENT**

3. Evacuation Status

	Since Last Report	Adjustments To Previous Operational Period	Total
Total to be Evacuated			
Number Evacuated			

4. Migrant Interdiction Status

	Since Last Report	Adjustments To Previous Op Period	Total
Vessels Interdicted			
Migrants Interdicted at Sea			
Migrants Interdicted Ashore			
Injured			
MEDEVAC'd			
Deaths			
Migrants Repatriated			

5. Sorties/Patrols Summary (List of Sorties Since Last Report)

Air	Since Last Report	Total
Number of Sorties/Patrols		
Area Covered (square miles)		
Total Time On-Scene (In Hours)		
Surface	Since Last Report	Total
Number of Sorties/Patrols		
Area Covered (square miles)		
Total Time On-Scene (In Hours)		

6. Use of Force Summary

Category	Since Last Report	Total
III - Soft Empty Hand Control		
IV - Hard Empty Hand Control		
V - Intermediate Weapons		
VI - Deadly Force		
VSL - Force to Stop Vessel from Cutter/Boat		
A/C - Force to Stop Vessel From Aircraft		
Arrests		
Seizures		
Deaths		

7. Operational Controls Summary

Currently In Force

Type	Initiating Unit	Initiated Date	Activity #

Removed Since Last Report

Type	Initiating Unit	Initiated Date	Date Removed	Activity #

18. Prepared by:	**Date/Time Prepared:**

1. Incident Name	2. Operational Period (Date / Time) From: To:	STATUS CHANGE ICS 210-OS

3. Personnel / Resource Name or I.D.

4. New Status

☐ Available / Staged ☐ Assigned _____ ☐ Out of Service

5. FROM Location or Status	6. TO Location or Status

7. Time of Location / Status Change

8. Comments

9. Prepared by: **Date / Time**

10. Processed by: (Resource Unit) **Date / Time**

NRC Incident No. #_____

CHECK-IN LIST	1. INCIDENT NAME:	2. CHECK-IN LOCATION:	3. DATE/TIME:

CHECK-IN INFORMATION

4. LIST PERSONNEL (OVERHEAD) BY AGENCY NAME – OR LIST EQUIPEMENT BY THE FOLLOWING FORMAT:
S=Supplies H=Helicopter
O=Overhead VL=Vessels
E=Equipment C=Crew
A=Aircraft VH=Vehicle

AGENCY	RESOURCE IDENTIFIER	KIND	5. ORDER/ NUMBER	6. DATE/TIME CHECK-IN	7. LEADER'S NAME	8. TOTAL NO. PERSONNEL	9. INCIDENT CONTACT INFORMATION	10. INCIDENT LODGING INFO/CONTACT INFO	11. HOME UNIT	12. METHOD OF TRAVEL	13. INCIDENT ASSIGNMENT	14. SENT TO RESTAT TIME/INT

15. ICS 211-CG PAGE _____ of _____

16. PREPARED BY (Name and Position) USE BACK FOR REMARKS OR COMMENTS

NRC Incident No. #_____

1. Incident Name	**2. Date and Time of Message**	**GENERAL MESSAGE ICS 213-CG**
3. TO:	ICS Position	
4. FROM:	ICS Position	
5. Subject:		
6. Message		
7 Reply		
8. Signature/Position (person replying)	**Date/Time of reply**	

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**UNIT LOG** **ICS 214-CG**
3. Unit Name/Designators	**4. Unit Leader (Name and ICS Position)**	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**UNIT LOG (CONT.) ICS 214-CG**

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

OPERATIONAL PLANNING WORKSHEET

1.INCIDENT NAME

2. DATE & TIME PREPARED

3. OPERATIONAL PERIOD (DATE & TIME)

4. DIVISION/ GROUP/ OTHER LOCATION	5. WORK ASSIGNMENTS	6. KINDS OF RESOURCES																7. OVERHEAD	8. SPECIAL EQU PMENT & SUPPLIES	9. REPORTING LOCATION	10. REQUESTED ARRIVAL TIME
		REQ																			
		HAVE																			
		NEED																			
		REQ																			
		HAVE																			
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		HAVE																			
		NEED																			
		11. TOTAL RESOURCES REQU RED																14. PREPARED BY (NAME & POSITION)			
		12. TOTAL RESOURCES ON HAND																			
		13. TOTAL RESOURCES NEEDED																			

ICS 215 USCG 12-02

RADIO REQUIREMENTS WORKSHEET ICS 216	1. INCIDENT NAME	2. DATE	3. TIME
4. BRANCH	5. AGENCY	6. OPERATIONAL PERIOD	7. TACTICAL FREQUENCY
8. DIVISION/ GROUP: AGENCY:	DIVISION/ GROUP: AGENCY:	DIVISION/ GROUP: AGENCY:	

9. AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS

216 ICS	PAGE of	5. PREPARED BY (COMMUNICATIONS UNIT)

RADIO FREQUENCY ASSIGNMENT WORKSHEET ICS 217

1 INCIDENT NAME	2 DATE	3 OPERATIONAL PERIOD (DATE/TIME)

5 INCIDENT ORGANIZATION

4 RADIO DATA

SOURCE	FUNCTION	CH #	FREQUENCY																						TOTAL BY REQ
6 AGENCY	ID	CH #	FREQUENCY																						
7 TOTAL RADIOS REQUIRED																									

217 ICS		7 PREPARED BY (NAME/POSITION)

SUPPORT VEHICLE INVENTORY ICS 218	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

VEHICLE INFORMATION

a. TYPE	b. MAKE	c. CAPACITY/SIZE	d. AGENCY/OWNER	e. I.D. NO.	f. LOCATION	g. RELEASE TIME

ICS 218	PAGE	5. PREPARED BY (GROUND SUPPORT UNIT)

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date / Time)** From: To:	**AIR OPERATIONS SUMMARY** **ICS 220-CG**

3. Distribution

☐ Fixed-Wing Bases _____ ☐ Helibase _____

4. Personnel and Communications

	Air Operations Director	Air / Air Frequency	Air / Ground Frequency
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. **Location / Function**	**7.** **Assignment**	**8.** **Fixed-Wing**		**9.** **Helicopter**		**10.** **Time**		**11.** **Aircraft Assigned**	**12.** **Operating Base**
		NO.	TYPE	NO.	TYPE	Available	Commence		
	13. TOTALS								

14. Air Operation Support Equipment	**15. Prepared by** **Date / Time**

NRC Incident No. #_____

DEMOBILIZATION CHECKOUT

1. Incident Name/Number	2. Date/Time	3. Demob. No.
4. Unit/Personnel Released		
5. Transportation Type/No.		
6. Actual Release Date/Time	7. Manifest? ☐ Yes ☐ No Number	
8. Destination	9. Notified: ☐ Agency ☐ Region ☐ Area ☐ Dispatch Name: Date:	
10. Unit Leader Responsible for Collecting Performance Rating		

11. Unit/Personnel

You and your resources have been released subject to sign off from the following:
Demob. Unit Leader check the appropriate box

Logistics Section

- ☐ Supply Unit _____
- ☐ Communications Unit _____
- ☐ Facilities Unit _____
- ☐ Ground Support Unit Leader

Planning Section

- ☐ Documentation Unit

Finance Section

- ☐ Time Unit

Other

- ☐
- ☐

12. Remarks

13. Prepared by (include Date and Time)

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	DAILY MEETING SCHEDULE ICS 230-CG

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	
	Command & General Staff Meeting	IC/UC gives direction to Command & General staff including incident objectives and priorities	IC/UC, Command & General Staff	
	Tactics Meeting	Develop/Review primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OSC, LSC, RESL & SITL	
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period.	Determined by the IC/UC	
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command & General Staff, Branch Directors, Div/Gru Sups., Task Force/Strike Team Leaders and Unit Leaders	

4. Prepared by: (Situation Unit Leader) **Date/Time**

NRC Incident No. #_____

1. Incident Name	2. Meeting Date / Time	MEETING SUMMARY ICS 231-OS
3. Meeting Name		
4. Meeting Location		
5. Facilitator		
6. Attendees		
7. Notes (with summary of decisions and action items)		
8. Prepared by:	Date / Time	

NRC Incident No. #_____

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**RESOURCES AT RISK SUMMARY** **ICS 232-CG**

3. Environmentally-Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

_____

_____

_____

_____

_____

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

_____

_____

_____

_____

_____

5. Prepared by: (Environmental Unit Leader) **Date/Time**

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	ACP Site Index ICS 232a-CG

3. Index to ACP/GRP sites shown on Situation Map

Site #	Priority	Site Name and/or Physical Location	Action	Status

Note: This form is designed to be posted next to the situation map. Use additional sheets, as needed.

4. Prepared by: **Date/Time**

6.0 SPILL IMPACT CONSIDERATIONS

6.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil for non-coastal/inland environments. The Federal, State, Local, and Tribal authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY
● Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species.
● Areas which consist of forested areas, brush/grassy areas, wooded lake areas, freshwater marshes, wildlife sanctuaries/refuges, and vegetated river/stream banks.

MODERATE SENSITIVITY
● Areas of moderate productivity, somewhat resistant to the effects of oiling.
● Areas which consist of degraded marsh habitat, clay/silt banks with vegetated margins, and gravel/cobble beaches.

LOW SENSITIVITY
● Areas of low productivity, man-made structures, and/or high energy.
● Areas which consist of gravel, sand, or clay material, barren/ rocky riverbanks and lake edges, man-made structures, and concrete/ compacted earthen drainage ditches.

These areas are identified in the Central Puget Sound Geographic Response Plan (GRP) available at http://www.ecy.wa.gov/programs/spills/preparedness/GRP/CentralPugetSound/central_puget_sound.htm.

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/Socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

The Company will respond to a release with all necessary resources and personnel using the guidance contained in GRP and in coordination with the Washington Department of Ecology. The Company is committed to maintain its response throughout the incident until a satisfactory level of clean up is attained.

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans
- Other industry and private experts

The environmental and socio-economic sensitivities in the vicinity of the Facility can be divided into a number of categories. The following environmental/socio-economic sensitivity summary describes these categories which may be impacted by a discharge and should be addressed in the response:

Environmental:

- Environmentally sensitive areas are prevalent throughout any marine and/or terrestrial environment and may be affected by any potential discharge incident.

- Environmentally sensitive areas subjected to stress and sudden change may be severely damaged. All means of exclusion/diversion should be utilized during a response effort to minimize the impact on these areas.

Historical Areas:

- Properties listed in the National Register of Historic Places and Natural Landmarks are included in this category.

- These areas may need to be boomed off or otherwise protected to minimize impact.

Major Recreational Areas:

- There are recreational areas within the planning distance from the Facility. Those in the immediate vicinity include:

Recreational Areas	Distance from Facility
Seacrest Marina Park	3.2 miles

- A discharge affecting these areas may pose a public safety/health risk during a response effort.

- Shoreline access for personnel and equipment deployment (boats, boom, etc.) is typically available in these areas.

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

Marinas:

- There are marinas within the planning distance from the Facility. Those in the immediate vicinity include:

Marinas	Distance from Facility
Jim Clark Marina	1 mile
West Lake Marina	4 miles

- These areas have a high degree of public exposure (personal and property) and should be boomed for protection.

- Boats and other water deployed equipment can often be deployed and/or obtained in these areas.

Residential Areas:

- These are areas with high public impact and may warrant evacuation in extreme cases (See Figure 6.2).

- Cleanup must be performed with extreme caution due to extensive public exposure.

Commercial Farming/Ranching Areas:

- Commercial Farming/Ranching Areas have the potential of human and livestock impact, as well as socio-economic impact in the potential loss of crops or loss of property use.

Water Intake Points:

(b) (7)(F), (b) (3)

[redacted]

Wildlife Management Areas and Refuges:

- These areas have a high degree of exposure to threatened/endangered species and many other types of wildlife.

- Protection booming and clean-up efforts are high priority in these areas.

6.3OILED WILDLIFE CARE

In the event of a spill, wildlife may come into contact with oil - especially on the surface of water or along shorelines. The numbers and types of animals affected will depend on factors such as: the size and distribution of the spill; the weather, wind and current conditions; the habitats affected by the oil; and the time of year that the spill occurs. Birds have historically been the most likely wildlife to be affected during on-water spills in Washington, but both aquatic and marine mammals may also come into contact with the oil. In addition to direct oiling, birds and mammals may become indirectly impacted if they feed on oiled animals.

All spill response personnel should refer to the Northwest Wildlife Response Plan and Policy, as found in Chapters 3000 and 9970 of the Northwest Area Contingency Plan (NWACP), regarding wildlife response operations, which are incorporated into this plan by reference.

6.3.1 Notifications

Report any observation of oiled wildlife to the Washington Emergency Management Division at (800) 258-5990 if an ICS has not been established. The Washington Emergency Management Division will forward any reports of oiled wildlife to the Washington State Department of Fish and Wildlife (WDFW).

Once an ICS has been established, all observations of oiled wildlife will be reported to the Wildlife Branch Director (or their designee) within the Operations Section.

Contact the United States Fish and Wildlife Service (USFWS) Response Coordinator to initiate the process of obtaining spill-specific authorizations related to oiled wildlife (see Migratory Bird Treaty Act below) prior to initiating any oiled wildlife activities other than reconnaissance.

Contact private oiled wildlife care contractors according to the number and type of species affected. These contractors have varying abilities to provide service and personnel during response activities and will be engaged as needed by the Wildlife Branch. Refer to Figures 2.3 and 2.4 for contact information..

6.3.2 Permits

All wildlife collection and rehabilitation activities carried out during a spill response will be done in accordance with established NWACP procedures and all applicable federal and state laws. This section identifies the state and federal permits that are required and generally describes their purpose.

- **Migratory Bird Treaty Act (Federal).** The Migratory Bird Permit Act makes it illegal for anyone to “take” or possess any migratory bird except under the terms of a valid Migratory Bird Permit. The USFWS is responsible for issuing Federal Migratory Bird Rehabilitation permits to qualified applicants for the recovery, temporary possession, transportation, and rehabilitation of migratory birds.

  In addition to the Federal Migratory Bird Rehabilitation permit, a rehabilitator must also secure a separate *spill-specific* authorization from the USFWS at the time of the spill for the recovery of both live and dead oiled birds. In Washington State, this authorization must be requested from the USFWS Response Coordinator in Lacey.

6.3 OILED WILDLIFE CARE (Cont'd)

6.3.2 Permits (Cont'd)

- **Endangered Species Act (Federal).** Listed species that become oiled are subject to Endangered Species Act requirements. For migratory birds, the Migratory Bird Rehabilitation Permit and the spill-specific authorization (see above) authorizes the recovery, temporary possession, transport, and rehabilitation of *threatened and endangered* species of migratory birds that have become oiled with no additional ESA permits required. For marine mammals, all response actions will be coordinated by the Wildlife Branch Director and appropriate federal agencies.

- **Marine Mammal Protection Act (Federal).** Federal, state and local government officials, or designees of the relevant Secretaries of the Departments of the Interior and Commerce, may "take" marine mammals during the course of official response duties under certain conditions. Contractors may also receive authorization to take marine mammals under special circumstances (see NWACP 9970). All marine mammal response actions will be coordinated by the Wildlife Branch Director and appropriate federal agencies.

- **Washington State Rehabilitation Permit (Washington State).** Washington State law makes it illegal for any person to possess wildlife for the purpose of rehabilitation unless they have a valid wildlife rehabilitation permit or they are working under the supervision of a person who has a valid wildlife rehabilitation permit. This rule (WAC 232-12-175) also requires that any facilities used for oiled bird rehabilitation must meet certain infrastructure requirements.

As of this writing, the organizations listed below possess all permits needed to conduct oiled bird rehabilitation operations in Washington State. Note that the USFWS Spill specific authorizations will also be required:

- Focus Wildlife.
- The International Bird Rescue Research Center (IBRRC).
- The Progressive Animal Welfare Society (PAWS).

6.3.3 Wildlife Branch

The Wildlife Branch functions within the Operations Section of the ICS and is more fully described in the NWACP. The Wildlife Branch Director is responsible for overseeing all activities related to oiled wildlife recovery and rehabilitation during a response.

It is the policy of the Northwest Area Committee (NWAC) that representatives of the USFWS will assume the positions of Director and Deputy Director of the Wildlife Branch. It is also the policy of the NWAC that WDFW representatives will assume these positions if USFWS representatives are not available.

6.3.3 Wildlife Branch (Cont'd)

Unless otherwise indicated, USFWS will delegate the Wildlife Branch Director and Deputy Branch Director positions to WDFW for spills that occur within Washington State. Appointment of other parties (including representatives of Responsible Parties) to one or both of these positions may be made by a USFWS representative or their designee at any time during an incident and for such periods of time as may be deemed appropriate.

The Wildlife Branch typically uses wildlife contractors to provide care for affected wildlife. All persons who serve as part of rehabilitation or field crews must be trained in accordance with the site safety plan established for the incident and should be familiar with generally accepted published guidelines for collecting, cleaning, and rehabilitating oiled birds.

6.3.4 Oiled Wildlife Care Procedures

Federal (USFWS) policy requires that rehabilitation activities involving oiled-birds comply with the care standards as described in "*Best Practices for Migratory Bird Care during Oil Spill Response"* (US Fish and Wildlife Service. 2002). This document is incorporated by reference as a part of the NWACP. Additional animal care and husbandry information may also be obtained in the Oiled Wildlife Care Network manual "*Protocols for the Care of Oil-Affected Birds"* (UC Davis. 2000).

6.3.5 Oiled Wildlife Facilities, Equipment and Personnel

The equipment and personnel needed for oiled wildlife operations will be deployed through the ICS as needed during a spill response. The NWACP establishes four response levels for oiled bird operations: Level 4 (up to 15 birds), Level 3 (up to 100 birds), Level 2 (up to 500 birds), and Level 1 (more than 500 birds). *Note: The number of birds refers only to birds in captivity.*

Facilities. An oiled-wildlife rehabilitation unit capable of providing the equipment and infrastructure necessary to support a Level 3 response has been developed by Focus Wildlife. When needed, this equipment will be deployed within 24 hours of spill awareness to a location approved by the Wildlife Branch Director. This equipment is included within the online Western Regional Response List (WRRL) and is available via contract with Marine Spill Response Corporation (MSRC). (http://www.wrrl.us/fmi/iwp/res/iwp_auth.html)

Wastewater generated by the wildlife cleaning and rehabilitation operations contains contaminants that may include surfactants, oil, and biological waste and must be appropriately treated prior to discharge. All wastewater produced by oiled wildlife operations will be stored using temporary storage tanks delivered to the site. Based upon the results of sampling and analysis, the wastewater will be treated and disposed of on-site or transported to an off-site facility. This determination will be made by the Disposal Group Supervisor and approved by the Washington Department of Ecology.

6.3.5 Oiled Wildlife Facilities, Equipment and Personnel (Cont'd)

Equipment. The wildlife cleaning facility described above is equipped with sufficient supplies and equipment to support the initial few days of an oiled wildlife response. Replacement supplies and equipment will be obtained as needed using the established channels within the ICS.

Additional wildlife equipment may be also available at the time of a spill incident from the Washington Department of Fish and Wildlife Oil Spill Team or by calling out the oiled wildlife rehabilitation unit (MRU) developed by MSRC and CRC.

Personnel. The personnel requirements described in the NWACP will be met through the use of the oiled wildlife care contractors listed in Figure 2.4. Personnel support space will be provided using existing buildings or mobile structures brought to the site for this purpose.

6.4 STAGING AREAS

The GRP identifies staging areas for each selected response site. When establishing additional personnel and equipment staging areas, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

6.5 SPILL VOLUME ESTIMATES

Type

In most situations, spills occur during transfer operations and will be easily identifiable by the personnel involved based on their knowledge of the material(s) being transferred. Spills from storage tanks, loading racks, and pipelines can also be quickly identified since the contents of each are generally marked on the tanks and pipelines or are well known by Facility personnel.

In the event that a spill of unknown origin does occur, the type of product will be identified initially by color and/or smell. It is easy to differentiate the smell of gasoline from diesel fuel, although it is generally impossible to differentiate between types of gasoline by smell alone. In this case, a sample of the materials is taken and a gravity test conducted to identify the type of product.

Size/Quantity

Early in a spill response, total spill volume determines, in part, the equipment, logistics, manpower, and disposal requirements. Actual spill volumes are often unavailable or inaccurate so that field estimates are usually required. A few quick methods, as discussed below, can be used to provide working approximations of spill size.

If a spill occurs during a transfer operation, the total spill volumes can be estimated by multiplying the pumping rate by the elapsed time between leak commencement and transfer shutdown plus the contents (drain down) of the line between the two closest valves or isolation points. A simplified equation for estimating transfer spill volumes involving total line ruptures is:

Volume Loss (bbl) = Pump Rate (bbl/min) x Elapsed Time (min) + Line Contents (bbl)

Spills resulting from flange or hose leaks will likely occur at a significantly lower rate. For tank overfills, the total volume would be limited to the elapsed time multiplied by the pumping rate. Potential spill volumes for various transfer operations are discussed in Appendix C.

A working estimate of a spill volume on water can be made by a visual assessment of the surface area and thickness of the slick. Slick dimensions can also be estimated from the air using electronic surveillance and occasionally from the water surface using radar. Figure 6.3 can be used to estimate spill volume based on the appearance of the slick. Slick thicknesses greater than 0.25 mm (0.001 inch) cannot generally be differentiated by appearance.

6.5 SPILL VOLUME ESTIMATES (Cont'd)

Classification

To ensure consistency in spill reporting and response criteria, the State of Washington has developed a spill classification system which, for inland waters, is summarized below:

- **Minor Spill** – A spill or discharge of oil of less than 4.5 bbl (100 gallons). Depending on their degree of impact, minor spills may be upgraded to moderate or major spills if they 1) occur in or endanger critical water areas; 2) generate critical public concern; 3) become the focus of an enforcement action; or 4) pose a threat to public health or welfare.

- **Moderate Spill** – A spill or discharge of oil of 4.5 bbl (100 gallons) to 240 bbl (10,000 gallons) or a discharge of any material in any quantity that poses a threat to human health or welfare.

- **Major Spill** – A spill or discharge of oil of more than 240 bbl (10,000 gallons) or a discharge of any material in any quantity that poses a substantial threat to human health or welfare.

- **Catastrophic Spill** – A spill or discharge of oil of more than 24,000 bbl (1,000,000 gallons).

6.6 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity and chemical forces. Trajectory analysis for worst case spills are provided in Appendix B. During a response updated trajectories will be requested from O'Brien's Response Management as needed.

6.7 RESPONSE STRATEGIES

A comprehensive response strategy is important to insure an effective response effort. Although no single strategy is applicable to all spill situations, the response to a spill at the Facility would generally entail consideration of the following:

- Location Response Strategy - involves the use of on-site equipment and resources to contain and clean up minor spills, or to initiate response operations for larger spills. For a small spill such as a sheen of oil in the water, sorbent boom placed in the water with the Jon boat would be considered. A larger spill would require placement of containment boom. In the event of a major spill beyond the capabilities of on-site equipment, the focus of local response operations would be geared toward controlling the source of the spill.

- Nearshore Response Strategy - involves containment and recovery techniques and resources that can be used to prevent oil from reaching sensitive shorelines, such as by means of diversion or exclusion booming.

6.7 RESPONSE STRATEGIES (Cont'd)

- Shoreline Response Strategy - involves the use of techniques to most effectively remove oil from affected shorelines, taking into consideration factors such as the degree of oiling, shoreline type, and accessibility to the area, and environmental sensitivity.

- Open Water Response Strategy - involves the effective use of available on-water recovery equipment to contain and recover the oil.

- Non-Mechanical Response Strategies - involves the consideration of alternative techniques such as in-situ burning, dispersants and bioremediation. Each of these non-mechanical remediation efforts requires extensive assessment and agency involvement and will normally only be considered if they can be proven to be substantially more effective than mechanical recovery efforts. However, due to the population/industrial density and environmental sensitivity of the area, the Company does not intend to use these strategies.

The GRP and the Shoreline Countermeasures Assessment Manual (Ch. 9640) of the Northwest Area Contingency Plan provide extensive detail on the application of the above strategies. The Company will respond to a release with all necessary resources and personnel using the guidance contained in the GRP and the Shoreline Countermeasures Assessment Manual (Ch. 9640) of the Northwest Area Contingency Plan and in coordination with the Washington Department of Ecology. In the event of product release, The Company is committed to maintain its response throughout the incident until a satisfactory level of clean up is attained.

MSRC is capable of providing local and pre-trained response personnel with shoreline cleanup capability. Additional information can be found in MSRC's PRC application.

6.8 SECURITY

(b) (7)(F), (b) (3)

[redacted]

6.8 SECURITY (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

FIGURE 6.1

ENDANGERED/THREATENED SPECIES LISTING

The following is a complete listing of the endangered/threatened species in the State of Washington.

ANIMALS	
Common Name	**Scientific Name**
Albatross, short-tailed	*Phoebastria albatrus*
Bear, grizzly (Lower 48 state)	Ursus arctos horribilis
Butterfly, Oregon silverspot	*Speyeria zerene hippolyta*
Caribou, woodland (IO,WA,BC)	*Rangifer tarandus caribou*
Deer, Columbian white-tailed	*Odocoilcus virginianus leucuras*
Eagle, bald (lower 48 states)	*Haliaeetus leucocephalus*
Lynx, Canada (lower 48 states)	*Lynx Canadensis*
Murrelet, marbled (CA, OR, WA)	*Brachyramphus marmoratus marmoratus*
Owl, northern spotted	*Strix occidentalis caurina*
Pelican, brown (except U.S. Atlantic Coast, FL, AL)	*Pelecanus occidentalis*
Plover, western snowy (Pacific coastal pop.)	*Charadrius alexandrinus nivosus*
Rabbit, pygmy Columbia Basin DPS	*Brachy lagus iduhoensis*
Salmon, chinook (spring upper Columbia R.)	*Oncorhynchus (=Salmo) tshawytscha*
Salmon, chinook (Puget Sound)	*Oncorhynchus (=Salmo) tshawytscha*
Salmon, chinook (fall Snake R.)	*Oncorhynchus (=Salmo) tshawytscha*
Salmon, chinook (lower Columbia R.)	*Oncorhynchus (=Salmo) tshawytscha*
Salmon, chinook (spring/summer Snake R.)	*Oncorhynchus (=Salmo) tshawytscha*
Salmon, chum (Columbia R.)	*Oncorhynchus (=Salmo) keta*
Salmon, chum (summer-run Hood Canal)	*Oncorhynchus (=Salmo) keta*
Salmon, sockeye U.S.A. (Snake River, ID stock wherever found.)	*Oncorhynchus (=Salmo) nerka*
Salmon, sockeye U.S.A. (Ozette Lake, WA)	*Oncorhynchus (=Salmo) nerka*
Sea turtle, green (except where endangered)	*Chelonia mydas*
Sea turtle, leatherback	*Dermochelys coriacea*
Sea turtle, loggerhead	*Caretta caretta*
Sea-Lion, Steller (eastern pop.)	*Eumetopias jubatus*
Steelhead (upper Columbia River Basin)	*Oncorhynchus mykiss*
Steelhead (Snake River Basin)	*Oncorhynchus mykiss*
Steelhead (upper Willamette River)	*Oncorhynchus mykiss*
Steelhead (lower Columbia River)	*Oncorhynchus mykiss*
Trout, bull (U.S.A., coterminous, lower 48 states)	*Salvelinus confluentus*
Trout, Lahontan cutthroat	*Oncorhynchus clarki henshawi*
Whale, humpback	*Megaptera novaeangliae*
Wolf, Gray Western District Topolation Segment	*Canis lupus*

FIGURE 6.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

PLANTS	
Common Name	**Scientific Name**
Sandwort, Marsh	*Arenaria paludicola*
Paintbrush, golden	*Castilleja levisecta*
Stickseed, showy	*Huckelia venusta*
Dessert-parsley, Bradshaw's	*Lomatium bradshawii*
Howellia, water	*Howellia aquatilis*
Lupine, Kincaid's	*Lupinus sulphureus kincaidii*
Checker-mallow, Nelson's	*Sidalcea nelsoniana*
Checker-Mallow, Wenatchee Mountains	*Sidalcea oregana var. calva*
Catchfly, spalding's	*Silene spaldragii*
Ladies'-tresses, Ute	*Spiranthes diluvialis*

FIGURE 6.2

HUMAN POPULATIONS AND DRINKING WATER INTAKES

The following table identifies the cities and towns paralleling the shorelines of the nearshore waters of Puget Sound within the downstream planning distance calculation of the Facility, along with their corresponding populations.

CITY/TOWN	POPULATION
Downtown Seattle	900
South Queen Anne	9,000
Southeast Magnolia	5,600
North Beach	4,400
Edmonds	27,526
Kingston	‹ 250
Suquamish	‹ 500
Agate Point	‹ 250
Port Madison	‹ 500
Rollingbay	‹ 250
Manitou Beach	‹ 250
Ferncliff	‹ 100
Yeomalt	‹ 100
Winslow	‹ 500
Eagledale	‹ 250
Creosote	‹ 250
Port Blakely	‹ 250
South Beach	‹ 250
Manchester	‹ 250
Southworth	‹ 250
Alki	5,000
Fauntleroy	4,800
Ingelsea	‹ 1,000
Dilworth	‹ 250
Normandy Park	‹ 2,500
Des Moines	‹ 5,000

(b) (7)(F), (b) (3)

FIGURE 6.3

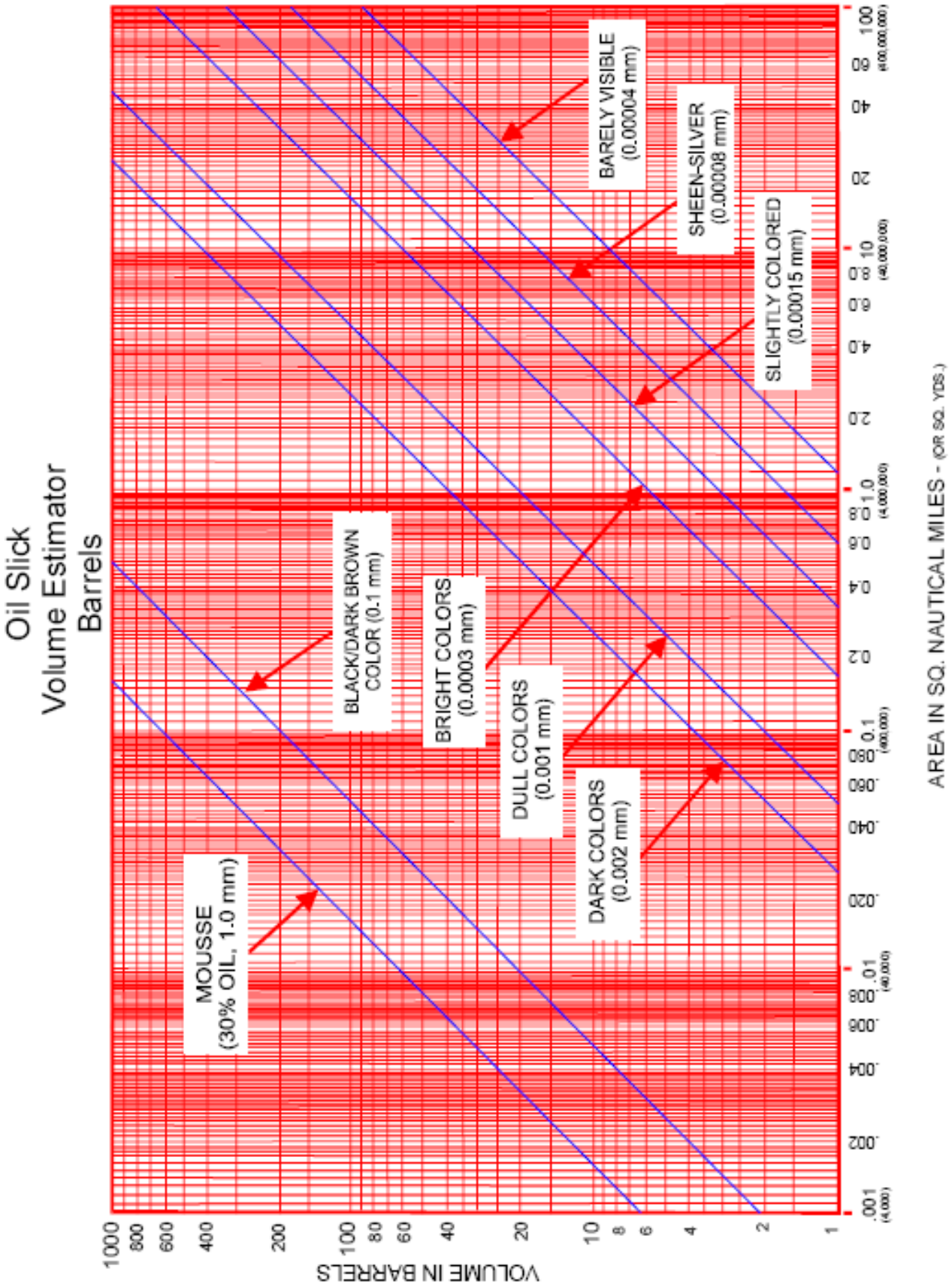
Oil Slick
Volume Estimator
Barrels
BARELY VISIBLE (0.00004 mm)
SHEEN-SILVER (0.00008 mm)
SLIGHTLY COLORED (0.00015 mm)
BLACK/DARK BROWN COLOR (0.1 mm)
BRIGHT COLORS (0.0003 mm)
DULL COLORS (0.001 mm)
DARK COLORS (0.002 mm)
MOUSSE (30% OIL, 1.0 mm)
VOLUME IN BARRELS
1000 800 600 400 200 100 80 60 40 20 10 8 6 4 2 1
AREA IN SQ. NAUTICAL MILES - (OR SQ. YDS.)
100 60 40 20 10 8.0 6.0 4.0 2.0 1.0 0.8 0.6 0.4 0.2 0.1 .080 .060 .040 .020 .01 .008 .006 .004 .002 .001

FIGURE 6.4
Environmental Sensitivity Maps

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

7.0 OIL SPILL CLAIMS PROCEDURES

7.1 OIL SPILL CLAIMS EVENT TIERS

Oil spill claims events can be generally classified by the number of claims anticipated rather than the quantity of product released. These tiers are defined as follows:

Tier 1
● Up to 50 oil spill claims are anticipated
Tier 2
● Between 50 and 500 oil spill claims are anticipated
Tier 3
● More than 500 oil spill claims are anticipated

7.2 OIL SPILL CLAIMS MANAGEMENT

Management of oil spill claims will be provided by the Crisis Support Team Risk Management representatives in cooperation with the Incident Commander (Refer to Figure 2.2 for contact information). Outside contractors will support claims processing during all events.

7.3 INSURANCE

KMEP is insured in excess of the oil spill liability requirements for onshore facilities outlined in the Oil Pollution Act of 1990.

7.4 OIL SPILL CLAIMS HANDLING PROCESS

After an oil spill occurs, KMEP will advertise for claims following the information provided in Section 7.5. Oil spill claims information and forms will be made available through local claims centers, if established, or via the internet at http://response.kindermorgan.com. Sample claims forms and internal claim check and tracking forms are presented in Figures 7.1 through 7.3. Examples of documentation needed for various types of claims can be found in Section 7.10. Section 7.9 explains the KMEP claims adjudication process and provides related timeframes. Depending on the anticipated number of claims related to the spill, KMEP will establish local claim centers. Oil spill claims will be accepted by KMEP up to 3-years from the date that KMEP began advertising for claims or 3-years from the date that the injury or damage being claimed was reasonably discovered – whichever date is earlier. Natural Resources Damage Assessment (NRDA) claims are handled separately from other claims, and may be accepted by KMEP in a manner and timeframe agreed to by the company and the lead federal and/or state trustee agency.

7.5 OIL SPILL CLAIMS ADVERTISEMENTS

KMEP will advertise for claims after being advised to do so by our legal department, or within 15-days after being designated as the Responsible Party for an oil spill by the Federal On-Scene Coordinator (FOSC) or the USCG National Pollution Funds Center (NPFC). The geographic extent of the oil spill will dictate the publications in which claim advertisements will be placed. At minimum, KMEP will advertise for oil spill claims in the Seattle Times. The length of time advertisements will run in local publications will be based on recommendations provided by our legal department or the length of time specified by FOSC or the NPFC. A sample claims advertisement is presented in Figure 7.4.

7.6 OIL SPILL CLAIMS CONTACT INFORMATION

In the event of an oil spill contact information for oil spill claims, location of local claim centers and mailing address for claims submission will be available via the toll free Public Information Line (877) 936-2253 and on the internet at http://response.kindermorgan.com as well as in advertisements placed in local publications.

7.7 LOCAL CLAIMS CENTERS

Local claims centers will be established based on community need and/or the number anticipated claims. Local claims centers will remain in operation for as long as warranted by workload and community need.

7.8 OIL SPILL CLAIMS FORMS

The claims form used by KMEP is presented in Figure 7.1. A sample Claims Tracking Form is presented in Figure 7.2. Other forms may be used if they provide an equivalent level of information as that found in Figure 7.1. Information entered in the claim form must be typed or legibly hand-written in blue or blue-black ink. The claim form must include the “sum-certain” monetary amount being claimed and be signed by the claimant in black or blue-black ink. The Claims Tracking Sheet presented in Figure 7.2 is used in the claims adjudication process to track the status of claims received and Claim Check Sheet presented in Figure 7.3 is used to record the type of documentation provided with each claim.

7.9 OIL SPILL CLAIMS ADJUDICATION AND TIMEFRAME

KMEP will process claims in the order they are received. Each claim will be assigned a unique identification number which will be used to track the claim internally. The identification number can also be used by claimants who wish to provide additional information to support their claim, or inquire about the status of a claim. KMEP will review each claim received to ensure, as much as possible, that all needed information to make a claim decision has been provided by the claimant. If additional information is needed, we will request that the claimant forward that information to us so it can be added to the claim and considered during adjudication. If the information requested is not received within 90 days, KMEP will adjudicate the claim with the available information. This may result in a reduction of possible claim compensation or an outright

denial of the claim.

7.9 OIL SPILL CLAIMS ADJUDICATION AND TIMEFRAME (Cont'd)

Once KMEP sends the claimant a claim determination, the claimant must either accept or reject the offer within 60 days. The claimant must sign a release before the claim will processed for payment. If the claimant takes no action within 60 days after receiving the claim determination, the offer to pay the claim will be voided and the claim will be closed. If the claimant rejects the offer, they can provide additional information and ask KMEP to reconsider the claim determination; typically, this would start an entirely new review process with another claim determination made as a result of the reconsideration. Claims submitted to KMEP will be paid in the order that accepted offers (with signed releases) are received. Claims are usually paid with 30-days from the date KMEP receives the claimant's signed release.

7.10 OIL SPILL CLAIMS DOCUMENTATION

The amount and type of documentation needed to make a claim determination depends on many factors, including the claim type and the monetary amount claimed.

The following types of claims may be submitted to KMEP. Example types of documentation are also included below within the listing of each claim type. The examples provided are for reference only; they may or may not represent everything needed to adjudicate a claim.

Removal Costs: Costs to prevent, minimize, mitigate, or clean up the oil spill.
Examples of Proof and Documentation that may be needed:

- Proof that actions were coordinated with the FOSC.
- Witness statements
- Detailed description of actions
- Dates on which work was performed
- Analysis of spill substance
- Map of area
- Pictures of area, damage, and spill
- Receipts, invoices, or similar records with description of work
- How rates were determined and any comparison of rates
- Daily records of personnel costs including details on labor rates, hours, travel, and transportation
- Daily records of equipment costs including description and use
- Signed disposal manifests and proof of payment for disposal

- Payroll verification of hourly rate at the time of spill
- Verification of equipment rates for equipment used

7.10 OIL SPILL CLAIMS DOCUMENTATION (Cont'd)

Property Damage: Injury or damage to or economic loss resulting from destruction of real property (land or buildings) or other personal property including a boat.

Examples of Proof and Documentation that may be needed:

- Proof of ownership or leasehold interest in the property; lease or rental agreement of any substitute property used
- Proof or evidence that property was injured, destroyed, or not usable because of the oil spill
- Report of any expenses or money lost while the property was unavailable because of spill damage
- Proof of value of property both before and after the spill or injury
- Documented cost of repair or replacement of the property
- Proof of value of property before and after the spill
- Documentation that shows whether or not substitute property was available, and related costs of substitute property if used.
- Documentation that shows how claimant lost money from the damage to the property
- Witness statements
- Copy of title, deed, lease, or license to property in claimant's name
- Pictures or videotape of property and/or damage
- Maps or legal documents showing the location of the property within the spill area
- Professional property appraisals for the value of the property prior to and after the spill, actual selling price of the property, and evidence connecting the depressed selling price to the oil spill rather than to other economic or real property factors
- Copies of bills paid for repair of damage or two estimates showing activities and costs to repair the damage

7.10 OIL SPILL CLAIMS DOCUMENTATION (Cont'd)

Loss of Profits or Earning Capacity: Damages equal to the loss of profits or impairment of earning capacity due to the injury, destruction, or loss of property or natural resources

Examples of Proof and Documentation that may be needed:

- Proof that property or natural resources that were damaged, destroyed or lost, resulted in claimant's loss
- Proof the claimant's income was reduced due to the damage or loss of the property or natural resources and how much it was reduced
- Documentation showing the amount of profits and earnings in similar time periods
- Documentation showing any alternative employment or business during the period claimed and any income received during that period
- Documentation showing and savings to overhead costs or other normal expenses - those not paid as a result of the spill (commuting costs, utility fees, employee salaries)
- Photos of damaged property (before and after the spill)
- Witness Statements on how the spill led to loss of business income or earning capacity; explain any earnings anomalies
- Statement on how the spill caused a loss in income
- Affidavit from claimant's employer about the impact the spill had on an employees work or income, and if the employer intends to file a claim for lost profits or earning capacity.
- Copies of pay stubs, receipts, timesheets from before, during, and after the spill
- Personnel records from claimant's employer before, during, and after the spill, showing employment
- Claimant's description of efforts to reduce loss, including job search
- Copies of any job-hunting expenses (e.g., travel costs)
- Signed copies of income tax returns and schedules for at least two years prior to spill
- Details of employment expenses not paid during period being claimed (e.g., commuting costs)
- Copies of pay stubs, receipts, timesheets from alternative employment during time of spill (including unemployment compensation)
- Description and documentation of business losses due to spill
- Copies of letters of business cancellations caused by the spill damage
- Maps or descriptions of the area showing the business location and the spill impact area
- Financial statements for at least two years prior to spill and from the year of the spill

- Signed copies of business income tax returns and schedules for at least three years prior to spill

7.10 OIL SPILL CLAIMS DOCUMENTATION (Cont'd)

Loss of Profits or Earning Capacity (Continued):

- Details on efforts to mitigate business losses or why no efforts were taken
- For hotels, daily and monthly occupancy information for two years prior to spill and the year of the spill
- Description of marine charter business losses caused by the spill
- Evidence that charter vessel(s) was in the area impacted by the spill and were unable to carry on their business due to the spill
- Maps or descriptions of the area showing charter business location within spill area
- Signed copies of income tax returns (for charter boat business) and schedules for at least three years prior to spill
- Details on expenses not paid out during period being claimed (e.g., wages)
- Booking records for three years prior to spill and year of spill
- List of charter rates, including any services the business specializes in (e.g., sport fishing)
- Copies of any logs relating to boating activities for the year prior to and the year of the spill
- Registration documents for the vessel

Loss of Subsistence Use of Natural Resources: Loss of subsistence use claim if natural resources claimants depend on for subsistence use purposes that have been injured, destroyed, or lost by an oil spill event.

Examples of Proof and Documentation that may be needed:

- Proof that injury, destruction, or loss of natural resources would have been used by the claimant to obtain food, shelter, clothing, medicine, or other minimum necessities of life.
- Documentation identifying each specific natural resource for which compensation for loss of subsistence use is being claimed
- Description of the actual subsistence use you make of each specific natural resource you identify;
- Description of how and to what extent claimant's subsistence use of the natural resource was affected by the injury to, destruction of, or loss of, each specific natural resource;
- Description of claimant's efforts to mitigate subsistence use loss
- Description of alternative source(s) or means of subsistence available to claimant during the period

7.10 OIL SPILL CLAIMS DOCUMENTATION (Cont'd)

Loss of Government Revenue: Net loss by Federal, State, or Local Governments of taxes, royalties, rents, fees, or net profit shares due to the injury, destruction, or loss of real property, personal property, or natural resources.

Examples of Proof and Documentation that may be needed:

- Information showing that the loss of revenue was caused by the injury to, destruction of, or loss of real or personal property or natural resources caused by the discharge
- Information showing the amount, identity, and description of the revenue loss for which compensation is claimed, including the applicable authority for collecting the revenue, method of assessment, applicable rate, and dates of collection or periods of loss
- Documentation showing expenditures saved because revenue was not collected
- The total assessment or revenue collected and related expenditures for comparable revenue periods, typically covering two years
- Description of what revenues were impacted and how the spill caused a loss of revenues
- Copies of statutes, regulations, ordinances, etc., outlining applicable authority to raise such revenues, property affected, method of assessment, rate of assessment, and method and dates of collection of assessment
- Government financial reports showing total assessment or revenue collected for comparable periods, typically covering two years
- Details of any expenses not paid out by government

Increased Public Service Costs: Net costs by State & Local Governments for providing increased or additional public services during or after removal activities, including protection from fire, safety, or health hazards, caused by a discharge of oil or directly attributable to response to the oil spill Event.

Examples of Proof and Documentation that may be needed:

- Documentation showing justification for the public services provided, including documentation of what specific services were provided and the relationship to the spill.
- Documentation showing when services were provided during and after the oil spill removal.
- Documentation showing services were in addition to services normally provided
- Documentation showing the net cost for the services and the methods used to compute those costs

7.10 OIL SPILL CLAIMS DOCUMENTATION (Cont'd)

Increased Public Service Costs (continued)

- Reports showing the increased public services were required and if the services were due to fire, health, or safety hazards
- Detailed description of what increased services were necessary and why, including a distinction between removal activities, safety acts, and law enforcement acts, and if the increase was actually incurred or if normal resources were diverted for use
- Daily reports on the activities of the government personnel and equipment involved Government Labor and Equipment Rates:
- Payroll verification of the government hourly rate at the time
- Verification of the standard government equipment rates for any equipment claimed
- Signed and dated records of the spill including hourly rates for labor and equipment
- Explanation as to whether rates are fully loaded or not and formulas used
- Certification that rates used reflected actual costs incurred and did not include punitive damages or fees

FIGURE 7.1

ACORD GENERAL LIABILITY NOTICE OF OCCURRENCE/CLAIM

GENERAL LIABILITY NOTICE OF OCCURRENCE / CLAIM

DATE (MM/DD/YYYY)

AGENCY

CONTACT NAME

PHONE (A/C, No, Ext)

FAX (A/C, No)

E-MAIL ADDRESS

CODE | SUBCODE

AGENCY CUSTOMER ID

INSURED LOCATION CODE

DATE OF LOSS AND TIME | AM | PM

CARRIER | NAIC CODE

POLICY NUMBER

INSURED

NAME OF INSURED (First, Middle, Last)

DATE OF BIRTH | FEIN (if applicable)

PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL

SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL

INSURED'S MAILING ADDRESS

PRIMARY E-MAIL ADDRESS

SECONDARY E-MAIL ADDRESS

CONTACT

☐ CONTACT INSURED

NAME OF CONTACT (First, Middle, Last)

PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL

SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL

WHEN TO CONTACT

CONTACT'S MAILING ADDRESS

PRIMARY E-MAIL ADDRESS

SECONDARY E-MAIL ADDRESS

OCCURRENCE

LOCATION OF OCCURRENCE

STREET

CITY, STATE, ZIP

COUNTRY

POLICE OR FIRE DEPARTMENT CONTACTED

REPORT NUMBER

DESCRIBE LOCATION OF OCCURRENCE IF NOT AT SPECIFIC STREET ADDRESS

DESCRIPTION OF OCCURRENCE (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

TYPE OF LIABILITY

PREMISES INSURED IS ☐ OWNER ☐ TENANT ☐

OWNER'S NAME & ADDRESS (If not insured)

TYPE OF PREMISES

PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL

SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL

PRIMARY E-MAIL ADDRESS

SECONDARY E-MAIL ADDRESS

PRODUCTS INSURED IS ☐ MANUFACTURER ☐ VENDOR ☐

MANUFACTURER'S NAME & ADDRESS (If not insured)

TYPE OF PRODUCT

PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL

SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL

PRIMARY E-MAIL ADDRESS

SECONDARY E-MAIL ADDRESS

WHERE CAN PRODUCT BE SEEN?

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AGENCY CUSTOMER ID: _____

INJURED / PROPERTY DAMAGED

NAME & ADDRESS (Injured/Owner)		EMPLOYER'S NAME & ADDRESS	
PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL	PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
PRIMARY E-MAIL ADDRESS		PRIMARY E-MAIL ADDRESS	
SECONDARY E-MAIL ADDRESS		SECONDARY E-MAIL ADDRESS	
AGE / SEX / OCCUPATION		DESCRIBE INJURY	
WHERE TAKEN		WHAT WAS INJURED DOING?	
DESCRIBE PROPERTY (Type, model, etc.)	ESTIMATE AMOUNT	WHERE CAN PROPERTY BE SEEN?	

WITNESSES

NAME AND ADDRESS	PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
	PRIMARY E-MAIL ADDRESS	
	SECONDARY E-MAIL ADDRESS	
NAME AND ADDRESS	PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
	PRIMARY E-MAIL ADDRESS	
	SECONDARY E-MAIL ADDRESS	
NAME AND ADDRESS	PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
	PRIMARY E-MAIL ADDRESS	
	SECONDARY E-MAIL ADDRESS	

REMARKS (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

REPORTED BY	REPORTED TO

AGENCY CUSTOMER ID: _____

APPLICABLE IN ALABAMA

Any person who knowingly presents a false or fraudulent claim for payment of a loss or benefit or who knowingly presents false information in an application for insurance is guilty of a crime and may be subject to restitution fines or confinement in prison, or any combination thereof.

APPLICABLE IN ALASKA

A person who knowingly and with intent to injure, defraud, or deceive an insurance company files a claim containing false, incomplete, or misleading information may be prosecuted under state law.

APPLICABLE IN ARIZONA

For your protection, Arizona law requires the following statement to appear on this form. Any person who knowingly presents a false or fraudulent claim for payment of a loss is subject to criminal and civil penalties.

APPLICABLE IN ARKANSAS, DELAWARE, KENTUCKY, LOUISIANA, MAINE, MICHIGAN, NEW JERSEY, NEW MEXICO, NEW YORK, NORTH DAKOTA, PENNSYLVANIA, RHODE ISLAND, SOUTH DAKOTA, TENNESSEE, TEXAS, VIRGINIA, AND WEST VIRGINIA

Any person who knowingly and with intent to defraud any insurance company or another person, files a statement of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact, material thereto, commits a fraudulent insurance act, which is a crime, subject to criminal prosecution and [NY: substantial] civil penalties. In LA, ME, TN, and VA, insurance benefits may also be denied.

APPLICABLE IN CALIFORNIA

For your protection, California law requires the following to appear on this form: Any person who knowingly presents a false or fraudulent claim for payment of a loss is guilty of a crime and may be subject to fines and confinement in state prison.

APPLICABLE IN COLORADO

It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance, and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policy holder or claimant for the purpose of defrauding or attempting to defraud the policy holder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado Division of Insurance within the Department of Regulatory Agencies.

APPLICABLE IN THE DISTRICT OF COLUMBIA

Warning: It is a crime to provide false or misleading information to an insurer for the purpose of defrauding the insurer or any other person. Penalties include imprisonment and/or fines. In addition, an insurer may deny insurance benefits, if false information materially related to a claim was provided by the applicant.

APPLICABLE IN FLORIDA

Pursuant to S. 817.234, Florida Statutes, any person who, with the intent to injure, defraud, or deceive any insurer or insured, prepares, presents, or causes to be presented a proof of loss or estimate of cost or repair of damaged property in support of a claim under an insurance policy knowing that the proof of loss or estimate of claim or repairs contains any false, incomplete, or misleading information concerning any fact or thing material to the claim commits a felony of the third degree, punishable as provided in S. 775.082, S. 775.083, or S. 775.084, Florida Statutes.

APPLICABLE IN HAWAII

For your protection, Hawaii law requires you to be informed that presenting a fraudulent claim for payment of a loss or benefit is a crime punishable by fines or imprisonment, or both.

APPLICABLE IN IDAHO

Any person who knowingly and with the intent to injure, defraud, or deceive any insurance company files a statement of claim containing any false, incomplete or misleading information is guilty of a felony.

APPLICABLE IN INDIANA

A person who knowingly and with intent to defraud an insurer files a statement of claim containing any false, incomplete, or misleading information commits a felony.

AGENCY CUSTOMER ID: _____

APPLICABLE IN KANSAS

Any person who, knowingly and with intent to defraud, presents, causes to be presented or prepares with knowledge or belief that it will be presented to or by an insurer, purported insurer, broker or any agent thereof, any written statement as part of, or in support of, an application for the issuance of, or the rating of an insurance policy for personal or commercial insurance, or a claim for payment or other benefit pursuant to an insurance policy for commercial or personal insurance which such person knows to contain materially false information concerning any fact material thereto; or conceals, for the purpose of misleading, information concerning any fact material thereto commits a fraudulent insurance act.

APPLICABLE IN MARYLAND

Any person who knowingly or willfully presents a false or fraudulent claim for payment of a loss or benefit or who knowingly or willfully presents false information in an application for insurance is guilty of a crime and may be subject to fines and confinement in prison.

APPLICABLE IN MINNESOTA

A person who files a claim with intent to defraud or helps commit a fraud against an insurer is guilty of a crime.

APPLICABLE IN NEVADA

Pursuant to NRS 686A.291, any person who knowingly and willfully files a statement of claim that contains any false, incomplete or misleading information concerning a material fact is guilty of a felony.

APPLICABLE IN NEW HAMPSHIRE

Any person who, with purpose to injure, defraud or deceive any insurance company, files a statement of claim containing any false, incomplete or misleading information is subject to prosecution and punishment for insurance fraud, as provided in RSA 638:20.

APPLICABLE IN OHIO

Any person who, with intent to defraud or knowing that he/she is facilitating a fraud against an insurer, submits an application or files a claim containing a false or deceptive statement is guilty of insurance fraud.

APPLICABLE IN OKLAHOMA

WARNING: Any person who knowingly and with intent to injure, defraud or deceive any insurer, makes any claim for the proceeds of an insurance policy containing any false, incomplete or misleading information is guilty of a felony.

APPLICABLE IN WASHINGTON

It is a crime to knowingly provide false, incomplete, or misleading information to an insurance company for the purpose of defrauding the company. Penalties include imprisonment, fines and denial of insurance benefits.

FIGURE 7.2

CLAIMS TRACKING SHEET

Claim Tracking Sheet

Claims Number _____

Claimant's Name _____

Claimant's Address _____

Claimant's Contact Phone# _____

Claimant's Email _____

Claim Type _____

Amount Claimed ($) _____

Date Claim Received _____

Name of Adjudicator (Lead) _____

Adjudicator Phone# _____

Adjudicator Email _____

Date Follow-Up
Information Requested _____
(N/A if Not Applicable)

Claim Determination
Date (Sent) _____

Claim Determination
Amount ($) _____

Date Release Received _____
(N/A if Not Applicable)

Date Rejection Received _____
(N/A if Not Applicable)

Date Payment Approved
(N/A if Not Applicable) _____

Date Claim Closed _____

FIGURE 7.3

CLAIMS CHECK SHEET

Claim Check List

Claims Number _____

Claimant's Name _____

Date Claim Received _____

Documents Provided		
1	Claim Form - Signed (Accord, GL Notice of Occurrence or Equivalent)	
2	Affidavit from employer on the impact on work or income due to the spill and if the company will be filing a claim for lost profits	
3	Analysis of spill substance	
4	Any expenses or money lost while the property was unavailable because of spill damage	
5	Beach closures or fishing advisories	
6	Booking records for three years prior to spill and year of spill	
7	Certification that rates used reflected actual costs incurred and did not include punitive damages or fees	
8	Copies of any job-hunting expenses (e.g., travel costs)	
9	Copies of any logs relating to boating activities for the year prior to and the year of the spill	
10	Copies of bills paid for repair of damage or two estimates showing activities and costs to repair the damage	
11	Copies of letters of business cancellations caused by the spill damage	
12	Copies of pay stubs and other documentation showing income Claimant received before, during, and after the spill and oil spill response	
13	Copies of pay stubs, etc., from alternative employment during time of spill	

Documents Provided		
14	Copies of pay stubs, receipts, etc., from before, during, and after the spill	
15	Copies of statutes, regulations, ordinances, etc., outlining applicable authority to raise such revenues, property affected, method of assessment, rate of assessment, and method and dates of collection of assessment	
16	Copy of title, deed, lease, or license to property in Claimant's name	
17	Daily records of equipment costs including description and use	
18	Daily records of personnel costs including details on labor rates, hours, travel, and transportation	
19	Daily reports on the activities of the government personnel and equipment involved	
20	Dates on which work was performed	
21	Describe any compensation available to Claimant for the subsistence loss Claimant suffered	
22	Describe each alternative source or means of subsistence available to Claimant during the period of time for which Claimant claim a loss of subsistence	
23	Describe each effort Claimant made to mitigate Claimant's subsistence use loss	
24	Describe how and to what extent Claimant's subsistence use of the natural resource was affected by the injury to, destruction of, or loss of, each specific natural resource	
25	Describe the actual subsistence use Claimant make of each specific natural resource Claimant identify	
26	Description and documentation of business losses due to spill	
27	Description of business losses caused by the spill	
28	Description of efforts to reduce Claimant's loss, including job search	
29	Description of what revenues were impacted and how the spill caused a loss of revenues	
30	Detailed description of actions	

Documents Provided		
31	Detailed description of what increased services were necessary and why, including a distinction between removal activities, safety acts, and law enforcement acts, and if the increase was actually incurred or if normal resources were diverted for use	
32	Details and explanation of net loss of revenue	
33	Details of any expenses not paid out by government during the period being claimed	
34	Details of employment expenses not paid during period being claimed (e.g., commuting costs)	
35	Details on efforts to mitigate losses or why no efforts were taken	
36	Details on expenses not paid out during period being claimed (e.g., wages)	
37	Evidence connecting the depressed selling price of a property to the oil spill rather than to other economic or real property factors	
38	Evidence that vessel(s) were in the area impacted by the spill and were unable to carry on their business due to the spill	
39	Explanation as to whether rates are fully loaded or not and formulas used; states should provide rates under OMB Circular A-87	
40	Financial statements for at least two years prior to spill and from the year of the spill	
41	For hotels, daily and monthly occupancy information for two years prior to spill and the year of the spill	
42	FOSC report	
43	FOSC, natural resource trustee and newspaper reports describing the oil spill and response, and the resulting injury, destruction or loss of natural resources	
44	Government financial reports showing total assessment or revenue collected for comparable periods, typically covering two years	
45	Government Labor and Equipment Rates	
46	How rates were determined and any comparison of rates	

Documents Provided		
47	Identify each specific natural resource for which compensation for loss of subsistence use is being claimed	
48	Information in EPA or USCG notifications, and claims advertising	
49	Information on EPA or USCG notification	
50	Lease or rental agreement of any substitute property used	
51	List of charter rates, including any services the business specializes in (e.g., sport fishing)	
52	Map of area	
53	Maps or descriptions of the area showing business location within spill area	
54	Maps or descriptions of the area showing the business location and the spill impact area	
55	Maps or legal documents showing the location of the property within the spill area	
56	Maps	
57	Newspaper reports describing the spill	
58	Payroll verification of hourly rate at the time of spill	
59	Payroll verification of the government hourly rate at the time	
60	Personnel records from Claimant's employer before, during, and after the spill, showing employment	
61	Photographs and videos	
62	Photos of damaged property (before and after the spill)	
63	Pictures of area, damage, and spill	
64	Pictures or videotape of property and/or damage	
65	Professional property appraisals for the value of the property prior to and after the spill	

Documents Provided		
66	Published accounts, witness statements and other written records documenting Claimant's use of natural resources for subsistence purposes before, during, and after the spill and oil spill response	
67	Receipts, invoices, or similar records with description of work	
68	Records showing compensation Claimant received for Claimant's loss	
69	Records showing the expenses Claimant avoided during the time Claimant were not able to carry out Claimant's subsistence use of the affected natural resource	
70	Registration documents for the vessel(s), copies of business license, vessel license, fishing license, captain's license	
71	Reports showing the increased public services were required and if the services were due to fire, health, or safety hazards	
72	Signed and dated records of the spill including hourly rates for labor and equipment	
73	Signed copies of income tax returns and schedules for at least three years prior to spill	
74	Signed copies of income tax returns and schedules for at least two years prior to spill	
75	Signed disposal manifests and proof of payment for disposal	
76	Statement from Claimant or witnesses on how the spill caused the loss of income; explain any earnings anomalies	
77	Statement from Claimant or witnesses on how the spill led to loss of income or earning capacity; explain any earnings anomalies	
78	Statement on how the spill caused a loss in income	
79	Store and barter receipts showing the replacement costs Claimant claim;	
80	Verification of standard equipment rates for equipment used	
81	Verification of the standard government equipment rates for any equipment claimed	

Documents Provided		
82	Witness statements and documents showing the alternative sources of subsistence available to Claimant, and Claimant's efforts to reduce the damages resulting from Claimant's loss of subsistence use, including receipts from job-hunting expenses (e.g., travel costs)	
83	Witness statement(s)	
84	Other	
85	Other	
86	Other	

FIGURE 7.4

SAMPLE CLAIMS ADVERTISEMENT

Advertisement for Oil Spill Claims

CompanyX

Oil Spill - January 24, 2010
4300 Gallons Heavy Oil
Budd Inlet (Olympia, WA)
South Puget Sound

The U.S. Coast Guard National Pollution Funds Center has designated CompanyX as the Responsible Party for an oil spill that occurred around 7:00AM (PST) on January 24, 2010, impacting the waters of Budd Inlet and South Puget Sound. An estimated 4,300 gallons of heavy fuel oil was released from our facility on Boston Harbor Road (in Olympia) into Budd Inlet and South Puget Sound.

CompanyX is receiving claims related to this incident. Information about claims and the claims process is available on-line at the CompanyX website (see link below). You can also call, email, or mail us if you need additional assistance or information.

Website: **www.companyx.com\claims.htm**

Email: **claims@companyx.com**

Phone: **(360) 407-0007** (Mon-Sat, 8am to 5pm PST)

Mail: CompanyX – Oil Spill Claims
PO Box 4912876, Olympia, WA 98503

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INTEGRATED CONTINGENCY PLAN

Volume 2

[redacted]

Northern Region - Northwest

Oregon Pipelines Area
Linnton-Willbridge Area

Prepared for:

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street
Houston, TX 77002
or
1100 Town and Country Road
Orange, CA 92868

Prepared by:

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Spring, TX 77379
Phone: (281) 320-9796 ● Fax: (281) 320-9700
www.rmaworld.com

EMERGENCY RESPONSE ACTION PLAN (ERAP)

The users of this Plan carry and maintain the complete Volume 1 and Volume 2 documents and the Plan has been designed for quick reference. Accordingly, the Emergency Response Action Plan (ERAP) for this Integrated Contingency Plan is addressed by cross-reference as follows:

● Qualified Individual	Volume 1 Figure 2.3; Volume 2 § 8.1.2
● Emergency Notification Phone List	Volume 1§ 2.1, 2.2; Volume 2 § 2.1, 2.2
● Spill Response Notification Form	Volume 1 Figure 2.2
● Response Equipment List and Location	Volume 2 § 3.1 and Figure 3.2
● Response Equipment Testing and Deployment	Volume 2 § 3.1, 3.2, 3.3, Figure 3.4
● Facility Response Team	Volume 1 § 2.0; Volume 2 § 2.0
● Evacuation Plan	Volume 2 § 8.4
● Immediate Actions	Volume 1 § 3.4
● Facility Diagram	Volume 2 § 8.1.2, Figure 8.3

REVISION RECORD			
CHANGE DATE	**REMOVE**	**INSERT**	**DESCRIPTION OF CHANGE(S)**
	PAGE NUMBER(S)		
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipeline, GATX Terminals, and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	General Plan Updates; Revisions to Address DOT-RSPA Review
January 2005	Pgs. iii, TOC-i, TOC-ii, TOC-v, 1-5, 1-9, 2-1, 2-2, 2-7 thru 2-13, 3-1, 3-3, 3-5 thru 3-34, Eugene - 8.2-14, 8.2-21,Linnton-Willbridge - 7-4, Linnton - 8.2-12, 8.2-18, 8.2-19, 8.3-21, 8.3-22, Willbridge - 8.2-3, 8.2-22, 8.2-23, 8.2-30, Harbor Island - 8.1-6, 8.1-8, 8.2-15, 8.2-21 thru 8.2-23, 8.3-2, 8.3-7, 8.3-9 thru 8.3-24	Pgs. iii, TOC-i, TOC-ii, TOC-v, 1-5, 1-9, 2-1, 2-2, 2-7 thru 2-13, 3-1, 3-3, 3-5 thru 3-34, Eugene - 8.2-14, 8.2-21,Linnton-Willbridge - 7-4, Linnton - 8.2-12, 8.2-18, 8.2-19, 8.3-21, 8.3-22, Willbridge - 8.2-3, 8.2-22, 8.2-23, 8.2-30, Harbor Island - 8.1-6, 8.1-8, Add Figure 8.3a, 8.2-15, 8.2-21 thru 8.2-23, 8.3-2, 8.3-7, 8.3-9 thru 8.3-24	Facility information update and miscellaneous revisions
June 2005	Pgs. iii, iv; Linnton - 8.3-9; Willbridge - 8.3-9; Harbor Island - 8.3-8	Pgs. iii, iv; Linnton - 8.3-9; Willbridge - 8.3-9; Harbor Island - 8.3-8	Facility information update and miscellaneous revisions; Revisions to address Notifications and OSPR review.
October 2005	Pgs. iii, v, 2-6 thru 2-10, Linnton – 8.1-2, Willbridge – 8.1-3	Pgs. iii, v, 2-6 thru 2-10, Linnton – 8.1-2, Willbridge – 8.1-3	General Plan Update
December 2005	Pgs. Foreword, Table of Contents, Sec. 2.0, 3-2, 3-4, 3-22, 3-34, 4-8, Oregon Pipeline Area - Sec. 6.0, Eugene - Sec. 8.2, Linnton - 8.1-3, Sec. 8.2, Willbridge - 8.1-3, Sec. 8.2, Harbor Island - Sec. 8.2 (See revision packet for specific pages.)	Pgs. Foreword, Table of Contents, Sec. 2.0, 3-2, 3-4, 3-22, 3-34, 4-8, Oregon Pipeline Area - Sec. 6.0, Eugene - Sec. 8.2, 8.4-4 (Fig. 8.9 & inserts), Linnton - 8.1-3, Sec. 8.2, 8.4-4 (Fig. 8.9 & inserts), Willbridge - 8.1-3, Sec. 8.2, 8.4-4 (Fig. 8.9 & inserts), Harbor Island - Sec. 8.2, 8.4-4 (Fig. 8.9 & inserts) (See revision packet for specific pages.)	General Plan Update; Revisions to Distribution List (Copies #39-41).

REVISION RECORD (Cont'd)			
CHANGE DATE	**REMOVE**	**INSERT**	**DESCRIPTION OF CHANGE(S)**
	PAGE NUMBER(S)		
December 2006	iii(a) thru vi, 1-2, 1-5, 2-1, 2-2, 2-3, 2-11, 3-5, 3-10, 3-22, Oregon Pipelines Area: 6-2, 6-4, 6-5, 6-6, 6-7, 6-9, 6-10, 6-11, 6-12, 7-1, 7-2, 7-3, Eugene Terminal – 8.1-5, Linnton-Willbridge Area: 7-2, Linnton Terminal – 8.2-2, 8.2-5, Willbridge Terminal – 8.2-2, 8.2-5, 8.2-7 thru 8.2-20, Washington Area: Harbor Island Terminal – 8.0-1, 8.1-1, 8.1-2, 8.1-3, 8.2-3, 8.2-7, 8.2-8, 8.2-26, 8.3-21 thru 8.3-25, 8.4-1, 8.4-4	iii(a) thru vi, 1-2, 1-5, 2-1, 2-2, 2-3, 2-11, 3-5, 3-10, 3-22, Oregon Pipelines Area: 6-2, 6-4, 6-5, 6-6, 6-7, 6-9, 6-10, 6-11, 6-12, 7-1, 7-2, 7-3, Eugene Terminal – 8.1-5, Linnton-Willbridge Area: 7-2, Linnton Terminal – 8.2-2, 8.2-5, Willbridge Terminal – 8.2-2, 8.2-5, 8.2-7 thru 8.2-20, Washington Area: Harbor Island Terminal – 8.0-1, 8.1-1, 8.1-2, 8.1-3, 8.2-3, 8.2-7, 8.2-8, 8.2-26, 8.3-21 thru 8.3-25, 8.4-1, 8.4-4	Miscellaneous Revisions
March 2007	FWD-iii(a), 2-3, 3-34 & all Foss Contract, Linnton Terminal - 8.1-3, 8.1-5, 8.1-9, 8.2-1, 8.2-22 thru 8.2-28, 8.3-7, 8.4-4; Willbridge Terminal - 8.1-3, 8.1-5, 8.2-4, 8.2-33 thru 8.2-41, 8.3-7, 8.4-3; Harbor Island Terminal- 8.1-5, 8.2-4, 8.3-6	FWD-iii(a), 2-3, 3-34 & inserts, Linnton Terminal - 8.1-3, 8.1-5, 8.1-9, 8.2-1, 8.2-22 thru 8.2-30, 8.3-7, 8.4-3, ERAP tab & ERAP pages after Section 8; Willbridge Terminal - 8.1-3, 8.1-5, 8.2-4, 8.2-33 thru 8.2-42, 8.3-7, 8.4-3, ERAP tab & ERAP pages after Section 8; Harbor Island Terminal- 8.1-5, 8.2-4, 8.3-6, ERAP tab & ERAP pages after Section 8	Miscellaneous Revisions
May 2007	FWD-iii(a), 8.3-4	FWD-iii(a), 8.3-4, Harbor Island Terminal Section 9	WAC 173-182 Revisions
November 2007	FWD-iii(a) thru vi, TOC-i, TOC-ii, 2-1 thru 2-6, Oregon Pipelines Area Section 6.0 (all); Eugene Terminal 8.1-3, 8.1-5, 8.2-3, 8.2-7, 8.2-12; Linnton-Willbridge Area 7-4; Linnton Terminal 8.0-1, 8.1-1 thru 8.1-3, 8.2-30, ERAP-2, ERAP-5, ERAP-6; Willbridge Terminal 8.0-1, 8.1-1, 8.1-3, 8.1-5, 8.2-2, 8.2-3, 8.2-7, 8.2-8, 8.2-11, 8.2-13, 8.2-14, 8.2-42, ERAP-2, ERAP-5, ERAP-6	FWD-iv thru vii, TOC-i, TOC-ii, 2-1 thru 2-6, Oregon Pipelines Area Section 6.0 (all); Eugene Terminal 8.1-3, 8.1-5, 8.2-3, 8.2-7, 8.2-12; Linnton-Willbridge Area 7-4; Linnton Terminal 8.0-1, 8.1-1 thru 8.1-3, 8.2-30, ERAP-2, ERAP-5, ERAP-6; Willbridge Terminal 8.0-1, 8.1-1, 8.1-3, 8.1-5, 8.2-2, 8.2-3, 8.2-7, 8.2-8, 8.2-11, 8.2-13, 8.2-14, 8.2-42, ERAP-2, ERAP-5, ERAP-6	Annual Update

REVISION RECORD (Cont'd)			
CHANGE DATE	**REMOVE**	**INSERT**	**DESCRIPTION OF CHANGE(S)**
	PAGE NUMBER(S)		
November 2008	FWD-i, FWD-iii thru vii, TOC-i, TOC-ii, 1-1, 1-3 thru 1-5, Figure 1.1 Washington Area Map (page 1-8), 1-9 2-2, 2-6 thru 2-13 (retain Open End and On-Call Contracts), 3-10 thru 3-35 (retain Linnton and Willbridge Terminals-NRCES Work Directives), Harbor Island Terminal-NRCES Work Directive, 4-5 thru 4-7; Willbridge Terminal Figure 8.3, Washington Area Tab and all pages following	FWD-i, FWD-iii thru viii, TOC-i, TOC-ii, 1-1, 1-3 thru 1-5, 1-8, 2-2, 2-6 thru 2-11 (retain Open End and On-Call Contracts), 3-10 thru 3-32 (retain Linnton and Willbridge Terminals-NRCES Work Directives), 4-5 thru 4-7; Willbridge Terminal Figure 8.3	Annual Review and update. Remove Harbor Island Terminal from ICP. Update notification information, facility information and facility diagrams.
January 2009	FWD-v, FWD-vii, 3-2, 3-32 and NRCES Work Directives	FWD-v, FWD-vii, 3-2, 3-32 and NRCES Contract Amendment 3	Update for Oregon Department of Environmental Quality five-year resubmission. Update OSRO contract.
August 2009	v through viii, 2-6 thru 2-9, 3-1, 3-7 thru 3-32 and NRCES Work Directives, Linnton Area – ERAP Title Page, ERAP-2, 8.1-3, Willbridge Area – ERAP Title Page, ERAP-2, 8.1-3, Oregon Pipelines – 6-1, 6-11 (retain HCA Overview Map)	v through vii, 2-6 thru 2-9, 3-1, 3-7 thru 3-23 (including CRC Membership Roster, NRCES Work Directives, NW HAZMAT Equipment List, and NW HAZMAT Contract), Linnton Area – ERAP Title Page, ERAP-2, 8.1-3, Willbridge Area – ERAP Title Page, ERAP-2, 8.1-3,Oregon Pipelines – 6-1, 6-11, 6-12	Change in Alternate Qualified Individual and acquisition of Portland Airport Pipeline. Update Distribution List
September 2009	v through vii, 1-2, Oregon Pipelines Area 6-1.	v through vii, 1-2, Oregon Pipelines Area 6-1.	Distribution update, correct Portland Airport Pipeline designation.

CHANGE DATE	AFFECTED PAGES	DESCRIPTION OF CHANGE(S)	NAME	ODEQ (Y/N)
April 2010	v through viii; Linnton ERAP Cover Page, 8.1-6; Willbridge 8.1-7	Update descriptions of personnel available for marine transfer operations as required by ODEQ review.	C. V. Mathis, Manager – Emergency Response Programs	Y

REVISION RECORD (Cont'd)				
CHANGE DATE	**AFFECTED PAGES**	**DESCRIPTION OF CHANGE(S)**	**NAME**	**ODEQ (Y/N)**
July 2010	vi, TOC-i, TOC-v, 1-2, 2-5 through 2-8, Section 3.0, 4-5 through 4-8, Linnton Terminal ERAP Cover, ERAP-1, ERAP-6 through ERAP-26, 8.2-2, 8.2-11 through 8.2-19, 8.3-4 through 8.3-19; Willbridge Terminal ERAP Cover, ERAP-1, ERAP-6 through ERAP-26, 8.2-4, 8.2-22 through 8.2-30, 8.3-1, 8.3-4 through 8.3-18; Oregon Pipelines Area ERAP, 6-1, Section 9.0	Update contact information, response resources and threatened/ endangered species information, ODEQ Planning Distance, ODEQ Planning Standards, ODEQ Response Strategy Outline as required by ODEQ Review.	C. V. Mathis, Manager – Emergency Response Programs	Y
August 2010	vi, 2-2, Linnton Terminal ERAP Cover, ERAP-2, 8.0-1, 8.1-1, and 8.1-3; Willbridge Terminal ERAP Cover, ERAP-2, 8.0-1, 8.1-1, and 8.1-3.	Change in Qualified Individual.	C. V. Mathis, Manager – Emergency Response Programs	Y
April 2011	vi, vii, viii, Section 1, 3-3, 3-15, 3-16, 3-18, 3-19 and NRCES Work Directives, Northwest HAZMAT Contract Amendment 001; Linnton-Willbridge Area, Section 6 and Section 7, Linnton Terminal 8.1-6, Area Map, General Layout Diagram, Fire Protection Diagram, 8.2-18, Willbridge Terminal 8.1-2, 8.1-7, 8.1-8, Area Map, General Layout Diagram, Fire Protection Diagram, 8.2-29, Section 9; Oregon Pipelines Area Section 6 and Section 7, 8.1-5, Area Map, General Layout Diagram, Fire Protection Diagram.	Change in pipeline Qualified Individual responsibilities. Response to ODEQ letter dated March 28, 2011.	C. V. Mathis, Manager – Emergency Response Programs	Y
July 2011	v, vi; Linnton-Willbridge Area Linnton Terminal 8.1-6, Willbridge Terminal 8.1-7	Clarification of language regarding personnel available during marine transfers.	C. V. Mathis, Manager – Emergency Response Programs	Y

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REVISION RECORD (Cont'd)				
CHANGE DATE	**AFFECTED PAGES**	**DESCRIPTION OF CHANGE(S)**	**NAME**	**ODEQ (Y/N)**
September 2011	vii through ix; 1-4, Willbridge-Linnton Area 7-1 and 7-2; Linnton Terminal 8.2-1, 8.2-7, 8.3-4, 8.3-12 through 8.3-21	Replacement of Linnton Tank 55021, change ODEQ Worst Case Spill volume and product, update distribution information.	C. V. Mathis, Manager – Emergency Response Programs	Y
January 2012	vii, Willbridge-Linnton Area 6-12 and HCA Index; Oregon Pipelines Area 6-4 and HCA Index	Update High Consequence Area diagram references and index.	C. V. Mathis, Manager – Emergency Response Programs	Y
March 2012	vii, 1-1, 1-4; Willbridge-Linnton Area 6-1, 6-5 through 6-8, 6-10; 9-5	Update pipeline information.	C. V. Mathis, Manager – Emergency Response Programs	Y
June 2012	vii, Oregon Pipelines Area 8.1-1, 8.1-3.	Change in Eugene Terminal/Oregon Pipeline Qualified Individual	C. V. Mathis, Manager – Emergency Response Programs	Y
November 2012	vii, 1-3, 1-4, Willbridge-Linnton Area 7-1 through 7-5 and Facility Diagrams; Willbridge Terminal ERAP Title Page, ERAP-26 and Evacuation Diagram, 8.1-5, 8.1-8 and Facility Diagrams, 8.2-4, 8.2-7 through 8.2-20, 8.3-1, 8.3-4, 8.3-5, 8.3-12 through 8.3-18, 8.4-3 and Evacuation Diagrams; Linnton Terminal 8.2-7; Oregon Pipelines 8.1-3	New tanks at Willbridge Terminal change in EPA, ODEQ and PHMSA Worst Case Discharge/Spill volumes. Standardize Alternate QI for Eugene Terminal.	C.V. Mathis, Manager-Emergency Response Programs	Y
January 2013	vii; Willbridge-Linnton Area 3-5, 3-6, 7-3 and Fire Protection Diagram; Linnton Terminal ERAP Title Page, ERAP-26 and Evacuation Diagram, 8.1-6, General Layout and Fire Protection Diagrams (Retain Area Map), 8.4-3 and Evacuation Diagram	Change in location of Company owned response boats, update Linnton Terminal diagrams with corrected tank designation.	C.V. Mathis, Manager-Emergency Response Programs	Y
March 2013	Title Page, vii through ix, 1-1, 1-3 through 1-8, 2-6, 2-7, 3-2, Linnton-Willbridge Area Section 6; Oregon Pipelines Area Section 6; Eugene Terminal 8.1-5, General Layout and Fire Protection Diagrams, 8.4-3 and Evacuation Diagram	Change in company address, distribution and notification information. Revised pipeline information and Eugene Terminal diagrams.	C.V. Mathis, Manager-Emergency Response Programs	Y
April 2013	vii, Willbridge Terminal 8.3-4	Adjust response resources in accordance with ODEQ email 04.17.2013	C.V. Mathis, Manager Emergency Response Programs	Y

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2, 21, 22 29	Director of Operations (3) 709 Beck Avenue Fairfield, CA 94533 Manager Pipeline Maintenance	C	C	C
   13 14-17 18 19, 20	Orange Facilities 1100 Town & Country Road Orange, CA 92868 Crisis Relocation Center Mission Valley Orange Control Center (4) Orange Remediation Groups (Environmental Specialists) (2) Orange Engineering (2)	C	C	C
7	Operations Manager 5880 N.W. St. Helens Road Portland, OR 97210	C	C	C
9 24 25 26	Area Manager (Linnton-Willbridge Area) 5880 N.W. St. Helens Road Portland, OR 97210 Lead Operator – Portland Station Facility Copy – Linnton Terminal Operations Supervisor – Willbridge Terminal	A		A
8 23	Area Manager (Oregon Pipelines Area) 1765 Prairie Road Eugene, OR 97402 Lead Operator (Eugene Terminal)	A	A	
5	Department of Environmental Quality - Portland Attn: Oil Spill Contingency Plan Reviewer 811 SW 6th Avenue Portland, OR 97204	C	C	C
38	U.S. Coast Guard, Marine Safety Unit Portland Oregon 6767 N. Basin Avenue Portland, OR 97217-3992	C		C

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Attn: Mr. Mike Sibley
1200 6th Avenue, Suite 900, M/S ECL 116
Seattle, WA 98101

Witt O'Brien's
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Houston, TX 77024

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A = 2.0" Binder
C = 3.0" Binder

1.0 INTRODUCTION AND PLAN CONTENT

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

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(713) 369-9454

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Area Manager – Willbridge, Linnton Portland	Jeff Hibner 503.220.1263 Office (b) (6) Mobile jeffrey_hibner@kindermorgan.com
Area Manager – Eugene	Kelly Johnson 541.461.2517 Office (b) (6) Mobile johnsonk@kindermorgan.com

1.2 OPERATING ASSETS COVERED BY THIS PLAN

The following tables provide a general information summary for the pipeline sections, pipeline facilities, breakout stations and terminals in each of the Areas in this Region. Specific detail can be located in the following sections for the applicable area.

- Section 6 – Area Pipeline Sections (for US DOT and Oregon DEQ jurisdiction)
- Section 7 – Area Breakout Stations (for US DOT and Oregon DEQ jurisdiction)
- Section 8 – Area Terminals (for EPA, USCG and Oregon DEQ jurisdiction)

LINNTON-WILLBRIDGE AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
LINNTON-WILLBRIDGE AREA LINES		
Portland – Albany 8”	14	Multnomah, Clackamas, Marion, OR
Shell Oil Products – Portland 8”	77	Multnomah, OR
ConocoPhillips – Portland 8”	78/78B	Multnomah, OR
Chevron – Portland 8”	79	Multnomah, OR
Willbridge – Portland 8”	81	Multnomah, OR
BP/Arco – Portland 8”	82	Multnomah, OR
Linnton – Portland 8”	82/83/84	Multnomah, OR
Nustar – Portland 8”	83/84	Multnomah, OR
Portland Airport Pipeline 8”	1880	Multnomah, OR
PIPELINE FACILITIES (Non-Storage)		
Fargo Pump Station (booster)		
Salem Pump Station (booster)		
BREAKOUT STATIONS		**COUNTY / STATE**
Portland Station		Multnomah, OR
TERMINAL		**COUNTY / STATE**
Linnton Terminal		Multnomah, OR
Willbridge Terminal		Multnomah, OR

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

OREGON PIPELINES AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
OREGON PIPELINES AREA LINES		
Albany – Eugene 8"	14	Linn, Lane, OR
PIPELINE FACILITIES (Non-Storage)		
Morgan Pump Station (booster)		
BREAKOUT STATIONS		**COUNTY / STATE**
None		
TERMINAL		**COUNTY / STATE**
Eugene Terminal		Lane, OR

1.3 SUBSTANTIAL HARM

It is Kinder Morgan Energy Partners, L.P. (KMEP)'s goal to respond as quickly as possible to all uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the overbreadth of the definitions provided in each of the applicable regulations, KMEP is compelled to consider all of the Facility's breakout stations, and active line sections listed above in this Section as capable of a release potentially causing "significant and substantial harm". A summary of the worst case discharge scenarios for these facilities is provided as follows:

NORTHERN REGION NORTHWEST WORST CASE DISCHARGE DOT JURISDICTION	
Discharge Scenario	**Planning Volume**
(b) (7)(F), (b) (3)	

* DOT worst case discharge volumes are based on 50% of the tank's maximum storage capacity and for pipelines based on an annual Integrity Management Program study, as follows:

Release volume prior to line shutdown and valve closures (Initial Loss):

- Full flow release due to rupture. This is computed at the maximum pumping rate the line segment.
- Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of fifteen (15) minutes in the event of a full flow rupture, which would cause an instant alarm (unless otherwise noted in the line segment information).
- Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

Line drainage following pump shutdown (Stabilization Loss) is computed the maximum potential line drainage between adjacent isolation or check valves, and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line. The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

1.3 SUBSTANTIAL HARM (Cont'd)

NORTHERN REGION NORTHWEST WORST CASE DISCHARGE EPA JURISDICTION	
Discharge Scenario	**Planning Volume**
Small Discharge	
• Eugene Terminal	50 Bbls
• Linnton Terminal	50 Bbls
• Willbridge Terminal	50 Bbls
Medium Discharge	
• Eugene Terminal	857 Bbls
• Linnton Terminal	857 Bbls
• Willbridge Terminal	857 Bbls
Worst Case Discharge	
(b) (7)(F), (b) (3)	

Note: EPA worst case discharge is based on the maximum storage capacity of the largest tank at each terminal.

NORTHERN REGION-NORTHWEST DISCHARGE SCENARIOS USCG JURISDICTION	
Discharge Scenario	**Planning Volume**
(b) (7)(F), (b) (3)	

1.3 SUBSTANTIAL HARM (Cont'd)

NORTHERN REGION-NORTHWEST DISCHARGE SCENARIOS ODEQ JURISDICTION	
Discharge Scenario	**Planning Volume**
(b) (7)(F), (b) (3)	

These Worst Case Discharge/Spill volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three-tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. Sections 6, 7, 8 and 9 of this Plan demonstrate a series of calculations and planning volume determinations based on guidance provided by all applicable regulations. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios detailed in the table above.

1.4 FORMAT AND SCOPE OF PLAN

This Volume 2 of the Integrated Contingency Plan (ICP) is intended to guide emergency response activities throughout KMEP's Pacific Operation Northern Region Northwest. This Region is divided into two (2) Areas (see Figure 1.2) each of which has its own tab in this document. These areas are as follows:

- Oregon Pipelines Area
- Linnton-Willbridge Area

Each of the Volume 2 plans in this ICP has Sections 1 through 5 that contain information and procedures common to all facilities in the Region. Section 6 of each Area details the Pipeline Sections in the respective Area, Section 7 of each Area details the Breakout Stations and/or Terminals (DOT-jurisdictional) in the respective Area, Section 8 of each Area details the Terminals (multi-jurisdictional) in the respective Area, and, in California and Oregon, Section 9 addresses state specific requirements for jurisdictional line segments. The Areas covered by this particular Plan are identified on the front cover of this Plan, on the footer of each page and on the map provided in Figure 1.2.

Volume 1 of the Integrated Contingency Plan provides guidance which is consistent across the Pacific Operations. The two (2) documents are intended to work together as one seamless Integrated Contingency Plan for the various facilities/operations and agency jurisdictions in Pacific Operations.

1.5 INTERFACE WITH OTHER PLANS

This Plan is consistent with the most recent versions of the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACPs). The applicable ACPs for the Facilities included in this Plan are:

- National Contingency Plan
- Canada – US Joint Contingency Plan
- Northwest Area Contingency Plan
- Local Emergency Response Plan

The interface between this Plan and the plans listed above is illustrated in Figure 1.1.

FIGURE 1.1

INTERFACE WITH OTHER PLANS

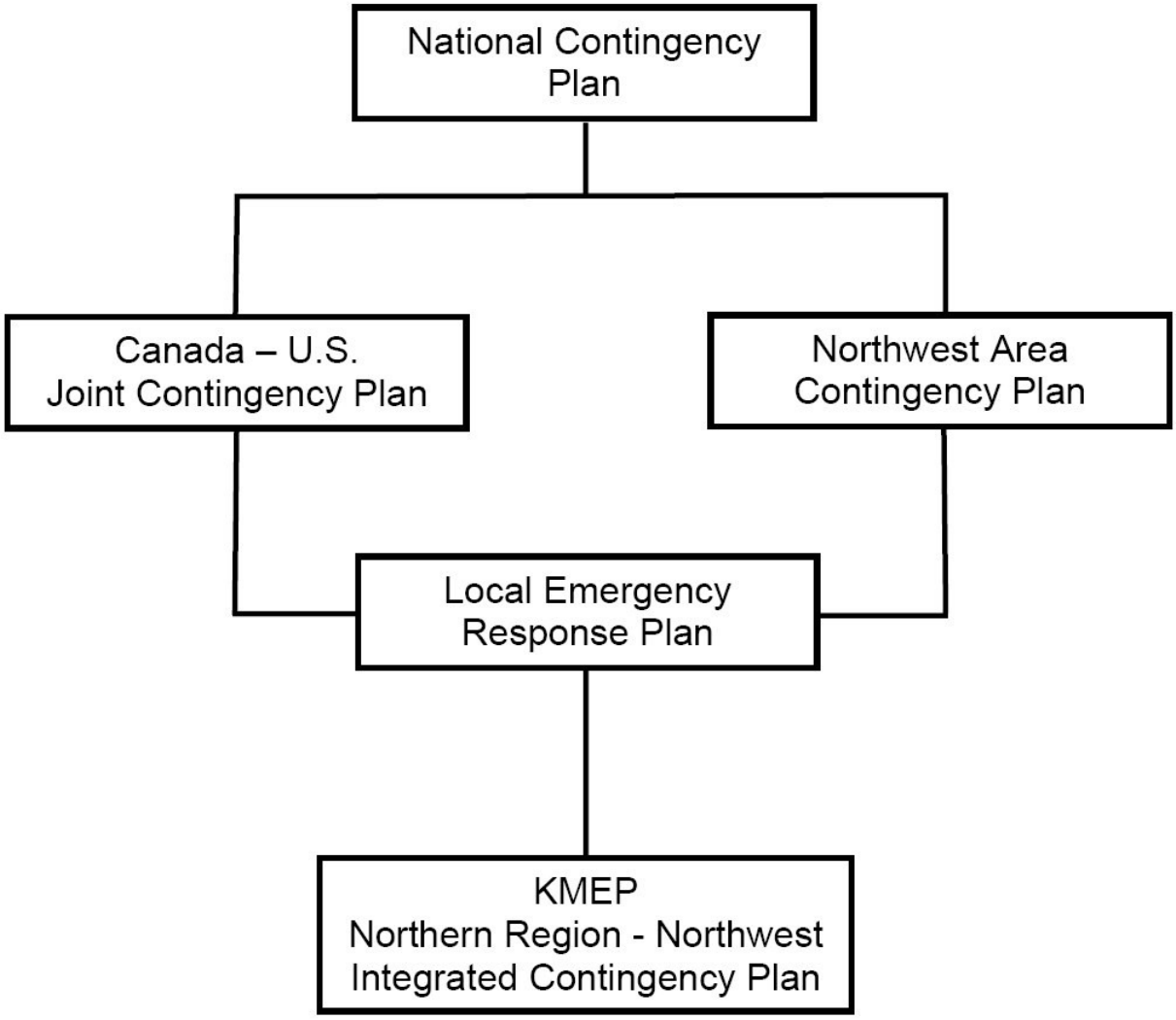


FIGURE 1.2

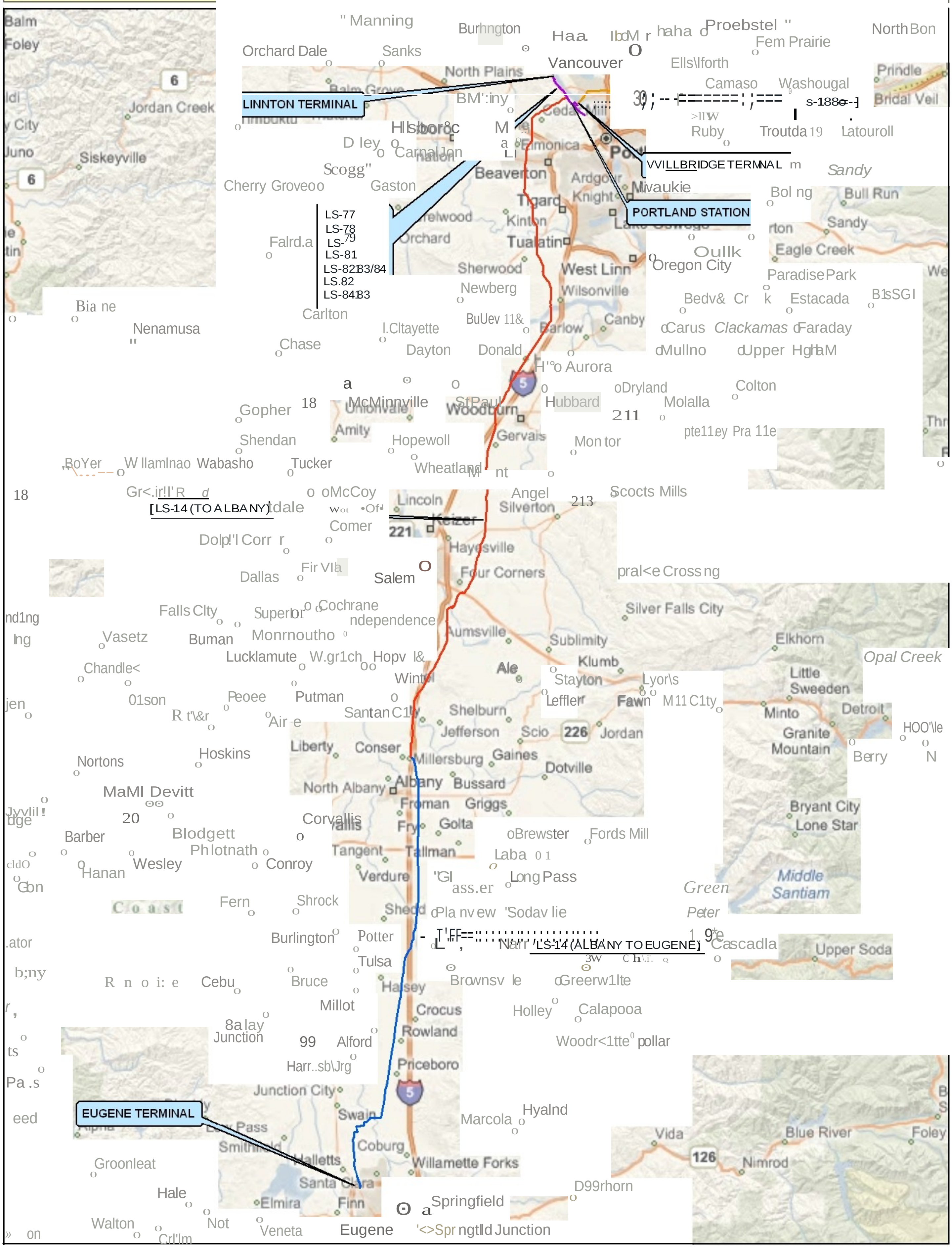
NORTHERN REGION – NORTHWEST AREA MAP

NORTHERN REGION NORTHWEST AREA MAP

KINDER MORGAN

Map Generation Date: May 2nd, 2011

0 3.5 7 14 Miles



2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific reference to all internal notifications is detailed in Volume 1 Section 2.1 which provides the following:

- Operator Notification Process (Figure 2.1a)
- Company Employees Other Than Operator Notification Process (Figure 2.1b)
- Controller - Orange, CA Notification Process (Figure 2.1c)
- Controller - Houston, TX Notification Process (Figure 2.1d)
- Managers Notification Process (Figure 2.1e)
- Initial Reporting Details Form (Figure 2.2)
- Northern Region Internal Notifications References (Figure 2.3a)
- Southern Region Internal Notifications References (Figure 2.3b)
- Crisis Support Team Internal Notifications References (Figure 2.3c)

2.2 EXTERNAL NOTIFICATIONS

Specific reference to all **"Regulatory Required"** external notifications is detailed in Volume 1 Figure 2.1 and Figure 2.4. **With the exception of notification to 911 and/or local fire/police agencies which are handled by local area operations, the Environmental, Health and Safety (EHS) and/or Compliance, Codes and Standards is responsible for making all regulatory required external notifications.**

The locally required notifications and additional external notification references which are detailed in the following Volume 2 Figure 2.1 provide for assistance/advisory notifications.

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
LOCAL AGENCIES/FIRE DEPARTMENTS		
Oregon		
City of Portland Bureau of Environmental Services – Spill Management Team	Portland, OR	(503) 823-7180* (Leave message after hours)
Portland Fire Dept. Station 6 - *Willbridge Area*	Portland, OR	(503) 823-3834
Portland Fire Dept. Station 22 - *Linnton Area*	Portland, OR	(503) 823-3849
Portland Fire and Rescue Bureau	Portland, OR	(503) 823-3700
Willamette River Water Treatment Plant	Portland, OR	(503) 582-9655 (b) (6) Cell Cell
Salem Fire Dept.	Salem, OR	(503) 588-6245
Eugene & Springfield Fire Dept.	Eugene, OR	(541) 682-5111
NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FEDERAL		
U.S. Coast Guard (Recommended Courtesy Call - As Applicable)		
Sector Columbia River	2185 SE Airport Rd. Warrenton, OR 97146-9693	(503) 861-6211* (503) 861-6200 (503) 861-6355 Fax
Marine Safety Unit Portland	6767 N. Basin Ave. Portland, OR 97217	(503) 240-9305 (503) 240-9369 Fax

NOTE: Internal Company Numbers are provided in Volume 1.
* 24-hour number

NORTHERN REGION-NORTHWEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FEDERAL		
U.S. Environmental Protection Agency (EPA)		
U.S. Environmental Protection Agency (EPA) Region X	Seattle, WA	(206) 553-1263
U.S. Fish and Wildlife Service		
US Fish and Wildlife Service (USFWS) *(Oregon/Washington)*	Portland, OR	(503) 231-6223
OREGON		
Dept. of Transportation (DOT)		
Oregon Dept. of Transportation	Portland, OR	(503) 731-8200
Air Pollution Control District		
Lane County Regional Air Pollution Authority	Springfield, OR	(541) 726-2514
Department of Water Resources		
Oregon Dept. of Water Resources	Salem, OR	(503) 986-0900
Environmental Health		
Bureau of Environmental Services	Willbridge, OR	(503) 283-7180*
Multnomah County Environmental Health	Portland, OR	(503) 988-3400
Yamhill County Environmental Health	McMinnville, OR	(503) 434-7476
Washington County Environmental Health	Hillsboro, OR	(503) 846-8722
Lane County Environmental Health	Eugene, OR	(541) 682-4013
Polk County Environmental Health	Dallas, OR	(503) 623-9237
Benton County Environmental Health	Corvallis, OR	(541) 766-6841
Clackmas County Environmental Health	Oregon City, OR	(503) 655-8384
Linn County Environmental Health	Albany, OR	(541) 967-3821
Marion County Environmental Health	Salem, OR	(503) 588-5346
Dept. of Geology and Minerals Industries		
Oregon Dept. of Geology and Minerals Industries	Salem, OR	(503) 378-3805

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
OREGON		
OSHA		
Occupational Safety & Health Administration: Salem Central Office Eugene Office Portland Office	 Salem , OR Eugene, OR Portland, OR	 (503) 378-3272 (800) 922-2689 (541) 686-7562 (503) 229-5910
National Oceanic and Atmospheric Administration		
National Oceanic and Atmospheric Administration (NOAA) - Northwest Region	Seattle, WA	(206) 526-6317
Law Enforcement		
State Police Linnton/Willbridge Terminals Eugene Terminal	 Salem, OR Albany, OR	 (503) 378-3720 (503) 378-3725 (541) 967-2026
Multnomah County Sheriff River Patrol	Portland, OR	(503) 823-3333 (503) 288-6788
Portland Police Bureau	Portland, OR	(503) 823-4636
Local Water Supply		
City of Eugene	Eugene, OR	(541) 682-4800
City of Portland Water Bureau	Portland, OR	(503) 823-7770
East Salem Water	Salem, OR	(503) 364-1620
Weather Report		
National Weather Service	Portland, OR	(503) 261-9246
Radio/Television		
KCCS - Radio	Salem, OR	(503) 364-1000
KEX - 1190 AM - Radio	Portland, OR	(503) 225-1190
Oregon Public Broadcast - Radio	Portland, OR	(503) 244-9900
KPNW AM - Radio	Eugene, OR	(541) 485-1120

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

NORTHERN REGION-NORTHWEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
OREGON		
Radio/Television (Cont'd)		
KEZI - ABC Channel 9 - TV	Eugene, OR	(541) 485-5611
KMTR -NBC Channel 16 - TV	Springfield, OR	(541) 746-1600
KVAL - CBS Channel 13 - TV	Eugene, OR	(541) 342-4961
KGW - Channel 8 - TV	Portland, OR	(503) 226-5111
KPTV - TV	Salem, OR	(503) 581-5788
Hospitals/Ambulances		
Legacy Emanuel Medical Center	Portland, OR	(503) 413-4232 (888) 598-4232
Legacy Good Samaritan Medical Center	Portland, OR	(503) 413-7711
Peace Health Medical Group	Eugene, OR	(541) 687-6000
Sacred Heart General Hospital	Eugene, OR	(541) 686-7300
Salem Hospital	Salem, OR	(503) 561-5986
American Medical Response	Portland, OR	(503) 231-6300
Handi-Cabs Medical Transfer Service	Eugene, OR	(541) 342-3003
Salem Fire Dept. Ambulance Service	Salem, OR	(503) 588-6538
Alternate Command Post Locations		
Adelman Travel Group	Lakewood, CO	(800) 525-3752 (303) 763-3170 (303) 763-2959 (Fax)
Comfort Inn and Suites	Salem, OR	(503) 588-0515
Hilton Portland &Executive Towers	Portland, OR	(503) 226-1611
Holiday Inn Express	Portland, OR	(503) 484-1100
Holiday Inn Express	Eugene, OR	(541) 342-1243

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NORTHERN REGION-NORTHWEST RESPONSE CONTRACTORS				
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)				
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**	**RESPONSE TIME**
Linnton and Willbridge Terminals				
National Response Corporation	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(800) 337-7455* (503) 283-1150 (503) 289-6568 (Fax)	1.0
Eugene Terminal and Oregon Pipelines				
Clean Rivers Cooperative	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(503) 220-2040* (503) 295-3660 (Fax)	2.0
National Response Corporation	Response boats, Boom, Vac-trucks, Skimmers, Personnel	Portland, OR	(800) 337-7455* (503) 283-1150 (503) 289-6568 (Fax)	1.0
Northwest Hazmat, Inc.	Boom, Vac-truck, Personnel	Springfield, OR	(800) 597-1323* (541) 988-9823	1.0
Mid-State Industrial Service, Inc.	Skimpack	Eugene, OR	(541) 726-6730 (541) 726-7690 (Fax)	2.0
SPILL MANAGEMENT TEAM SUPPORT				
Witt O'Brien's	Personnel, Comms and Management Equipment	Slidell, LA Houston, TX Brea, CA Seattle, WA	(981) 781-0804* (281) 320-9796	1.0

* 24 Hour Number

Planning Assumptions: On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.

NORTHERN REGION-NORTHWEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL CONTRACTED RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Environmental Consultants			
Witt O'Brien's	Consultants	Slidell, LA Houston, TX	(281) 320-9796
Hart Crowser	Consultants	Lake Oswego, OR	(503) 620-7284
Pipeline Contractors			
C. M. Emeis & Company	Pipeline Contractor	Portland, OR	(503) 282-0091
Hickey Marine Enterprises	Pipeline Contractor	Vancouver, WA	(360) 695-3731
Northwest Metal Fabrication & Pipe	Pipeline Contractor	Wilsonville, OR	(503) 692-0995
Alaska Continental Pipeline, Inc.	Pipeline Contractor	Toledo, WA	(360) 864-8866
Armadillo Underground, Inc.	Pipeline Contractor	Salem, OR	(503) 588-8050
Snelson	Pipeline Contractor	Sedro-Woolley, WA	(360) 856-5816
San Juan Industries	Welding and Fitting	Portland, OR	(503) 294-1100 (971) 563-1595
Terra Hydro Inc.	Environmental/Pipeline Contractor	Portland, OR	(503) 625-4000 (b) (6) Cell

NORTHERN REGION-NORTHWEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES (CONTRACT PENDING)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Cleanup Contractor			
Shaver Transportation	Water Cleanup	Portland, OR	(503) 228-8847*
Thermo Fluids Environmental	Cleanup Contractor	Portland, OR	(503) 788-4612
Heavy Equipment			
Forslund Construction & Co.	Excavating	Albany, OR	(541) 926-4157
Wildlife/Rescue			
International Bird Rescue Research Center	Wildlife Rescue & Rehab.	Fairfield, CA	(707) 207-0380
Helicopter Service			
JL Aviation	Helicopter services	Boring, OR	(503) 229-2770
Seaside Helicopters LLC	Helicopter services	Portland, OR	(503) 579-7646

3.0 RESPONSE RESOURCES

The following Section outlines the various response equipment/resources available from the Facility, other Company facilities, and other outside resources.

3.1 AREA RESPONSE EQUIPMENT

This Area of the KMEP operations maintains response equipment readily available for spill response as detailed on the "Facility Response Equipment" lists provided in Figure 3.1 and the "Pipeline Repair Equipment" lists provided in Figure 3.2. The equipment is stored at locations in the Area as detailed on the equipment lists

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. The equipment will be exercised as semi-annually (Facility equipment) or annually (pipeline equipment) as required (PREP Guidelines). A sample form for documenting these Equipment Deployment Exercises is provided in Figure 3.4. Equipment Deployment Exercises must be scheduled on the NWAC Drill Calendar 10 days prior to conducting an Equipment Deployment Exercise. A sample scheduling form is provided in Figure 3.5.

KMEP has contracts in place with Oil Spill Removal Organizations and other clean-up and response contractors that are capable of responding to all discharges within the Area and supplementing Area KMEP resources.

The Qualified Individual has the authority to activate these and other KMEP resources or that of private contractors and other experts and consultants as the situation demands.

3.2 OTHER COMPANY RESOURCES

Neighboring KMEP Areas have response resources similar to those provided in this Area (Figures 3.1 and 3.2). These resources as well as additional Company spill response equipment and manpower resources may be available to supplement the response operation.

3.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation. The Company will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.

Response resources will be secured from a Company approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Volume provides a quick reference to the OSROs and additional clean-up and response contract organizations.* Specific reference to their response capability (UCSG OSRO classification) is provided in Figure 3.3.

These OSRO's have adequate equipment and personnel resources available within the Area to respond to the applicable regulatory planning volumes in the required time frames.

3.3 CONTRACT RESOURCES (Cont'd)

OSROs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. KMEP personnel will oversee and coordinate with the OSRO to ensure their actions conform to overall incident objectives and established incident action plans.

OSROs also have extensive experience in using the Area Contingency Plans (ACPs) as a resource when responding to an incident that has affected a navigable waterway. The KMEP Incident Commander, Planning Officer and Operations Chief will employ the OSRO's experience to integrate applicable local ACPs into the overall incident action plans.

3.4 AREA CONTINGENCY PLANS (ACP)

Area Committees comprised of Federal, state and local agencies develop ACPs. Response efforts performed within a certain "area" should reference the ACPs for that specific area. ACPs include clean-up strategies and information on environmentally sensitive areas within a particular region. Some of the ACPs include maps, shoreline characteristics and booming strategies for specific areas while other ACPs offer priority lists of environmentally sensitive areas.

ACPs generally contain the following information:

- Physical features
- Seasonal concerns
- Resources of primary concern
- Containment, and cleanup strategies, including recommended techniques
- Equipment considerations
- Incident Command System Roles and Responsibilities (NIMS)

To identify specific spill response and protection strategies for the applicable region/area, ACP and Geographic Response Plan information can be found at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/pacific_icp.html Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-KMEP plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1 (inside front cover) or in a separate folder in electronic copies and is referenced in Figure 4.2.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

3.5 COOPERATIVE/MUTUAL AID RESOURCES

KMEP is a member of the Clean Rivers Cooperative for the pipelines in the Linnton-Willbridge Area.

3.6 EXPERTS AND CONSULTANTS

KMEP maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

3.7 VOLUNTEERS

Volunteers will not be utilized by KMEP for the response operations. All volunteers will be referred to the Federal or State On-Scene Coordinator.

3.8 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/ diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between KMEP and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

3.8.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with KMEP emergencies. The notification procedures and telephone contacts documented in Section 2 of Volume 1 and Volume 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and state emergency telephone numbers for the Orange Control Center and emergency response personnel (Section 2 of Volume 1).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Figure 2.1).

3.8 COMMUNICATIONS (Cont'd)

3.8.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing KMEP communications network. This network will utilize existing radios, telephones, pagers, fax machines, and computers and will be maintained by KMEP personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other KMEP and contract resources as the situation demands.

Each KMEP responder has, at a minimum, a cellular telephone. All KMEP response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the KMEP spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and used during normal daily operations. In addition, KMEP will rely on radio sets provided by contract resources. Additional radio sets and battery packs/chargers will be necessary in the event of a prolonged response operation and will be procured as needed through direct purchase or contract resources.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain KMEP personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Telephone (Satellite) – Satellite telephones allow for added mobility and response effectiveness. KMEP maintains several satellite telephones in the regional offices in Fairfield and Orange, California. These telephones maybe deployed as needed.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited. Selected management and response team members carry pagers.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and KMEP personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE 3.1a

FACILITY RESPONSE EQUIPMENT
LINNTON TERMINAL

ITEM	QUANTITY	LOCATION
SPILL RESPONSE EQUIPMENT		
Containment:		
Oil Containment Boom	2,500 feet	Boathouse & Warehouses A and C
Sorbent Boom 8' x 10"	9 bales/cases	Warehouse C
Recovery:		
Absorbent pads (3M)	10 cases	Warehouse C
Transportation/Deployment:		
Boston Whaler, 17'	w/115 hp motor	Boathouse
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Miscellaneous:		
Portable Air Pumps	Two (2)	Warehouse C
Rakes, hand tools, etc.		Warehouse C

Interim Storage for recovered liquids: 5,000 bbls minimum capacity is available at the Facility in undesignated tankage. An additional 20,000 bbls could be made available on reasonable notice if needed.

FIGURE 3.1b

FACILITY RESPONSE EQUIPMENT
WILLBRIDGE TERMINAL

ITEM	QUANTITY	LOCATION
SPILL RESPONSE EQUIPMENT		
Containment:		
Oil Containment Boom	2,800 feet	Boathouse
Sorbent Boom 8' x 10"	3 bales w/4 sections each	Dock Storage
Recovery:		
Absorbent pads (3M)	11 cartons (100 ea)	Dock Storage
Transportation/Deployment:		
Spill Response Boat, 20 ft.	w/135 HP engine	Boathouse
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Miscellaneous:		
Portable pumps (air)	Two	Terminal
Decontamination Kit		Dock Storage
Rakes, hand tools, etc.		Dock Storage

Interim Storage for recovered liquids: 5,000 bbls minimum capacity is available at the Facility in undesignated tankage. An additional 20,000 bbls could be made available on reasonable notice if needed.

FIGURE 3.2a

PIPELINE REPAIR EQUIPMENT

Small Response Trailer at Eugene Terminal

(This equipment is primarily for pipeline emergency response not terminal response.)

Item	Description	Quantity
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Barricade	Orange	1
Bulletin Board		1
Batteries	For Flash lights	8
Chairs	Folding	12
Coffee Pot		1
Communication Board		1
Copy Machine	Cannon	1
Coverall	Protective	6 pair
Drums	Empty Metal	3
Drums	Empty Plastic	3
Drums	Plastic (ABS Booms – 3)	3
Drums	30 Gal. Water	2
Easel	Presentation	1
Emergency Plan Manual		1
Extension Cord	50’ Outdoor	2
Fire Blanket		1
File Cabinet	2 Drawer	1
Fire extinguisher	30 lb	1
First aid kit		1
Flash light		2
Harness		2
Heater	Propane	1
Hoods		2
Jack	4 Ton Hydraulic	1
Letter tray	4 shelf	1
Office supplies	Miscellaneous	1 box
Paper cups		1 box
Paper towels		1 box
Propane Tank	20 lb.	2
Surge Supressor Strip		1
Table	30 X 72 Folding	3
Toner	Copy Machine	2
Trash Can		1
Tub	Metal	1
Work Light	Portable	2

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be “deployed” for equipment deployment exercise purposes.

FIGURE 3.2b

PIPELINE REPAIR EQUIPMENT (Cont'd)

Large Response Trailer at Eugene Terminal

(This equipment is primarily for pipeline emergency response not terminal response.)

Item	Description	Quantity
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Absorbent Boom		8
Absorbent Pads		6 Bundles
Ball valves	2"	2
Ball valves	2" Full flow	2
Barracade Cones	3' Caution	4
Barrel ½		1
Barricade	Orange Plastic	1
Barricade Tape	Red Ribbon Yellow Caution	6
Batteries	Radio	28
Battery	6 Volt Lantern	1
Battery - flashlight	Size D - Spare	12
Battery Charger	Radio	6
Battery Charger	Nextel	1
Beveling Machine	With carrying box	1
Boot	16" steel toe size 10	2 pair
Boot	16" steel toe size 11	2 pair
Brushes	Long handle	2
Brushes	Short handle	2
Bulb - 500 watt	Spare	1
Bulb - Flashlight	Spare	2
Burlap Sacks		2
Camera	Disposable	2
Can	G.I. Jerry	2
Channel Locks	9 ½"	1
Channel locks	12"	1
Coffee Pot		1
Cord-Y	2' Long	2
Coupler	1"	4
Coverall	Tyvex, White Disposable, Large	4
Coverall	Tyvex, White Disposable, XL	4
Coverall	Tyvex, White Disposable, XXL	1
Coverall	Nomex 6 oz Med.	1
Coveralls	Nomex 6 oz. XL	2
Coveralls	Insulated - XL Tall	2 pair

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2b

PIPELINE REPAIR EQUIPMENT (Cont'd)

Large Response Trailer at Eugene Terminal

(This equipment is primarily for pipeline emergency response not terminal response.)

Item	Description	Quantity
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Cups	Styrofoam Drinking	4 Doz.
Cups	Paper Drinking	8 Doz.
Doormats		2
Draw Knife		2
Duct Tape	Roll	2
Duckbill	Vacuum Hose Attachment	1
Extension cord	#12 AWG, 3 Conductor	3
Extension cord	25'	2
Eye wash solution	16 oz bottle	1
EZ Ups	Portable Canopy	2
Fire Blanket	With case	1
Fire extinguisher	30 lb ANSUL	1
First aid kit		1
Flares	Red Safety	12
Flashlight	3 Cell, Explosion Proof	3
Foam	6% 5 Gal. Can	1 Can
Sleeves	8" x 72"	1 Set
Sleeves	8" x 36"	1 Set
Sleeves	8" x 24"	1 Set
Gate Valve	2"	2
Garden Sprayer		1
Garbage Cans	30-Gallon	2
Generator	Honda 3500 Watt	1
Generator	Gen-Pro 5000 Watts	1
GFI	2'	2
Glove	Medium	3 pair
Glove	X Large	2 pair
Glove	Heavy Rubber size 10	4 pair
Glove	Nitrile	5 pair
Goggles	Protective	3
Hacksaw	12"	1
Hacksaw blades	12" spares	2
Hammer	Brass, 2 l/2 lbs	1
Hammer	Brass 6 lbs.	1
Hammer	Ball Pein 16 oz.	1
Hand Cleaner		4 bottles

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2b

PIPELINE REPAIR EQUIPMENT (Cont'd)

Large Response Trailer at Eugene Terminal

(This equipment is primarily for pipeline emergency response not terminal response.)

Item	Description	Quantity
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Hand Jack	12 ton cap hydraulic - 3" Max lift	1
Hand Jack	6 ton hydraulic - 6 ton cap	1
Hard Hats		3
Hip Boot Retreiver	Size 10	2
Hose	1" x 50'	1
Hose - Discharge	2" x 50' for Honda WB30X	1
Hose - Suction	2" x 50' for Honda WB30X	2
Ice Chest		1
Ladder	16' Aluminum Extension	1
Lantern	6 Volt	1
Line Up Clamp		1
Machete	20"	2
Motor Oil		11 qts.
Neoprene		3 rolls
Nipple-Reducing	2" x 3 ½"	2
Nipple	1"	4
Nipple	2" x 8"	3
Nipple	2" x 6"	10
Nipple	2" x 4"	6
Nipple	2" x 3"	2
Splash Zone		1
Paper Towels		4
Pipe Cutter	8"	1
Pipe Cutter Wheels		8
Pipe Plugs	1"	6
Plastic Sheeting	6-Mil 20'x50'	2
Plastic Totes	Small	2
Pliers	5" Long Nose in Toolbox	1
Pliers	7" Diagonal Cutter in toolbox	1
Pliers	8" Multi-Purpose in toolbox	1
Pliers	6" Linesman in toolbox	1
Pliers	8" Slip Joint in toolbox	1
Plumbers Plug		2

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2b

PIPELINE REPAIR EQUIPMENT (Cont'd)

Large Response Trailer at Eugene Terminal

(This equipment is primarily for pipeline emergency response not terminal response.)

Item	Description	Quantity
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Plugs	2" Threaded	6
Poly Pig		2
Probe		1
Pump	Honda WB30X	1
Quick Disconnect	3" x 2"	2
Radio Unit	(Maxon) with speaker/Mic	14
Rain Gear	Large Coat/Pants	2 ea.
Rain Gear	X Large Coat/Pants	2 ea.
Ratchet	½" Drive 16" Long	1
Ratchet	¾" Drive 18' Long	1
Reducer	¾" to ½" in toolbox	1
Reflector Flare Kit	3 Triangles	1
Respirator	3M Easi-Care, Large	4
Rope	½" Polypropylene 100 ft.	1
Screwdrivers	Flathead in toolbox	Assortment
Screwdrivers	Phillips Head in toolbox	Assortment
Sheen	5 Gal. Liquid	1
Shop Rags & Soap		8 Rags
Shovel	Round Point	2
Signs	Stop & Slow with handles	4
Signs	Caution with handles	2
Skids	4 x 6 x 8	6
Skin Cleanser	18 oz liquid	3
Skin Conditioner	18 oz liquid	1
Skinner Clamp	Sleeves 8", 6", 4", 2"	1 ea.
Sleeve Clamp	4", 8"	1 ea.
Sniffer		1
Spout	For Jerry Can	1
Spring Clamps	12"	2
Stinger	¾" x 6' for Honda Pump	1
Surge Protector		1
Squeeze Clamps	12"	2
Tape Measure	25'	1
Tapping Machine		1
Tapping Saddle	2"	3
Tee	2" x ¾"	1
Teflon Tape		6 rolls

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2b

PIPELINE REPAIR EQUIPMENT (Cont'd)

Large Response Trailer at Eugene Terminal

(This equipment is primarily for pipeline emergency response not terminal response.)

Item	Description	Quantity
OTHER INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
Telephone List		1
Threadolet	1"	4
Threadolet	2"	4
Tor		4
Trash & Drum Liners	Jumbo	1 Box of 30
Trash & Lawn Bags	Large	2 Boxes of 60
Trimming Knives		1
Utility Light	With Tripod Stand	2
Utility Knife		2
Water Can		1
WD 40		2 Cans
Weld Plus Ends		1
Weldolett	2"	1
Weldolett	1"	4
Wheel Chocks	Hard Rubber	2
Wind Socks / Swivels		1
Wiping Cloths		1 Box of 100
Wire Brushes		2
Wrench	12 Point Striking, 2 1/8	1
Wrench	Offset Box 2 3/16"	1
Wrench	8" Adjustable	1
Wrench	10" Adjustable	1
Wrench	12" Adjustable	1
Wrench Handle	For 2 3/16" Offset Box	1

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.3
Terminal OSRO Information

AMPD INFORMATION - KMEP Linnton Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor	Contract Expiration Date
National Response Corporation	Automatically renewed annually
Linnton Terminal (Equipment deployment personnel are located at equipment site.)	Proprietary Equipment

- **Equipment Address (*1-hour response time):**

Boom: Linnton Terminal
11400 NW St. Helens Road, Portland, OR 97231-1036

- **Equipment Address (*2-hour response time):**

Skimmer (Vacuum Trucks): Linnton Terminal
11400 NW St. Helens Road, Portland, OR 97231-1036

Temporary Storage: Linnton Terminal
11400 NW St. Helens Road, Portland, OR 97231-1036

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Portland Captain of the Port (COTP) Zone (COOS Bay, OR)

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
NRC Environmental Services Company	11559	Rivers/Canals	X	X	X	X	No
		Inland	X	X	X	X	
		Open Ocean	X	X			

FIGURE 3.3 (Cont'd)
Terminal OSRO Information

AMPD INFORMATION - KMEP Willbridge Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor	Contract Expiration Date
National Response Corporation	Automatically renewed annually
Willbridge Terminal (Equipment deployment personnel are located at equipment site.)	Proprietary Equipment

- **Equipment Address (*1-hour response time):**

Boom: Willbridge Terminal
5880 NW St. Helens Road, Portland, OR 97210

- **Equipment Address (*2-hour response time):**

Skimmer (Vacuum Trucks): Willbridge Terminal
5880 NW St. Helens Road, Portland, OR 97210

Temporary Storage: Willbridge Terminal
5880 NW St. Helens Road, Portland, OR 97210

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Portland Captain of the Port (COTP) Zone (COOS Bay, OR)

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
NRC Environmental Services Company	11559	Rivers/Canals	X	X	X	X	No
		Inland	X	X	X	X	
		Open Ocean	X	X			

FIGURE 3.3 (Cont'd)
Terminal OSRO Information

AMPD INFORMATION - KMEP Eugene Terminal

- **AMPD response provider**

Non-USCG Classified OSRO / Clean-up Contractor

Northwest Hazmat, Inc.
11556
Phone (800) 597-1323 (24 Hours)
Phone (541) 988-9823

(Equipment deployment personnel are located at equipment site.)

Contract Expiration Date

September 26, 2011

- **Equipment Address (*1-hour response time):**

Northwest Hazmat, Inc.
36 West Q Street
Springfield, OR 97477

Boom: 1,000 ft.

- **Equipment Address (*2-hour response time):**

Mid-State Industrial Service, Inc.
88696 McVay Hwy.
Eugene, OR 97402

Skimmer: Skimpack

Vacuum Trucks: 3 ea 1,800 gal. capacity
2 ea 2,000 gal. capacity

Temporary Storage: 9,400 gals Total

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

FIGURE 3.3 (Cont'd)
Response Zone OSRO Information

Northern Region – Northwest – Oregon Pipelines	
Oil Spill Removal Organizations	**Contract Expiration Date**
The OSROs listed below are capable of meeting the Response Planning Standards for a pipeline in a planning Zone where there is potential to impact navigable waters of the state as outlined in OAR 340-141-0150 (3)(g). (LS-14 Willamette River crossing north to Portland including the Portland Airport Pipeline (LS 1880)).	
Clean Rivers Cooperative (503) 220-2040* (503) 295-3660 (Fax)	Membership Renewed Annually
National Response Corporation (800) 337-7455*	Automatically renewed annually
The OSRO/Clean-up Contractor listed below are capable of meeting the Response Planning Standards for a pipeline located in or crossing the Inland Zone OAR as outlined in 340-141-0150 (3)(h). (LS-14 Willamette River crossing south to the Eugene Terminal)	
National Response Corporation (800) 337-7455*	Automatically renewed annually
Northwest Hazmat, Inc. (800) 597-1323* (541) 988-9823	September 26, 2011

The identified Oil Spill Removal Organizations are capable of arriving at the scene of a discharge within the time specified for the applicable response tier as outlined in 49 CFR 194, as follows:

	Tier 1	Tier 2	Tier 3
High Volume Areas	6 Hours	30 Hours	54 Hours
All Other Areas	12 Hours	36 Hours	60 Hours

The Northern Region –Northwest – Oregon Pipelines Response Zone is not in a High Volume Area as defined in 49 CFR 194 Appendix B

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

*= 24 Hours

FIGURE 3.3

OIL SPILL REMOVAL ORGANIZATIONS (Cont'd)

USCG OSRO Classifications

The USCG has classified OSROs according to their response capabilities, within each COTP zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

CLEAN RIVERS COOPERATIVE

MEMBERSHIP LIST

CLEAN RIVERS COOPERATIVE MEMBERSHIP LIST

Membership
- Board of Directors
- Member Representatives
- Training Committee
- Equipment Committee

Membership

BP
Cascade Grain Products, LLC
Chevron
ConocoPhillips
Emerald Kalama Chemical, LLC
Exxon Mobil
Foss Maritime
Georgia-Pacific (Camas)
Kinder Morgan Energy Partners
Longview Fibre Co.
NuStar Terminals (Portland)
NuStar Terminals (Vancouver)
Olympic Pipe Line Co.
Owens Corning Sales LLC
Paramount Petroleum
Portland General Electric
Pacific Terminal Services, Inc.
Shell Oil Products US
Tesoro Refining & Marketing
Tidewater Barge Lines
Vigor Industrial LLC *formerly Cascade General
Weyerhaeuser Paper Co.

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Admin

NATIONAL RESPONSE CORPORATION ENVIRONMENTAL SERVICES (NRCES)

WORK DIRECTIVES

LINNTON AND WILLBRIDGE TERMINALS

Agreement Number: 11559

WORK DIRECTIVE

To:	NRC ENVIRONMENTAL SERVICES COMPANY Attention: Stephanie Barton 815 West Ewing St Seattle, WA 98119 **Phone:** 206-730-3993 **Fax:** 206-652-0840 **Email:** sbarton@nrces.com	Date:	May 2, 2011
		Work Directive No.:	402461-55-CONT
		Agreement No.:	11559
		Account Coding:	10-049446906364-623200 - 9400 --

Work Directive Origin: ORANGE, CA

This Work Directive is entered pursuant to the terms of the **EMERGENCY RESPONSE** Agreement ("Agreement") dated June 1, 2005, by and between KINDER MORGAN OPERATING L.P. "D" ("COMPANY") and NATIONAL RESPONSE CORPORATION ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the KM entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work, which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT's proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with Company's terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued, as the same apply to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the Company (if the COMPANY is not the KM Entity executing this Work Directive) and other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1. Project Name:	2011 OSRO Emergency Response	Location:	Linnton Terminal, 11400 NW St. Helens Rd, Portland, OR 97231

Description of Work:

National Response Corporation shall provide Kinder Morgan Liquids Terminal, LLC (Linnton Terminal) with all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the State of Oregon and Federal OPA '90 requirements for contracted oil spill response services as follows:

- Kinder Morgan Liquids Terminals, LLC Linnton Terminal Pipelines located at 11400 NW St. Helens Rd, Portland, OR 97231

CONSULTANT Services to include:

- 2800 feet of boom and a means to deploy it within two (2) hours of notification.
- Sufficient Response Resources to enable the COMPANY to meet the requirements of the State of Oregon and OPA '90 for pre-contracted Response Resources beginning with two (2) hour requirement at the commencement of the Agreement including:
- Recovery and Storage capabilities rated by the State of Oregon and USCG as capable of meeting the planning volumes of the covered pipeline or facility, including 2 (two) hour response requirements for the facilities;
- Compliance with all State of Oregon and USCG Oil Spill Removal Organization (OSRO) requirements including required equipment deployments and personnel training. Documentation compliance with these requirements must be submitted annually to Kinder Morgan at:

  Attention: Chuck Mathis @ charles_mathis@kindermorgan.com.

- Compliance by the CONSULTANT and CONSULTANT'S subCONSULTANTs' with all applicable Federal Occupational Safety and Health Adminstration (OSHA) standards and similar State Laws and standards.
-

For Questions, contact Jeff Hibner at 503-220-1263

2. The COMPANY shall furnish the following materials to the work site(s):	None, unless previously approved by the KM Entity's authorized representative.
3. The Work shall be performed at the following location:	Location where work will be performed, if different from Project Location indicated above.

4. CONSULTANT shall commence the Work by January 1, 2011, and shall complete the Work on or before December 31, 2011.

5. CONSULTANT offers to complete the Work in accordance with the Agreement for the following consideration, which shall constitute full and complete payment therefore:

(a) ☐ the total Lump Sum Amount	Fixed Price Of
(b) ☒ the total Time & Materials Amount	Not To Exceed **$21,062.00** with rates specified in the Schedule of Values (Exhibit _____ to the Agreement)

(c) ☐ in accordance with the Schedule of Values (Exhibit _____ to the Agreement) or

(d) ☐ For this Work Directive only, the schedule of values/rate sheet dated _____, 20XX, attached hereto as Exhibit ___, shall supersede the Schedule of Values in the Agreement. All other terms and conditions of Agreement and its prior amendments will remain unchanged and in force.

SELECT WAIVER ACCORDING TO PROJECT'S TOTAL DOLLAR VALUE

☒ Waive 10% Retainage Fee; or ☐ Do not Waive 10% Retainage Fee

6. CONSULTANT shall submit invoices in duplicate to:	KINDER MORGAN LIQUIDS TERMINALS LLC Jeff Hibner 5880 Nw St. Helens Rd Portland, OR 97210 Attn.: Jeff Hibner Phone: 503-220-1263 Fax: 503-220-1270 **Invoices must clearly indicate the Agreement Number, Work Directive Number, and Work Order/ Account Coding, as indicated above.** For Construction Projects, a Certificate of Final Acceptance must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

7. CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan CONSULTANT Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subCONSULTANTs who will be performing work on premises owned and/or operated by the Kinder Morgan entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan CONSULTANT Safety Manual accurately into the appropriate language for its employees and subCONSULTANTs. Questions concerning the Manual should be directed to the Kinder Morgan CONSULTANT Safety Group at: contractor_safety@kindermorgan.com prior to commencement of any Work.

8. Facsimile Signatures/Counterparts

This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

In the Agreement, if there is a reference to "Kinder Morgan, Inc.," it shall now be deemed a reference to Kinder Morgan Kansas, Inc. This is not a change of entity, but merely a change of name only.

By signing below, KM Entity and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 402461-55-CONT is by reference hereby made part of Agreement No. 11559.

For Work performed within the state of California, the attached Exhibit B must be acknowledged and signed.

This Work Directive is hereby agreed to and accepted this May 2, 2011.

KINDER MORGAN LIQUIDS TERMINALS LLC	**NRC ENVIRONMENTAL SERVICES COMPANY**

Michael Martinez 5/2/11 Signature Date	Stephanie Barton 5/3/11 Signature Date
By: Michael Martinez Print Name	By: Stephanie Barton Print Name
Title: Purchasing Supervisor Print Title	Title: Director, Emergency Response Programs Print Title
CC: Contracts Administration, with all attachments	

Please return executed Work Directive to:

ATTENTION: Michael Martinez
KINDER MORGAN LIQUIDS TERMINALS LLC
1100 Town And Country Road
7th Floor
Orange, CA 92868

List of Attachments:	☐ **Exhibit WD_A** - Scope of Work ☐ **Exhibit WD_B** – Revised Release Reporting Criteria (**California only**) ☐ **Exhibit WD_C** – Work Directive Specific Schedule of Values/Rates ☐ **Exhibit WD_D** – Operator Qualification Form ☐ **Exhibit WD_E** – Certificate of Final Acceptance ☐ **Exhibit WD_F1** – Conditional Waiver and Release ☐ **Exhibit WD_F2** – Unconditional Waiver and Release

Agreement Number: 11559

WORK DIRECTIVE

To:	NRC ENVIRONMENTAL SERVICES,INC Attention: Stephanie Barton 815 West Ewing St Seattle, WA 98119 **Phone:** 206-730-3993 **Fax:** 206-652-0840 **Email:** sbarton@nrces.com	Date:	May 2, 2011
		Work Directive No.:	402461-54-CONT
		Agreement No.:	11559
		Account Coding:	10-049447006365-623200 - 9400 --

Work Directive Origin: ORANGE, CA

This Work Directive is entered pursuant to the terms of the **EMERGENCY RESPONSE** Agreement ("Agreement") dated June 1, 2005, by and between KINDER MORGAN OPERATING L.P. "D" ("COMPANY") and NATIONAL RESPONSE CORPORATION ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the KM entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work, which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT's proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with Company's terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued, as the same apply to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the Company (if the COMPANY is not the KM Entity executing this Work Directive) and other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1. Project Name:	2011 OSRO Emergency Response	Location:	Willbridge Terminal 5880 NW St. Helens Rd., Portland, OR 97210

Description of Work:	National Response Corporation shall provide Kinder Morgan Liquids Terminal, LLC (Willbridge Terminal) with all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the State of Oregon and Federal OPA '90 requirements for contracted oil spill response services as follows: • Kinder Morgan Liquids Terminals, LLC Willbridge Terminal Pipelines located at 5880 NW St. Helens Rd., Portland, OR 97210
	CONSULTANT Services to include: • 2800 feet of boom and a means to deploy it within two (2) hours of notification. • Sufficient Response Resources to enable the COMPANY to meet the requirements of the State of Oregon and OPA '90 for pre-contracted Response Resources beginning with two (2) hour requirement at the commencement of the Agreement including: • Recovery and Storage capabilities rated by the State of Oregon and USCG as capable of meeting the planning volumes of the covered pipeline or facility, including 2 (two) hour response requirements for the facilities; • Compliance with all State of Oregon and USCG Oil Spill Removal Organization (OSRO) requirements including required equipment deployments and personnel training. Documentation compliance with these requirements must be submitted annually to Kinder Morgan at: Attention: Chuck Mathis @ charles_mathis@kindermorgan.com. • Compliance by the CONSULTANT and CONSULTANT'S subcontractors' with all applicable Federal Occupational Safety and Health Adminstration (OSHA) standards and similar State Laws and standards. For Questions, contact Jeff Hibner at 503-220-1263

2.	None, unless previously approved by the KM Entity's authorized representative.
3. The Work shall be performed at the following location:	Location where work will be performed, if different from Project Location indicated above.

4. CONSULTANT shall commence the Work by January 1, 2011, and shall complete the Work on or before December 31, 2011.

5. CONSULTANT offers to complete the Work in accordance with the Agreement for the following consideration, which shall constitute full and complete payment therefore:

(a) ☐ the total Lump Sum Amount	Fixed Price Of
(b) ☒ the total Time & Materials Amount	Not To Exceed **$21,062.00** with rates specified in the Schedule of Values (Exhibit _____ to the Agreement)

(c) ☐ in accordance with the Schedule of Values (Exhibit _____ to the Agreement) or

(d) ☐ For this Work Directive only, the schedule of values/rate sheet dated _____, 20XX, attached hereto as Exhibit ___, shall supersede the Schedule of Values in the Agreement. All other terms and conditions of Agreement and its prior amendments will remain unchanged and in force.

SELECT WAIVER ACCORDING TO PROJECT'S TOTAL DOLLAR VALUE

☒ Waive 10% Retainage Fee; or ☐ Do not Waive 10% Retainage Fee

6. CONSULTANT shall submit invoices in duplicate to:	KINDER MORGAN LIQUIDS TERMINALS LLC Jeff Hibner 5880 Nw St. Helens Rd Portland, OR 97210 Attn.: Jeff Hibner Phone: 503-220-1263 Fax: 503-220-1270 **Invoices must clearly indicate the Agreement Number, Work Directive Number, and Work Order/ Account Coding, as indicated above.** For Construction Projects, a Certificate of Final Acceptance must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

7. CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan CONSULTANT Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subCONSULTANTs who will be performing work on premises owned and/or operated by the Kinder Morgan entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan CONSULTANT Safety Manual accurately into the appropriate language for its employees and subCONSULTANTs. Questions concerning the Manual should be directed to the Kinder Morgan CONSULTANT Safety Group at: contractor_safety@kindermorgan.com prior to commencement of any Work.

8. Facsimile Signatures/Counterparts

This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

In the Agreement, if there is a reference to "Kinder Morgan, Inc.," it shall now be deemed a reference to Kinder Morgan Kansas, Inc. This is not a change of entity, but merely a change of name only.

By signing below, KM Entity and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 402461-54-CONT is by reference hereby made part of Agreement No. 11559.

For Work performed within the state of California, the attached Exhibit B must be acknowledged and signed.

This Work Directive is hereby agreed to and accepted this May 2, 2011.

KINDER MORGAN LIQUIDS TERMINALS LLC	NRC ENVIRONMENTAL SERVICES,INC

Signature 5/2/11 Date	Stephanie Barton 5/3/11 Signature Date
By: Michael Martinez Print Name	By: Stephanie Barton Print Name
Title: Purchasing Supervisor Print Title	Title: Director, Emergency Response Programs Print Title
CC: Contracts Administration, with all attachments	

Please return executed Work Directive to:

ATTENTION: Michael Martinez
KINDER MORGAN LIQUIDS TERMINALS LLC
1100 Town And Country Road
7th Floor
Orange, CA 92868

List of Attachments:	☐ **Exhibit WD_A** - Scope of Work ☐ **Exhibit WD_B** – Revised Release Reporting Criteria (**California only**) ☐ **Exhibit WD_C** – Work Directive Specific Schedule of Values/Rates ☐ **Exhibit WD_D** – Operator Qualification Form ☐ **Exhibit WD_E** – Certificate of Final Acceptance ☐ **Exhibit WD_F1** – Conditional Waiver and Release ☐ **Exhibit WD_F2** – Unconditional Waiver and Release

NORTHWEST HAZMAT, INC.

EMERGENCY RESPONSE CONTRACT
and
RESPONSE RESOURCE LIST

EUGENE TERMINAL

KINDER MORGAN
ENERGY PARTNERS, L.P.

Kinder Morgan Operating L.P. "D"

September 14, 2010

Agreement No. 11556
Amendment No. 1

NORTHWEST HAZMAT, INC.
Attention: Margie Wilson
36 West Q Street
Springfield, OR 97477
Email: MWilson@nwhazmat.com

Re: Amendment Number 1 to Master Service Agreement 11556

Dear Margie Wilson:

Pursuant to the terms and conditions of Agreement No. **11556** effective **September 27, 2005**, by and between **KINDER MORGAN OPERATING L.P. "D"** and **NORTHWEST HAZMAT, INC.**, which Agreement is made a part hereof by reference, the same as if set forth herein in full, you are hereby requested to amend the Agreement to include the following:

Section 1.0 TERM AND NOTICES

Replace Section 1.1 in its entirety by deleting the following:

1.1 This Agreement becomes effective upon the date first above written and shall terminate on **September 26, 2010** (the "**ANNIVERSARY DATE**"). Upon the ANNIVERSARY DATE, COMPANY, at its option, may extend the Agreement for an additional 12-month period. Upon exercise of any extension of this Agreement, the parties agree to renegotiate CONSULTANT'S rate structure tot heir mutual satisfaction.

With

1.1 This Agreement becomes effective upon the date first above written and shall terminate on **September 26, 2011** (the "**ANNIVERSARY DATE**"). Upon the ANNIVERSARY DATE, COMPANY, at its option, may extend the Agreement for an additional 12-month period. Upon exercise of any extension of this Agreement, the parties agree to renegotiate CONSULTANT'S rate structure tot heir mutual satisfaction.

AND

Replace Exhibit B, Schedule of Values with the attached Exhibit B.

All other terms and conditions of Agreement No. **11556,** as amended by prior contract amendments (if any), which are not changed by this amendment will continue in full force and effect.

This amendment now forms an integral part of this Agreement. Confirm your acceptance by signing on the line provided and return to COMPANY'S Contract Administrator as listed below:

KINDER MORGAN OPERATING L.P. "D"
Attention: **Robyn Stuart**
Orange, Ca Regional Office
1100 Town And Country Road
Orange, CA 92868

This Amendment is effective as of September 27, 2010.

COMPANY:	CONTRACTOR:
KINDER MORGAN OPERATING L.P. "D" By: Kinder Morgan G.P., Inc., its General Partner By: Kinder Morgan Management, LLC, the Delegate of the General Partner	NORTHWEST HAZMAT, INC.
SIGNATURE	SIGNATURE
Robyn Stuart NAME (Please Print)	Margie Wilson NAME (Please Print)
Associate Contract Administrator TITLE (Please Print)	president TITLE (Please Print)
9/14/10 DATE	9/14/10 DATE

09/14/2010 17:36 5419889833 NW HAZMAT INC PAGE 02/02

Agreement Number: 11556

EXHIBIT B – SCHEDULE OF VALUES

1.0 OVERVIEW

1.1 The amounts set forth in the Agreement cover payment in full for all materials, work, tools, equipment, insurance, bonds, profit, overhead and all other costs and expense of every kind, character and nature for which the CONTRACTOR is entitled to payment. Unless specifically set forth in the Agreement, no additional payment of any kind will be contemplated.

1.1.1 COMPANY agrees to pay CONSULTANT, for Work performed pursuant to this Agreement either on a COST REIMBURSABLE BASIS or FIRM FIXED PRICE, LUMP SUM BASIS (The "**Contract Price**") as specified in each Work Directive. The cumulative total of all Work Directives under this Agreement SHALL NOT EXCEED **Error! Reference source not found.**, in accordance with the Schedule of Values, **Exhibit B**.

2.0 PROCESSING OF TIMESHEETS & REIMBURSABLE RECEIPTS PRIOR TO INVOICE SUBMITTAL

2.1 CONTRACTOR shall submit the timesheets and reimbursable expenses to the AUTHORIZED PROJECT REPRESENTATIVE on a daily basis for verification/acknowledgement of expenses and time spent on the project. All supporting documentation must be signed by the project Inspector prior to invoicing. Signature by these personnel does not constitute agreement to pay theses expenses.

3.0 INVOICING

3.1 Standard Invoice Procedure

3.1.1 At the end of each calendar month, CONTRACTOR shall submit to COMPANY an original detailed invoice for Work performed during that month, together with one copy of such invoice and one set of supporting documentation. Such invoice shall be sent to the following address:

3.1.2 Reference each individual contract for the appropriate addressee and company name for the invoice to be submitted.

Company Name:	Error! Reference source not found.
Attn:	Error! Reference source not found.
Address:	**Error! Reference source not found.**
	Error! Reference source not found., Error! Reference source not found. Error! Reference source not found.
REFERENCE:	
Contract No.:	Error! Reference source not found.
Work Directive No.:	(Per the Work Directive (Exhibit A-2) Issued for Services)
Amendment / Change Order No.:	(Per the Amendment /Change Order Issued for Services)

3.2 Non-acceptance of Invoices

3.2.1 Invoices that do not relate to this Contract **will not be processed** and such invoices will not be accepted by COMPANY. All charges not in compliance

with the stated terms and conditions of this Contract will be deducted from the invoice prior to payment processing.

3.3 Required Invoice Detail

3.3.1 Each of CONTRACTOR's invoices shall contain the following information on its face:

3.3.1.1 An invoice date.

3.3.1.2 A reference number (invoice number) which is unique to the transaction

3.3.1.3 Site or project name (if applicable) and COMPANY.

3.3.1.4 Reference of COMPANY'S Project Representative.

3.3.1.5 Contract Number, Change Order Number and Directive Number (as applicable).

3.3.1.6 Billing period (time period of charges).

3.3.1.7 CONTRACTOR's remittance address or electronic funds transfer routing information, (as applicable).

3.3.1.8 CONTRACTOR'S name and telephone number of contact to handle invoice related questions.

3.3.1.9 Amount due CONTRACTOR.

3.3.1.10 Project Status Report

3.3.1.11 Summary of amount invoiced to date, this invoiced amount, retention (as applicable), and the amount remaining to be invoiced.

3.4 Supporting Documentation

3.4.1 Each of CONTRACTOR's invoices shall be itemized and submitted to COMPANY together with receipts, time records, lien waivers, evidence of payment to subcontractors, vouchers showing payments for itemized material and labor, and any other evidence of CONTRACTOR's right to payment under this Contract as COMPANY may, in its sole good faith discretion, from time to time require.

3.5 Final Invoice

3.5.1 When CONTRACTOR submits its final invoice to COMPANY for the Work, in addition to the requirements outlined above, CONTRACTOR shall additionally include the following which shall be submitted no later than thirty (30) days after the project completion date:

3.5.2 Mechanics lien and stop notice releases executed by CONTRACTOR and by each person or entity that furnished any labor, services or materials in connection with the Work;

3.5.3 Reasonable proof satisfactory to COMPANY that any claims for labor, materials or any other claim or potential claim for which COMPANY withheld

compensation pursuant to the Contract have been paid or satisfied in a manner acceptable to COMPANY; and

3.5.4 All final drawings and other documents required by this Contract.

4.0 PAYMENT PROCEDURE

4.1 Processing of Approved Invoices

4.1.1 Provided that such invoice meets all of the requirements as explained, COMPANY shall use its best efforts to pay all undisputed charges set forth in each invoice, less any retention amount applicable, within thirty (30) days after such invoice is received by COMPANY.

4.2 Processing of Disputed Invoices

4.2.1 If COMPANY, in good faith, disputes and does not approve an item billed, COMPANY shall notify CONTRACTOR of the item or portion of an item disputed and withhold payment thereof until settlement of the dispute. Such right of COMPANY to withhold such payments shall be in addition, and not in any way in lieu of, any other right of COMPANY hereunder, including the right to raise disputes for the first time after audit. Payment shall be contingent upon COMPANY's review of the invoice and determination that the Work described in the invoice complies with all of the terms of this Contract. Interest penalties for disputed invoices will not be paid by COMPANY.

4.3 Delayed submittal of Invoices and Non-payment

4.3.1 Any Work for which CONTRACTOR does not submit an invoice to COMPANY within thirty (30) days after the month in which such Work is completed shall be deemed to have been performed by CONTRACTOR without compensation; provided however, that if prior to the end of such thirty (30) day period, CONTRACTOR requests in writing from COMPANY's Project Representative a further extension of time for submitting such invoice (stating the reasons therefore and the amount of additional time requested), and COMPANY elects to authorize such extension in writing, CONTRACTOR shall have until the end of the extension to submit such invoice.

5.0 TIME AND MATERIALS RATES

5.1 Labor:

Table 1
Labor Rates
Effective September 27, 2010 through September 26, 2011

Description/Category/Classification	Straight Time (Rate Per Hour) (US $0.00)	Overtime (Rate Per Hour) (US $0.00)	Double Time (Rate Per Hour) (US $0.00)
Incident Manager/Site Supervisor	$50.00	$82.50	
Emergency Response Manager	$50.00	$82.50	
Safety/Public Information Officer	$40.00	$45.00	
HazMat Technician	$38.00	$57.00	
Hazardous Materials Manager	$50.00	$82.50	
High Hazard Specialist	$100.00	$150.00	

Table 1
Labor Rates
Effective September 27, 2010 through September 26, 2011

Description/Category/Classification	Straight Time (Rate Per Hour) (US $0.00)	Overtime (Rate Per Hour) (US $0.00)	Double Time (Rate Per Hour) (US $0.00)
Confined Space Supervisor	$35.00	$45.00	
Confined Space E/A	$38.00	$57.00	
Secretary/Administrative	$20.00		

5.1.1 Rates shown on the rate sheet in the Schedule of Values include all benefits, withholding, workers compensation, and small tools and consumables.

5.1.2 All labor rates shown in Table 1 of the Schedule of Values shall be all-inclusive of small tools having a cost less than $750, disposable parts, consumables and personal protective gear that is normally utilized in the performance of daily work.

5.1.3 Rates are subject to change from time to time at Contractor's discretion. The rate schedule, once adopted will remain in effect until new rates are mutually agreed upon by Company and Contractor and amended into the Agreement

5.1.4 Classifications and straight time, overtime and double time rates not defined in Table 1 above shall be approved in advance by the Technical Designated Representative and the Administrator of the Agreement.

5.1.5 Day rates as approved in advance by COMPANY will apply to mobilization and demobilization personnel to the worksite.

5.1.6 Travel pay - See section "5.3" below.

5.2 Definition of Overtime:

5.2.1 CONTRACTOR defines Overtime as work exceeding eight (8) hours per days and/or forty (40) hours per calendar week. CONTRACTOR's employee(s) hours worked on project(s) other than project here under will not be credited hours for the purpose of overtime. Overtime will be paid at the "Over Time" rates shown (in Table 1) of the Schedule of Values, **or at a factor of 1.3 times the straight time or flat rate, if applicable**, multiplied by the number of hours worked.

5.2.2 CONTRACTOR defines Double Time as work on Sundays or on CONTRACTOR's observed holidays. Double-Time shall be paid at the rates shown in Table 1 of the Schedule of Values, **or at a factor of 1.7 times the Straight-Time or flat rate, if applicable,** multiplied by the number of hours worked.

5.2.3 CONTRACTOR agrees not to pay shift differential for swing (evening) or graveyard (night) shifts.

5.2.4 CONTRACTOR's employee(s) put on stand-by time be paid for actual hours on stand-by. Stand-by time hours will be credited for the purpose of overtime.

5.3 Definition of Travel and Expenses:

5.3.1 Travel Time is charged as work time. Travel time for hourly rate personnel will be actual travel time but not to exceed eight hours per day. Agreement rates do not include costs for travel, subsistence, reproduction, communications, computer, modeling, subcontracts, freight, etc.

5.3.2 COMPANY shall reimburse CONTRACTOR, without markup, for the direct, reasonable cost to CONTRACTOR for employee travel expenses away from the (Site/Employee's base office) when this travel occurs as a direct result of the performance of the Work. Travel expenses include air (excluding first class airfare), ground transportation, lodging, meals, and telephone expenses. All travel expenses must have prior COMPANY approval and shall be supported by valid receipts.

5.3.3 Mileage Reimbursement will be paid for Mobilization and Demobilization Only and shall be no more than $0.40½ cents/mile/vehicle. (COMPANY will compensate only per vehicle and not per man within the vehicle.)

5.3.4 Per Diem (subsistence) when in outlying areas (outside of a 50 mile radius from office/site) will be $40.00 per person per day; or $50.00 per person per day in high cost areas agreed to in advance by the parties.

6.0 EQUIPMENT

6.1 Equipment, rented, at cost plus ten percent (10%)

Table 2
Equipment Rates
Effective September 27, 2010 through September 26, 2011

Description/Category/Classification	Rate (U.S. $0.00)	Unit of Measure (Per Hour, Day, Week, Etc.)
VEHICLES		
Emergency Response Vehicle	$150.00/day	
Support/Chase Vehicle	$50.00/day	
Truck, Heavy Duty with Lift/Crane	$95.00/day	
Trailer, Emergency Response	$120.00/day	
Mileage For All Vehicles	$.050/Mile	
Misc Equipment	Cost + 25%	
PERSONAL PROTECTIVE EQUIPMENT		
Level A TECPS	Per Application	
Level B Fully Encapsulating Suit	$125.00/each	
Level B Coveralls	$75.00/each	
P/C Tyvek	$12.00/each	
Self Contained Breathing Apparatus	$50.00/each	
3pplied Air Respirator System	$50.00/each	
Replacement Air Cylinders	$5.00/each	
Pull Face Respirator	$18.75/each	
Respirator Cartridges	$22.50/each	
Leather Gloves	$7.50/each	
Neoprene Gloves	$1.20/each	
PVC Gloves	$4.00/each	
PVC Bouts	$15.00/pair	
Hazmat Boots	$75.00/pair	
Disposable Boots	$5.75/pair	
Rain Gear	$18.75/set	
ABSORBENT MATERIALS		
5" x 10" Absorbent Booms	$108.00/Bale of 4	

Table 2
Equipment Rates
Effective September 27, 2010 through September 26, 2011

Description/Category/Classification	Rate (U.S. $0.00)	Unit of Measure (Per Hour, Day, Week, Etc.)
8" x 10" Absorbent Booms	$160.00/Bale of 4	
Absorbent Pads, Oil Only	$70.00/Bale of 100	
Absorbent Pads, Universal	$70.00/Bale of 100	
Absorbent Pads, Acids	$70.00/Bale of 100	
3" x 4" Absorbent Socks	$70.00/Bale of 40	
Catch Basin Filters	$79.00/each	
Spill-Sorb Absorbent	$11.00/Bag	
Spill-Dri Absorbent	$11.00/Bag	
Absorbent W Oil Only Absorbent	$20.75IBag	
Ultra-Sorb 248	$8.00/Bag	
Plug-N-Dike (Patty)	$10.00/each (10.oz)	
Plug-N-Dike Drain Cover	$75.00/eaoh	
EQUIPMENT		
Drum, 95 Gallon Poly Overpack	$230.00/each	
Drum. 85 Gallon Metal Overpack	$130.00/each	
Drum, 55 Gallon Metal	$48.00/each	
Drum, 55 Gallon Poly	$72.00/each	
Drum, 6.5 Gallon Plastic	$15.50/each	
Drum Liners	$3.50/ each	
Generator	$45.00/day	
Lighting System	$10.00/day	
Chemical/Fuel Transfer Pump	$65.00/day	
Chem/Fuel Hose Assembly	$25.00/day	
2" Volume Transfer Pump	$125.00/day	
Hose Assembly	$55.00/Sect	
Compressor	$120.00/day	
Pressure Washer 2400 PSI	$50.00/day	
Drum Dolly	$10.00/day	
Barrier Tape	$14.00/roll	
Duct Tape	$12.00/roll	
Decon Equip/Supplies	$200.00/set	
Visqueen 10' x 100'	$35.00/roll	
Tarp 10' x 20'	$10.00/each	
Tarp 15' x 20'	$18.00/each	
Tarp 30' x 50'	$175.00/each	
Shelter 12' x 12'	$35.00/day	
Bag, Yellow Disposal	$1.00/each	
Bag, Hazmat Disposal	$1.00/each	
Bag. Red Bio-Hazars	$1.00/each	
Light Sticks	$2.00/each	
Plastic Towels	$1.00/each	
Labels (DOT Required)	$1.00/each	
Collwassa Tube (Sample Tubes)	$15.00/each	
Inflatable Leak Sealing System	$2,100.00/set	
Dome Clamps -.	$675.00/set	
Betts EOV	$750.00/each	
MONITORING/TEST EQUIPMENT		
Four Gas Monitor	$35.00/day	
LEL/02 Meter	$25.00/day	
HazCat Kit	$10.00/test	
Chem-Bio Testing	$75.00/test	

Table 2
Equipment Rates
Effective September 27, 2010 through September 26, 2011

Description/Category/Classification	Rate (U.S. $0.00)	Unit of Measure (Per Hour, Day, Week, Etc.)
MISCELLANEOUS EQUIPMENT		
Communications Equipment	$20.00/day	
Satellite Communication system	$120.00/day	
GPS Locater	$10.00/day	
Camera	$20.00/day	
Per Diem (When required)	Cost + 25%	
Disposal of Waste Drums	Cost + 25%	
Disposal of Waste Soil	Cost + 25%	

AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES

(Environmental On-Call Emergency Response Services)

NUMBER: 05-ER-45-011-ORG

COMMENCES: SEPTEMBER 27, 2005

TERMINATES: SEPTEMBER 26, 2010

BETWEEN

KINDER MORGAN OPERATING L.P. "D"

AND

NORTHWEST HAZMAT, INC.

AGREEMENT SUMMARY

KINDER MORGAN COMPANY:	**Kinder Morgan Operating L.P. "D"**
Principal Place of Business	**Houston, Texas**
AGREEMENT:	
Title	**Agreement For Professional Emergency Response Services**
Number	**05-ER-45-011-ORG**
Type	(Environmental On-Call Emergency Response Services)
Made as of Date	**27th day of September, 2005**
Effective Date	**September 27, 2005**
Termination Date	**September 26, 2010**
Agreement Value	**As Limited in Section 5 of each applicable Work Directive**
ADMINISTRATION:	
Contracts Administrator	**Kerri L. Singleton**
Phone Number	**714-560-4919**
FAX Number	**714-560-6643**
E-Mail Address	**kerri_singleton@kindermorgan.com**
NOTICES:	
Designated Representative	**Kerri L. Singleton**
Address, City, State Zip Code	**1100 Town & Country Orange, California 92868**
Phone Number / FAX Number	**714-560-4919 714-560-6643**
E-Mail Address	**kerri_singleton@kindermorgan.com**
TECHNICAL:	
Designated Representative	**Steve Marositz**
Address, City, State Zip Code	**2319 S Riverside Ave Bloomington, California 92316**
Phone Number / FAX Number	**713-369-9454 713-495-2713**
E-Mail Address	**Steve_Marositz@kindermorgan.com**
BILLING:	
Designated Representative	**As specified in Section 6 of each Work Directive released**
Address, City, State Zip Code	
Phone Number / FAX Number	
CONSULTANT:	
Federal Tax I.D. Number	**93-1288867**
Consulting Firm	**NorthWest HazMat, Inc.**
Address 1	**36 West Q Street**
Address (P.O. Box) 2	
City, State, Zip code	**Springfield, Oregon 97477**
Designated Representative	**Margie Wilson**
Phone Number	**800-597-1323**
FAX Number	**541-988-9833**
E-Mail Address	**MWilson@NWHazmat.com**
PROJECT / SERVICES DESCRIPTION:	**Emergency Response Services**

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AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES

(Environmental On-Call Emergency Response Services)

Agreement Number: 05-ER-45-011-ORG

THIS AGREEMENT is made as of the **27th day of September, 2005**, by and between **Kinder Morgan Operating L.P. "D"** a Delaware Limited Partnership, acting as agent for Kinder Morgan and its affiliates and subsidiaries who are requiring such work as set forth in this Agreement and/or in **Exhibit A-2** (Work Directive) and who will be releasing payments for such work, with its principal place of business in **Houston, Texas**, hereinafter referred to as "**COMPANY**", and **NorthWest HazMat, Inc.**, a corporation with its principal place of business in **Springfield, Oregon** hereinafter referred to as "**CONSULTANT**".

WITNESSETH:

WHEREAS, COMPANY desires the services of CONSULTANT to be on-call to provide Emergency Response Services for the containment and cleanup of oil, discharge of hazardous material and non-hazardous materials, and

WHEREAS, CONSULTANT represents that it is qualified and desires to perform such Emergency Response Service (as defined in **Section 2.2** below) for COMPANY.

NOW, THEREFORE, in consideration of the promises and mutual covenants contained herein, the parties do hereby agree as follows:

1.0 TERM

1.1 This Agreement becomes effective upon the date first above written and shall terminate on **September 26, 2010** (the "**ANNIVERSARY DATE**"). Upon the ANNIVERSARY DATE, COMPANY, at its option, may extend the Agreement for an additional 12-month period. Upon exercise of any extension of this Agreement, the parties agree to renegotiate CONSULTANT'S rate structure to their mutual satisfaction.

2.0 CONTRACT DOCUMENTS, SCOPE OF WORK AND ADMINISTRATION

2.1 This Agreement shall consist of the Contract Documents itemized below. In the event of a conflict between or among the provisions of the Contract Documents, the more or most specific provision shall control:

2.1.1 Agreement Number **05-ER-45-011-ORG**

2.1.2 **Exhibit A-1** Scope of Work

2.1.3 **Exhibit A-2** Work Directive (including Scope of Work pursuant to **Section 2.5**)

2.1.4 **Exhibit B** Schedule of Values

2.1.5 **Exhibit C** Certificate of Insurance

2.1.6 **Exhibit D** (1) United States Environmental Protection Agency Title III, List of Lists, Consolidated List of Chemicals Subject to the Emergency Planning and Community Right To Know Act (EPCRA) and Section 112(r) of the Clean Air Act, published April 1995, as amended

2.1.7 **Exhibit E** Project Scope Change Order

2.1.8 **Exhibit F** Drug & Alcohol/Operator Qualification Program Requirements

2.1.9 **Exhibit G** Kinder Morgan Contractor Safety Rules & Regulations

Note that any references to "CONTRACTOR" in an Exhibit, apply to CONSULTANT.

2.2 CONSULTANT agrees to render **Emergency Response Services** as more specifically defined in **Exhibit A-1**, attached hereto, and the applicable Work Directive released.

2.3 CONSULTANT agrees to provide an on-call team of personnel and equipment to perform Emergency Response Services in the location(s) designated on the applicable Work Directive and as directed by the Designated Representative (or his or her designee). Emergency Response Services shall include: 1) containment, characterization, handling, transportation, treatment, processing, recovery, repackaging, removal, storage and disposal of oil, hazardous material and non-hazardous material; 2) site evaluation, decontamination and restoration; 3) technical services, including sampling, laboratory services, analysis, and other related services; 4) training and mock spill deployments; and 5) coordination with COMPANY'S Designated Representative or his or her designee. Specific description of the Emergency Response Services may be set forth in the applicable Work Directive. COMPANY may obtain Emergency Response equipment with or without Emergency Response personnel at the sole option of COMPANY. When CONSULTANT needs specific clarification pertaining to the Work, it shall request the same from the Designated Representative.

2.4 The Designated Representative shall coordinate and sequence the Work with CONSULTANT. It is understood and agreed between the parties hereto that the means or methods of performance of the Work, as well as the workers and crews provided by CONSULTANT, shall be under the exclusive charge and control of CONSULTANT, COMPANY being interested only in the results obtained. Matters of a technical nature should be directed to the COMPANY'S Designated Representative, **Steve Marositz, 713-369-9454** (phone), **713-495-2713** (facsimile), **Steve_Marositz@kindermorgan.com** (electronic mail) or his or her designee(s). Matters of a commercial nature should be directed to the COMPANY'S Contract Administrator, **Kerri L. Singleton, 714-560-4919** (phone), **714-560-6643** (facsimile), **kerri_singleton@kindermorgan.com** (electronic mail).

2.5 This Agreement is an on-call contract. As such, COMPANY may, from time to time and in its sole discretion, issue Work Directives, substantially in the form attached hereto as **Exhibit A-2**, describing Work that COMPANY wishes CONSULTANT to perform, the location of the Work (the **"Site,"** as more fully defined in **Section 2.9** below), and the compensation to be paid for performing such Work. The Scope of Work shall include, without limitation, any modifications or specifications related to the Work, Milestone Schedules, deadlines, responsibilities for communications or meetings, and compensation to be paid. In case of emergency, COMPANY, may require CONSULTANT to provide Emergency Response Services prior to the execution of a Work Directive, under the terms and conditions of this Agreement.

2.6 Except as otherwise provided in this Agreement or in another applicable Contract Document, CONSULTANT shall furnish all of the supervision, materials, equipment, tools, supplies and services required for the complete performance of all Work, including but not limited to the Work described in each Work Directive that has been signed and returned by CONSULTANT.

2.7 Time of Completion; Extensions

2.7.1 CONSULTANT shall commence the Work immediately upon request of the COMPANY'S Designated Representative or his or her designee, but in no event no later than the date specified in the applicable Work Directive executed by the parties and shall complete the Work in its entirety no later than the date specified therein. CONSULTANT acknowledges that COMPANY may require completion of certain portions or phases of the Work ahead of others, and CONSULTANT shall diligently and expeditiously perform the Work in the sequence required by COMPANY. CONSULTANT shall also meet any and all applicable deadlines established by governmental agency orders, permits, or agreements, or by judicial decrees.

2.7.2 CONSULTANT understands and agrees that TIME IS OF THE ESSENCE in its performance of the Work and each of its obligations under this Agreement. CONSULTANT is available to perform Emergency Response Services for COMPANY on an on-call basis, 24-hours per day, seven (7) days per week.

2.7.3 If CONSULTANT is delayed in the performance of the Work by an act of the COMPANY, by COMPANY issuance of any Project Scope Change Order, or by a Force Majeure event, and if the CONSULTANT immediately provides COMPANY with a written request for an extension of time COMPANY shall extend the time of completion by such reasonable time as possible.

2.7.4 Should the whole or any part of the Work be delayed or suspended by late delivery of materials furnished by the COMPANY, by inability of the COMPANY to obtain necessary rights of access to the Site, or by failure of other contractors of the COMPANY to complete work

which is a prerequisite to the performance of the Work by CONSULTANT, then upon written request of CONSULTANT, COMPANY shall extend the time of completion by such reasonable time as possible under the circumstances.

2.7.5 CONSULTANT shall notify COMPANY in writing when the Work has been completed. If, in the sole good faith discretion of COMPANY, the Work conforms to all of the requirements of this Agreement, COMPANY shall accept the Work within ten (10) working days after receipt of such written notice. If, in the sole good faith discretion of COMPANY, the Work or any portion of the Work does not conform to all of the requirements of this Agreement, COMPANY shall give CONSULTANT notice of any non-conforming Work. Within five (5) working days after receiving such notice from COMPANY, CONSULTANT shall correct all non-conforming Work or provide a mutually accepted written plan of work for correction of the non-conforming Work. Corrected Work shall be resubmitted by CONSULTANT for acceptance by COMPANY and the above approval process will be repeated until the Work is acceptable.

2.8 Damage or Injury to Subterranean Structures or Utilities

2.8.1 To the extent that Work pursuant to this Agreement requires any sampling, boring, excavation, ditching or other disruption of the soil or subsurface at the Site, CONSULTANT shall confer with COMPANY (and others, in CONSULTANT'S discretion and at its expense) prior to such activity and be responsible for identifying, locating and marking, as necessary, any subterranean archaeological artifacts, structures or utilities (**"Underground Facilities"**). Thereafter, CONSULTANT shall take all reasonable precautions to avoid damage or injury to Underground Facilities which were or reasonably should have been discovered by CONSULTANT in the course of its Work. CONSULTANT will be liable for all costs and claims resulting from damage to the Underground Facilities arising out of the Work, if they were or reasonably should have been identified by CONSULTANT.

2.9 Definitions:

2.9.1 **"Contract Documents"** means all relevant documents described in **Section 2.1** of this Agreement.

2.9.2 **"Data"** has the meaning given in **Section 11.2** below.

2.9.3 **"Day"** or **"Week"** means, respectively, a calendar day or seven (7) calendar days.

2.9.4 **"Description of Waste"** means the document which defines the chemical content and physical characteristics of the Waste.

2.9.5 **"Designated Representative"** means the person identified as COMPANY'S Designated Representative in **Section 2.4** of this Agreement.

2.9.6 **"Emergency Response Services"** shall have the meaning given in **Section 2.2** above.

2.9.7 **"Environmental Law"** means any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

2.9.8 **"Force Majeure"** has the meaning given in **Section 17.1** below.

2.9.9 **"Hazardous Material"** means (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any Environmental Laws; and (b) any "hazardous waste," "hazardous substance" (including , but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," pollutant" or "contaminant", each as defined under any Environmental Laws.

2.9.10 **"Hereunder,"** **"herein"** and words of similar import shall refer to this Agreement as a whole, rather than to a single provision.

2.9.11 "**Milestone Schedule**" shall mean any schedule or modification thereof developed by COMPANY and CONSULTANT that identifies key dates and deadlines to be met by CONSULTANT in the applicable Contract Document.

2.9.12 "**Site**" shall mean any real property on which CONSULTANT will be performing Work pursuant to the terms of the Contract Documents, whether or not owned by COMPANY.

2.9.13 "**Waste**" shall mean any form of material identified or determined by the COMPANY as having no beneficial value and is either a by-product of the COMPANY's operations or is generated during investigation and remediation activities (e.g. soils, debris).

2.9.14 "**Work**", shall mean, collectively, any and all obligations, duties and responsibilities necessary to the successful completion of the project assigned to or undertaken by CONSULTANT under the Contract Documents, including the furnishing of all labor, services, materials, equipment and other incidentals necessary to perform Emergency Response Services.

2.10 Both COMPANY and CONSULTANT acknowledge that the most current Kinder Morgan Contractor Safety Rules & Regulations is attached to this Agreement as **Exhibit G.** Furthermore, COMPANY and CONSULTANT acknowledge that COMPANY updates the regulations periodically. As part of its obligation under this Agreement, CONSULTANT will request from COMPANY updated regulations every six (6) months from the effective date of this Agreement throughout the term of this Agreement.

3.0 CONSIDERATION AND CHANGES TO THE WORK

3.1 COMPANY agrees to pay CONSULTANT, for Work performed pursuant to this Agreement in accordance with CONSULTANT'S rates in the Schedule of Values, **Exhibit B.** CONSULTANT shall notify COMPANY when the total it is owed is **As Limited in Section 5 of each applicable Work Directive released**.

3.2 COMPANY shall have the right to (i) make changes in any Work performed or to be performed, (ii) require additional Work, or (iii) require the deletion, stoppage or cancellation of Work previously ordered. The provisions of this Agreement shall apply to all changed and added Work to the same extent as they would have applied to the Work originally described in the applicable release.

3.3 COMPANY or CONSULTANT may generate a written Project Scope Change Order, substantially in the form attached hereto as **Exhibit E**, describing any changes, additions or deletions to the Work. COMPANY will determine whether Project Scope Change Order is to be authorized or rejected. COMPANY shall not be required to furnish notice of such changes, additions or deletions to CONSULTANT's sureties. CONSULTANT shall perform the Work in accordance with COMPANY's written Project Scope Change Order. This provision does not relieve CONSULTANT of its obligation to use its best professional judgment in performing its Work in a manner consistent with the level of care and skill exercised by other experts in the same field. The parties shall negotiate an equitable adjustment to the amount of compensation to be paid CONSULTANT in connection with the Work Directive to which the Project Scope Change Order applies.

4.0 INSPECTION

4.1 Materials Inspections

4.1.1 COMPANY may from time to time, at its sole good faith option, inspect and test certain materials or equipment. Therefore in contracting for the purchase of any material or equipment that CONSULTANT will use in the performance of the Work, CONSULTANT shall obtain for COMPANY from the vendor of such material or equipment the right to inspect all such material and the manufacture and fabrication thereof. Whether or not COMPANY conducts such inspection, COMPANY shall also have the right to reject all materials or equipment that, in the sole good faith discretion of COMPANY, fail to conform to either adequate manufacturing specifications, the specifications under which such materials or equipment were purchased or the specifications required for the performance of the Work.

4.2 Field Inspection

4.2.1 Throughout the performance of the Work, COMPANY shall have the right to designate one or more inspectors or engineers to inspect and test the Site and the progress of the Work.

CONSULTANT shall cooperate with such inspectors and engineers in order that the Work may be fully inspected and that COMPANY may at all times be fully advised of the progress of the Work and the manner in which it is being performed.

4.3 Inspection Not Acceptance

4.3.1 CONSULTANT expressly understands and agrees that any inspection by COMPANY pursuant to this Agreement shall be for COMPANY'S sole benefit and shall not be deemed an acceptance by COMPANY of all or any portion of the materials or Work so inspected. CONSULTANT further understands and agrees that no inspection by COMPANY pursuant to this Agreement or approval or failure to object to any portion of the Work shall relieve or release CONSULTANT from any duties, obligations, or liabilities provided in this Agreement.

5.0 INSURANCE

5.1 CONSULTANT agrees to carry and maintain the following insurance, from carriers with an A.M. Best rating of at least A-/VIII:

5.1.1 Statutory Coverage Workers' Compensation Insurance (including Occupational Disease Coverage) in accordance with the laws of the states where the Work is to be performed;

5.1.1.1 If CONSULTANT performs Work on or adjacent to navigable waterways CONSULTANT shall furnish a certificate of insurance showing compliance with the provisions of the Federal Longshoremen's and Harbor Workers' Compensation Law.

5.1.2 Employer's Liability Insurance with limits of not less than **$1,000,000** per occurrence and **$1,000,000** per disease/each employee.

5.1.3 Commercial General Liability Insurance insuring the indemnity agreement set forth in this contract with a combined single limit of not less than **$2,000,000** per occurrence and in the aggregate. All policies shall include coverage for blanket contractual liability assumed hereunder.

5.1.4 Comprehensive Automobile Liability Insurance covering liability arising out of any auto (owned, hired and non-owned); with a combined single limit of not less than **$1,000,000**. If necessary, the policy shall be endorsed to provide contractual liability coverage.

5.1.5 Umbrella Insurance may be used to satisfy the limit requirements for Employer's Liability Insurance, Commercial General Liability Insurance, and Comprehensive Automobile Liability Insurance set out in **paragraphs 5.1.2**, **5.1.3** and **5.1.4**, above. Such umbrella policy shall follow the form of those primary coverages, be in excess of those underlying policies without gaps in limits and provide coverage as broad as the underlying coverage.

5.1.6 Comprehensive Aircraft Liability Insurance with combined bodily injury, including passengers, and property damage liability single limits of not less than **$5,000,000** each occurrence. This coverage is necessary only when CONSULTANT uses owned or non-owned aircraft in connection with Work performed under this Agreement.

5.1.7 CONSULTANT's Pollution Liability Insurance covering losses caused by pollution conditions that arise from the operations of CONSULTANT. Insurance mentioned above shall apply to bodily injury, including death; loss or damage to property, including loss of use of damaged property or of property that has not been physically injured; cleanup and monitoring costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. This coverage shall be maintained in force for the full period of this Agreement with available limits of not less than **$2,000,000** per occurrence.

5.1.8 Pollution Legal Liability Insurance. If the work contemplated under this Agreement includes the disposal of any hazardous materials from the Job Site(s), CONSULTANT must furnish to COMPANY evidence of pollution legal liability insurance maintained by the disposal site operator, covering losses arising from the insured facility accepting waste under this Agreement. Such coverage must be maintained in minimum amounts of **$5,000,000** per occurrence for bodily injury, including death, or loss or damage to property combined.

5.2 All insurance policies carried by CONSULTANT hereunder shall name the COMPANY (**Kinder Morgan Energy Partners, L.P.** and the contracting company), its affiliated and subsidiary companies, and its and their respective directors, officers, agents and employees as additional insureds with respect to liability arising out of work performed by CONSULTANT or subcontractor, as applicable.

5.3 All insurance policies of CONSULTANT shall include waiver of subrogation against **Kinder Morgan Energy Partners, L.P.** and its subsidiary or affiliated companies, successors, and assigns.

5.4 Before commencing any performance under this Agreement, CONSULTANT shall furnish COMPANY with Certificates of Insurance evidencing insurance coverage and provisions provided for in this Agreement. Failure of CONSULTANT to furnish such evidence of insurance coverage shall not be considered a waiver by COMPANY of such coverage. All insurance certificates shall include the following statement:

5.4.1 **"Kinder Morgan Energy Partners, L.P.** and its affiliated or subsidiary companies are named as additional insured on all above policies (except Worker's Compensation) and waiver of subrogation in favor of **Kinder Morgan Energy Partners, L.P.** and its affiliated or subsidiary companies, its and their respective directors, officers, agents and employees applies as required by written contract."

5.5 The insurance provided in accordance herewith shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to or maintained by COMPANY, and shall not require the exhaustion of any other coverage. Insurance coverage required under this Agreement shall not be deemed to limit the amount(s) of CONSULTANT'S liability under this Agreement, nor shall such requirements be considered by CONSULTANT as the limit of the amounts or types of insurance CONSULTANT should carry to protect itself adequately from the risks of its occupation; rather, CONSULTANT shall make its own independent determination in this regard.

5.6 All insurance policies shall provide that the insurance carrier will notify the COMPANY no less than thirty (30) days prior to the termination or cancellation of any policy.

5.7 CONSULTANT shall promptly notify COMPANY when any insurance policy required above is not reasonably available and shall state the reasons therefor.

5.8 All deductibles, self insured retentions and self insurance carried by the CONSULTANT under its insurance program are the sole responsibility of the CONSULTANT and will not be borne in any way by the COMPANY. The CONSULTANT will indemnify the COMPANY, in full, for any amounts related to the above.

5.9 In the event of the CONSULTANT's failure to carry out any of the provisions of this **Section 5.0**, the COMPANY shall, in addition to any right to recover damages or to obtain other relief, have the right to cancel this Agreement or any Work Order.

5.10 CONSULTANT shall require all of its subcontractors to provide the foregoing coverage, as well as any other coverage that CONSULTANT may consider necessary. All subcontractor policies shall be endorsed with the waiver of subrogation and additional insured wording above. Any deficiency in the coverage, policy limits, or endorsements of said subcontractors will be the sole responsibility of CONSULTANT.

6.0 PAYMENT, AND LIENS

6.1 COMPANY will accept one invoice monthly, payable with Commercial Terms Net 30 Days after receipt of invoice. Invoices will be sent to:

Kinder Morgan Operating L.P. "D"
Attn: **As specified in Section 6 of each Work Directive released**

6.2 Invoices shall be submitted in such detail so as to delineate Work performed per job assignment described in the applicable Work Directive. For each job assignment, CONSULTANT shall include a description of services, number of hours expended per individual employee job classification, itemization of expenses, location(s) at which expended, receipts for expenses or other evidence in

support of CONSULTANT's statement as may be requested by COMPANY, extended subtotals, applicable taxes and grand total.

6.3 CONSULTANT covenants and agrees to protect and keep the Site, any and all interests and estates therein, and all improvements or materials now or hereafter placed thereon pursuant to this Agreement, free from any and all claims, liens, charges or encumbrances in the nature of mechanics, labor, or material liens or otherwise, arising out of or in connection with performance of the Work by CONSULTANT or any of its subtier contractors (including the furnishing of any materials hereunder), and to promptly have any such lien released by bond or otherwise. If CONSULTANT disputes in good faith any lien or claim or encumbrance of any laborer, materialman or subcontractor, in lieu of the immediate payment thereof, CONSULTANT shall post adequate security to protect COMPANY from liability for the payment thereof and from any expense of defending against that liability, until the dispute is finally resolved. COMPANY may, at its sole discretion, post or place upon the Site notices of non-responsibility or do any other act permitted by law to exempt COMPANY, the Site, any and all interests and estates therein, and any improvements or materials thereon from any liability to third parties for the performance of the Work. The failure of COMPANY to perform any of the actions described in the previous sentence shall not release or discharge CONSULTANT of any of its obligations hereunder.

6.4 CONSULTANT hereby covenants and agrees to waive and does hereby waive any rights to liens to which CONSULTANT might be entitled for Work performed and materials or other property and labor furnished under this Agreement. CONSULTANT additionally covenants and agrees to require or cause all of its subcontractors and vendors performing or furnishing any portion of the Work to consent, prior to the performance thereof, to the waiver of any such rights to liens which might accrue to such subcontractor or vendor.

7.0 INDEPENDENT CONTRACTOR

7.1 CONSULTANT agrees to undertake the Work as an independent contractor, at its sole risk, and agrees to employ and direct any persons or subcontractors performing any Work hereunder, and such persons and subcontractors shall be and remain the sole employees or agents of CONSULTANT, subject to the sole direction and control of CONSULTANT, and shall not be subject to the direction or control of COMPANY nor shall they be employees of COMPANY. CONSULTANT shall comply with all applicable federal and state enactments regarding Employer's Liability, Workers' Compensation, Social Security, and Unemployment Compensation Insurance, as well as be responsible for all valid sales or other taxes levied on the Work performed by CONSULTANT, its employees and agents. CONSULTANT further agrees to indemnify and hold COMPANY harmless from any cost, expense, tax, interest or penalty which COMPANY may be required by law to pay on account of CONSULTANT's failure to comply with the aforementioned laws.

8.0 INDEMNIFICATION

8.1 CONSULTANT agrees to release, defend, and to protect, indemnify and hold harmless COMPANY, its parent, affiliates, and subsidiaries, and its and their respective directors, officers, agents and employees (collectively "COMPANY Indemnitees"), from every kind or character of damages, losses, liabilities, expenses, demands or claims, including but not limited to those arising from personal injury, and including any and all costs and fees arising out of litigation or settlement personal injury claim(s) or any other type of claim (collectively "Losses"), including Losses described in the remainder of this **Article 8.0**, to the extent the Losses are related to the performance of the Work and caused by, arise from or relate to, directly or indirectly, the acts or omissions of CONSULTANT, its agents, employees, or subcontractors. The foregoing obligation of CONSULTANT shall not be diminished in any regard if such Losses may have been caused in part by the negligence, either active or passive, or the strict liability of any COMPANY Indemnitee(s) or any third party. CONSULTANT further agrees that it shall, at its own expense, defend any suit or action brought against COMPANY Indemnitees where the CONSULTANT'S alleged acts or omissions are asserted by either the petitioner or COMPANY, and CONSULTANT shall pay, in proportion to its obligation pursuant to this **Section 8.1**, all damages, costs and expenses (including attorneys' fees) in connection therewith or any matter resulting therefrom. CONSULTANT shall not agree to settle any such suit or action without COMPANY'S prior written consent. **CONSULTANT'S obligations under this section shall survive termination of this Agreement.**

8.2 COMPANY agrees to release, defend, and to protect, indemnify and hold harmless CONSULTANT, its affiliates, their directors, officers, agents and employees (collectively, "CONSULTANT Indemnitees"),

from every kind or character of damages, losses, liabilities, expenses, demands or claims, including but not limited to those arising from personal injury, and including any and all costs and fees arising out of litigation or settlement personal injury claim(s) or any other type of claim (collectively "Losses"), to the extent the Losses are caused by, arise from or relate to, directly or indirectly, the acts or omissions of COMPANY, its agents, Company's other contractors, or employees. The foregoing obligation of COMPANY shall not be diminished in any regard if such Losses may have been caused in part by the negligence, either active or passive, or the strict liability of any CONSULTANT Indemnitee(s) or any third party. COMPANY further agrees that it shall at its own expense, defend any suit or action brought against CONSULTANT Indemnitees where the COMPANY'S alleged act or omissions are asserted by either the petitioner or CONSULTANT, and COMPANY shall pay, in proportion to its obligation pursuant to this **Section 8.2**, all damages, costs and expenses (including attorneys' fees) in connection therewith or any matter resulting therefrom. COMPANY shall not agree to settle any such suit or action without CONSULTANT'S prior written consent. **COMPANY'S obligations under this section shall survive termination of this Agreement.**

8.3 Subject to the provisions of **Section 8.1** above, COMPANY agrees to release, defend, and to protect, indemnify and hold harmless CONSULTANT Indemnitees from and against all losses related to CONSULTANT's performance of Emergency Response Services where the CONSULTANT Indemnitees demonstrate that COMPANY would have been liable if COMPANY was sued directly. COMPANY'S obligations under this section survive termination of this Agreement.

8.4 Subcontractor Indemnification

8.4.1 CONSULTANT shall require each of its subcontractors engaged for performance of the Work to provide express indemnities, enforceable by and for the benefit of the COMPANY Indemnitees, to the same extent required of CONSULTANT under **Section 8.1** above.

8.5 The Parties agree that, to the extent permitted by applicable law, this **Article 8.0** shall constitute an effective waiver of any cap(s) established by statute or case law which may limit the indemnified Party's recovery, but for this Agreement.

9.0 COMPLIANCE WITH LAWS

9.1 CONSULTANT will perform the Work in a good and workmanlike manner in accordance with the approved practices and standards of the industry, and shall, in the performance of the Work contemplated hereunder, comply with all valid, applicable federal, state and local laws, ordinances, codes, local and national standards and regulations including without limitation all environmental laws. When it appears during the course of CONSULTANT'S performance of the Work that any of the Work does not conform to the provisions of this Agreement, CONSULTANT, at its sole expense, shall immediately make the necessary corrections so that its Work shall so conform.

10.0 CALIFORNIA RELEASE NOTIFICATION REQUIREMENTS

10.1 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT's activities in the performance of the Work are:

10.1.1 notified, and when determined by Company, trained and instructed by COMPANY, either directly or through a train-the-trainer program by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

10.1.2 Understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-COMPANY Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT's employees, agents and subcontractors' employees who will be performing at such a site.

10.2 For purposes of this Section, "Hazardous Material" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any Environmental Laws; and (b) any "hazardous waste", "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance", "regulated substance", "pollutant" or "contaminant", each as defined under any

Environmental Law. "Environmental Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

COMPANY has determined that CONSULTANT:

☐ will be working in a Non-COMPANY Onsite Situation and MUST complete the training

☒ Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONTRACTOR will assure that prior to performing any Work CONTRACTOR's employees, agents and subcontractors' employees will be trained relative to COMPANY's revised release reporting criteria.

11.0 CONFIDENTIALITY

11.1 Subject to the provisions of **Section 20.3** below, unless required by court order or valid legal process, CONSULTANT agrees not to publish or disclose to any third party any information conclusion, recommendation, opinion or data or other matter used or arising in the performance of Work under this Agreement without prior written authorization of COMPANY and also agrees to require a similar agreement from any employee, agent, or subcontractor participating in the rendering of Work under this Agreement. In the event that a court order or valid legal process requires disclosure by CONSULTANT or any employee, agent, or subcontractor, of any information or other matter used or arising in the performance or Work under this Agreement, CONSULTANT shall notify COMPANY prior to disclosing such information in order to provide COMPANY with the opportunity to challenge the court order or legal process. **CONSULTANT's obligations under this section survive the termination of this Agreement.**

11.2 All data, including but not limited to, drawings, designs, specifications, notebooks, computer programs, computer output, models, tracings, photographs, negatives, video and/or audio recordings, reports, findings, recommendations, and memoranda of every description relating to the Work under this Agreement, in whole or in part, shall be the property of COMPANY.

11.3 CONSULTANT may retain duplicate copies of the materials identified above for its records subject to the stipulation that such records shall be marked and treated as confidential and shall not be released to any third party or used for any other purpose without the prior written consent of COMPANY.

11.4 CONSULTANT shall not in any manner advertise, publish or release for publication or disclosure any statement mentioning this Agreement, or CONSULTANT's performance of, or contracting to perform the Work, without the prior written consent of COMPANY.

12.0 SUSPENSION

12.1 COMPANY may, at its sole option, by written notice to CONSULTANT, suspend at any time the performance of all or any portion of the Work being or to be performed under this Agreement. Upon receipt of any such notices, CONSULTANT shall immediately discontinue Work, including, without limitation, the placing of orders, contracts, and rental agreements to the extent they relate to Work suspended, on the date and to the extent specified in the notice; and unless otherwise specifically stated in the notice, CONSULTANT shall continue to protect and maintain the Work completed, including those portions on which Work has been suspended.

12.2 In the event of such suspension, CONSULTANT will be reimbursed for the following costs, reasonably incurred, without duplication of any items, to the extent that such costs result from such suspension of Work:

12.2.1 Except in cases of Force Majeure, a standby charge to be paid to CONSULTANT to compensate for keeping, to the extent required in the notice, its organization and equipment committed to the Site (s) in a standby status, and for the cost of maintaining and protecting that portion of the Work upon which activities have been suspended;

12.2.2 All reasonable costs as mutually agreed associated with demobilization and relocation of CONSULTANT's plant, forces, and equipment, and costs which CONSULTANT is or will be legally obligated to pay related to the performance of the Work.

12.3 COMPANY may, at its option, suspend the Work for a full safety inspection and correction at any time the Designated Representative: 1) discovers a clear safety violation; 2) sees the possibility of a dangerous condition in any Work area; or 3) notices a pattern by CONSULTANT of disregard for maintaining a safe jobsite.

12.4 If COMPANY observes a serious safety violation on a Site which is capable of causing imminent serious injury or death, or if CONSULTANT has two or more safety violations documented by COMPANY, then such violations shall be grounds for immediate termination of this Agreement. However, nothing herein shall relieve CONSULTANT of its sole responsibility and liability for safety at the Site. COMPANY may terminate any subcontractor who (a) has two or more safety violations documented by COMPANY or CONSULTANT, or (b) has an observed pattern of disregard for maintaining a safe Site.

13.0 TERMINATION AND RIGHT TO AUDIT

13.1 All or any part of the work performed under the Work Directive of this Agreement may be canceled by COMPANY for its own convenience or for any reason or reasons whatsoever upon seven (7) days written notice to CONSULTANT (except as provided in **Section 12.4** above). After the receipt of such notice, and except as otherwise directed by COMPANY, CONSULTANT shall, in good faith and to the best of its ability, do all things in light of such notice and of such request for implementation thereof as COMPANY may make, to assure the efficient, proper close out of canceled Work. Upon receipt of such notice, CONSULTANT shall reasonably cooperate with COMPANY in all matters including, potentially, transferring Work to another consultant.

13.2 Upon termination of any or all Work, CONSULTANT shall deliver to COMPANY all specifications, drawings, surveys, reports, plans, maps, calculations, bills of materials and any other data or documents pertaining to the Work which are in CONSULTANT's possession. CONSULTANT shall cooperate with COMPANY in transferring to COMPANY all rights to equipment, materials, supplies and services to be incorporated in, or as are necessary for, the Work. If appropriate documentation of such transfer of rights is requested by COMPANY, CONSULTANT's execution of such documentation shall be a condition of any final payment by COMPANY.

13.3 In the event COMPANY cancels any part of the Work to be performed hereunder or elects to terminate this Agreement, CONSULTANT shall be paid for Work performed through the date of cancellation or termination and including demobilization and restocking charges for which CONSULTANT has not been previously paid by COMPANY. In no case shall COMPANY be liable for payment to CONSULTANT for unrealized costs or anticipated profits hereunder. In the event termination by COMPANY is due to failure of CONSULTANT to fulfill its contractual obligations (including but not limited to failure to prosecute the Work in a safe manner), COMPANY may pursue any and all remedies available to it at law or in equity, and in addition to any such remedies, CONSULTANT shall be liable to COMPANY for all additional costs incurred by COMPANY to complete the Work in excess of costs which would have been incurred by COMPANY under this Agreement, including any damages for delay in completing the Work, and any damages or injury of any type or kind caused by CONSULTANT'S failure to fulfill its contractual obligation to complete the Work hereunder.

13.4 CONSULTANT shall be deemed to have materially breached this Agreement if CONSULTANT is insolvent, seeks protection from creditors, makes a general assignment for the benefit of creditors, persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials, fails to make prompt payment to subcontractors or materialmen for materials or labor, violates any law, ordinance, rule regulation or order of any public authority having jurisdiction, if a receiver is appointed for its business, or it otherwise violates a material provision of the Contract Documents. In the event CONSULTANT files a petition for bankruptcy protection, this Agreement shall be deemed to have terminated the day before such petition was filed.

13.5 CONSULTANT may terminate this Agreement or a particular Work Directive for COMPANY's breach of a material obligation hereunder by notifying COMPANY in writing of such default. COMPANY shall have ten (10) days from receipt of notice in which to cure its performance or begun expeditious efforts to cure as can be reasonably expected under the circumstances. In the event COMPANY does not cure its performance, or commence cure as the case may be, within such ten (10) day period, CONSULTANT may terminate the applicable Work Directive.

13.6 Notwithstanding the above provisions, if CONSULTANT has taken control or possession of the Waste, CONSULTANT may not suspend performance of this Agreement with respect to such Waste.

13.7 Throughout the term of this Agreement and for a period of three years following the completion or termination of this Agreement and for so long thereafter as there may remain any unresolved questions or disputes regarding any item, COMPANY shall, at all reasonable times and upon prior notice to CONSULTANT, have access to all CONSULTANT's, subcontractors', and vendors' personnel, books, records, correspondence, instructions, plans, equipment maintenance records, drawings, receipts, vouchers, financial accounts and memoranda of every description pertaining to the Work for the purpose of auditing and verifying costs of the Work, CONSULTANT's safety performance under this Agreement or for any other reasonable purpose. COMPANY shall have the right to reproduce any of the aforesaid documents. In the event that any audit reveals an error or discrepancy of any nature whatsoever, such error or discrepancy will be corrected promptly, and any moneys owing and due either COMPANY or CONSULTANT will be paid promptly by the other party. CONSULTANT shall not charge for any costs incurred by assisting COMPANY with audits performed pursuant to this Article. CONSULTANT's obligations under this Article shall survive the termination of this Agreement.

14.0 ASSIGNMENT

14.1 CONSULTANT shall not assign this Agreement or subcontract the Work or any part thereof without first having obtained COMPANY's written approval.

14.2 All obligations imposed upon CONSULTANT pursuant to this Agreement shall be similarly imposed upon any authorized subcontractor. The fees and costs of authorized subcontractors shall be included in CONSULTANT's fees and costs as provided in the Schedule of Values or the appropriate Work Directive.

15.0 NOTICES

15.1 Any notice required hereunder to be given to either party shall be deemed duly given when ritten and delivered personally or when sent by mail or facsimile, to such party at the following addresses:

COMPANY:	CONSULTANT:
Kinder Morgan Operating L.P. "D" **1100 Town & Country Road** **Orange, California 92868** Attention: **Kerri L. Singleton** Phone: **714-560-4919** FAX: **714-560-6643** E-Mail Address: **kerri_singleton@kindermorgan.com**	**NorthWest HazMat, Inc.** **36 West Q Street** **Springfield, Oregon 97477** Attention: **Margie Wilson** Phone: **800-597-1323** FAX: **541-988-9833** E-Mail Address: **MWilson@NWHazmat.com**

15.2 The address for notices may be changed upon written notice to the other party. Notices shall be effective upon receipt.

16.0 CONFLICT OF INTEREST

16.1 During the term of this Agreement, CONSULTANT will, with respect to any Work, act as consultant for and on behalf of the COMPANY only. CONSULTANT represents that it is not now engaged, and will not during the term of this Agreement engage in employment, perform services, provide material or labor, communicate with governmental agencies, or other third parties which would constitute a conflict of interest with CONSULTANT'S obligations hereunder.

17.0 FORCE MAJEURE

17.1 Force Majeure, as used herein, shall mean acts of God, acts of public enemies, fire, war or civil disturbance, insurrection, blockades, strikes, riots, epidemics, landslides, lightning, earthquakes, floods, washouts, explosions, inability with reasonable diligence to obtain materials because of a Force Majeure event affecting a material supplier's performance, loss or shortage of transportation facilities, commandeering of raw materials or products or plants or facilities by a government, labor disputes involving a general stoppage of work on the job, rules or regulations or orders or acts of governmental authority, the unforeseeable inability to obtain necessary site access, authorization, permits, licenses, certifications and approvals and not involving the fault or negligence of COMPANY or CONSULTANT.

18.0 LIABILITIES, WARRANTIES AND TITLE

18.1 **IN NO EVENT, WHETHER AS A RESULT OF NEGLIGENCE OR OTHERWISE, SHALL CONSULTANT OR COMPANY BE LIABLE TO THE OTHER FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR SPECIAL DAMAGES OF ANY KIND..**

18.2 CONSULTANT warrants and represents to COMPANY that:

18.2.1 CONSULTANT understands the known hazards and risks to human beings, property, and the environment associated with Emergency Response Services.

18.2.2 CONSULTANT is engaged in the business of Emergency Response Services, and has the highest level of professional expertise in these areas. CONSULTANT represents to COMPANY that it has the skill and professional competence, expertise, experience with United States Coast Guard classification and all other necessary certification, licenses and approvals to undertake the obligations imposed by this Agreement. The service performed by CONSULTANT will be conducted using its best professional judgment in a manner consistent with the level of care and skill ordinarily exercised by comparable members of the profession currently practicing under similar conditions in the community.

18.2.3 CONSULTANT will perform Emergency Response Services and all other obligations under this Agreement in a safe and workmanlike manner and in full compliance with all applicable laws, statutes, ordinances, orders, rules, regulations and guidelines of the federal, state and local governments who have jurisdiction to regulate the activities performed under this Agreement.

18.2.4 CONSULTANT shall provide COMPANY with reasonable advance written notice if any license, permit, certificate or any other approval is necessary to perform the Work hereunder, or if any license, permit, certificate, or any other approval necessary to perform the Work is to expire and cannot be renewed during the term of the corresponding Work Directive or is the subject of any judicial or administrative action seeking to impose a penalty or fine or to revoke or suspend such license, permit, certificate or approval. Such notice shall also be provided if CONSULTANT decides not to obtain any necessary license, permit, certificate or approval which becomes required after execution of the corresponding Work Directive. Upon COMPANY's receipt of such notice or upon COMPANY's learning that CONSULTANT is performing the Work without a required license, permit, certificate or any other necessary approval, COMPANY shall be entitled to terminate the Work Directive upon written notice thereof to CONSULTANT as set forth in **Section 13.0** herein.

18.2.5 If the Work entails use of one or more treatment, storage or disposal facilities, CONSULTANT shall utilize only such treatment, storage and disposal facilities as described in the applicable Work Directive that have been issued (or as directed by the Designated Representative or his or her designee).

18.2.6 CONSULTANT shall provide each person whom CONSULTANT should reasonably foresee being exposed to Waste, oil, hazardous materials, or non-hazardous material (including, but not limited to, CONSULTANT's employees and subcontractors) with clear and reasonable warning of the hazards associated with the material or Waste, and shall take all actions necessary to protect such persons, property and the environment from such hazards. CONSULTANT shall comply with all applicable laws, statutes, ordinances, orders, rules, regulations and guidance of the federal, state or local government with respect to worker safety during CONSULTANT's activities at the Site.

18.3 COMPANY warrants and represents to CONSULTANT that COMPANY will make available to CONSULTANT all information in its possession or that comes into its possession during the term of this Agreement regarding the Waste, the known surface and subsurface conditions in the vicinity of the Work and the Site, applicable topographical surveys, chemical analysis or other relevant information that would assist CONSULTANT in properly evaluating the nature and character of the Waste and the Work to be performed.

18.4 Shipping Manifests

18.4.1 Unless otherwise mutually agreed, CONSULTANT shall be responsible for and deliver to COMPANY shipping papers, manifests and labels with each shipment of Waste in accordance

with all applicable requirements of the United States Department of Transportation, (DOT) and the United States Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA), the Resource Conservation and Recovery Act (RCRA), or any replacement or successor agency thereto, and all other federal, state and local statutes, regulations and ordinances.

19.0 WAIVER

19.1 Any waiver by either party of any provision or conditions of this Agreement shall not be construed or deemed to be a waiver of any other provision or condition of this Agreement, nor a waiver or subsequent breach of the same provision or condition, unless such waiver be so expressed in writing and signed by the party to be bound.

20.0 SPECIAL PROVISIONS

20.1 CONSULTANT shall furnish and be responsible for the adequacy, accuracy and sufficiency of any designs, drawings, surveys or specifications which have been or which shall be produced in relation to the Work to be performed under the Agreement.

20.2 It is not the purpose or intention of this Agreement to create and the same shall not be construed as creating a joint venture, oil and gas partnership, commercial partnership or other partnership relation between the parties hereto.

20.3 CONSULTANT shall immediately notify COMPANY of all directions CONSULTANT receives from and all communication with any governmental body or agency with regard to the Emergency Response Services. CONSULTANT shall, to the extent practicable, under the circumstances, coordinate any response to a governmental body or agency's direction, request or other communication with COMPANY's Designated Representative or his or her designee.

20.4 COMPANY may obtain Emergency Response Services to substitute for or supplement those available under this Agreement at COMPANY's sole discretion, cost and expense.

21.0 DISPUTES

21.1 This Agreement and any Authorizations for Expenditure shall be deemed to have been made and accepted in Harris County, Texas, and the laws of Texas (without giving effect to Texas' choice of law rules) shall govern any interpretations or constructions of this Agreement. Except as provided in **Section 2.7.5** hereof, any dispute between COMPANY and CONSULTANT arising from this Agreement shall be resolved first through discussions among upper management of the parties, and if the dispute cannot be resolved within sixty (60) days from the date the matter was first brought by the disputing party to the attention of the other party, then either party may elect to resolve the matter through litigation which shall be brought in any court sitting in Harris County, Texas having jurisdiction thereof. COMPANY and CONSULTANT each submits to the exclusive jurisdiction of said courts and waive the right to change venue.

21.2 If in COMPANY's sole reasonable discretion the Work cannot be suspended pending the resolution of a dispute, COMPANY may (a) request that CONSULTANT continue prosecuting the Work to completion pursuant to the terms and conditions of this Agreement, or (b) take over the Work and itself prosecute the same to completion. If the pending dispute is resolved in COMPANY's favor, CONSULTANT shall be liable to COMPANY for any costs incurred in completion of the Work which are in excess of the amount(s) COMPANY would have paid pursuant to this Agreement.

21.3 It is understood that with respect to any goods and materials provided in the course of performing this Agreement the Uniform Commercial Code shall prevail as the basis for contractual obligations between COMPANY and CONSULTANT in the event that such obligations are not otherwise defined in this Agreement.

22.0 SEPARABILITY

22.1 If any section, subsection, sentence or clause of this Agreement shall be adjudged illegal, invalid or unenforceable, such illegality, invalidity or unenforceability shall not affect the legality, validity or enforceability of the Agreement as a whole or of any remaining sections, subsections, sentences or clauses.

23.0 SURVIVAL OF OBLIGATIONS

23.1 Without limiting the effect of any provisions in this Agreement, the warranties and indemnification provisions of this Agreement shall survive the termination or expiration of this Agreement.

24.0 SUCCESSORS AND ASSIGNS

24.1 The covenants and agreements contained in this Agreement shall apply to, inure to the benefit of and be binding upon the parties hereto and upon their respective heirs, executors, administrators, assigns and successors in interest.

25.0 LIABILITY OF GENERAL PARTNER

25.1 Kinder Morgan G.P., Inc., a Delaware corporation (the "**General Partner**"), is the general partner of COMPANY. CONSULTANT agrees that the General Partner shall not be liable, directly or indirectly, for any of COMPANY's obligations or liabilities under this Agreement. All such obligations and liabilities shall be non-recourse to the General Partner and shall not constitute debts or obligations of the General Partner. No judgment, attachment, execution or other writ or process shall be sought, issued, or levied in connection with this Agreement against the General Partner or any of its assets or properties to satisfy any such liabilities or obligations or any judgments rendered in connection therewith and all such liabilities and obligations shall be satisfied solely from the assets of COMPANY.

26.0 SERVICES FOR AFFILIATES

26.1 The services to be performed by CONSULTANT under this Agreement shall be performed, in certain cases, for one or more of COMPANY's Affiliates except Kinder Morgan, Inc. In the event an Affiliate requires CONSULTANT's services hereunder, a Work Directive for such service shall be issued in the Affiliate's name and executed by the Affiliate and CONSULTANT. Such Work Directive shall be in the form shown on **Exhibit A-2**, attached hereto and made a part hereof for all purposes. Upon execution of said Work Directive, CONSULTANT shall perform such Work for Affiliate in accordance with the Work Directive and the terms and conditions of this Agreement. By execution of the Work Directive, the Affiliate shall be entitled to all rights and privileges, and liable for all commitments and responsibilities held by COMPANY under this Agreement, as same applies to said Work Directive. Upon execution of said Work Directive, CONSULTANT's agreement to indemnify COMPANY pursuant to this Agreement, shall extend to both COMPANY and Affiliate for purposes of said Work Directive. Unless expressly provided in the Work Directive, the Kinder Morgan entity which executes the Work Directive shall be solely responsible for the liabilities and obligations set forth in this Agreement under which that Work Directive is being issued as the same apply to the Work to be performed pursuant to that Work Directive. All such liabilities and obligations, as they apply to that Work Directive, shall be non-recourse to the direct and indirect parents (or a general partner, as the case may be) and to the affiliates of the Kinder Morgan entity executing that Work Directive.

27.0 ENTIRE AGREEMENT

27.1 This Agreement, together with the exhibits attached hereto, constitutes the entire agreement between COMPANY and CONSULTANT and supersedes any prior written or oral agreements, or contemporaneous communications with respect to this subject matter. No subsequent amendment to this Agreement between the parties shall be binding on either party unless reduced to writing and signed by an authorized representative of each of the parties. To the extent any Work Directive issued pursuant to this Agreement conflicts with this Agreement, the Work Directive shall prevail.

28.0 DRUG/ALCOHOL/FIREARMS/OPERATOR QUALIFICATION POLICY AND TESTING

DOT Jurisdictional Work

☐ YES **Section 28.1** and **Section 28.2** apply.

☒ NO **Section 28.2** applies.

28.1 Drug/Alcohol/Operator Qualification Program and Testing

28.1.1 CONSULTANT represents and warrants that it has established, maintains, and enforces both a Drug and Alcohol Program and an Operator Qualification Program per requirements as outlined in **Exhibit F.**

28.2 COMPANY Policy Regarding Drugs/Alcohol/Weapons

28.2.1 CONSULTANT agrees to advise its employees and the employees of its subcontractors and agents that it is the policy of COMPANY that:

28.2.1.1 The use, possession and/or distribution of illegal or unauthorized drugs, drug-related paraphernalia or weapons on COMPANY's premises, right-of-way, or job site is prohibited and the use or possession of alcoholic beverages, except where authorized by COMPANY's management, is also prohibited;

28.2.1.2 Entry onto or presence on COMPANY's premises by any person, including CONSULTANT, CONSULTANT's employees, subcontractors, subcontractors' employees, contract personnel, temporary employees and visitors, constitutes consent to COMPANY to conduct searches, whether announced or unannounced, on COMPANY's premises of the person and his or her personal effects for such prohibited items, and consent to drug testing at any time while on COMPANY's premises; and

28.2.1.3 Any person suspected or found in violation of the policy or who refuses to permit a search or drug or alcohol test may be removed and barred from COMPANY's premises, at the sole discretion of COMPANY; and

28.2.1.4 CONSULTANT personnel who test positive for illegal drugs or unauthorized alcohol as a result of a test conducted on COMPANY premises, or upon request of COMPANY, will be removed from any further performance or services under this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

COMPANY:

Kinder Morgan Operating L.P. "D"
By: Kinder Morgan G.P., Inc., its General Partner
By: Kinder Morgan Management, LLC
the delegate of the General Partner

SIGNATURE

9/27/05
DATE

KERRI L SINGLETON
NAME (Please Print)

SR CONTRACT ADMINISTRATOR
TITLE (Please Print)

CONSULTANT:

NorthWest HazMat, Inc.

SIGNATURE

DATE

Margie Wilson
NAME (Please Print)

Owner
TITLE (Please Print)

Agreement Number: 05-ER-45-011-ORG

EXHIBIT A-1 – SCOPE OF WORK

CONSULTANT shall provide all tools, labor and equipment necessary to complete the Work as described herein.

24/7 Emergency Response capabilities under Section 3.3 to Appendix E of 40CFR 112 for EPA Jurisdictional Facility's and Section 3 to Appendix C of 33CFR 154 for USCG Regulated Facilities. This includes but is not limited to:

(i) One thousand feet (1,000 ft) of containment boom (or, for complexes with marine transfer components, one thousand feet (1,000 ft) of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within one (1) hour of the discovery of a discharge;

(ii) Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a small discharge (Average Most Probable Discharge) or greater which is available at the facility within 2 hours of the detection of an oil discharge; and

(iii) Oil storage capacity for recovered oily material.

CONSULTANT will provide response equipment and manpower resources in accordance with the National Preparedness for Response Exercise Program (PREP) Guidelines. Specific reference for USCG regulated facilities is located on pages 3-18 and 3-19 of the August 2002 PREP Guideline. Specific reference for EPA regulated facilities is located on pages 4-9 and 4-10 of the August 2002 PREP Guideline. These requirements include, but are not limited to, an annual equipment deployment exercise in the operating environment of the Area of the Facility, a comprehensive OSRO personnel training program, and a maintenance program to ensure that the equipment is periodically inspected and maintained in good operating condition. The satisfactory completion of these PREP requirements must be documented and submitted annually to Kinder Morgan to the attention of Steve Marositz, 2319 S. Riverside Ave., Bloomington, California 92316.

Agreement Number: 05-ER-45-011-ORG

EXHIBIT A-2 – WORK DIRECTIVE
Kinder Morgan Operating L.P. "D"
WORK DIRECTIVE

To: Contractor Company Name
Street Address
City, State Zipcode

Attention: Contact Name Phone: Contact Phone Fax: Contact FAX

Date:
Work Directive No.: **Directive Number**
Agreement No.: **Contract Number**
Account Coding: **Work Order / Account Coding**

Work Directive Origin: ☐ Orange Office ☐ Pacific Northern Region ☐ Pacific Southern Region ☐ Field Location Specify

This Work Directive is issued pursuant to the terms of the Agreement dated _____, by and between **Left Click To Select KM Entity That Signed Agreemt** and **Contractor Company Name** ("Contractor") ("Agreement"). By its execution hereof, Contractor agrees to perform for between **Kinder Morgan Operating L.P. "D",** an affiliate of **Left Click To Select KM Entity That Signed Agreemt** ("Company"), pursuant to the terms, conditions and provisions of the Agreement, the following described Work, **which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements** and shall furnish all labor, technical capability, tools, equipment, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto and by this reference made a part of this Work Directive ("the Work"). The undersigned shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued, as the same apply to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the direct and indirect parents (or a general partner, as the case may be) and to the affiliates of the contracting entity named below in this Work Directive.

1. Project Name: **Project name** Location: **Project Location i.e. (KM Facility, Line Segment No.)**
   Description: Describe project or service including, but not limited to specifications, conditions and referenced bids/proposals.
2. Company shall furnish the following materials to the following work site(s): None, unless previously approved by Partnership's authorized Representative.
3. The Work shall be performed at the following location: Location where work will be performed, if different from Project Location indicated above.

For Work performed within the State of California, the attached Exhibit A—Work Directive Attachment No. 01, must be acknowledged and signed.

4. Contractor shall commence the Work by _____, and shall complete the Work on or before _____.
5. Contractor offers to complete the Work in accordance with the Agreement for the following consideration, which shall constitute full and complete payment therefore:
   (a) ☐ the total Lump Sum Amount Fixed Price Of _____
   (b) ☐ the total Time & Materials Amount Not To Exceed _____
   (c) ☐ in accordance with the Price Schedule, included in the Agreement, or
   (d) ☐ in accordance with prices incorporated herein of _____, per _____.

SELECT WAIVER ACCORDING TO PROJECT'S TOTAL DOLLAR VALUE

☐ Waive 10% Retainage Fee; or ☒ Do not Waive 10% Retainage Fee

6. **Contractor shall submit invoices in duplicate to:** **Representative's Company Name**
   1100 Town & Country Road, Orange, California 92868
   Attn.: KM Company Representative Phone: KM REP Phone Fax: KM REP Fax

Invoices must clearly indicate the Agreement Number **Contract Number**, Work Directive Number **Directive Number** and Work Order Number / Account Coding **Work Order / Account Coding**, indicated above.

For Construction Projects, a Contractor's Completion Affidavit must be completed, signed by an authorized representative, notarized, and attached to Contractor's final invoice.

This Work Directive is hereby agreed to and accepted ___.

Right Click To Select KM Signature Blocks **Contractor Company Name**

	Signature	Date		Signature	Date
By:	Type Approver's Name OR Press "Delete"		By:		
	Print Name			Print Name	
Title:	Type Approver's Title OR Press "Delete"		Title:		
	Print Title			Print Title	

CC: Contracts Administration, with all attachments
Attachments: ☐ OQ Task List ☐ Successful Bid ☐ Bid Exception Approval ☐ Drawings ☐ Specifications/Standards ☒ Exhibit A-Revised Release Reporting Criteria ☐ Other *Specify*

Please return executed work directive and Exhibit A to:
Kinder Morgan Energy Partners, L.P., 1100 Town & Country Road, Orange, California 92868
ATTENTION: CONTRACTS ADMINISTRATION

Exhibit A — Work Directive No. Directive Number

Attachment No. 01 — Revised Release Reporting Criteria

Contractor shall ensure that its employees, agents, and subcontractors' employees engaged in Contractor's activities in the performance of the Work are:

(i) notified, and when determined by Company, trained and instructed by Company, either directly or through a train-the-trainer program by Company, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

(ii) understand that no Work or visit shall be undertaken to any Company right-of-way or facility where there is no Company representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in (i) above has occurred for Contractor's employees, agents and subcontractors' employees who will be performing at such a site.

For purposes of this Exhibit A "Hazardous Material" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any Environmental Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any Environmental Law. "Environmental Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

Company has determined that Contractor:

☐ will be working in a Non-COMPANY Onsite Situation and MUST complete the training

☒ Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONTRACTOR will assure that prior to performing any Work CONTRACTOR's employees, agents and subcontractors' employees will be trained relative to COMPANY's revised release reporting criteria.

Contractor shall certify its compliance with this training requirement upon Company request.

Acknowledged, agreed and accepted this _____ day of _____, 2005

_____("Contractor")
Company name

_____
Officer name and Title (please print)

_____
Officer signature

CONTRACTOR'S COMPLETION AFFIDAVIT

For Construction Projects Only

Contractor's Completion Affidavit Must Be Completed, Signed By An Authorized Representative, Notarized, And **ATTACHED TO CONTRACTOR'S FINAL INVOICE**

Contractor: **Contractor Company Name**
Street Address
City, State Zipcode

having entered into a contract with Kinder Morgan Operating L.P. "D" dated ___, to construct (remove) the following:

Describe project or service including, but not limited to specifications, conditions and referenced bids/proposals.

under Agreement No.: **Contract Number** Work Directive No.: **Directive Number,** Work Order No.: **Work Order / Account Coding** does hereby certify that said contract has been fully and finally completed; that all labor has been fully and entirely paid; that all Federal and State Unemployment and Old Age Benefit Taxes have been paid, or will be paid when due; that all valid State Sales and Use Taxes properly levied on materials, equipment, supplies and services furnished by Contractor have been paid; that all Federal or State Income Taxes required by law to be withheld from employees or others have been withheld and remitted to the proper taxing authority, or will be remitted when due; that all premiums for insurance requirements, all claims for damages of any nature arising from the fulfillment of said contract, all materials, supplies, etc., all labor and bills for materials, supplies, etc., of any and all subcontractors, have all been paid; that payment has been made in full of all claims for damages for which Contractor is required to indemnify COMPANY, its general partner and affiliated companies, hereunder, and that any other items payable by the Contractor under said contract have all been paid.

Contractor agrees to indemnify, save and hold harmless COMPANY from any claims, damages, or expenses arising from Contractor's failure to perform or fulfill any of the acts or obligations referred to above.

_____
Contractor

_____
By

State of: _____

County: _____

_____, an individual, makes oath and says that he is representing

_____ with headquarters at _____

and that he examined the foregoing statement and that it is a true and correct statement of facts in respect to each and every matter set forth therein.

Subscribed and sworn to before me this _____ day of _____ , 20____,

_____ County, _____ State.

_____
Notary Public

My commission expires: _____

Agreement Number: 05-ER-45-011-ORG

EXHIBIT B – SCHEDULE OF VALUES

1.0 OVERVIEW

1.1 The amounts set forth in the Agreement cover payment in full for all materials, work, tools, equipment, insurance, bonds, profit, overhead and all other costs and expense of every kind, character and nature for which the CONTRACTOR is entitled to payment. Unless specifically set forth in the Agreement, no additional payment of any kind will be contemplated.

1.1.1 COMPANY agrees to pay CONSULTANT, for Work performed pursuant to this Agreement either on a COST REIMBURSABLE BASIS or FIRM FIXED PRICE, LUMP SUM BASIS (The "**Contract Price**") as specified in each Work Directive. The cumulative total of all Work Directives under this Agreement SHALL NOT EXCEED **As Limited in Section 5 of each applicable Work Directive released**, in accordance with the Schedule of Values, **Exhibit B**.

2.0 PROCESSING OF TIMESHEETS & REIMBURSABLE RECEIPTS PRIOR TO INVOICE SUBMITTAL

2.1 CONTRACTOR shall submit the timesheets and reimbursable expenses to the AUTHORIZED PROJECT REPRESENTATIVE on a daily basis for verification/acknowledgement of expenses and time spent on the project. All supporting documentation must be signed by the project Inspector prior to invoicing. Signature by these personnel does not constitute agreement to pay theses expenses.

3.0 INVOICING

3.1 Standard Invoice Procedure

3.1.1 At the end of each calendar month, CONTRACTOR shall submit to COMPANY an original detailed invoice for Work performed during that month, together with one copy of such invoice and one set of supporting documentation. Such invoice shall be sent to the following address:

3.1.2 Reference each individual contract for the appropriate addressee and company name for the invoice to be submitted.

Company Name:	**Kinder Morgan Operating L.P. "D"**
Attn:	**As specified in Section 6 of each Work Directive released**
Address:	
	,
REFERENCE:	
Contract No.:	**05-ER-45-011-ORG**
Work Directive No.:	(Per the Work Directive (Exhibit A-2) Issued for Services)
Amendment / Change Order No.:	(Per the Amendment /Change Order Issued for Services)

3.2 Non-acceptance of Invoices

3.2.1 Invoices that do not relate to this Contract **will not be processed** and such invoices will not be accepted by COMPANY. All charges not in compliance with the stated terms and conditions of this Contract will be deducted from the invoice prior to payment processing.

3.3 Required Invoice Detail

3.3.1 Each of CONTRACTOR's invoices shall contain the following information on its face:

3.3.1.1 An invoice date.

3.3.1.2 A reference number (invoice number) which is unique to the transaction

3.3.1.3 Site or project name (if applicable) and COMPANY.

3.3.1.4 Reference of COMPANY'S Project Representative.

3.3.1.5 Contract Number, Change Order Number and Directive Number (as applicable).

3.3.1.6 Billing period (time period of charges).

3.3.1.7 CONTRACTOR's remittance address or electronic funds transfer routing information, (as applicable).

3.3.1.8 CONTRACTOR'S name and telephone number of contact to handle invoice related questions.

3.3.1.9 Amount due CONTRACTOR.

3.3.1.10 Project Status Report

3.3.1.11 Summary of amount invoiced to date, this invoiced amount, retention (as applicable), and the amount remaining to be invoiced.

3.4 Supporting Documentation

3.4.1 Each of CONTRACTOR's invoices shall be itemized and submitted to COMPANY together with receipts, time records, lien waivers, evidence of payment to subcontractors, vouchers showing payments for itemized material and labor, and any other evidence of CONTRACTOR's right to payment under this Contract as COMPANY may, in its sole good faith discretion, from time to time require.

3.5 Final Invoice

3.5.1 When CONTRACTOR submits its final invoice to COMPANY for the Work, in addition to the requirements outlined above, CONTRACTOR shall additionally include the following which shall be submitted no later than thirty (30) days after the project completion date:

3.5.2 Mechanics lien and stop notice releases executed by CONTRACTOR and by each person or entity that furnished any labor, services or materials in connection with the Work;

3.5.3 Reasonable proof satisfactory to COMPANY that any claims for labor, materials or any other claim or potential claim for which COMPANY withheld compensation pursuant to the Contract have been paid or satisfied in a manner acceptable to COMPANY; and

3.5.4 All final drawings and other documents required by this Contract.

4.0 PAYMENT PROCEDURE

4.1 Processing of Approved Invoices

4.1.1 Provided that such invoice meets all of the requirements as explained, COMPANY shall use its best efforts to pay all undisputed charges set forth in each invoice, less any

retention amount applicable, within thirty (30) days after such invoice is received by COMPANY.

4.2 Processing of Disputed Invoices

4.2.1 If COMPANY, in good faith, disputes and does not approve an item billed, COMPANY shall notify CONTRACTOR of the item or portion of an item disputed and withhold payment thereof until settlement of the dispute. Such right of COMPANY to withhold such payments shall be in addition, and not in any way in lieu of, any other right of COMPANY hereunder, including the right to raise disputes for the first time after audit. Payment shall be contingent upon COMPANY's review of the invoice and determination that the Work described in the invoice complies with all of the terms of this Contract. Interest penalties for disputed invoices will not be paid by COMPANY.

4.3 Delayed submittal of Invoices and Non-payment

4.3.1 Any Work for which CONTRACTOR does not submit an invoice to COMPANY within thirty (30) days after the month in which such Work is completed shall be deemed to have been performed by CONTRACTOR without compensation; provided however, that if prior to the end of such thirty (30) day period, CONTRACTOR requests in writing from COMPANY's Project Representative a further extension of time for submitting such invoice (stating the reasons therefore and the amount of additional time requested), and COMPANY elects to authorize such extension in writing, CONTRACTOR shall have until the end of the extension to submit such invoice.

5.0 TIME AND MATERIALS RATES

5.1 Labor:

Table 1
Labor Rates

Description/Category/Classification	Straight Time (Rate Per Hour) (US $0.00)	Overtime (Rate Per Hour) (US $0.00)	Double Time (Rate Per Hour) (US $0.00)
Incident Manager/Site Supervisor	$50.00	$82.50	
Emergency Response Manager	$50.00	$82.50	
Safety/Public Information Officer	$40.00	$45.00	
HazMat Technician	$38.00	$57.00	
Hazardous Materials Manager	$50.00	$82.50	
High Hazard Specialist	$100.00	$150.00	
Confined Space Supervisor	$35.00	$45.00	
Confined Space E/A	$38.00	$57.00	
Secretary/Administrative	$20.00		

5.1.1 Rates shown on the rate sheet in the Schedule of Values include all benefits, withholding, workers compensation, and small tools and consumables.

5.1.2 All labor rates shown in Table 1 of the Schedule of Values shall be all-inclusive of small tools having a cost less than $750, disposable parts, consumables and personal protective gear that is normally utilized in the performance of daily work.

5.1.3 Rates are subject to change from time to time at Contractor's discretion. The rate schedule, once adopted will remain in effect until new rates are mutually agreed upon by Company and Contractor and amended into the Agreement

5.1.4 Classifications and straight time, overtime and double time rates not defined in Table 1 above shall be approved in advance by the Technical Designated Representative and the Administrator of the Agreement.

5.1.5 Day rates as approved in advance by COMPANY will apply to mobilization and demobilization personnel to the worksite.

5.1.6 Travel pay - See section "5.3" below.

5.2 Definition of Overtime:

5.2.1 CONTRACTOR defines Overtime as work exceeding eight (8) hours per days and/or forty (40) hours per calendar week. CONTRACTOR's employee(s) hours worked on project(s) other than project here under will not be credited hours for the purpose of overtime. Overtime will be paid at the "Over Time" rates shown (in Table 1) of the Schedule of Values, **or at a factor of 1.3 times the straight time or flat rate, if applicable**, multiplied by the number of hours worked.

5.2.2 CONTRACTOR defines Double Time as work on Sundays or on CONTRACTOR's observed holidays. Double-Time shall be paid at the rates shown in Table 1 of the Schedule of Values, **or at a factor of 1.7 times the Straight-Time or flat rate, if applicable,** multiplied by the number of hours worked.

5.2.3 CONTRACTOR agrees not to pay shift differential for swing (evening) or graveyard (night) shifts.

5.2.4 CONTRACTOR's employee(s) put on stand-by time be paid for actual hours on stand-by. Stand-by time hours will be credited for the purpose of overtime.

5.3 Definition of Travel and Expenses:

5.3.1 Travel Time is charged as work time. Travel time for hourly rate personnel will be actual travel time but not to exceed eight hours per day. Agreement rates do not include costs for travel, subsistence, reproduction, communications, computer, modeling, subcontracts, freight, etc.

5.3.2 COMPANY shall reimburse CONTRACTOR, without markup, for the direct, reasonable cost to CONTRACTOR for employee travel expenses away from the (Site/Employee's base office) when this travel occurs as a direct result of the performance of the Work. Travel expenses include air (excluding first class airfare), ground transportation, lodging, meals, and telephone expenses. All travel expenses must have prior COMPANY approval and shall be supported by valid receipts.

5.3.3 Mileage Reimbursement will be paid for Mobilization and Demobilization Only and shall be no more than $0.40½ cents/mile/vehicle. (COMPANY will compensate only per vehicle and not per man within the vehicle.)

5.3.4 Per Diem (subsistence) when in outlying areas (outside of a 50 mile radius from office/site) will be $40.00 per person per day; or $50.00 per person per day in high cost areas agreed to in advance by the parties.

6.0 EQUIPMENT

6.1 Equipment, rented, at cost plus ten percent (10%)

Table 2
Equipment Rates

Description/Category/Classification	Rate (U.S. $0.00)	Unit of Measure (Per Hour, Day, Week, Etc.)
VEHICLES		
Emergency Response Vehicle	$150.00/day	
Support/Chase Vehicle	$50.00/day	
Truck, Heavy Duty with Lift/Crane	$95.00/day	
Trailer, Emergency Response	$120.00/day	
Mileage For All Vehicles	$.050/Mile	
Misc Equipment	Cost + 25%	
PERSONAL PROTECTIVE EQUIPMENT		
Level A TECPS	Per Application	
Level B Fully Encapsulating Suit	$125.00/each	
Level B Coveralls	$75.00/each	
P/C Tyvek	$12.00/each	
Self Contained Breathing Apparatus	$50.00/each	
3pplied Air Respirator System	$50.00/each	
Replacement Air Cylinders	$5.00/each	
Pull Face Respirator	$18.75/each	
Respirator Cartridges	$22.50/each	
Leather Gloves	$7.50/each	
Neoprene Gloves	$1.20/each	
PVC Gloves	$4.00/each	
PVC Bouts	$15.00/pair	
Hazmat Boots	$75.00/pair	
Disposable Boots	$5.75/pair	
Rain Gear	$18.75/set	
ABSORBENT MATERIALS		
5" x 10" Absorbent Booms	$108.00/Bale of 4	
8" x 10" Absorbent Booms	$160.00/Bale of 4	
Absorbent Pads, Oil Only	$70.00/Bale of 100	
Absorbent Pads, Universal	$70.00/Bale of 100	
Absorbent Pads, Acids	$70.00/Bale of 100	
3" x 4" Absorbent Socks	$70.00/Bale of 40	
Catch Basin Filters	$79.00/each	
Spill-Sorb Absorbent	$11.00/Bag	
Spill-Dri Absorbent	$11.00/Bag	
Absorbent W Oil Only Absorbent	$20.75lBag	
Ultra-Sorb 248	$8.00/Bag	
Plug-N-Dike (Patty)	$10.00/each (10.oz)	
Plug-N-Dike Drain Cover	$75.00/eaoh	
EQUIPMENT		
Drum, 95 Gallon Poly Overpack	$230.00/each	
Drum. 85 Gallon Metal Overpack	$130.00/each	
Drum, 55 Gallon Metal	$48.00/each	
Drum, 55 Gallon Poly	$72.00/each	
Drum, 6.5 Gallon Plastic	$15.50/each	
Drum Liners	$3.50/ each	
Generator	$45.00/day	
Lighting System	$10.00/day	
Chemical/Fuel Transfer Pump	$65.00/day	
Chem/Fuel Hose Assembly	$25.00/day	
2" Volume Transfer Pump	$125.00/day	
Hose Assembly	$55.00/Sect	
Compressor	$120.00/day	
Pressure Washer 2400 PSI	$50.00/day	

Table 2
Equipment Rates

Description/Category/Classification	Rate (U.S. $0.00)	Unit of Measure (Per Hour, Day, Week, Etc.)
Drum Dolly	$10.00/day	
Barrier Tape	$14.00/roll	
Duct Tape	$12.00/roll	
Decon Equip/Supplies	$200.00/set	
Visqueen 10' x 100'	$35.00/roll	
Tarp 10' x 20'	$10.00/each	
Tarp 15' x 20'	$18.00/each	
Tarp 30' x 50'	$175.00/each	
Shelter 12' x 12'	$35.00/day	
Bag, Yellow Disposal	$1.00/each	
Bag, Hazmat Disposal	$1.00/each	
Bag. Red Bio-Hazars	$1.00/each	
Light Sticks	$2.00/each	
Plastic Towels	$1.00/each	
Labels (DOT Required)	$1.00/each	
Collwassa Tube (Sample Tubes)	$15.00/each	
Inflatable Leak Sealing System	$2,100.00/set	
Dome Clamps -.	$675.00/set	
Betts EOV	$750.00/each	
MONITORING/TEST EQUIPMENT		
Four Gas Monitor	$35.00/day	
LEL/02 Meter	$25.00/day	
HazCat Kit	$10.00/test	
Chem-Bio Testing	$75.00/test	
MISCELLANEOUS EQUIPMENT		
Communications Equipment	$20.00/day	
Satellite Communication system	$120.00/day	
GPS Locater	$10.00/day	
Camera	$20.00/day	
Per Diem (When required)	Cost + 25%	
Disposal of Waste Drums	Cost + 25%	
Disposal of Waste Soil	Cost + 25%	

Agreement Number: 05-ER-45-011-ORG

EXHIBIT C – CERTIFICATE OF INSURANCE

This page shall serve as a dummy page placed into the Contract Documents in the order listed in **Section 2.0** of the Agreement to be replaced by the insurer's ACORD Standard Form. The kinds and amounts of insurance coverage hereunder shall be in accordance with **Section 5.0** of the Agreement.

Agreement Number: 05-ER-45-011-ORG

EXHIBIT D – UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Agency	(74CS)	51C1
	EPA74C-R-95-CC1	April 1995

EPA Title III

List of Lists

Consolidated List Of Chemicals Subject To The Emergency Planning And Community Right-To-Know Act (EPCRA) And Section 112(R) Of The Clean Air Act, As Amended

Title III Of The Superfund Amendments, And Reauthorization Act Of 1986, And Title III Of The Clean Air Act Amendments Of 1990

- EPCRA Section 302 Extremely Hazardous Substances
- CERCLA Hazardous Substances
- EPCRA Section 313 Toxic Chemicals
- CAA 112(R) Regulated Chemicals For Accidental Release Prevention

It shall be contractor's responsibility to obtain this publication in its entirety and to abide by its provisions during the performance of any work hereunder.

INFORMATION SOURCES

For Additional Copies Of This Or Other Title III Documents, Send Requests To:

EPCRA Document Distribution Center
Attention: NCIPI
11029 Kenwood Road
Cincinnati, Ohio 45412

Refer To Document Number EPA 740-R-95-001 For Additional Copies Of This Document.

A Dbase Version Of This Consolidated List Is Available On Disk From:

National Technical Information Services (NTIS)
5285 Port Royal Road
Springfield, Virginia 22161
Refer To PB95 503165
Phone 703-487-4600

Refer To PB95 503165

A dbase version of this consolidated list is available to be downloaded on the internet through the EPA public access gopher server. The internet address is gopher.epa.gov, or it can be accessed through dial-in access (919) 558-0335. The file can be found by following these menu options

EPA Offices And Regions
Office Of Solid Waste And Emergency Response
Oswer Publications
Title III List Of Lists

There is also an accompanying descriptive record called a "metadata record" which describes how to use the dbase file.

Question (s) concerning changes to the list or other aspects of TITLE III of both SARA and the CAA amendments, section 112®, may be submitted in writing to:

Emergency Planning And Community Right-To-Know Information Hotline
U.S. Environmental Protection Agency (5101)
401 M. Street SW
Washington, DC 20460

Alternatively, you may call the hotline a 800-424-9346 or 703-412-9810 between the hours of 8:30 am and 7:30 pm eastern time

Agreement Number: 05-ER-45-011-ORG

EXHIBIT E – PROJECT SCOPE CHANGE ORDER

Consultant or Contractor:	**Consultant/Contractor** **Mailing Address** **City, State Zipcode** Attention: **Designated Representative** Phone: FAX:	Date: Amendment (CO) #: Agreement #: Work Directive #: Work Order/ Account Coding:	 **CO-0X** **XX-XX-XX-XXX-ORG** **XX-XXXX** **XXXXXX**

Original Project Name & Location:	Original Project Name & Location		
Project Description and $ Value:	Original Project/Services		$0.00
Scope Change & $ Value:	**Scope of Work Change**		**$0.00**
Reason for Change:		Total Contract or Work Directive Value	**$ 0.00**

Start of Scope Change Date:		**Implementation / In-Service Date:**	

Basis Of Payment	Work Order	Expense (RC)	Estimated	**Actual**
	☐ Lump Sum	☐ Lump Sum	0.00	0.00
	☐ Other (T&M)	☐ Other (T&M)	0.00	0.00
	☐ Force Account	☐ Force Account	0.00	0.00
		Total $ Value (Services):	**$ 0.00**	**$ 0.00**

Materials Provided By:		Estimated	**Actual**
	☐ Company	0.00	0.00
	☐ Consultant/Contractor	0.00	0.00
	Total $ Value (Materials):	**$ 0.00**	**$ 0.00**

Impact to Other KM Projects:	
Reference Drawings:	

Work Requested by:
☐ COMPANY
☐ CONSULTANT

Work Completed:

Accepted By _____ Date Accepted _____

Contractor shall submit invoices in duplicate to: Representative's Company Name, 1100 Town & Country Road, Orange, California 92868
Attn.: **KM Company Representative** Phone: **KM REP Phone** Fax: **KM REP Fax**

Invoices must clearly indicate the Agreement Number Contract Number, Work Directive Number **XX-XXXX**, Work Order Number / Account Coding **XXXXXX**, and Change Order Number **CO-0X** indicated above.

By signing below, each party affirms that he/she has the authority to commit the modifications hereunder, and that this Project Scope Change Order Number **CO-0X**, is by reference hereby made part of Agreement Number Contract Number / (work directive number) **XXXXXX** as Amendment Number **0X**.

Authorized Representative Signature:

Right Click To Select KM Signature Blocks	**Consultant/Contractor**
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____
NAME (Please Print) _____	NAME (Please Print) _____
TITE (Please Print) _____	NAME (Please Print) _____

Distribution: Originals: ☒ **Consultant/Contractor (1)** ☒ **Contracts Administration (1) W/Attachments**
Copies:

Attachments: ☐ OQ Task List ☐ Successful Bid ☐ Bid Exception Approval ☐ Drawings ☐ Specifications/Standards ☐ Other *Specify*

Please return executed Original Change Order to: Kinder Morgan Energy Partners, L.P., 1100 Town & Country Road, Orange, CA 92868
ATTENTION: CONTRACTS ADMINISTRATION

Agreement Number: 05-ER-45-011-ORG

EXHIBIT F – DRUG & ALCOHOL/OPERATOR QUALIFICATION PROGRAM REQUIREMENTS

CONTRACTOR shall comply with requirements for both DOT Drug and Alcohol and Operator Qualification Requirements Programs, as follows:

1.0 DOT DRUG AND ALCOHOL PROGRAM

1.1 CONTRACTOR represents and warrants that it has established, maintains, and enforces a drug and alcohol policy.

1.1.1 Compliance with DOT Anti-Drug and Alcohol Misuse Regulations.

1.1.1.1 COMPANY, under 49 CFR Parts 199 and 40, is required by law to ensure compliance with the pipeline safety regulations for drug and alcohol testing applicable to its CONTRACTORS', subcontractors and their agents, performing operations, maintenance, or emergency response functions on a pipeline or LNG facility subject to Parts 191, 192, 193 and 195 of Title 49 of the Code of Federal Regulations or any other provision or Part thereof (or any successor thereof) covering the type of work CONTRACTOR may perform pursuant to this Agreement as follows:

1.1.1.1.1 CONTRACTOR agrees that CONTRACTOR, its subcontractors, and their agents will abide by a DOT anti-drug plan and alcohol Misuse Program which applies to all employees of CONTRACTOR, its subcontractors, and agents if performing an operations, maintenance or emergency response function on COMPANY's facilities.

1.1.1.1.2 CONTRACTOR agrees that CONTRACTOR, its subcontractors and their agents shall provide to their respective employees an Anti-drug Plan and Alcohol Misuse Program, the drug and alcohol testing, education, and training required by Title 49 Parts 199 and 40 of the Code of Federal Regulations. Prior to and during the performance of any work hereunder, CONTRACTOR shall have in place and shall implement a drug testing program meeting the requirements imposed by the regulations of the Code of Federal Regulations.

1.1.1.1.3 CONTRACTOR agrees that CONTRACTOR, its subcontractors, and their agents, are in compliance with the drug and alcohol testing regulations at 49 CFR Parts 199 and 40 and the Motor Carrier Regulations at 49 CFR Parts 391 and 394, if applicable.

1.1.1.1.4 CONTRACTOR agrees that CONTRACTOR, its subcontractors, and their agents shall allow COMPANY, the administrator and/or representative of a state agency (as defined in 49 CFR Part 199) access to property and records for the purpose of monitoring compliance with the requirements of the Research and Special Programs Administration for drug and alcohol testing at 49 CFR Part 199. This access shall occur periodically, and without prior notice to allow COMPANY, the administrator and/or representative of a state agency to audit CONTRACTOR, its subcontractors, and their agents' Anti-drug Plan and Alcohol Misuse Program, the required drug and alcohol testing and results thereof.

1.1.1.1.5 COMPANY requires that CONTRACTOR'S written Drug Testing Program be approved in writing by COMPANY'S Policy and Compliance Department or its third party designee prior to start of work hereunder. Thereafter, COMPANY reserves the unqualified right to audit the said program at any time, or to ask its third party designee to do likewise, during the performance of work hereunder. In the event that COMPANY, at its sole discretion believes that the said program no longer meets the applicable law and/or regulatory statutes recited in this Policy and its subsections, then COMPANY may suspend work until such time as CONTRACTOR restores the said program to full compliance. Any costs incurred by COMPANY because of such suspension, shall be borne by CONTRACTOR.

1.1.1.1.6 COMPANY, to the extent required by applicable laws or regulations, will monitor the CONTRACTOR's compliance with these regulations and from time to time require certificates regarding compliance with such testing requirements to be provided by CONTRACTOR from CONTRACTOR'S testing agency. CONTRACTOR will allow access to its property and records by COMPANY or by any authorized state agency (or its representative) having jurisdiction over COMPANY or its facilities, for the purpose of monitoring COMPANY'S compliance with governmental laws, rules or regulations.

2.0 OPERATOR QUALIFICATION PROGRAM

2.1 CONTRACTOR represents and warrants that is has established, maintains and enforces an Operator Qualification (OQ) program.

2.1.1 Compliance with DOT OQ Regulations

2.1.1.1 COMPANY under 49 CFR Parts 192 and 195 is required by law to ensure compliance with the pipeline safety regulations for OQ applicable to its CONTRACTORS, its subcontractors and their agents who perform specific covered tasks during operations and maintenance work on hazardous liquids (including CO2) or natural gas pipelines or facilities subject to Parts 192 or 195 of Title 49 of the Code of Federal Regulations as follows:

2.1.1.1.1 CONTRACTOR agrees that CONTRACTOR, its subcontractors and their agents shall review and comply with COMPANY's OQ Program. CONTRACTOR agrees that CONTRACTOR, its subcontractors and their agents will also review the list of covered tasks and identify any and all covered tasks that they would perform for COMPANY (OQ Program and list of covered tasks attached).

2.1.1.1.2 CONTRACTOR agrees that CONTRACTOR, its subcontractors and their agents will be qualified under a COMPANY approved evaluation program which applies to all employees of CONTRACTOR, its subcontractors and their agents who perform specific covered tasks during operations and maintenance work.

2.1.1.1.3 CONTRACTOR agrees that proper and approved documentation will be kept by CONTRACTOR or their agents to verify the OQ evaluations and that CONTRACTOR will provide for COMPANY's access to this documentation as necessary for verification. CONTRACTOR will keep documentation in an electronic format, such as Qualifier™ database, the National Center for

Construction Education and Research database, the Midwest Energy Association database, CONTRACTOR's website or other format pre-approved by COMPANY's OQ Administrator.

2.1.1.1.4 CONTRACTOR agrees that CONTRACTOR, its subcontractors and their agents shall allow COMPANY's representative and/or the representative of a local, State or Federal agency access to property and records for the purpose of monitoring compliance with the requirements of the OQ regulation. This access shall occur periodically and without prior notice.

2.1.1.1.5 CONTRACTOR personnel who do not have proper and documented OQ qualifications will not be allowed to perform specific covered tasks during operations and maintenance work on hazardous liquids (including CO2) or natural gas pipelines or facilities subject to Parts 192 or 195 of Title 49 of the Code of Federal Regulations, unless those non-OQ qualified personnel are supervised by an OQ-qualified individual, as described in COMPANY's OQ Program.

2.1.1.1.6 CONTRACTOR agrees to provide OQ-related information on its personnel when requested by COMPANY. Typically, this will be requested by COMPANY Project Management or Operations Designated Representatives during the bidding process or if the work is not bid, when the work is assigned to CONTRACTOR.

2.1.1.1.7 CONTRACTOR agrees to review the work it is being asked to perform and identify any covered tasks being performed which were not identified as covered tasks by COMPANY's Project Management personnel, and notify COMPANY's Project Management personnel of the discrepancy prior to commencement of the work.

For detailed information on COMPANY's Operator Qualification requirements contact Doug Thacker, Senior Coordinator, Safety Services Phone: 307-261-3330, Fax: 307-262-5717, E-mail: Doug_Thacker@kindermorgan.com .

IMPORTANT NOTICE

To Contractors Of Kinder Morgan And/Or Its Affiliates ("KM")

Department of Transportation Regulations
For
Anti-Drug and Alcohol Misuse Plans

The Department of Transportation ("DOT") continues to report drug/alcohol testing compliance problems with contractors who perform DOT-covered work for pipeline operators. In response to these compliance problems, DOT promises to step-up their enforcement of the regulations contained in 49 CFR Parts 199 and 40. DOT places the responsibility upon the pipeline operators such as KM, to see that contractors and contractor employees performing DOT-covered work are in compliance with the drug testing regulations. Given what we know about DOT drug/alcohol testing plans and contractor monitoring, it is possible many existing contractor's drug plans do not meets the standards required by these regulations. In addition, new alcohol regulations became effective January 1, 1995, for the Research and Special Programs Administration and the Federal Highway Administration. Consequently, reasonable measures must be undertaken to safeguard against civil penalties from DOT.

1. KM Action: Effective January 1996, COMPANY contracted with National Compliance Management Service, Inc., (NCMS) to act as its agent for monitoring contractor DOT anti-drug and alcohol misuse prevention plans and to obtain contractor drug/alcohol testing data. NCMS is authorized by KM to request anti-drug and alcohol misuse plans and statistical data and other documentation from contractors who plan to perform an operating, maintenance or emergency response function on KM covered facilities.

   DOT's Transportation Safety Institute has model anti-drug and alcohol misuse plans available for guidance when writing your plans. You can contact them at (405) 954-4643.

2. Contractor Action: Please forward the following items immediately to National Compliance Management Service, Inc.:

   A. A copy of your current DOT anti-drug and alcohol misuse prevention program;

   B. A completed Contractor Audit Request Form (enclosed with this notice) to:

   National Compliance Management Service
   (Kinder Morgan Audit)
   7 Compound Drive
   Hutchinson, KS 67502
   Phone: (620) 669-0954 Fax: (620) 669-8430

3. National Compliance Management Service, Inc. (NCMS) Action: NCMS, KM's authorized agent for reviewing contractors DOT anti-drug/alcohol misuse plans and drug/alcohol testing data shall:

4. Review your anti-drug/alcohol misuse plan utilizing the federal inspection forms. These forms contain the same criteria utilized by the Federal and State agencies.

   A. Based on this review, if your anti-drug/alcohol misuse plan should require revision, NCMS will so advise your company and provide you with the necessary information to bring your plan into compliance. All contractors must revise their anti-drug/alcohol misuse plan to comply with regulations as determined by NCMS.

   B. Request the necessary drug/alcohol testing data on your company employee, numbers and kinds of tests performed and their result. The statistical information shall be requested on a quarterly basis.

IMPORTANT NOTICE

To Contractors Of Kinder Morgan And/Or Its Affiliates ("KM")

Department of Transportation Regulations
For
Anti-Drug and Alcohol Misuse Plans

C. The first review and notice of anti-drug plan/alcohol misuse plan revisions by NCMS is without fee. KM has paid for this service. However, additional reviews will result in a fee of $75.00 for the first and $150.00 for the second additional review. These fees shall be paid to NCMS by the contractor. These will be no third review unless KM approves it.

Information on a Pipeline Testing Consortium:

Pipeline Testing Consortium, Inc. (PTC) is one of several consortia in the USA that is available to provide administration of the DOT anti-drug/alcohol misuse regulations. Contractors who become members of PTC are in compliance with DOT regulations. Although we do not endorse one consortium, if you are interested in its service, please contact it by phone or mail at:

Pipeline Testing Consortium, Inc.
9 Compound Drive
Hutchinson, KS 67502
Phone 1-800-294-8758 Fax: (316) 669-0906

Only contractors with approved drug/alcohol testing programs will be allowed to perform DOT-covered tasks for KM. If you should have any question pertaining to this matter or require additional information, please contact for KMI systems, Scott Evans at 307-261-3310, and for KMEP systems, Barry Kerns at 714-560-4400.

KINDER MORGAN CONTRACTOR COMPLIANCE PROCEDURES	
Item 1	KINDER MORGAN will request copies of the alcohol and drug testing plans of its contractors. The contractor will provide the information to National Compliance Service, Inc. (NCMS).
Item 2	NCMS will evaluate contractor plans utilizing and evaluation form that follows the DOT/RSPA Headquarters Audit Inspection form.
Item 3	NCMS will return the evaluation form to the contractor advising the status of the evaluation.
Item 4	If the plan is acceptable, it will be so noted and returned to the contractor.
Item 5	If the plan is unacceptable, it will be so noted and returned to the contractor with the evaluation form including remarks representing what needs to be accomplished in order to be accepted.
Item 6	If the contractor returns the plan for a second review, the plan must be accompanied by a check or money order from the contractor in the amount of $75.00, payable to National Compliance Management Service, Inc. The plan must be returned by the contractor for the second review within 30 days of the contractor receiving the plan from the first review.
Item 7	The third review will require a payment of $150.00 by check or money order from the contractor. The plan must be returned by the contractor for the third review within 30 days of the contractor receiving the plan from the second review.
Item 8	Plans will not be reviewed more than three times, without the intervention of a KINDER MORGAN management official.

KINDER MORGAN
U.S. DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

CONTRACTOR AUDIT REQUEST FORM

Company Name:					
Street Address:					
City:		State		Zip Code	
Telephone:		Fax			
Contact Name:					
Type Of Work Performed:					
Kinder Morgan Division:					

List the office, including division and location, that has requested you to submit this information.	
Does your company belong to a consortium?	☐ Yes ☐ No
If yes, please list the name and address:	

Please Provide The Following Information*

One (1) copy of your DOT drug and alcohol program (latest revision)

Complete & Return statistical data reports (drug & alcohol - attached)

Drug/Alcohol data for 1995	1st		2nd		3rd		4th
Drug/Alcohol data for 1996	1st		2nd		3rd		4th
Drug/Alcohol data for 1997	1st		2nd		3rd		4th
Drug/Alcohol data for _____	1st		2nd		3rd		4th

One blank copy of the laboratory chain-of-custody form

List of covered employees

Verification of supervisory drug/alcohol training

* Note: It Is Absolutely Necessary That All Of The Above Information Be Submitted, To Ensure That Your Company Is Eligible To Perform Dot Regulated Services For Kinder Morgan.

Return this form and the requested documents to:	National Compliance Management Service, Inc. **(KINDER MORGAN Audit)** 7 Compound Drive Hutchinson, KS 67502 Phone: (620) 669-0954 Fax: (620) 669-8430 **For questions, contact: Richard L. Rippert at (620) 669-4410**

Notice to Contractors
1997

This form has been designed by our pipeline clients for use by the contractor for submission of drug/alcohol statistical data on a quarterly basis and can be used for the entire reporting year.

Complete the section marked **First Quarter** and retain the original in your file. Mail a copy of the completed form (mail both pages) to NCMS for inclusion in your contractor file. At the end of the second quarter, complete the section marked **Second Quarter** and again retain the original for your file. Mail the completed form to NCMS. Complete the same process for the **Third Quarter** and the **Fourth Quarter**. There is no need to complete the totals section until the fourth quarter of the reporting year. This process will allow for the use of the same form all year long and will provide a running tally of your statistical data. Be sure to mail the complete form each quarter. If you do not conduct any alcohol tests during the quarter, you may put zeros or draw a diagonal line thru the section.

The submission of the quarterly statistical data report is the key to demonstrating your company's compliance with the federal regulations and provides notification to our pipeline clients of your status. The quarterly statistical data reports must be received no later than 30 days after the end of the reporting quarter.

Notice to Contractors
Drug/Alcohol Statistical Data Report Submission

Contractors have been required by pipeline operators to submit drug testing statistical data on a quarterly basis as a means to demonstrate their compliance with the pipeline safety regulations. Beginning on January 1, 1995, contractors were required to maintain and report alcohol statistical data on their programs. In the past a number of statistical reporting formats have been utilized by various operators, contractors, and consortium. After reviewing all the information supplied we have determined that some of these reports are not sufficient as they don't meet the minimum requirements of the pipeline safety drug and alcohol regulations as set forth in 49 CFR Part 199.23 and 199.25 for drug testing data; 49 CFR Part 199.227 and 199.229 for alcohol testing data; and 49 CFR Part 40.31 blind sampling as required by our pipeline clients.

The pipeline safety drug and alcohol regulations clearly specify what types of records must be maintained by each contractor. The regulations also specify what type of information must be maintained and available for reporting to the pipeline operator in order for them to determine the contractor's compliance with the regulations. Under 49 CFR 199.21 the regulations clearly stipulate the pipeline operator shall remain responsible for ensuring that the requirements of Parts 199 and 40 are complied with and that contractors shall allow access to property and records for the purpose of monitoring compliance with the regulations.

The review of contractor statistical data is an ongoing process and is the key used to determine that contractors performing covered functions for our clients are conducting the required types and numbers of drug and alcohol tests. It is essential contractors realize they must submit valid and accurate statistical drug/alcohol data. The submission of incomplete, partial reports, incorrect data/totals, or the submission of laboratory reports which do not address all the federally-mandated requirements creates a major problem for our clients.

In recent federal and state audits it appears the focus of their inspections is now to look more closely at contractor's files and to concentrate on the statistical data being forwarded to the pipeline operator. If the information is incomplete, incorrect or missing, this could lead to the issuance of a probable violation against the pipeline operator.

At the request of our pipeline clients, NCMS has developed a drug and alcohol statistical data reporting format which addresses the minimum federal record keeping and reporting requirements for drug and alcohol testing. The use of this form will ensure more accurate information and provide a mechanism for reviewing the data to determine compliance with pre-employment testing, random test numbers and other components of the regulations. This form has been accepted by our clients as the minimum measuring standard for compliance with the reporting requirements. Therefore, contractors shall submit their drug and alcohol statistical data on the designated NCMS form.

Agreement Number: 05-ER-45-011-ORG

EXHIBIT G – KINDER MORGAN CONTRACTOR SAFETY RULES & REGULATIONS

Issued: 8-16-1995
Revised: 01--2005

KINDER MORGAN

CONTRACTOR SAFETY MANUAL

This document is intended to provide all contractors, including inspectors, sub-contractors and contract employees with the essential safety, health and environmental standards required to successfully complete tasks while working on and/or adjacent to Kinder Morgan job sites.

All contractor employees and inspectors are required to read and sign the applicable **Contractor Employee Safety Training Document** (ATTACHMENT 01) upon completion of the pre-job briefing and site orientation prior to the start of any work activity at Kinder Morgan facilities and/or projects.

Thank you for your continued commitment to and implementation of our cooperative Contractor Safety Program. Your continued safety

IS OUR PRIMARY GOAL!

CONTRACTOR SAFETY RULES AND REGULATIONS

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INTRODUCTION

Contractors are required to comply with all applicable Federal, State and local safety, health, and environmental regulations including all site specific Kinder Morgan policies applicable to work scope. All Contractors must have and adhere to their own Health and Safety Plan. The guidelines presented in this document are not an exhaustive list of all applicable requirements and regulations for the Contractor to conduct work for Kinder Morgan. Instead, these guidelines highlight certain Kinder Morgan standards that may be applicable for the Contractor's scope of work for Kinder Morgan.

It is essential that these rules and safety responsibilities are understood before starting work on Kinder Morgan property and/or project. Violating safety standards could jeopardize the welfare of the Contractor and/or Kinder Morgan employees and could result in expulsion from Kinder Morgan property and/or project and deny the Contractor the opportunity to be considered for future Kinder Morgan work projects.

If these standards are not clearly understood, or if safety problems arise which are not covered by these standards, contact the company EHS representative before proceeding. This company representative will be designated at the pre-job meeting along with contact information.

All Contractors shall provide direct supervision of their employees. Contractors or subcontractors shall not be supervised by Kinder Morgan management or personnel.

All Contractors are required to have, and make available for Kinder Morgan's review, written compliance programs which address specific work related activities such as confined space entry and safe excavation plans. Providing written Health and Safety programs to Kinder Morgan does not constitute an express or implied approval of such programs by Kinder Morgan management.

Additional information specific to Contractor Safety may be accessed through the web site www.kindermorgan.com under "Work with KM". This web site allows access to the various forms available to achieve documentation requirements such as the Contractor Injury/Accident Report, etc.

1.0 DEFINITIONS

1.1 **ACCIDENT/INCIDENT INVESTIGATION**: An accident/incident investigation is an analysis of the factual information gathered by a thorough and conscientious examination of all factors involved. It is an objective evaluation of all facts, opinions, statements, and related information to determine the cause, as well as definite action steps to be taken to prevent reoccurrence.

1.2 **CARRIER ACCESS AGREEMENT**: A facility access agreement specifically developed for truck drivers and their employers (where applicable).

1.3 **CONFINED SPACE**: An area which has, by design, limited openings for entry and exit, unfavorable natural ventilation that could contain or produce dangerous levels of air contaminants, and which is not intended for continuous human occupancy.

1.3.1 Various recognized confined space areas on Kinder Morgan property fall under the OSHA definition of "Permit Required Confined Space". Kinder Morgan may choose to treat all confined space areas as "Permit Required Confined Spaces", depending on the type of work to be performed within the space.

1.4 **CONTRACTOR**: Any person contracted to perform short or long-term work for Kinder Morgan. With respect to this policy, references to "contractor" shall also include subcontractors and third party contractors, inspectors (e.g. customer contract personnel, and other contract personnel that may have an effect on facility safety).

1.5 **FIRE WATCH**: An individual who has been designated for monitoring the hot work site where open flames are present, where work on in-service equipment is being performed, or where sparks have the potential for landing on adjacent, in-service equipment. This individual is capable of evaluating unsafe conditions and who is capable of initiating emergency action in the event of a fire. Fire watch can have "no other assigned duties while conducting this task".

1.6 **HOT WORK**: Any work that involves the use of open flames or other sources of ignition.

1.7 **INSPECTORS/KINDER MORGAN REPRESENTATIVE**: Any person contracted or assigned to perform short or long-term work place inspections for Kinder Morgan. References to "inspector" in these guidelines shall also include company and third party contract inspectors.

1.8 **KINDER MORGAN PROPERTY**: Any Kinder Morgan Property and/or job site which may include terminals, facilities, stations, roads, parking lots, pipeline right-of-ways, common areas, compressor/pump station, offices, etc.

1.9 **WORK PERMIT**: A daily written authorization that describes the scope of the work to be completed, describes where and when the work is to be completed, special precautions, personal protective equipment required, and emergency information. To be valid, the permit must be signed by the designated permit issuer and it shall indicate the date and time of expiration.

2.0 GENERAL REQUIREMENTS

2.1 All contractors are required to participate in Kinder Morgan's Contractor Safety Evaluation Program. Each contractor will be required to complete a Standardized Contractor Questionnaire-Verified (SCQ-V) provided by ISN Software Corporation. The information shall be completed on ISN's online compliance database, ISNetworld. Based on safety performance and training, each contractor will be evaluated and placed on a "contractor" list if appropriate.

ISN Software Corporation

(214) 303-1303

www.isnetworld.com

2.2 Kinder Morgan will evaluate safety performance of contractors as the job progresses. At a minimum, this shall include periodic job site reviews.

2.3 Kinder Morgan has the right to review each contractor's safety data and supporting documentation submitted on the Standardized Contractor Questionnaire – Verified (SCQ-V).

2.4 Kinder Morgan reserves the right to request copies of all applicable procedures, plans and documentation specific to training, inspections, permitting and accident/injury reporting.

2.5 After the project is awarded, the contractor's employees must participate in the contractor employee orientation program consisting of the following elements:

2.5.1 Safety Orientation

2.5.1.1 Prior to beginning any work the Kinder Morgan Company job representative(s) and the General Contractor's representative(s) along with any applicable operations personnel and EHS staff shall conduct a pre-job meeting covering this contractor safety manual and any site specific procedures.

2.5.1.2 The contractor shall ensure all contractor employees and sub-contractors receive a safety orientation. This can be accomplished by viewing the "Contractor Safety Video" and reviewing all applicable requirements outlined in the contractor safety manual based on the scope of work, along with a review of any site specific procedures, emergency action plans and special circumstances associated with the project and/or site.

2.5.1.3 All Contractor employee orientations shall be documented with the content of the orientation on the Contractor Pre-Job Orientation Report CSM-003 (or equivalent form). Each Contractor employee shall sign the Contractor Employee Safety Summary Document (or equivalent form) to verify full

understanding of the covered topics. A copy of the completed form shall be provided to the Kinder Morgan job representative. Where applicable contractor employees shall be issued the current "contractor safety orientation" sticker for their hard hats.

2.5.1.4 The site specific orientation may include a review of procedures, restricted areas, security, hazards that contract personnel may encounter, warning signs, evacuation routes, other emergency procedures, rendezvous areas, emergency systems such as eye washes, safety showers, and contractor access ways and parking requirements.

2.5.1.5 All Contractor employees/visitors must sign in/out each time they enter/leave Kinder Morgan property.

2.6 Visitors shall not be granted entry without prior permission from Kinder Morgan site personnel.

2.7 All communication equipment used by Contractor's employees (radios, phones, computers, beepers) must be determined to be intrinsically safe where appropriate. No cell phones or pagers will be allowed in an area where a Hazardous Atmosphere may exist, unless a Hot Work Permit has been completed - no exceptions.

2.8 Pets are not allowed on Kinder Morgan property.

3.0 GENERAL INSURANCE REQUIREMENTS

3.1 All contractors shall have insurance that complies with Kinder Morgan Contract Administration Department and Procurement requirements. All changes in coverage of Contractor's insurance policies must be approved by the Kinder Morgan Corporate Contract Administrator.

4.0 ACCIDENT / INJURY REPORTING (29 CFR 1904)

4.1 The Contractors shall immediately report all accidents, spills, injuries, and near misses to the Kinder Morgan representative and the company EHS representative.

4.2 Contractors and inspectors are required to investigate and document all contractor incidents within 48hrs, use form CSM-OO1 or equivalent for proper documentation. This includes major property damage incidents, injuries, fires, and significant near misses. These reports shall be forwarded to the company EHS representative for review. Kinder Morgan may conduct investigations of any or all contractor incidents occurring on-site.

4.3 Contractors shall maintain a separate OSHA 300 log for their respective employees. Contractors may also be required to supply on a bi-weekly basis a safety and environmental performance report outlining any accidents, spills, injuries, and near misses that have occurred on the project.

4.4 The following are minimum first aid requirements for construction contract companies working at Kinder Morgan facilities:

4.4.1 First Aid Trained Personnel: Contractor shall have personnel trained and immediately available to provide first aid treatment at the job site. All trained personnel must possess a current (First Aid) certificate.

4.4.2 First Aid Kit: Each Contractor must supply each job site with a first aid kit appropriate for potential exposures and number of employees at the job site.

4.4.3 Emergency Procedures: Each Contractor must post a copy of the company's emergency medical procedures at the job site or have a copy immediately available, at all times, to each employee The procedure must include:

4.4.3.1 The name of the hospital or emergency care center where employees are to be transported for treatment of non life-threatening injuries.

4.4.3.2 Travel route to the hospital or emergency care center and emergency telephone numbers.

4.4.3.3 The statement "IN CASE OF SERIOUS INJURY CALL 911" (or a specified emergency number).

5.0 ASBESTOS (29 CFR 1926.1101 and1910.1001)

5.1 The likelihood of encountering asbestos-containing material while conducting maintenance on equipment in our facilities exists. It is the responsibility of the contractor to test for its existence prior to conducting work. All Contractors who perform any type of work where there is exposure to asbestos as well as maintenance or repair operations where there is exposure to asbestos shall comply with 29 CFR 1926.1101 & 1910.1001 as it relates to their particular scope of work. All Contractors are required to have a written Compliance Program that meets the minimum content requirements specified in 29 CFR 1926.1101 and 1910.1001. Training records and certificates shall be documented and maintained by the Contractor.

6.0 CONFINED SPACE ENTRY (29 CFR 1910.146)

6.1 All Contractors who perform any type of Confined Space Work, as it relates to their particular scope of work, shall comply with OSHA Standard 29 CFR 1910.146. All Contractors are required to have a written Confined Space Entry Program regardless of industry SIC designation (29 CFR 1910.146 (h)(9)(iii)). Contractor's written program must meet the minimum requirements of 29 CFR 1910.146(c)(4) and any applicable state and local Confined Space Entry regulations and requirements. Training records and certificates shall be documented and maintained by the Contractor.

7.0 CONTROL OF ALCOHOL, ILLEGAL DRUGS AND FIREARMS

7.1 The possession of firearms or other perceived dangerous weapons while on ANY Kinder Morgan property is strictly prohibited.

7.2 The use, sale, purchase, transfer, or possession of alcohol or any illegal drugs while on Kinder Morgan property is strictly prohibited.

7.3 Based on business unit or DOT requirements the Contractor and its subcontractors shall establish and maintain acceptable Anti-drug and Alcohol Misuse Programs. Acceptable means the Contractor has demonstrated to Kinder Morgan's satisfaction that the programs are conducted in accordance with the requirements of 49 CFR Parts 40 and 199. Such programs shall be reviewed and approved by National Compliance Management Systems (NCMS) before the Contractor or subcontractor is allowed to perform work that Kinder Morgan deems "Safety Sensitive". Positions that Kinder Morgan classifies as Safety Sensitive under 49 CFR Parts 40 and 199 must be included in an approved Anti-drug Plan and an Alcohol Misuse Plan.

7.4 If applicable National Compliance Management Systems (NCMS) shall evaluate the Contractor's drug/alcohol programs. Based on the above-mentioned drug testing requirements, if the contractor is required to have a drug/alcohol program. The plan shall be submitted to NCMS for evaluation and approval by Kinder Morgan.

National Compliance Management Systems

1-800-294-8758

www.nationalcompliance.com

8.0 ELECTRICAL SAFETY (29 CFR 1910 Subpart S and 1926 Subpart K)

8.1 Contractor shall be responsible for implementing all electrical safety requirements in accordance with 29 CFR 1910 Subpart S and 1926 Subpart K.

8.2 Prior to conducting operations near overhead power lines contractor shall contact the local utility company for specific requirements, and at a minimum, meet the following applicable guidelines:

- National Electric Safety Code - NESC
- National Association of Corrosion Engineers - NACE - Standard RP-01-77
- Occupational Safety and Health Administration - OSHA
- Federal, State, and Local requirements
- US D.O.T. Pipeline Safety Regulations - Parts 192 and 195 as applicable

8.3 Contractor shall identify all overhead power lines with signage where appropriate. When it is determined that electrical lines may be affected, the Contractor must take steps to elevate, cover, or otherwise protect such cables from incidental contact. The Contractor must advise his employees of the location of any power lines, the hazards involved, and the protective measures to be taken.

8.4 In work areas where the exact locations of the underground electrical power lines are unknown, the Contractor must locate and clearly identify all such lines prior to beginning excavation. Power cable systems within the work area must be de-energized during excavation whenever there is doubt about cable location.

8.5 The Contractor must protect his/her employees from electric shock while using power tools, appliances, and related equipment. Contractor must install ground fault interrupters on all power outlets that will be used during construction and maintenance.

9.0 EMERGENCY/EVACUATION PROCEDURES (29 CFR 1910.38, 1926.35)

9.1 The contractor and all of their personnel shall familiarize themselves with the KM site specific emergency action plan, including where assembly areas/evacuation areas are, that they are to be accounted for, and that they are to follow the direction of KM personnel in the event of fire or hazardous materials release or when otherwise directed by Kinder Morgan personnel:

9.1.1.1 Shut-off all equipment if doing so does not present a risk of bodily injury.

9.1.1.2 Evacuate the area. In the event of a fire or other emergency incident, contract employees are to immediately evacuate the area by the safest available route. Normally, evacuation routes shall be as specified by Kinder Morgan personnel.

9.1.1.3 Confirm all Contractor's employees are accounted for.

9.1.1.4 All Contractor employees shall remain at the rendezvous location until directed otherwise by Kinder Morgan.

9.2 If any Contractor employee suspects that an emergency condition exists, they shall immediately contact Kinder Morgan personnel or local authorities (e.g. call 911 or the particular emergency number in your area).

10.0 EXCAVATIONS/TRENCHING/SHORING (29 CFR 1926.650-.652, Subpart P)

10.1 All excavation (trenching/shoring) projects shall comply with the latest requirements as outlined in 29 CFR 1926 Subpart P. The contractor shall develop and have available for review a Site Specific Safe Excavation Plan based on the project scope. This plan will outline the contractors plan for excavation requirements, such as trenching, sloping and or shielding for the particular project.

10.2 The contractor's competent person shall conduct daily excavation inspections prior to anyone entering an excavation and this documentation shall be present at each excavation and retained in job files. Use form CSM-002 or equivalent to document these inspections.

10.3 See the facility or business unit's site specific procedures for any additional requirements.

11.0 FALL PROTECTION (29 CFR 1910.66 & 1926.500-.503)

11.1 Fall protection devices shall be used whenever fall hazards exist. Contractors are required to have a written Fall Protection Compliance Program that meets the minimum content requirements specified in 29 CFR 1910.66 App C & 1926.500-.503. Training records and certificates shall be documented and maintained by the Contractor.

11.2 The contractor shall provide a competent person to oversee fall protection and compliance.

11.3 Contractors shall provide a "rescue plan" wherever personal fall arrest equipment is employed.

12.0 FIRE PREVENTION AND PROTECTION (29 CFR 1910 Subpart L and 1926 Subpart F)

12.1 Contractors shall be required to provide fire prevention protection in accordance with the latest requirements outlined in 29 CFR 1910 Subpart L and 1926 Subpart F or any environmental regulatory requirements. Fire extinguishers shall be used only for the control of incipient stage fires.

12.2 Smoking is allowed only in designated areas. At some locations, there may be no designated areas. "Strike Anywhere" matches or uncovered and trigger-type lighters are not allowed within Kinder Morgan property.

13.0 HAZARD ASSESSMENTS - Task Analysis System

13.1 The contractor shall utilize a Task Analysis System daily, (e.g. Job Safety Analysis (JSA) to identify any Critical Tasks), based on the daily job scope and develop controls for any potential hazards. These controls shall be documented and utilized on a daily basis. The contractor shall communicate any controls required to the KM onsite representatives for review. In addition, the Contractor shall conduct pre-placement qualification checks for critical job tasks to ensure employees match up with the task requirements.

14.0 HAZARDOUS ENERGY CONTROL (LOCKOUT/TAGOUT) (29 CFR 1910.147 & 1926.417, & 1926.702)

14.1 Hazardous energy control procedures shall follow applicable guidelines as outlined in 29 CFR 1910.147. The Contractor's key individual responsible for Lockout/Tagout shall be identified to Kinder Morgan company personnel and/or KM Representative. All Lockout/Tagout must be coordinated with KM company personnel prior to the Contractor working in an area of hazardous or stored energy.

15.0 HOT WORK PERMITS (29 CFR 1910.252)

15.1 Hot Work Permit is required PRIOR to the start of any hot work and/or work that creates a source of ignition. Hot Work permits MUST be coordinated with Kinder Morgan management or designee prior to commencing any Hot Work. Contractors performing hot work shall be responsible for the safe execution of assigned tasks. If an unsafe condition (or potentially unsafe

condition) arises, work shall be stopped and the condition reported to Kinder Morgan management.

15.2 Work involving open flames or other sources of ignition on the exterior of tanks, pipelines, and other structures that contain flammable, combustible liquids, or any other hazardous atmosphere presents a wide variety of potential hazards. Adequate knowledge of the work to be performed is essential. Proper safeguards shall be established to guard against unsuspected changes in the situation that may alter the working conditions.

15.2.1 Hot work intended for "in-service" equipment shall follow procedures set forth for all hot work activities. Special precautions shall be identified in the hot work permit.

15.2.2 Persons welding and cutting shall be qualified in accordance with applicable codes and shall be thoroughly familiar with potential hazards of the operation and precautions necessary to ensure safety.

16.0 HYDROGEN SULFIDE (H2S)

16.1 All personnel working in an H2S environment shall have certificates to verify they have been properly trained and are proficient in the use of emergency air packs. All personnel working in an H2S environment shall be required to be clean-shaven in a manner consistent with accepted practices governing SCBA use with H2S gas.

17.0 IDENTIFICATION OF HAZARDOUS MATERIALS (29 CFR 1910.1200 & 1926.59)

17.1 Kinder Morgan shall inform the Contractor of known hazardous material(s) that may be present, how and where to locate material safety data sheets (MSDS) and any PPE requirements. Contractors are required to maintain copies of MSDS for any and all contractor-supplied materials requiring special handling on the job site. Each Contractor or sub-contactor is required to provide Kinder Morgan a copy of MSDS for all chemicals brought on site. Each Contractor or sub-contactor shall implement a Hazard Communication Program and document employee training.

17.2 All Contractor personnel who are likely to encounter or be exposed to hazardous materials as identified by DOT, shall be trained in hazardous material/waste handling per OSHA 1910.1200.

18.0 LEAD IN CONSTRUCTION (29 CFR 1926.62 and 1910.1025)

18.1 The likelihood of encountering lead while conducting maintenance on equipment in our facilities exists. It is the responsibility of the contractor to test for its existence prior to conducting work. All Contractors who perform any type of work where there is exposure to lead (excluding tetraethyl lead) as well as maintenance or repair operations where there is exposure to lead shall comply with 29 CFR 1926.62 and 1910.1025. Lead Exposure in Construction as it relates to their particular scope of work. All Contractors are required to have a written Compliance Program that meets the minimum content requirements specified in 29 CFR 1926.62 and 1910.1025. Training records and certificates shall be documented and maintained by the Contractor.

19.0 OPERATOR QUALIFICATION (OQ)

19.1 Contractors who perform Kinder Morgan defined covered tasks must be qualified to perform such tasks or be directly observed performing such covered tasks by a qualified individual. Workers or observers shall provide documentation of qualifications. (The contractor will supply this documentation from the ISNetworld database)

19.2 Contractor programs to train and qualify their employees to perform covered tasks must be reviewed and approved by Kinder Morgan's Operator Qualification Administrator prior to performing contracted covered tasks.

19.3 Contractors must supply a daily roster of qualified covered task workers to a Kinder Morgan representative unless the roster of covered task workers does not change from day to day during the project.

20.0 PERMIT TO BEGIN WORK

20.1 The Contractor is responsible for obtaining all appropriate agency required permits and or other notifications PRIOR to the start of work, unless otherwise obtained by Kinder Morgan. This includes "One Call" or excavation notices within required timelines.

20.2 Where applicable Kinder Morgan may require the Contractor to obtain general or safe work permits, on a daily basis, from facility management or a Kinder Morgan representative PRIOR to the start of work. The permits shall identify work to be completed, additional permits that may be required, potential hazards, and safety measures to be followed. Additional permits that may be required are discussed in the following two sections.

21.0 PERSONAL PROTECTIVE EQUIPMENT (29 CFR 1910 Subpart I)

21.1 Hazard Assessment - Proper Personal Protective Equipment (PPE) shall be determined by one of two methods:

21.1.1 The Contractor shall conduct a daily Job Safety Analysis (JSA), of the current work assignment area and confirm the existence of safe working conditions for its employees. The Contractor shall provide and insure proper use of personal protective equipment to its employees PRIOR to beginning work as required. The daily JSA, shall determine the minimum applicable PPE requirements and then those requirements shall be documented. The Contractor shall provide and insure proper use of personal protective equipment to its employees PRIOR to beginning work as required.

21.2 All personal protective equipment shall comply with the applicable standards specified for that equipment.

21.3 Kinder Morgan shall not supply any Personal Protective Equipment.

21.4 PPE Equipment includes but is not limited to:

21.4.1 Eye and Face Protection (29 CFR 1910.133 & 1926.102). Eye protection equipment shall comply with the latest revision of ANSI Z87.1.

21.4.2 Head Protection (29 CFR 1910.135 & 1926.100) – (HARDHATS). Head protection shall comply with the latest revision of ANSI Z89.1

21.4.3 Foot Protection (29 CFR 1910.136 & 1926.96). Foot protection shall comply with the latest revision of ANSI Z41. Open-toe footwear is prohibited

21.4.4 Hearing Protection (29 CFR 1910.95 & 1926.52). Hearing protection shall be worn in areas that have been identified or where there is a potential for exposure to high sound levels (in excess of 85 dB).

21.4.5 Hand Protection (29 CFR 1910.138). Gloves must be worn where appropriate for the performance of the work.

22.0 PROCESS SAFETY MANAGEMENT (PSM) (29 CFR 1910.119 & 1926.450-454)

22.1 Contractors who perform work in a facility that is under the jurisdiction of OSHA 29 CFR 1910.119, Process Safety Management, shall comply with all applicable requirements of 1910.119 in addition to the general requirements that may be specified by the scope of work.

23.0 RESPIRATORY PROTECTION (29 CFR 1910.134 & 1926.103)

23.1 Where applicable, all Contractors must follow an approved written program relating to respirator use during work activities. The Contractor's written respiratory protection program, training records and certificates, medical clearance to use respiratory protective equipment, and fit test records shall be documented and maintained by the Contractor.

24.0 RADIATION PRODUCING EQUIPMENT

24.1 Radiation Producing Equipment: Only properly trained, qualified personnel shall be allowed to use radiation producing equipment or materials at Kinder Morgan facilities. The Contractor shall maintain records of all training and qualifications.

24.2 When radiographic equipment is used, the Contractor shall ensure that the area is clear and that all personnel are at a safe distance from the radiation source. Radiation warning devices and signs containing the internationally recognized symbol for radiation must be placed around the perimeter of any area which may be affected by radiation. The contractor shall be in compliance with all State and Federal safety regulations dealing with radioactive materials. Only properly trained and qualified persons shall be allowed entrance to these restricted areas.

25.0 SCAFFOLDS AND LADDERS (29 CFR Part 1926 subpart L and 1910 Subpart D)

25.1 Scaffolds and ladders shall be installed and used in accordance with the latest requirements outlined under OSHA 29 CFR Part 1926 subpart L and 1910 Subpart D.

25.2 The contractor shall provide a competent person to oversee scaffold erection and use.

26.0 SECURITY REQUIREMENTS (FACILITY & CONTRACTOR)

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)

[redacted]

28.0 SPILL PREVENTION, CONTROL & COUNTERMEASURES PLAN (SPCC)

28.1 All contractors who meet the requirements for needing an SPCC plan such to address any applicable "oil" spills that may develop during the course of a construction project.

28.2 Spills resulting from routine Contractor activity shall be reported to Kinder Morgan immediately and clean-up in accordance with state and federal regulations. Including, but not limited to reporting release to appropriate agencies. Report all environmental incidents to a Kinder Morgan representative and the company EHS representative. Contractors and inspectors are required to investigate and document all contractor incidents within 48hrs, use form CSM-OO1 or equivalent for proper documentation. These types of spills include, but are not limited to:

28.2.1 Small quantities of hydraulic fluid, motor oil, and fuel spilled during equipment refueling operations.

28.2.2 For spills of large quantities of petroleum product, chemicals, or other hazardous materials release, see Identification of Hazardous Materials, Section 17.

29.0 TRAINING REQUIREMENTS

29.1 The Contractor is obligated to perform the requisite safety training of its personnel relative to the scope of the subject work activities. Training and documentation for the proper use and care of applicable safety equipment shall be provided by the Contractor.

29.2 Training shall be documented by the Contractor for each employee involved in the subject work activities. The documentation shall include each training topics discussed, content, attendees, dates, and the name(s) of instructors or persons presiding and date training was completed.

29.3 The Contractor shall conduct safety meetings to instruct their personnel in the recognition and avoidance of hazards in the work place.

29.4 Safety meetings shall be conducted at a frequency appropriate, in light of the safety characteristics of the assignment, but no less than once per week. Safety meetings shall focus on the quality and not the quantity of daily and weekly safety meetings to ensure all contract employees understand the subjects discussed during this meeting. Kinder Morgan Inspectors should sit in during these meetings to evaluate their value and improve communications.

30.0 VEHICLE/MOBILE EQUIPMENT POLICY (29 CFR 1926.600, 1926.601 & 1926.20)

30.1 Permission is required for vehicular entry into all Kinder Morgan facilities. Special permission above and beyond the previous requirement is needed for vehicles to enter restricted areas such as dike areas.

30.2 All persons shall be transported to the job site in a safe manner. Each passenger shall have adequate seating. Standing up in a moving vehicle is strictly prohibited. Riding in the back of a pick-up or similar truck that has not been equipped with adequate seating and riding as passenger on a forklift is also prohibited.

30.3 All posted speed limits and traffic regulating signs shall be observed. Persons shall only drive on designated roads or rights of way.

30.4 Reckless driving and horseplay are prohibited.

30.5 Only properly trained, qualified personnel shall be permitted to operate equipment or machinery. The Contractor shall keep records of training and qualifications on file. Contractors are prohibited from operating Kinder Morgan owned equipment or machinery, except under specific written authorization by Kinder Morgan management.

30.6 When operating vehicles and equipment, whether on or off-road, proper PPE and safety equipment shall be used (such as helmets for off-road vehicles). The Contractor shall be responsible for providing such PPE and safety equipment.

30.7 All cranes shall meet applicable Federal, State and local requirements.

30.8 Mobile hydraulic and boom cranes shall meet Federal, State and local requirements.

30.9 Forklifts and Forklift operators must follow all applicable OSHA 29 CFR 1917.43 and 1910.178 requirements for the safe operations of the forklift.

31.0 WATER/DOCK OPERATIONS (29 CFR 1917 & 1918)

31.1 Contractors who perform work on marine docks or who are at risk of falling into water must be protected from the fall or shall use USCG-approved, personal floatation devices.

32.0 WORK CLOTHING

32.1 Normal Work Attire: Sleeved shirts and long pants are required at all times. Sleeveless shirts, tank top-type shirts, or shirtless attire are not allowed. Where hazards exist due to moving parts on machinery or equipment, clothing shall be maintained to avoid entanglement.

32.2 Special Work Clothing: Appropriate work clothing shall be worn where exposure to fire, extreme heat or cold, corrosive chemicals, body impacts, cuts from handled materials or other specialized hazards are possible. See the facility or business unit's site specific procedures for any additional requirements.

33.0 WORKSITE SAFETY (29 CFR 1910.22)Error! Bookmark not defined.

33.1 It is the responsibility of each Contractor to inspect each work area at the beginning of each shift and periodically thereafter to ensure safe working conditions exist. Contractor must inform each of its affected employees of any concealed dangers or changes in work conditions and must comply with all applicable regulations.

33.2 The Contractor shall provide illumination bright enough for work to proceed without risking personal injury or affecting the quality of work. Where hazardous atmospheres may be present, the Contractor shall use intrinsically safe equipment (lighting, communications, and computers) where appropriate.

33.3 All tools shall be used, maintained and inspected in accordance with the latest requirements as outlined in OSHA 29 CFR 1926 Subpart I.

33.4 The Contractor shall clean their work areas following the end of each work shift. Debris shall be placed in appropriate containers and properly disposed. All tools and equipment remaining at the job site shall be properly stored.

33.5 The Contractor shall provide, on a daily basis, an adequate supply of fresh drinking water for its employees. Portable rest room facilities may be required to be provided and maintained by the Contractor.

33.6 Right-Of-Way/Road-Side Work

33.6.1 The Contractor must follow an approved written plan relating to vehicular traffic control during road side work activities. This plan will be in compliance with 29 C.F.R. 1926.201(a) and 29 C.F.R. § 1926.202. This plan will be available on site for review by a KM Representative.

33.6.2 Employees working in a public road right-of-way or otherwise exposed to vehicular traffic, shall be provided and instructed to wear warning vests marked with or made of reflective or highly visible material.

33.6.3 Barricades, cones, flashers and warning signs shall be placed at strategic locations when working on or near roads and other areas where vehicular traffic may be a hazard. Signs and flashers must meet the requirements of applicable local and state traffic authorities.

ATTACHMENT NO. 01 – CONTRACTOR EMPLOYEE SAFETY TRAINING DOCUMENT

I have received instruction from my company regarding the Kinder Morgan Contractor Safety Program requirements. I shall conduct myself in a safe manner at all times while on Kinder Morgan property and shall comply with the Kinder Morgan Contractor Safety Manual/Site-specific rules. I understand and agree to comply with all requirements of this program.

Print Name	Signature	Date

FIGURE 3.4

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Terminal/Response Zone: _____

3. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

4. Deployment location(s):
   _____
   _____
   _____
   _____
   _____
   _____

5. Time started: _____
   Time completed: _____

6. Equipment deployed was:
   - ❑ Facility - owned
   - ❑ Oil spill removal organization - owned if so, which OSRO? _____
   - ❑ Both

7. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:
   _____
   _____
   _____
   _____

8. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):
   _____
   _____
   _____
   _____

9. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's small/average most probable spill?
   _____
   _____

   Was the equipment deployed in its intended operating environment?
   _____
   _____

FIGURE 3.4 (Cont'd)

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

10. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

    Was the equipment deployed in its intended operating environment?

11. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

    If so, describe the program: _____

    Date of last equipment inspection: _____

12. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

13. Was all deployed equipment operational? If not, why not?

Response Equipment Inspection Log

Inspector	Date	Comments

14. Attach a description of lessons learned, procedures and schedule for implementation, and persons responsible for follow up of corrective measures.

_____ _____

Certifying/Evaluator Signature Date

Retain this form and other documentation related to this exercise for a minimum of 5 years. Forward completed documentation to ODEQ, Oil Spill Contingency Planner within 60 days of exercise completion.

FIGURE 3.5

NWAC Exercise Scheduling Form

New ☐ Reschedule ☐

Sponsor Information

Sponsoring Company:	
Agency:	
Facility/Vessel/Barge/Pipeline:	
Address:	
City, State, Zip	
Local Point of Contact:	E-Mail:
Telephone:	Fax:

Exercise Coordinator

Exercise Coordinator:	
Agency/Company (if other than Sponsoring Co.):	
Address:	
City, State, Zip	
Telephone:	Fax:
E-Mail:	

Exercise Information

Type of Exercise:	
Date and Time of Exercise:	Approx Number of Participants:
Location of Exercise:	
Exercise Scenario:	
Components of Response Plan Exercised:	
Objectives to be Met:	
Responsible Party:	
OSRO:	
Other Participants:	
Agency Presence Requested? Yes☐ No ☐	Agency:
Federal On Scene Coordinator ☐ State On Scene Coordinator ☐ PIO (JIC) ☐ Trustee Agency Env. Unit ☐ GRP Deployment ☐ Wildlife Rescue ☐	

Please return to:
Elin Storey, Washington State Department of Ecology, Spill Preparedness Section, Northwest Regional Office, 3190 160th Ave S.E, Bellevue, WA 98006 Phone:(425) 649-7111, Fax: (425) 649-7098, email: eabr461@ecy.wa.gov

Exercises may also be scheduled online at:
http://www.ecy.wa.gov/programs/spills/preparedness/Drills/drill_calendar1011.html

4.0 SPILL IMPACT CONSIDERATIONS

4.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil. The Federal, state, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY
● Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species. ● Areas which consist of vegetated low banks, freshwater/saltwater marshes, swamps, scrub-shrub wetlands and impact to threatened/endangered species.

MODERATE SENSITIVITY
● Areas of moderate productivity, somewhat resistant to the effects of oiling. ● Areas which consist of mixed sand, gravel beaches, bars, gently sloping banks, and no impact to threatened/endangered species.

LOW SENSITIVITY
● Areas of low productivity, man-made structures, and/or high energy. ● Areas which consist of gravel, sand, or clay material, barren/rocky shores or banks, man-made structures, concrete/compacted earthen drainage ditches and no impact to threatened/endangered species.

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response Tier. The Tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The Tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans (see CD affixed to inside front cover of Volume 1 and the CD Navigation Summary in Figure 4.2)
- Other industry and private experts

The environmental and socio-economic sensitivities in the area have been broken down into specific categories and identified in this section.

4.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

4.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 4.1.

4.3.2 Wildlife Rescue

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

4.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

4.3.2 Wildlife Rescue (Cont'd)

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
  - Use of capture and relocation.

4.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife on their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
  - Outside rehabilitation organizations
  - Local regulatory agencies
  - Other resources

4.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

4.5 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

FIGURE 4.1

ENDANGERED SPECIES LISTING

The following is a list of endangered and threatened species with known or possible occurrence in the State of Oregon by county (listed alphabetically by the common name).

ANIMALS	
Common Name	**Scientific Name**
Benton County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Canada Lynx	Lynx canadensis
Fender's Blue Butterfly	Icaricia Icarioides Fenderi
Marbled Murrelet	Brachyramphus marmoratus
Northern Spotted Owl	Strix Occidentalis Caurina
Oregon Chub	Oregonichthys Crameri
Streaked Horned Lark	Eremophila alpestris strigata
Taylor's Checkerspot Butterfly	Euphydryas editha taylori
Clackamas County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Canada Lynx	Lynx canadensis
Streaked Horned Lark	Eremophila alpestris strigata
Lane County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Fender's Blue Butterfly	Icaricia Icarioides Fenderi
Green Sea Turtle	Chelonia mydas
Leatherback Sea Turtle	Dermochelys coriacea
Loggerhead Sea Turtle	Caretta caretta
Marbled Murrelet	Brachyramphus Marmoratus
Oregon Chub	Oregonichthys Crameri
Oregon Silverspot Butterfly	Speyeria Zerene Hippolyta
Oregon Spotted Frog	Rana pretiosa
Northern Spotted Owl	Strix occidentalis caurina
Short-tailed Albatross	Phoebastria albatrus
Streaked Horned Lark	Eremophila alpestris strigata
Western Snowy Plover	Charadrius Alexandrinus Nivosus
Linn County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Bull Trout	Salvelinus confluentus
Canada Lynx	Lynx canadensis
Fender's Blue Butterfly	Icaricia Icarioides Fenderi
Northern Spotted Owl	Strix Occidentalis Caurina
Oregon Chub	Oregonichthys Crameri
Streaked Horned Lark	Eremophila alpestris strigata
Marion County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Northern Spotted Owl	Strix Occidentalis Caurina
Oregon Chub	Oregonichthys Crameri
Streaked Horned Lark	Eremophila alpestris strigata

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

ANIMALS (Cont'd)	
Common Name	**Scientific Name**
Multnomah County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Columbian White-tailed Deer	Odocoileus virginianus leucurus
Northern Spotted Owl	Strix Occidentalis Caurina
Streaked Horned Lark	Eremophila alpestris strigata
Polk County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Fender's Blue Butterfly	Icaricia Icarioides Fenderi
Marbled Murrelet	Brachyramphus marmoratus
Northern Spotted Owl	Strix Occidentalis Caurina
Oregon Chub	Oregonichthys Crameri
Streaked Horned Lark	Eremophila alpestris strigata
Washington County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Marbled Murrelet	Brachyramphus marmoratus
Northern Spotted Owl	Strix Occidentalis Caurina
Streaked Horned Lark	Eremophila alpestris strigata
Yamhill County	
Aleutian Canada Goose	Branta canadensis leucopareia
Arctic Peregrine Falcon	Falco peregrinus tundrius
Fender's Blue Butterfly	Icaricia Icarioides Fenderi
Marbled Murrelet	Brachyramphus marmoratus
Oregon Silverspot Butterfly	Speyeria Zerene Hippolyta
Streaked Horned Lark	Eremophila alpestris strigata

PLANTS	
Common Name	**Scientific Name**
Benton County	
Bradshaw's Desert-Parsley	Lomatium bradshawii
Golden Paintbrush	Castilleja levisecta
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Water Howellia	Howellia aquatilis
Willamette Daisy	Erigeron Decumbens Decumbens
Clackamas County	
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Willamette Daisy	Erigeron Decumbens Decumbens
Lane County	
Bradshaw's Desert-Parsley	Lomatium bradshawii
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Willamette Daisy	Erigeron Decumbens Decumbens
Linn County	
Bradshaw's Desert-Parsley	Lomatium bradshawii
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Willamette Daisy	Erigeron Decumbens Decumbens

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

PLANTS (Cont'd)	
Common Name	**Scientific Name**
Marion County	
Bradshaw's Desert-Parsley	Lomatium bradshawii
Golden Paintbrush	Castilleja levisecta
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Water Howellia	Howellia aquatilis
Willamette Daisy	Erigeron Decumbens Decumbens
Multnomah County	
Bradshaw's Desert-Parsley	Lomatium bradshawii
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Northern Wormwood	Artemisia campestris wormskioldii
Water Howellia	Howellia aquatilis
Willamette Daisy	Erigeron Decumbens Decumbens
Polk County	
Bradshaw's Desert-Parsley	Lomatium bradshawii
Golden Paintbrush	Castilleja levisecta
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Water Howellia	Howellia aquatilis
Willamette Daisy	Erigeron Decumbens Decumbens
Washington County	
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Yamhill County	
Kincaid's Lupine	Lupinus Sulphureus Kincaidii
Nelson's Checker-Mallow	Sidalcea Nelsoniana
Water Howellia	Howellia aquatilis
Willamette Daisy	Erigeron Decumbens Decumbens

FIGURE 4.2

ACP/GRP CD
NAVIGATION INSTRUCTIONS
(Excerpt from CD affixed to inside front cover of Volume 1)

KINDER MORGAN

The information contained herein is provided to identify specific spill response and protection strategies for the applicable Kinder Morgan Pacific Operations Regions. Navigating through the bookmark links provided on the CD will take you to the Environmentally Sensitive Sites and the Economically Significant Sites provided in the applicable Area Contingency Plans and Geographic Response Plans.

INSTRUCTIONS FOR USE

1. From the screen on the left, click on region of interest. The different regions are identified by the red font.
2. Once the appropriate region is accessed, click on the "+" to the left of the region name to display the various areas within each region. These are identified with blue font.
3. Once the appropriate area is accessed, the links to the Environmentally Sensitive Sites and the Economically Significant Sites will be available for selection.
   - ➢ It is important to note that once each Environmentally Sensitive Site and Economically Significant Site is accessed, the user will have to scroll to the desired location.
   - ➢ Use the zoom icon to zoom into each page for easier reading.

NOTES:

1. In those areas where the statement "No ACP Information Available" is made, it indicates that there is no ACP or GRP information which is specific to the particular region or area of interest.
2. EPA REGION IX: For areas without specific ACP/GRP information, the Region IX Contingency Plan (RCP) is used as the response guidance; however, this RCP is currently in revision.
3. EPA REGION X: Region X is covered by the Northwest Area Contingency Plan; however, inland facilities are not addressed.
4. Thus, the following areas are covered by specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Linnton-Willbridge, Washington Area
   - Northern Region—Bay: Brisbane, Concord, Richmond, San Jose
   - Southern Region—West: Carson, Mission Valley, Watson
5. And, the following areas do not have specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Oregon Pipelines (inland)
   - Northern Region—Central: Fresno
   - Northern Region—CalNev: Sacramento, Rocklin, Reno
   - Southern Region—East: Imperial, Phoenix, Tucson
   - Southern Region—Central: Colton, Barstow, Las Vegas

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5.0 DISPOSAL PLAN

5.1 OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Manager or their designee to manage the following:

- Coordinate waste disposal activities;
- Identify appropriate interim storage methods and locations;
- Coordinate permitting activities needed to ensure proper disposal; and
- Document compliance with appropriate local, State, and Federal handling of hazardous materials and/or wastes.

Material will be containerized or stored in a manner complying with applicable environmental regulations pertaining to the known or suspected materials characteristics. Upon characterization, waste, recyclable materials, or contaminated materials will be treated on-site, recycled, or transported and disposed of at an appropriate KMEP approved facility after appropriate regulatory approval.

5.2 WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Solid Wastes

A solid waste is defined as any discarded material provided that it is not specifically excluded under the regulations. These exclusions cover materials such as domestic sewage and mixtures of sewage discharged through a sewer system or industrial wastewater point source discharges.

A discarded material is any material which is abandoned (disposed of, burned or incinerated) or accumulated, stored or treated prior to being abandoned. A discarded material is also any material recycled or any material considered inherently wastelike. Recycled material is considered solid waste when used in a manner constituting disposal, placed on land or burned for energy recovery.

5.2 WASTE CLASSIFICATION (Cont'd)

Solid Wastes (Cont'd)

A solid waste may be considered a hazardous waste. A solid waste, as defined above, may be a hazardous waste if it is not excluded from regulation and is either a listed hazardous waste or exhibits the characteristics of a hazardous waste. A solid waste exhibits the characteristics of a hazardous waste if it exceeds the thresholds established in determining the following:

1) ignitability
2) corrosivity
3) reactivity
4) toxicity

A solid waste may also become a hazardous waste if it is mixed with a listed hazardous waste or, in the case of any other waste (including mixtures), when the waste exhibits any of the characteristics identified above.

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

5.3 WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

Safety Considerations

Care would be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes would wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles would be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste would be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

5.3 WASTE HANDLING (Cont'd)

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.

- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure 5.1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

5.4 WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure 5.2. The majority of these options can be used either onshore or offshore.

If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.
- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Access.
- Public contact.

5.4 WASTE STORAGE (Cont'd)

Temporary storage sites should use the best achievable technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 mils or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least three (3) meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

5.5 WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the Facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

During an oil spill incident, KMEP would consult with the Federal and state On Scene Coordinator (OSC) to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. KMEP maintains a list of approved disposal sites that satisfy local, state, and Federal regulations and KMEP requirements. This identification of suitable waste treatment and disposal sites would be prepared by the Environmental Manager or their designee in the form of an Incident Disposal Plan which must be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

5.5 WASTE DISPOSAL (Cont'd)

Techniques for Disposal of Recovered Oil (Cont'd)

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure 5.3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Environmental Manager or their designee is responsible for ensuring that all waste materials be disposed of at an internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

5.5 WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning

As a general rule, *in situ* burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at Company-approved disposal facilities. The Environmental Manager or their designee is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Environmental Manager or their designee prior to sending any waste to such a facility.

FIGURE 5.1

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

A. Normally require remote power sources, thus are safe around flammable fluids.
B. Should have a relief valve in the outlet line to prevent bursting hoses.
C. Air powered units tend to freeze up in sub-freezing temperatures.
D. Units with work ball valves are difficult to prime.
E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
F. Can also pump air at low pressure.
G. Transfer is batch-wise rather than continuous.
H. Waste must be in separate container for efficient transfer.
I. Transportable with its own prime mover.
J. High shear action tends to emulsify oil and water mixtures.

FIGURE 5.2

TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

FIGURE 5.3

OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

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6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Linnton-Willbridge Area Lines	
• Portland – Albany 8”	14
• Shell – Portland 8”	77
• ConocoPhillips – Portland 8”	78/78B
• Chevron – Portland 8”	79
• Willbridge – Portland 8”	81
• BP/Arco – Portland 8”	82
• Linnton – Portland 8”	82/83/84
• Nustar – Portland 8”	83/84
• Portland Airport Pipeline 8”	1880
Pipeline Facilities (non-storage)	
• Portland Station	
• Fargo Pump Station (Booster)	
• Salem Pump Station (Booster)	

- Figures 6.1a through 6.1i on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Operational and Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

6.0 AREA PIPELINE SECTIONS

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

PORTLAND – ALBANY 8" (14)		
Pipe and Operational Data		
• Section Length:	70.4 Miles	371,712 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	349 Bbls/mile (note 2)	
• Product types:	Petroleum (Refined Products & Marine Fuel Oils)	
• Capacity of entire line section:	(b) (7)(F), (b) (3)	
• Maximum flow rate:	2,500 Bbls/hr or 60,000 Bbls/day	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Multnomah, Clackamas, Marion, OR
• Location Description:	From Portland Station on St. Helens Road in West Portland, generally south through the Portland west hills, crossing the Willamette River near Wilsonville, continuing south to the (b) (3), (b) (7)(F)

Operational and Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

SHELL – PORTLAND 8" (77)	
Pipe and Operational Data	
● Section Length:	2.01 Miles 10,590 Feet
● Line Diameter:	8.625 in., O.D. 8.249 in., I.D. (note 1)
● Line Capacity:	349 bbls/mile (note 2)
● Capacity of entire line section:	(b) (7) (F) (b)
● Maximum flow rate:	2,600 bph or 62,400 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
● County(s)/State(s) Traversed:	Multnomah, OR
● Location Description:	From the Shell Terminal west along St. Helens Road to Portland Station.

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

CONOCOPHILLIPS – PORTLAND 8" (78/78B)	
Pipe and Operational Data	
● Section Length:	1.23 Miles 6,505 Feet
● Line Diameter:	8.625 in., O.D. 8.249 in., I.D. (note 1)
● Line Capacity:	349 bbls/mile (note 2)
● Capacity of entire line section:	(b) (7)(F), (b) (3) [redacted]
● Maximum flow rate:	2,500 bph or 60,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
● County(s)/State(s) Traversed:	Multnomah, OR
● Location Description:	(LS 78) From the ConocoPhillips Terminal north along NW Doane Avenue, turning west along NW Front Avenue then south on NE 61st Avenue to the Willbridge Terminal. (LS 78B) From the Willbridge Terminal south on NW 61st Avenue turning west along NW St. Helens Road to Portland Station.

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

CHEVRON - PORTLAND 8" (79)	
Pipe and Operational Data	
• Section Length:	1.23 Miles 6,494 Feet
• Line Diameter:	8.625 in., O.D. 8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7) (F) (b)
• Maximum flow rate:	2,600 bph or 62,400 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	Multnomah, OR
• Location Description:	From the Chevron Terminal west along NW Front Avenue turning south on NW 61st Avenue then west along NW St. Helens Road to Portland Station.

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

WILLBRIDGE - PORTLAND 8" (81)		
Pipe and Operational Data		
• Section Length:	0.62 Miles	3,253 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,500 bph or 60,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Multnomah, OR	
• Location Description:	From Willbridge Terminal south along NW 61st Avenue then west along St. Helens Road to Portland Station.	

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

BP/ARCO - PORTLAND 8" (82)	
Pipe and Operational Data	
• Section Length:	2.28 Miles 12,038 Feet
• Line Diameter:	8.625 in., O.D. 8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7) (F) (b)
• Maximum flow rate:	2,500 bph or 60,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	Multnomah, OR
• Location Description:	From the BP/Arco Terminal east along St. Helens Road to Portland Station.

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

LINNTON - PORTLAND 8" (82, 83, 84)		
Pipe and Operational Data		
• Section Length:	3.01 Miles	15,893 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	334 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,500 bph or 60,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Multnomah, OR	
• Location Description:	From Linnton Terminal east along St. Helens Road to Portland Station.	

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

NUSTAR - PORTLAND 8" (83, 84)		
Pipe and Operational Data		
• Section Length:	2.25 Miles	11,880 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	334 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,500 bph or 60,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Multnomah, OR	
• Location Description:	From the Nustar Terminal east along St. Helens Road to Portland Station.	

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

PORTLAND AIRPORT PIPELINE 8" (1880)	
Pipe and Operational Data	
Section Length:	8.5 Miles 44,880 Feet
Line Diameter:	8.625 in., O.D. 8.249 in., I.D. (note 1)
Line Capacity:	349 bbls/mile (note 2)
Capacity of entire line section:	(b) (7)(F), (b)
Maximum flow rate:	1,300 bph or 31,200 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
County(s)/State(s) Traversed:	Multnomah, OR
Location Description:	From the Chevron/Texaco Terminal across the Willamette River to Portland International Airport.

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1h for specific information on line segments.

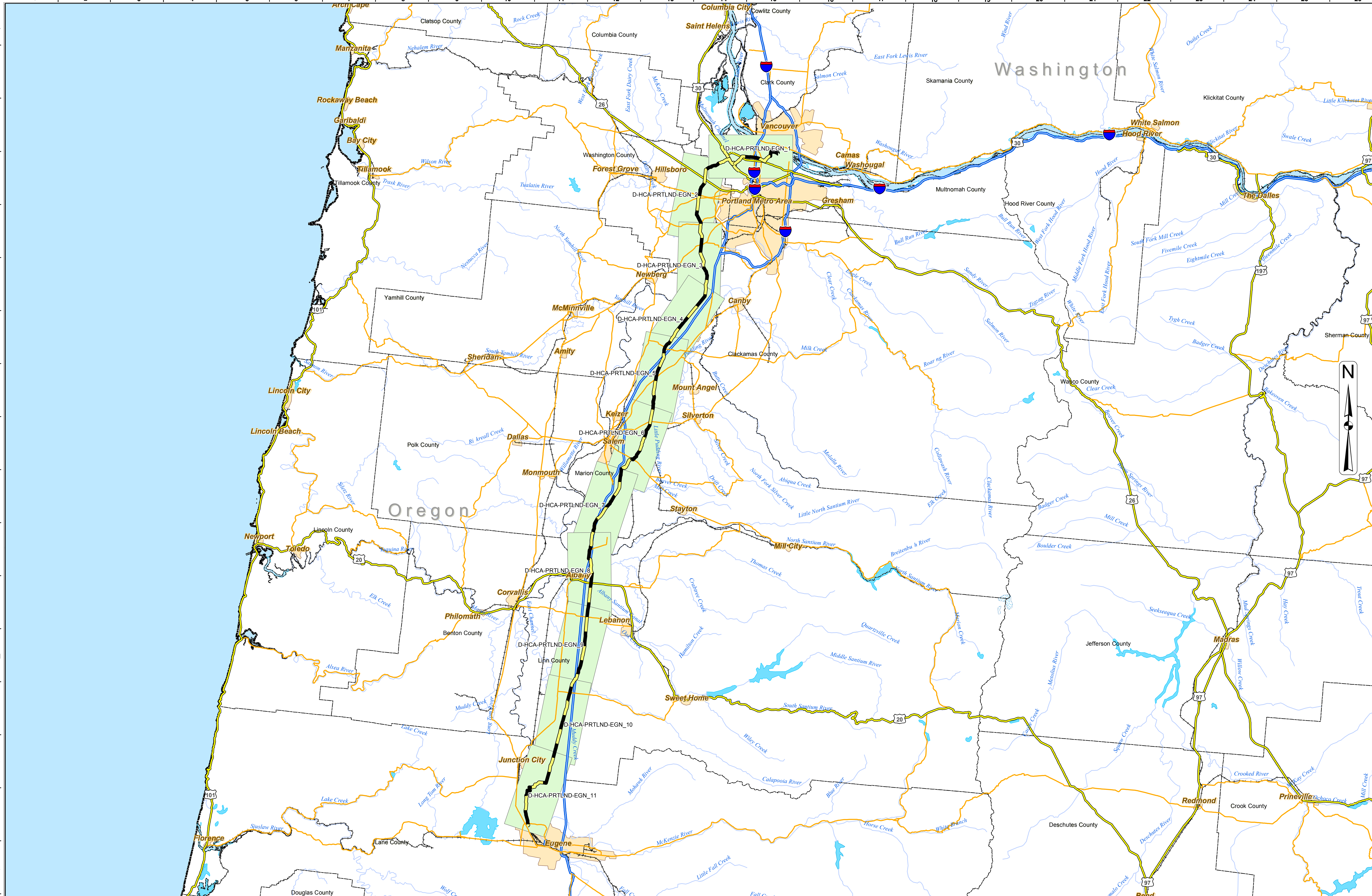
The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_006.pdf
485-D-HCA-PRTLND-EGN_001.pdf
485-D-HCA-PRTLND-EGN _002.pdf
485-D-HCA-PRTLND-EGN _003.pdf
485-D-HCA-PRTLND-EGN _004.pdf
485-D-HCA-PRTLND-EGN _005.pdf
485-D-HCA-PRTLND-EGN _006.pdf
485-D-HCA-PRTLND-EGN _007.pdf

PHMSA 000102754



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-PRTLND-EGN_001	LS-14; PORTLAND - EUGENE 8" LS-1880; PORTLAND AIRPORT PIPELINE (8") LS-77; SHELL - PORTLAND 8" LS-78; CONOCO/PHILLIPS - PORTLAND 8" LS-79; CHEVRON - PORTLAND 8" LS-81; SHELL OIL - PORTLAND 8" LS-81; WILBRIDGE - SHELL OIL 8" LS-82/83/84; LINNTON - PORTLAND 8" LS-82; BP - PORTLAND 8" LS-84/83; ST SERVICES - PORTLAND 8"
D-HCA-PRTLND-EGN_002	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_003	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_004	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_005	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_006	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_007	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_008	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_009	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_010	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_011	LS-14; PORTLAND - EUGENE 8"

GRAPHIC SCALE

10 5 0 10 20 Miles

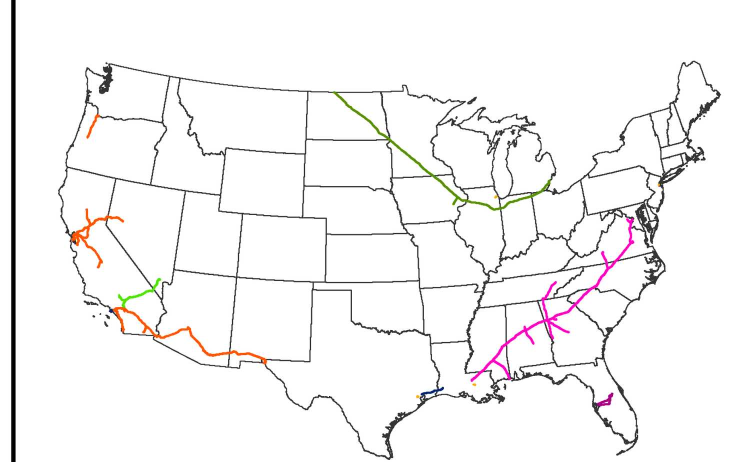
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

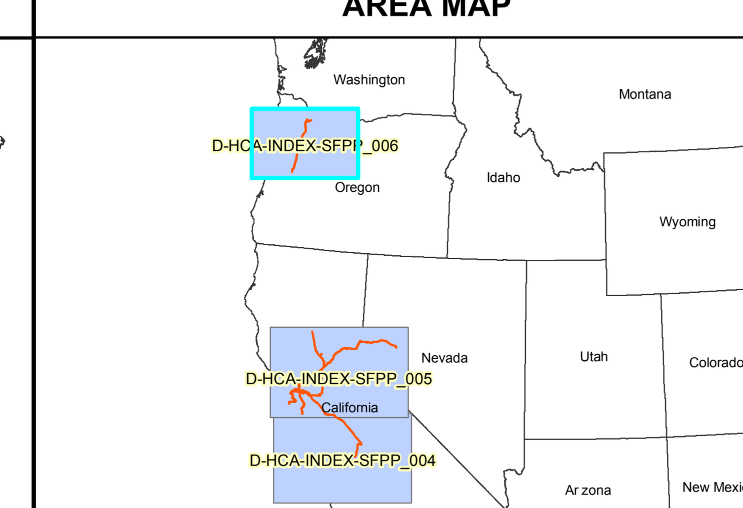
LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP



AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCR PTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS HIGH CONSEQUENCE AREA (HCA) INDEX MAP PACIFIC REGION

Date: **03/28/2012**	SCALE: 1" = 7.9 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name: **485-D-HCA-INDEX-SFPP_006**	
Approved:		

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Oregon Area Lines	
• Albany-Eugene 8”	14
Pipeline Facilities (non-storage)	
• Morgan Pump Station (booster)	

- Figure 6.1 on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Operational and Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:

  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and Southern pipeline schematic diagrams are provided in Volume 1, Figures 1.2 and 1.3.

FIGURE 6.1

PIPELINE SECTION INFORMATION SUMMARY

ALBANY – EUGENE 8" (14)

Pipe and Operational Data

- Section Length: 44.44 Miles 234,643.2 Feet
- Line Diameter: 8.625 in., O.D. 8.249 in., I.D. (note 1)
- Line Capacity: 349 Bbls/mile (note 2)
- Product types: EPA ULSD, Conventional Gas, Ethanol
- Capacity of entire line section: (b) (7)(F), (b) (3)
- Maximum flow rate: 2,500 Bbls/hr or 60,000 Bbls/day

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

- County(s)/State(s) Traversed: Linn, Lane, OR
- Location Description: (b) (3), (b) (7)(F)

Operational and Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1 for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index -SFPP_006.pdf
485-D-HCA-PRTLND-EGN_007.pdf
485-D-HCA-PRTLND-EGN _008.pdf
485-D-HCA-PRTLND-EGN _009.pdf
485-D-HCA-PRTLND-EGN _010.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-PRTLND-EGN_001	LS-14; PORTLAND - EUGENE 8" LS-1880; PORTLAND AIRPORT PIPELINE (8") LS-77; SHELL - PORTLAND 8" LS-78; CONOCO/PHILLIPS - PORTLAND 8" LS-79; CHEVRON - PORTLAND 8" LS-81; SHELL OIL - PORTLAND 8" LS-81; WILBRIDGE - SHELL OIL 8" LS-82/83/84; LINNTON - PORTLAND 8" LS-82; BP - PORTLAND 8" LS-84/83; ST SERVICES - PORTLAND 8"
D-HCA-PRTLND-EGN_002	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_003	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_004	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_005	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_006	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_007	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_008	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_009	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_010	LS-14; PORTLAND - EUGENE 8"
D-HCA-PRTLND-EGN_011	LS-14; PORTLAND - EUGENE 8"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

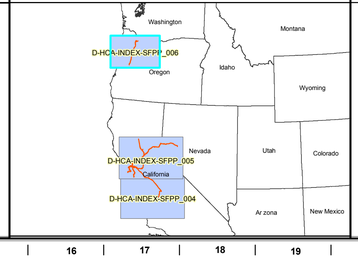
Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCR PTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS HIGH CONSEQUENCE AREA (HCA) INDEX MAP PACIFIC REGION

Date: **03/28/2012**	SCALE: 1" = 7.9 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Dec, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_006**	

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations and/or terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

TERMINAL BREAKOUT TANKS	LARGEST TANK (BBLS)	WCD (BBLS)
Linnton Terminal (Tank 72021)	(b) (7)(F), (b) (3)	
Willbridge Terminal (Tank 12002)		
Portland Station (PD-1)		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

- The specific information summary for these breakout stations/terminals is provided in this Section as follows:
  - Breakout Station/Terminal Tank Information Summary (one per station)
  - Facility Diagram
- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in Sections 6 and 8 of this Volume.

FIGURE 7.1a

LINNTON TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
2501	Empty	(b) (7)(F), (b) (3)		
2502	Empty			
11017	Gas			
11019	Gas			
17018	Gas			
17020	Gas			
17027	Gas			
20011	Diesel			
30016	Diesel			
45028	Gas			
55008	Empty			
72021	Diesel			
55022	Diesel			
55023	Empty			
59029	Gas			

LOCATION DESCRIPTION

- County/State Multnomah, OR
- Location Linnton Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than the calculated number.

Note: This Facility is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

FIGURE 7.2a

FACILITY DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 7.1b

WILLBRIDGE TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
WB-002	Jet A	(b) (7)(F), (b) (3)		
WB-052	Jet A			
WB-054	Diesel			
WB-069	Jet A			
WB-070	Jet A			
WB-071	Transmix			
WB-073	Transmix			
WB-084	Gasoline			
WB-085	Diesel			
WB-100	Diesel			
WB-101	Gasoline			
WB-116	Gasoline			
WB-117	Biodiesel			
WB-118	Gasoline			
WB-123	Gasoline			
WB-124	Gasoline			
WB-128	Gasoline			
WB-134	Gasoline			
WB-138	Avgas			
WB-12001	Jet A			
WB-12002	Diesel			
WB-12003	Gasoline			

LOCATION DESCRIPTION

- County/State Multnomah, OR
- Location Willbridge Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: This Facility is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

FIGURE 7.2b

FACILITY DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 7.1c

PORTLAND BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
PD-1	Relief Tank	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	Multnomah, OR			
• Location	6565 NW St. Helens Road, Portland, OR			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

FIGURE 7.2c

FACILITY DIAGRAM

(b) (7)(F), (b) (3)

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
There are no breakout tanks within the Oregon Pipelines Area of the Northern Region - Northwest		

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: SFPP, L.P. Eugene Terminal
1765 Prairie Road
Eugene, OR 97210

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

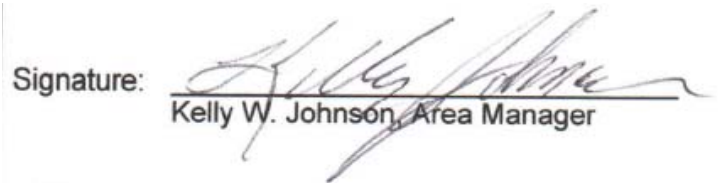
[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature:  Date: 6-19-12

Kelly W. Johnson, Area Manager

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via pipeline and transported out of the Facility by tanker trucks.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	SFPP, L.P.
Physical Address:	Eugene Terminal 1765 Prairie Road Eugene, OR 97402 (541) 689-1545 (541) 689-9861 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	16 B
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	September 17, 1962
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 or 1100 Town & Country Road Orange, CA 92868
Qualified Individual: ***(Emergency Coordinator)*** ***(On-Site Firefighting Coordinator)*** (Work Address)	Kelly Johnson – Area Manager (Home Address *) (b) (6) (541) 689-1545 *(Work)* (b) (6) *(Mobile)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)*** (Work Address)	Andrew Holbrook - Operations Manager Northwest (Home Address *) (b) (6) (503) 220-1257 *(Work)* (b) (6) *(Mobile)*

ephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

* Company policy is to treat an employee's home address as confidential. This information is kept on file at the Regional Office (909) 877-2373, and Houston Corporate Office, Human Resources Dept. (713) 369-8876.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Lane County, OR
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	More than one mile
Landside Directions:	From I-5 take OR-126 W. Take the Delta Highway exit towards Beltline Highway. Merge onto Delta Highway N. Take the Beltline Highway west exit towards Eugene Airport. Merge onto Beltline Highway W. Take the Prairie Road exit. Turn left onto Prairie Road.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Products Handled:

- Additives
- Ethanol
- Diesel
- Gasoline
- Transmix

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with four (4) loading racks which handle various refined petroleum products.
- A maximum of eight (8) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 150 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 11,600 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- Twenty six tanks with a total capacity of 14.2 million gallons were built in 1962. The Facility expanded in 1963 and 1964 with three additional tanks that increased maximum capacity by 3.4 million gallons. Two more tanks, constructed in 1971, added an additional 1.4 million gallon capacity. In 1973, four more tanks with a maximum capacity of 1 million gallons were built.

MAPS AND DIAGRAMS

The following Maps and Diagrams follow:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout Diagram
- Figure 8.4 – Fire Protection Diagram

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: KMEP, L.P. Linnton Terminal
11400 NW St. Helens Road
Portland, 97231-1036

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes: X**	**No:**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes: X**	**No:**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: _____ Date: 9/8/2010

Jeffery A. Hibner, Area Manager

8.1.2 INTRODUCTION

Description of Facility

This Facility is a marine terminal and bulk distribution facility for refined petroleum products in conjunction with a common carrier pipeline. The Facility receives product via pipeline and tank vessels (barge and ships). Product is transported out of the Facility via pipeline and barge.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Linnton Terminal 11400 NW St. Helens Road Portland, OR 97231-1036 (503) 220-1260 *(24 Hrs)* (503) 220-1270 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP-95
Dun & Bradstreet Number:	618 450-866
Date of Initial Storage:	Prior to 1941
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 or 1100 Town & Country Road Orange, CA 92868
Qualified Individual: ***(Emergency Coordinator)*** ***(On-Site Firefighting Coordinator)*** (Work Address)	Jeff Hibner - Area Manager (Home Address *) (b) (6) (503) 220-1263 *(Work)* (b) (6) *(Mobile)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)*** (Work Address)	Andrew Holbrook - Operations Manager Northwest (Home Address *) (b) (6) (503) 220-1257 *(Work)* (b) (6) *(Mobile)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

* Company policy is to treat an employee's home address as confidential. This information is kept on file at the Regional Office (909) 877-2373, and Houston Corporate Office, Human Resources Dept. (713) 369-8876.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Multnomah County, OR
Latitude:	(b) (7)(F), (b) (3)
Longitude:	
River Mile:	Willamette River Mile 4.5
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Oil Spill Response Planning Zone:	Columbia River - Portland sub-zone
Facility Distance to Navigable Water:	Less than 0.25 miles
Landside Directions:	Starting at the airport, go northwest on NE Airport Way. NE Airport Way becomes Long Term Parking. Turn left onto parking exit, then left again onto NE Airport Way. Merge onto I-205/Veterans Memorial Hwy. At Exit 21B merge onto US-30 toward Portland. Merge onto I-405 S via exit number 302B. Merge onto US-30 W via exit number 3, then merge onto NW Yeon Ave. NW Yeon Ave. becomes NW St. Helens Rd. The Facility is located at 11400 NW St. Helens Rd.
Waterside Directions:	From the Columbia River travel southwest, south and southeast on the Willamette River approximately three (3) miles. Facility is on the left descending bank approximately two (2) miles downstream of the St. Johns Bridge.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- The Facility is a marine terminal and bulk distribution facility for refined petroleum products in conjunction with a common carrier pipeline. The Facility receives product via pipeline and tank vessels (barge and ships). Product is transported out of the Facility via pipeline and barge.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Description of Operation (Cont'd):

- The aboveground storage tanks are contained in a bermed secondary containment area that, at a minimum, provides secondary containment for 110 percent of the largest tank. The tanks are filled or drawn down through a system of aboveground and underground pipes that connect this Facility into the Company distribution network.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amounts are (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Gasoline
- Diesel

Note: The Facility maintains a stand alone full encompassing MSDS reference binder.

PHYSICAL DESCRIPTION - MARINE OPERATIONS

Description of Operation:

- The Facility operates five (5) pipelines at the dock facility. Three (3) of these are 10" diameter and one (1) is a 12" diameter. One (1) 10" diameter pipeline is out of service.

Type:	Tank Ships:	7,000 - 105,000 DWT
	Barges:	11,000 DWT
Tow Quantity:	One (1)	
Length:	Tank Ships:	Maximum 700 ft. length, 27 ft. maximum draft
	Barges:	350 ft.
Average Shipment Size:	20,000 bbls	

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - MARINE OPERATIONS (Cont'd)

Discharging Rates: Approximately 6,500 bph

Frequency of Transfer: Five (5) transfers per month *(typical)*

Duration of Transfer: 5 to 8 hrs *(typical)*

Discharge Prevention:

- Each Linnton Terminal marine transfer is closely monitored by two (2) on-site operators, one (1) at the Linnton dock and one (1) within the Linnton Terminal. Additional operations personnel are available at the Willbridge Terminal to initiate the notification process in the event of a spill. Radio communication is maintained between the operators to assure a safe and accurate product transfer.
- The loading/unloading lines are equipped with drip pans under the pump header connections.
- The dock area is well lighted and operations conducted in this area are in strict accordance with USCG procedures. These procedures are written in the Facility's Dock Operations Manual.
- In the event of a spill during a marine transfer operation additional personnel identified in Volume 1 Figure 2.3a from the Facility and the neighboring facilities would be mobilized for the initial response as well as personnel from the contracted OSRO identified in Volume 2 Figure 2.2 and Figure 3.3.

  As necessary, Northern Region personnel identified in Volume 1 Figure 2.3a, Corporate personnel identified in Volume 1 Figures 2.3b and 2.3c, as well as personnel from the Spill Management Team support contractor identified in Volume 2 Figure 2.2 will be activated and/or mobilized.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- No substantial expansions have occurred at this Facility.

MAPS AND DIAGRAMS

The following Maps and Diagrams follow:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout Diagram
- Figure 8.4 – Fire Protection Diagram

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: KMEP, L.P. Willbridge Terminal
5880 NW St. Helens Road
Portland, 97210

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes: X**	**No:**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes: X**	**No:**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: _____ Date: 9/8/2010

Jeffery A. Hibner, Area Manager

8.1.2 INTRODUCTION

This Facility is a marine terminal and bulk distribution facility for refined petroleum products in conjunction with a common carrier pipeline. The Facility receives product via pipeline, rail cars and tank vessels (barge and ships). Product is transported out of the Facility via pipeline, tank trucks and tank vessels.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Willbridge Terminal 5880 NW St. Helens Rd. Portland, OR 97210 (503) 224-0319 / (503) 209-5046 *(24 Hrs)* (503) 220-1270 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP-37
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	1915
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 or 1100 Town & Country Road Orange, CA 92868
Qualified Individual: ***(Emergency Coordinator)*** ***(On-Site Firefighting Coordinator)*** (Work Address)	Jeff Hibner - Area Manager (Home Address *) (b) (6) (503) 220-1263 *(Work)* (b) (6) *(Mobile)*
Alternate Qualified Individual: ***(Alt. Emergency Coordinator)*** (Work Address)	Andrew Holbrook - Operations Manager Northwest (Home Address *) (b) (6) (503) 220-1257 *(Work)* (b) (6) *(Mobile)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

* Company policy is to treat an employee's home address as confidential. This information is kept on file at the Regional Office (909) 877-2373, and Houston Corporate Office, Human Resources Dept. (713) 369-8876.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Multnomah County, OR
Latitude:	(b) (7)(F), (b) (3)
Longitude:	
River Mile:	Willamette River Mile 7
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Oil Spill Response Planning Zone:	Columbia River - Portland sub-zone
Facility Distance to Navigable Water:	Less than 0.25 miles
Landside Directions:	Starting at the airport, go northwest on NE Airport Way. NE Airport Way becomes Long Term Parking. Turn left onto Parking Exit, then left again onto NE Airport Way. Merge onto I-205/Veterans Memorial Hwy. At Exit 21B merge onto US-30 toward Portland. Merge onto I-405 S via exit number 302B. Merge onto US-30 W via exit number 3, then merge onto NW Yeon Ave. NW Yeon Ave. becomes NW St. Helens Rd. The Facility is located at 5880 NW St. Helens Rd.
Waterside Directions:	From the Columbia River travel southwest, south and southeast on the Willamette River approximately seven (7) miles. Facility is on the left descending bank approximately two (2) miles upstream of the St. Johns Bridge.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a marine terminal and bulk distribution facility for refined petroleum products in conjunction with a common carrier pipeline. The Facility receives product via pipeline, tank vessels (barge and ships) and rail cars. Additives are received via tank truck. Product is transported out of the Facility by tank truck, barge and via pipeline.
- The aboveground storage tanks are contained in a bermed secondary containment area that, at a minimum, provides secondary containment for 110 percent of the largest tank. The tanks are filled or drawn down through a system of aboveground and underground pipes that connect this Facility into the Company distribution network.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Description of Operation (Cont'd):

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amounts are (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Additives
- Aviation Gasoline
- Diesel
- Ethanol
- Gasoline
- Jet Fuel
- Distillate Transmix

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with one (1) loading rack with three (3) loading spots which handle various refined petroleum products.
- A maximum of three (3) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 100 trucks per day.

Loading Rate: 600 gpm (*per loading arm*)

Truck Capacity: 11,000 gallons (*maximum*)

Discharge Prevention:

- The concrete slab strip drain drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - MARINE OPERATIONS

Description of Operation:

- The Facility operates six (6) pipelines at the dock facility on the Willamette River and one (1) - 12" vapor recovery line. One (1) pipeline carries Diesel, two (2) pipelines carry Jet A and three (3) pipelines carry Gasoline. All six (6) lines are 10" diameter and approximately 600 feet in length, and pump at an average rate of 4,200 bph.

Tow Quantity: One (1)

Length: Vessels: 695 ft. length; 27'-0" Bow, 31'-6" Stern

Average Shipment Size: 35,000 - 45,000 bbls

Discharging Rates: Approximately 6,500 bph

Frequency of Transfer: 14 transfers per month *(typical)*

Duration of Transfer: 12 to 20 Hours *(typical)*

Discharge Prevention:

- Each Willbridge Terminal marine transfer is closely monitored by two (2) on-site operators, one (1) at the Willbridge dock and one (1) within the Willbridge Terminal. Additional operations personnel are available at the Willbridge Terminal to initiate the notification process in the event of a spill. Radio communication is maintained between the operators to assure a safe and accurate product transfer.
- The loading/unloading lines are equipped with drip pans under the pump header connections.
- The dock area is well lighted and operations conducted in this area are in strict accordance with USCG procedures. These procedures are written in the Facility's Dock Operations Manual.
- In the event of a spill during a marine transfer operation additional personnel identified in Volume 1 Figure 2.3a from the Facility and the neighboring facilities would be mobilized for the initial response as well as personnel from the contracted OSRO identified in Volume 2 Figure 2.2 and Figure 3.3.

  As necessary, Northern Region personnel identified in Volume 1 Figure 2.3a, Corporate personnel identified in Volume 1 Figures 2.3b and 2.3c, as well as personnel from the Spill Management Team support contractor identified in Volume 2 Figure 2.2 will be activated and/or mobilized.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - RAIL CAR RACK

Description of Operation:

- The Facility is equipped with two (2) rail car offloading racks. There is an upstream and downstream side. The Ethanol offloading has three (3) spots and the AvGas offloading has four (4) spots.
- The Facility handles an average of five (5) tank cars per week (seasonal).

Unloading Rate: 350 gpm *(typical)*

Railcar Capacity: 29,000 gallons

Discharge Prevention:

- The curbed concrete slabs drain directly to a sump and oil/water separator system.
- Unloading events are only performed by qualified Company personnel.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The Facility has undergone numerous expansions since its initial construction in 1915. Expansion periods include:
  - 1923-24: 23 storage tanks
  - 1927-30: 16 storage tanks
  - 1937-38: 9 storage tanks
  - 1946: 2 storage tanks
  - 1948-56: 31 storage tanks
  - 1959-61: 6 storage tanks
  - 1964-65: 5 storage tanks
  - 1969-70: 8 storage tanks
  - 1972: 1 storage tank
  - 2012: 3 storage tanks

MAPS AND DIAGRAMS

The following Maps and Diagrams follow:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout Diagram
- Figure 8.4 – Fire Protection Diagram

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed on the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin and oil/water separator system, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the truck rack loading and unloading facilities is contained in a depressed area (with curbs). Drainage is through central drains to a 8,900 gallon sump. The product is pumped using a skimming device from the oil/water separator to the product interface tank.

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas (Cont'd)

- Drainage from diked storage areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas is emptied by gravity via manually activated valves.
- Accumulated stormwater is inspected for sheen. If sheen is not present, the Area Manager authorizes the Operator to open drain valves as necessary. Clean water is discharged to the local storm sewer system.
- All stormwater from tank roofs and loading rack sumps is transferred via one of the oil/water separators to the collection pond. Accumulated water is tested for contamination. Contaminated water is passed through sock and carbon filter units and tested again prior to discharge to the local storm sewer system under an NPDES permit.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- All Truck Racks are equipped with sumps that automatically transfer accumulated liquids to an oil/water separator. Sumps are equipped with high liquid alarms that will alert the Operator should liquid levels rise and the automatic pumps not activate. The water phase from the oil/water separator is transferred to the collection pond where it is sampled for contamination prior to discharge. Contaminated water is passed through sock and carbon filter units and sampled again prior to discharge to the local storm sewer system under an NPDES permit. The oil phase is transferred to a transmix tank.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Water is visually inspected for product and discharged only if no product sheen is visible.
- Contaminated water is transferred to the collection pond, sampled and, if necessary, passed through sock and carbon filter units prior to discharge.
- Facility drainage does not flow directly into an open watercourse.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

General Drainage (Cont'd)

- When draining the containment area, water is discharged to the local storm sewer system under NPDES permit.
- The Facility does not have a wastewater treatment plant nor does it treat water prior to discharge off site.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Eugene Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan.

(b) (3), (b) (7)(F)

Detection by Personnel

- Facility Security personnel monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Detection by Personnel (Cont'd)

- Annual Secondary Containment Inspections are part of the SPCC Plan.
- Tank Inspections are part of the SPCC Plan.

Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK FARM										
EG-01	Stove Oil (42'6" x 40')	(b) (7)(F), (b) (3)		CR	1962	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
EG-02	Diesel (60' x 40')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-03	Diesel (50' x 40')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-04	Diesel (40' x 24')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-05	Diesel (42'6" x 40')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-08	Diesel (40' x 24')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-09	Diesel (40' x 24')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-10	Diesel (42'6" x 40')			CR	1963	Leak/ Rupture	Instantaneous	None	E	
EG-12	Stove Oil (35' x 32')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-16	Gasoline (61' x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	E	
EG-18	Gasoline (61' x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	E	
EG-19	Gasoline (79' x 47'9")			IFR	1973	Leak/ Rupture	Instantaneous	None	E	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK FARM (Cont'd)										
EG-20	Gasoline (43'6" x 48')	(b) (7)(F), (b) (3)		IFR	1964	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
EG-21	N.I.S. (35' x 36')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-22	Gasoline (60' x 40')			EFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-23	Gasoline (35' x 36')			EFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-24	Gasoline (50' x 40')			EFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-31	N.I.S. (40' x 32')			EFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-32	Gasoline (45' x 36')			EFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-33	N.I.S. (40' x 24')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-34	N.I.S. (40' x 24')			EFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-35	Diesel (42'6" x 24')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK FARM										
EG-06	Unassigned (40' x 36')	(b) (7)(F), (b) (3)		CR	1962	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
EG-07	Unassigned (45' x 36')			CR	1992	Leak/ Rupture	Instantaneous	None	E	
EG-11	Diesel (42'6" x 40')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-13	Diesel (90' x 40')			CR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-14*	Transmix (40' x 20')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-15*	Transmix (30' x 24')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-17	Gasoline (61' x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	E	
EG-25	Ethanol (40' x 24')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-26	Gasoline (35' x 36')			EFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-27	Gasoline (45' x 36')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	
EG-28	Unassigned (50' x 40')			EFR	Unknown	Leak/ Rupture	Instantaneous	None	E	
EG-29	Gasoline (40' x 24')			IFR	1962	Leak/ Rupture	Instantaneous	None	E	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK FARM (Cont'd)										
EG-30	Gasoline (40' x 24')	(b) (7)(F), (b) (3)		EFR	1962	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
EG-36	Unassigned (65' x 40')			IFR	1966	Leak/ Rupture	Instantaneous	None	E	
EG-37	Gasoline (42'6" x 48')			IFR	1970	Leak/ Rupture	Instantaneous	None	E	
EG-38	Gasoline (50' x 40')			IFR	1971	Leak/ Rupture	Instantaneous	None	E	
EG-39	Unassigned (61' x 48')			IFR	1971	Leak/ Rupture	Instantaneous	None	E	
EG-40	Gasoline (96' x 48')			IFR	1984	Leak/ Rupture	Instantaneous	None	E	
EG-41	Diesel (96' x 48')			IFR	1984	Leak/ Rupture	Instantaneous	None	E	
EG-42	Gasoline (96' x 48')			IFR	1984	Leak/ Rupture	Instantaneous	None	E	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
EG-A1	Additive	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
EG-A2	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	W	
EG-A3	Empty			H	Unknown	Leak/ Rupture	Instantaneous	None	W	
EG-A4	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	E	
EG-A5	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	E	
EG-A9	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	E	
EG-A10	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	E	
EG-BK50	Red Dye			TOTE	TOTE	Leak/ Rupture	Instantaneous	None	W	
EG-11	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	E	
EG-12	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	E	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Secondary containment, curbing , sorbents)*
OPERATIONAL EQUIPMENT								
Terminal Manifold	Refined Products	(b) (7)(F), (b) (3)	Terminal Manifold	Leak/Rupture	1,680 gpm	None	SE	(b) (7)(F), (b) (3)
Manifold	Refined Products		Loading Rack Manifold	Leak/Rupture	450 gpm	None	W	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING RACK							
1	Refined Products, Ethanol, Additives	7,560	Leak/Rupture	Instantaneous	None	To Rack Drain	10,164 Curbs and Sump
2	Refined Products, Ethanol, Additives	7,560	Leak/Rupture	Instantaneous	None	To Rack Drain	10,164 Curbs and Sump
3	Refined Products, Ethanol, Additives	7,560	Leak/Rupture	Instantaneous	None	To Rack Drain	10,164 Curbs and Sump
4	Refined Products, Ethanol, Additives	7,560	Leak/Rupture	Instantaneous	None	To Rack Drain	17,258 Curbs and Sump
5	Out of Service	7,560	Leak/Rupture	Instantaneous	None	To Rack Drain	17,066 Curbs and Sump
Rail Car Loading Rack	Our of Service	23,520	Leak/Rupture	Instantaneous	None	N	182,370 Berms, MV

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
			There are no underground storage tanks at this Facility.						

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity "10-Year Program".
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per Company policy, as required by age, condition, and service. (Refer to the "10-Year Program" and the storage tanks section (Section 11) of the Kinder Morgan Specification Manual).
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated (see Sample Log in Appendix B).
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.
- High level alarms are tested on a monthly basis.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valve locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

- Sample inspection and test records are provided in Figures 8.5 and 8.6.

FIGURES 8.5 AND 8.6

Note: The following Kinder Morgan forms comprise the typical tank and secondary containment Inspection Checklists for this Facility. These forms may change over time to accommodate the specific operations of the Facility.

TANK INTEGRITY REPORT

QUARTERLY ***BI-ANNUAL***

FIRST	SECOND	THIRD	FORTH

FIRST	SECOND

LOCATION _____

REFERENCE NUMBER	Tank Type / Product																			
	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required
1. Shell Plates & Paint																				
2. Shell-Bottom Weld																				
3. Tank Foundation																				
4. Apron Around Tank																				
5. Grounding System																				
6. Auto Gauge Equipment																				
7. Shell Manways																				
8. Bottom Leak Detection																				
9. Stairway Handrails & Ladders																				
10. Lighting																				
11. Walkways & Platforms																				
12. Rain Gutter & Down Spout																				
13. Shell Rim Angle																				
14. Fixed Roof & Paint																				
15. Foam Hole Covers																				
16. Gauge & View Hatches																				
17. Vents																				
18. Liquid Level Control & Alarms																				
19. Wind Girders																				
20. Floating Roof & Pontoons																				
21. Roof Drain Mechanism																				
22. Roof Manways																				
23. Anti-Rota ion Pole/Bar																				
24. Vapor Recovery Pipe																				
25. Foam Injection																				

LEGEND

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

_____

_____

REPORT PREPARED BY: _____ DATE: _____

TANK SEAL INSPECTION SUMMARY

LOCATION: ______________________ INSPECTION PERFORMED BY: ______________

DATE: ______________

REFERENCE NUMBER

1. Primary Seal
2. Secondary Seal
3. Anti-Rotation Pole/Bar Seal
4. Apron Seal
5. Floating Roof Deck
6. Floating Roof Drain Sump
7. Floating Roof Legs
8. Floating Pan Compartments
9. Vapor Recovery Pipe Seal
10. Center Column Seal
11. Gauge Pipe Float Seal
12. Emergency Drain
13. Pressure/Vacuum Vent
14. Sampling Funnel Cover
15. Sampling Hatch
16. Floating Roof Pontoons
17. Auto Gauge Float Well Cover

STATUS

N = NEW

R = REPEAT

Tank Number	Tank Type	Product	Status N or R	Reference Number	DESCRIPTION	Priority A or B	Cost Estimate	Responsibility

TANK SEAL INSPECTION REPORT

QUARTERLY ***SEMI-ANNUAL***

LOCATION _____

FIRST	SECOND	THIRD	FORTH

FIRST	SECOND

REFERENCE NUMBER	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level	
	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required
1 Primary Seal																				
2 Secondary Seal																				
3 Anti-Rotation Pole/Bar Seal																				
4 Apron Seal																				
5 Floating Roof Deck																				
6 Floating Roof Drain Sump																				
7 Floating Roof Legs																				
8 Floating Pan Compartments																				
9 Vapor Recovery Pipe Seal																				
10 Center Column Seal																				
11 Gauge Pipe Float Seal																				
12 Emergency Drain																				
13 Pressure/Vacuum Vent																				
14 Sampling Funnel Cover																				
15 Sampling Hatch																				
16 Floating Roof Pontoons																				
17 Auto Gauge Float Well Cover																				

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

REPORT PREPARED BY: _____ DATE: _____

TANK FARM CONTAINMENT BERMS
INSPECTION REPORT

LOCATION : _____ DATE : _____

AREA OF LOCATION : _____

TYPE OF CONTAINMENT :

Dirt and Gravel	☐	Dirt With asphalt	☐
Dirt With Tar	☐	Dirt With Chip Rock	☐
Dirt With Tar and Chip Rock	☐	Dirt With Concrete	☐
Cinder Block	☐	Other	☐

COMMENTS : _____

CONDITION OF CONTAINMENT BERMS :

Excellent	☐	Good	☐	Fair	☐	Poor	☐
Wore Down / Ruts	☐			Erosion	☐	Gaps	☐
Animal Holes	☐			Cracks	☐	Other	☐
Cave-In / Under-Mined	☐						

COMMENTS : _____

RECOMMENDATIONS : _____

INSPECTED BY : _____

ADDITIVE TANK / SYSTEM INSPECTION REPORT

LOCATION : ______________________________ DATE ______________________________

INSPECTOR : QUARTER

TANK NUMBER	SERVICE VACUUM BREAKER		CHECK TANK GAUGE		PUMP LEAK		PIPE/TUBE LEAKS		CONTAIN-MENT		COMMENTS
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	

TANK MAINTENANCE LOG

LOCATION: _____ INSPECTION PERFORMED BY: _____

DATE: _____

TANK NUMBER	TANK TYPE	DESCRIPTION

TANK LEAK DETECTION REPORT

QUARTERLY	SEMI-ANNUALLY	ANNUALLY

LOCATION : **DATE :**

TANK NO.	TUBE NO.	P.P.M.	BATTERY CHECK	COMMENTS

READINGS TAKEN BY : ______________________________

INTERNAL FLOATER TANK

VAPOR REPORT

LOCATION : DATE :

TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING

INSPECTED BY : _____

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

[redacted]

Medical Facilities

Miscellaneous medical facilities (primarily hospitals) are located within the Eugene City Limits. The majority of the facilities lie to the southwest of the Facility. Review of GIS Data determined that the following medical facilities are within the planning distance of the Facility:

8.2.3 VULNERABILITY ANALYSIS

[redacted]

Residential Areas

Residential areas are located in all directions from the Facility. These areas begin within one mile of the Facility and continue outward.

Businesses

The area surrounding the Facility is for the most part light industrial with some open areas. There are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Maxxum Marine	0.02 miles *(approximate)*
USA Nutrasources	0.03 miles *(approximate)*
Western Parcel Express	0.03 miles *(approximate)*
Equilon Enterprises	0.04 miles *(approximate)*
Jet Deliver Service	0.09 miles *(approximate)*
Mid-Valley Athletic Supply	0.09 miles *(approximate)*
Mr. Logo	0.09 miles *(approximate)*
Organically Grown Company	0.09 miles *(approximate)*
Pacific Display Corporation	0.09 miles *(approximate)*
Point & Click Software	0.09 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

8.2.3 VULNERABILITY ANALYSIS

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Wetland habitats, however, are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Wetlands	Latitude/Longitude
Freshwater Emergent Wetland	(b) (7)(F), (b) (3)
Spring Creek, Freshwater Emergent Wetland	
Spring Creek, Riverine	

Wetland habitats are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

8.2.3 VULNERABILITY ANALYSIS

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Spring Creek	1.0 miles NE *(approximate)*
Flat Creek	5.0 miles NE *(approximate)*
Ingram Slough	10.0 miles NE *(approximate)*

Additional details on the lakes, streams and rivers within the planning distance are found on the maps in Section 6.

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Section 4.

Recreational Areas

Review of GIS Data determined that the following recreation areas are within the planning distance of the Facility:

Recreational Areas	Location
Eugene Blue Star Safety Rest Area	4.0 miles NW *(approximate)*
Cartney County Park	17.0 miles N *(approximate)*

Additional detail on the recreational areas within the planning distance are found on the maps in Section 6.

Transportation Routes (air, land, and water)

There are various public roadways and waterways which may be potentially affected by a discharge originating from the Facility. Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility

Transportation Route	Distance from Facility
Highway 99	0.1 mile W *(approximate)*
Interstate 5	1.5 miles E *(approximate)*
Mahlon Sweet Field Airport	4.0 miles NW *(approximate)*

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Ross (historical)	1.0 miles NW *(approximate)*
Fox Valley Lumber Company (historical)	2.0 miles NW *(approximate)*
Milorn (historical)	6.0 miles NW *(approximate)*
Shadow Hills Country Club	6.2 miles NW *(approximate)*
Team Track (historical)	8.0 miles N *(approximate)*
Junction City Remilling (historical)	9.0 miles N *(approximate)*
Western Farmers Spur (historical)	10.0 miles N *(approximate)*
Washburne Wayside	16.5 miles N *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

The Tank Farms are protected with an 8' wide dirt impervious barrier. This is built to withstand pressure from freestanding product. The berms are sprayed with asphalt in proximity of the tank. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

Should a spill escape containment, it would flow west and then north along the access road.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Vulnerability to a Natural Disaster

The North and South Tank Farms location are flat and are therefore unlikely to incur damage due to shifting and sliding. The seismic stability of the area is good. The probability of a landslide or earthquake is low.

Other Factors

The actions taken to lessen hazards at the Facility petroleum tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file in the Facility office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Vessel loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

- The Facility is located in Portland, OR, adjacent to the Willamette River which is the closest navigable waterway.
- The Facility is connected by pipelines to other Company facilities and the Olympic Pipeline in Renton, WA.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table in this Section.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Linnton Terminal	(b) (7)(F), (b) (3)		

The rate of flow from the pipeline system to tankage is essentially fixed and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan, which details additional discharge detection measures.

Detection by Personnel

- Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.
- Monthly inspection of tank gauges and cathodic protection readings.
- Annual Secondary Containment Inspection as part of the SPCC Plan.
- Tank Inspections as part of the SPCC Plan.
- The loading rack is equipped with warning and instruction signs.
- The entire plant is adequately illuminated to provide security and safe operations at night.

(b) (3), (b) (7)(F)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS - LOWER TANKS										
11017*	OOS (48' x 34'10")	(b) (7)(F), (b) (3)		IFR	1941	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
11019*	OOS (48' x 34'10")			IFR	1941	Leak/ Rupture	Instantaneous	None	E	
17018*	Gasoline (60' x 34'10")			IFR	1941	Leak/ Rupture	Instantaneous	None	E	
17020*	Gasoline (60' x 34'10")			IFR	1941	Leak/ Rupture	Instantaneous	None	E	
17027*	Gasoline (60' x 34'11")			IFR	1954	Leak/ Rupture	Instantaneous	None	E	
20011*	Diesel (70' x 29'9")			VFR	1932	Leak/ Rupture	Instantaneous	None	E	
30016*	Diesel (78' x 36'0")			VFR	1941	Leak/ Rupture	Instantaneous	None	E	
45028*	Gasoline (76' x 56'0")			EFR	1955	Leak/ Rupture	Instantaneous	None	E	
59029*	Gasoline (100' x 42'0")			EFR	1955	Leak/ Rupture	Instantaneous	None	E	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom
* = DOT Jurisdictional Tank

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks

LAL = Level Alarm Low
LAH = Level Alarm High
LAHH = Level Alarm High High
CP = Cathodic Protection
DVG = Direct Vision Gauge

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS - UPPER TANKS										
305	OOS (10'6" x 20')	(b) (7)(F), (b) (3)		VFR	<1926	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
306	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
309	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
310	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
312	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
313	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
314	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
315	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
330	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
331	OOS (10'6" x 20')			VFR	<1926	Leak/ Rupture	Instantaneous	None	E	
326	OOS (10'6" x 21'1")			VFR	N/A	Leak/ Rupture	Instantaneous	None	E	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS - UPPER TANKS (Cont'd)										
532	OOS (10'6" x 32'2")	(b) (7)(F), (b) (3)		VFR	1965	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
2024	OOS (26' x 24'9")			VFR	1937	Leak/ Rupture	Instantaneous	None	E	
2501*	OOS (30' x 19'11")			IFR	1958	Leak/ Rupture	Instantaneous	None	E	
2502*	OOS (30' x 19'8")			VFR	1914	Leak/ Rupture	Instantaneous	None	E	
2503	OOS (30' x 19'10")			VFR	1915	Leak/ Rupture	Instantaneous	None	E	
5004	OOS (40' x 22'6")			VFR	1916	Leak/ Rupture	Instantaneous	None	E	
10007	OOS (55' x 24'5")			VFR	1922	Leak/ Rupture	Instantaneous	None	E	
72021*	Diesel (114'7" x 39'11")			VFR	2011	Leak/ Rupture	Instantaneous	None	E	
55022*	Gasoline (114'6" x 30'1")			VFR	1928	Leak/ Rupture	Instantaneous	None	E	
55023*	OOS (114'6" x 30'1")			IFR	1944	Leak/ Rupture	Instantaneous	None	E	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom			
*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS										
3034	Stormwater (30' x 26'0")	(b) (7)(F), (b) (3)		VFR	1925	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
Salt Tower	Contact Water (11'5" x 32'9")			VFR	N/A	Leak/ Rupture	Instantaneous	None	E	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS										
55008*	OOS (114'6" x 29'6")	(b) (7)(F), (b) (3)		VFR	1933	Leak/ Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure *Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Secondary containment, curbing , sorbents)*
OPERATIONAL EQUIPMENT								
Terminal Manifold	Petroleum Products	(b) (7)(F), (b) (3)	Manifold	Leak/Rupture	5250 gpm	None	N to drain valves	(b) (7)(F), (b) (3)

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING RACK							
Loading rack (OOS)	Refined Petroleum Products	7,560	None	None	None	To drain	38,858 Curb, sump, OWS
Ethanol Railcar (OOS)	Ethanol	21,000	None	None	None	N/A	100 gal Gravel surface, sorbents

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
			There are no Underground Storage Tanks at this Facility.						

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

8.2.2 FACILITY SELF-INSPECTIONS

- Flange joints
- Valve glands and bodies
- Pipe supports
- Metal surfaces
- Expansion joints
- Catch pans
- Valves locks and/or seals
- Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

The tank farm is protected with poured concrete walls designed to withstand pressure from freestanding product. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

- The Facility is located in Portland, OR adjacent to the Willamette River.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

The EPA Planning Distance Calculation is presented in Section 8.3 of this Volume.

Water Intakes

(b) (7)(F), (b) (3)

(b) (3), (b) (7)(F)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Residential Areas

Residential areas are located in all directions from the Facility. These areas begin within one mile of the Facility and continue outward in all directions.

CITY/STATE	POPULATION
WILLAMETTE RIVER	
Portland, Oregon	582,130
University Park, Oregon	5,250
Linnton, Oregon	465
St. John's, Oregon	11,346
MULTNOMAH CHANNEL	
Burlington, Oregon	Unincorporated
McNulty, Oregon	Unincorporated
Ridgefield, Washington	4,314
Columbia City, Oregon	1,955
St. Helens, Oregon	10,019
COLUMBIA RIVER	
Woodland, Washington	4,843
Deer Island, Oregon	Unincorporated
Kalama, Washington	1,783
Goble, Oregon	2,739
Prescott, Oregon	72
Rainier, Oregon	1,687
Longview, Washington	36,562
Clatskanie, Oregon	1,710
Eagle Cliff, Washington	Unincorporated
West Port, Oregon	Unincorporated
Cathlamet, Washington	565
Skamokawa, Washington	449
Brownsmead, Oregon	Unincorporated
Knappa, Oregon	Unincorporated
Altoona/Brookfield/Dahlia/Rosburg, Washington	395
Svensen, Oregon	Unincorporated
Tongue Point, Oregon	Unincorporated
Astoria, Oregon	10,045
Ilwaco, Washington	945

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Businesses

The area surrounding the Facility is for the most part commercialized. There are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance:

Businesses	Distance from Facility
Port of Portland	2.77 to 5.95 miles NE to SE *(approximate)*
Fred's Marina	1.27 miles NW *(approximate)*
Tidewater Barge Lines	3.78 miles N *(approximate)*
Boise	13.28 miles N *(approximate)*
Saint Helens Marina	14.45 miles N *(approximate)*
Harvest States	23.0 miles N *(approximate)*

Fish and Wildlife, Wetlands, and other Sensitive Environments

Fish and wildlife, wetlands and other sensitive environments within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Lakes and Streams

Lakes and streams within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies.

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Recreational areas within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Transportation Routes (air, land, and water)

Review of GIS Data determined that the following transportation routes are within the planning distance:

Transportation Routes	Location
St. Helens Road	0.09 miles SW *(approximate)*
Portland & Western Railroad	0.0 miles W (approximate)
Willamette River	0.0 miles NE (approximate)
Sauvie Island Bridge	2.12 miles NW (approximate)
Port of Portland	2.77 to 5.95 miles NE to SE *(approximate)*
Columbia River	3.43 miles NNE (approximate)

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Other areas of economic importance within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Any spilled material which might escape a diked area would be mitigated through the implementation of spill response activities by: Facility personnel, or if necessary, one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow northeast through the Facility.

Vulnerability to a Natural Disaster

The Facility is located in a semi-active earthquake zone with occasional seismic activity.

The Company has historical data that defines the probability of seismic activity in the area. The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of tank farms away from slide prone areas and, constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

The actions taken to lessen hazards at the Facility tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

History of Oil Discharges Greater in Excess of 25 Barrels (OAR 340-141-0160 (3)(h))					
Date of Discharge	**Location of Discharge**	**Cause of Discharge**	**Product Discharged**	**Amount Discharged**	**NRC Incident Report #**
Searches of the Kinder Morgan incident database and the NRC incident report database revealed no discharges of oil in excess of 25 barrels (1,050 gallons) to land or waters of the state from the Linnton Terminal in the five years preceding submittal of this ICP.					

FIGURE 8.7

DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Marine transfer operations
- Rail car unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

- The Facility is located in Portland, OR, adjacent to the Willamette River which is the closest navigable waterway.
- The Facility is connected by pipelines to other Company facilities and Olympic Pipeline in Renton, WA.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification in this Section.

Loading Rack Containment System

Main Loading/Unloading Rack

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.

  A quick drainage system is not used for tank truck loading/unloading.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Main Loading/Unloading Rack (Cont'd)

- All transfers are in constant attendance by qualified personnel who are properly trained prior to conducting transfers.

- In the event that a spill did originate from the transfer area piping, the Facility would immediately shut down the source, activate its Contingency Plan, and commence clean up operations with local and contract resources as necessary to ensure prompt removal of the discharged product.

- Drainage from the loading rack enters a gutter and flows to a sump. From the sump it goes through a sump pump to an upright oil/water separator. The water is then transferred to WB-166, through a sock and carbon filtration system, and the resulting clean water is pumped to WB-167. This water is batch tested and confirmed to be free of product. The City of Portland must be notified 48 hours in advance of release into the NPDES system.

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.

- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.

- Drainage from diked storage areas is restrained by manually controlled valves.

- Flapper-type drain valves are not used to drain diked areas.

- Drainage from the North Yard is diverted to the Asphalt Oil Water Separator. The water is then pumped from the separator through the North Yard Water Monitor located at NPDES 003. If the amount of oil and grease in the water equals less than 10ppm, the water is allowed to flow into Saltzman Creek (Willamette River). If the water contains more than 10ppm of oil and grease, the water is diverted to tank WB-140 until the level drops below 10ppm.

- Drainage from the South Yard is diverted to the South Yard Oil Water Separator. The water is then pumped through the South Yard Water Monitor located at NPDES 003. If the amount of oil and grease in the water equals less than 10ppm, then the water is allowed to flow into Saltzman Creek (Willamette River). If the water contains more than 10ppm of oil and grease, the water is diverted into tank WB-140 until it drops below 10ppm.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Surface drainage from undiked areas along N.W. Culebra Avenue flows to Facility storm drains and is collected in WB-166. It is then pumped through a sock and carbon filter unit to WB-167. There it is tested for compliance with the POTW permit prior to being discharged into Saltzman Creek, which flows into the Williamette River.

- Drainage from undiked overhead piping between the north and south yards is captured by this system.

- All undiked piping is located in areas away from vehicular traffic.

- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Stormwater accumulating in secondary containment areas is processed through an oily water separator and carbon filters then tested by the Lead Operator prior to being discharged under an NPDES permit.

- Water is visually inspected for product and discharged only if no product sheen is visible.

- When draining the containment area, water is discharged under an NPDES permit to Saltzman Creek which flows into the Willamette River, and the POTW to the City of Portland POTW system.

- The Facility does not have a wastewater treatment plant nor does it chemically treat water prior to discharge off site.

- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.

- Records of drainage events are maintained at the Facility office.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Willbridge Terminal	(b) (7)(F), (b) (3)		

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan, which details additional discharge detection measures.

Detection by Personnel

- Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.
- Monthly inspection of tank gauges and cathodic protection readings.
- Annual Secondary Containment Inspection as part of the SPCC Plan.
- Tank Inspections as part of the SPCC Plan.
- The loading rack is equipped with warning and instruction signs.
- The entire plant is adequately illuminated to provide security and safe operations at night.

(b) (3), (b) (7)(F)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

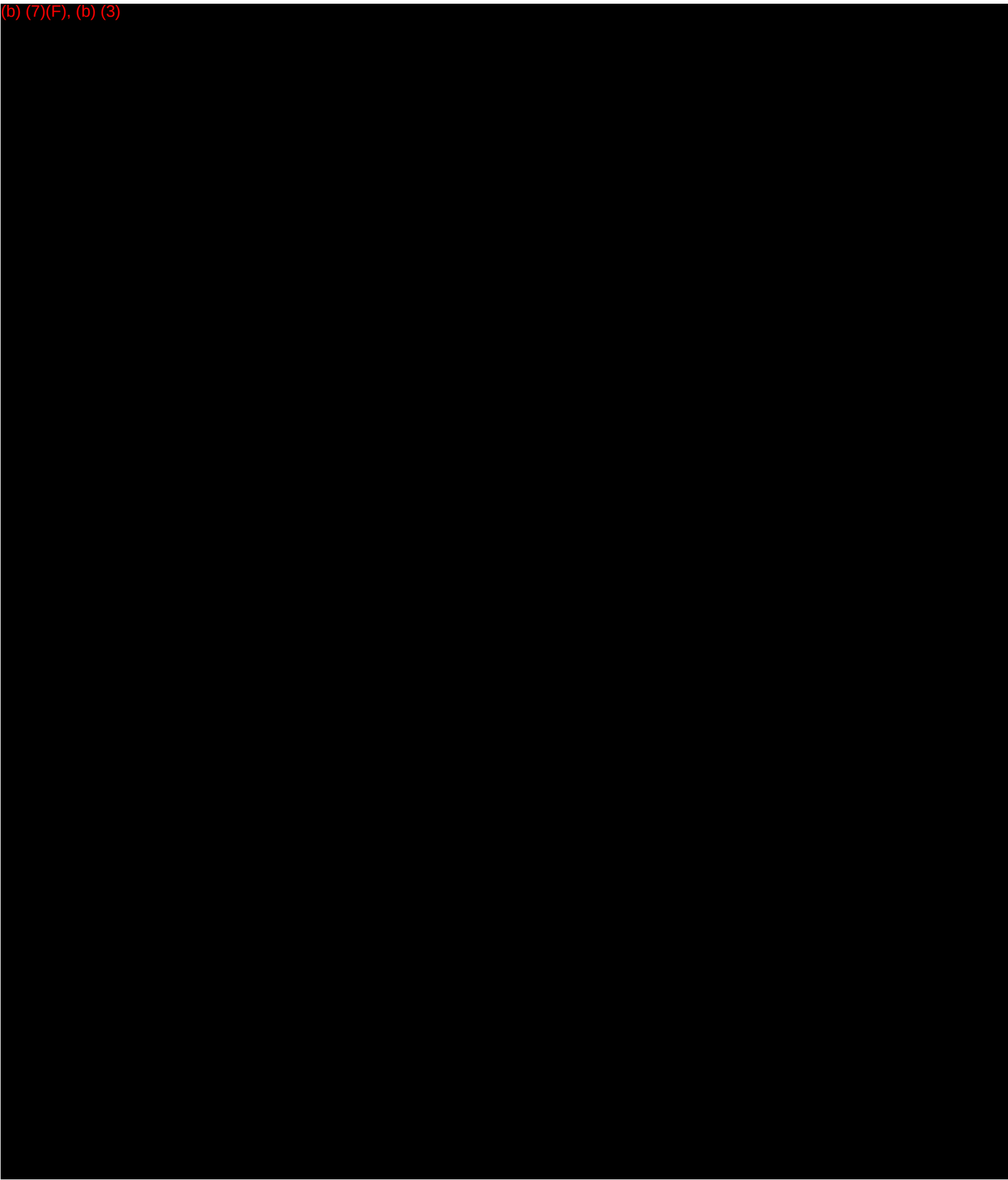
Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

(b) (7)(F), (b) (3)



POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK YARD										
WB-002*	Jet A (114' x 42'0")	(b) (7)(F), (b) (3)		VFR	1915	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-003	OOS (50' x 37'7")			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-004	OOS (35' x 30')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-005	OOS (50' x 30')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-006	OOS (30' x 35')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-007	OOS (50' x 30')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-008	OOS (35' x 30')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-052*	Jet A (114'6" x 42')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-054*	Diesel (120' x 41')			VFR	1929	Leak/Rupture	Instantaneous	None	E	
WB-061	OOS (11'6" x 32'10")			VFR	1929	Leak/Rupture	Instantaneous	None	E	
WB-062	OOS (10' x 20')			VFR	1929	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK YARD (Cont'd)										
WB-063	OOS (11'6" x 31')	(b) (7)(F), (b) (3)		VFR	1929	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-064	Jet A (60' x 40')			VFR	1930	Leak/Rupture	Instantaneous	None	E	
WB-066	OOS (60' x 40')			VFR	1930	Leak/Rupture	Instantaneous	None	E	
WB-069*	Jet A (120' x 40')			VFR	1937	Leak/Rupture	Instantaneous	None	E	
WB-070*	Jet A (78' x 40')			VFR	1938	Leak/Rupture	Instantaneous	None	E	
WB-071*	Transmix (60' x 40')			VFR	1937	Leak/Rupture	Instantaneous	None	E	
WB-072	OOS (48' x 40')			VFR	1937	Leak/Rupture	Instantaneous	None	E	
WB-073*	Transmix (48' x 40')			VFR	1937	Leak/Rupture	Instantaneous	None	E	
WB-074	OOS (36' x 40')			VFR	1937	Leak/Rupture	Instantaneous	None	E	
WB-075	OOS (11'6" x 31')			VFR	1938	Leak/Rupture	Instantaneous	None	E	
WB-155	OOS (8'6" x 18')			VFR	1965	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK YARD (Cont'd)										
WB-156	OOS (8'6" x 18')	(b) (7)(F), (b) (3)		VFR	1965	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-157	OOS (11'4" x 32')			VFR	1969	Leak/Rupture	Instantaneous	None	E	
WB-158	OOS (11'4" x 32')			VFR	1969	Leak/Rupture	Instantaneous	None	E	
WB-159	OOS (11'4" x 32')			VFR	1969	Leak/Rupture	Instantaneous	None	E	
WB-160	OOS (11'4" x 32')			VFR	1969	Leak/Rupture	Instantaneous	None	E	
WB-161	OOS (11'4" x 32')			VFR	1969	Leak/Rupture	Instantaneous	None	E	
WB-162	OOS (11'4" x 32')			VFR	1969	Leak/Rupture	Instantaneous	None	E	
WB-163	OOS (11'4" x 32')			VFR	1969	Leak/Rupture	Instantaneous	None	E	
WB-169	OOS (11'6" x 32')			VFR	1928	Leak/Rupture	Instantaneous	None	E	
WB-170	OOS (11'6" x 32')			VFR	1928	Leak/Rupture	Instantaneous	None	E	
WB-171	OOS (11'6" x 32')			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK YARD (Cont'd)										
WB-172	OOS (11'6" x 32')	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-173	Jet A (14' x 42')			VFR	1972	Leak/Rupture	Instantaneous	None	E	
WB-176	OOS (11'6" x 10')			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-177	OOS (11'6" x 10')			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-186	OOS (11'6" x 31'4")			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-187	OOS (11'6" x 31'4")			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-188	OOS (11'6" x 31'4")			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-189	OOS (11'6" x 31'4")			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-12001**	Jet A (120' x 60')			IFR	2012	Leak/Rupture	Instantaneous	None	E	
WB-12002**	Diesel (120' x 60')			IFR	2012	Leak/Rupture	Instantaneous	None	E	
	TOTALS									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK YARD										
WB-084*	Gasoline (100' x 40')	(b) (7)(F), (b) (3)		IFR	1948	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-085*	Diesel (100' x 40')			VFR	1948	Leak/Rupture	Instantaneous	None	E	
WB-086	OOS (30' x 42')			VFR	1948	Leak/Rupture	Instantaneous	None	E	
WB-087	OOS (30' x 42')			VFR	1948	Leak/Rupture	Instantaneous	None	E	
WB-088	OOS. (30' x 42')			VFR	1948	Leak/Rupture	Instantaneous	None	E	
WB-089	OOS (30' x 42')			VFR	1948	Leak/Rupture	Instantaneous	None	E	
WB-090	OOS (8' x 8')			VFR	1946	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK YARD (Cont'd)										
WB-100*	Diesel (120' x 40')	(b) (7)(F), (b) (3)		VFR	1949	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-101*	Gasoline (120' x 40')			IFR	1949	Leak/Rupture	Instantaneous	None	E	
WB-102	OOS (35' x 40')			VFR	1951	Leak/Rupture	Instantaneous	None	E	
WB-103	OOS (26' x 42')			VFR	1950	Leak/Rupture	Instantaneous	None	E	
WB-104	Lubricity Additive (26' x 42')			VFR	1950	Leak/Rupture	Instantaneous	None	E	
WB-105	Ethanol (26' x 40')			IFR	1951	Leak/Rupture	Instantaneous	None	E	
WB-106	OOS (35' x 40')			VFR	1951	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK YARD (Cont'd)										
WB-117*	Biodiesel (48' x 40')	(b) (7)(F), (b) (3)		IFR	1951	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-116*	Gasoline (120' x 40')			IFR	1961	Leak/Rupture	Instantaneous	None	E	
WB-118*	Gasoline (100' x 40')			IFR	1951	Leak/Rupture	Instantaneous	None	E	
WB-123*	Gasoline (116' x 41')			IFR	1952	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK YARD (Cont'd)										
WB-124*	Gasoline (120' x 40')	(b) (7)(F), (b) (3)		IFR	1952	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-125	OOS (9'6" x 24')			VFR	1946	Leak/Rupture	Instantaneous	None	E	
WB-126	OOS (11'6" x 32')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-128*	Gasoline (100' x 40')			IFR	1953	Leak/Rupture	Instantaneous	None	E	
WB-134*	Gasoline (100 x 40')			IFR	1955	Leak/Rupture	Instantaneous	None	E	
WB-137	OOS (30' x 42')			VFR	1956	Leak/Rupture	Instantaneous	None	E	
WB-138*	Avgas (48' x 42')			IFR	1956	Leak/Rupture	Instantaneous	None	E	
WB-139	OOS (48' x 42')			VFR	1956	Leak/Rupture	Instantaneous	None	E	
WB-140	Storm Water (52' x 40')			VFR	1956	Leak/Rupture	Instantaneous	None	E	
WB-141	OOS (56' x 40')			VFR	1956	Leak/Rupture	Instantaneous	None	E	
WB-143	OOS (32' x 42')			VFR	1959	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK YARD (Cont'd)										
WB-152	Ethanol (44' x 42')	(b) (7)(F), (b) (3)		IFR	1964	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-166	Contact Water (14' x 32')			VFR	1970	Leak/Rupture	Instantaneous	None	E	
WB-167	Contact Water (11'6" x 32')			VFR	1928	Leak/Rupture	Instantaneous	None	E	
WB-190	Additive (8' x 22')			H	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-192	Additive (8' x 22')			H	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-193	Additive (8' x 27')			H	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-194	Slop Water (8' x 17')			H	Unknown	Leak/Rupture	Instantaneous	None	E	
WB-12003**	Gasoline (120' x 60')			IFR	2012	Leak/Rupture	Instantaneous	None	E	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – LUBE OIL TANK AREA (OOS)										
WB-009	OOS (18' x 12')	(b) (7)(F), (b) (3)		VFR	1915	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-010	OOS (18' x 12')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-011	OOS (18' x 12')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-012	OOS (18' x 12')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-013	OOS (7' x 10')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-014	OOS (7' x 10')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-015	OOS (7' x 10')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-016	OOS (7' x 10')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-017	OOS (7' x 10')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-018	OOS (7' x 10')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-022	OOS (10' x 20')			VFR	1915	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – LUBE OIL TANK AREA (OOS) (Cont'd)										
WB-023	OOS (10' x 20')	(b) (7)(F), (b) (3)		VFR	1915	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-025	OOS (10' x 20')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-026	OOS (18' x 12')			VFR	1916	Leak/Rupture	Instantaneous	None	E	
WB-030	OOS (10' x 20')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-031	OOS (10' x 20')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-032	OOS (10' x 30')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-033	OOS (10' x 30')			VFR	1915	Leak/Rupture	Instantaneous	None	E	
WB-034	OOS (8' x 11'6")			VFR	1924	Leak/Rupture	Instantaneous	None	E	
WB-035	OOS (8' x 11'6")			VFR	1924	Leak/Rupture	Instantaneous	None	E	
WB-036	OOS (8' x 11'6")			VFR	1924	Leak/Rupture	Instantaneous	None	E	
WB-037	OOS (8' x 11'6")			VFR	1924	Leak/Rupture	Instantaneous	None	E	
WB-038	OOS (8' x 11'6")			VFR	1924	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – LUBE OIL TANK AREA (OOS) (Cont'd)										
WB-039	OOS (8' x 11'6")	(b) (7)(F), (b) (3)		VFR	1924	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-040	OOS (8' x 15')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-041	OOS (8' x 15')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-042	OOS (8' x 15')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-043	OOS (8' x 15')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-044	OOS (8' x 15')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-045	OOS (8' x 15')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-046	OOS (10' x 20')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-047	OOS (10' x 20')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-048	OOS (10' x 20')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-049	OOS (10' x 20')			VFR	1923	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – LUBE OIL TANK AREA (OOS) (Cont'd)										
WB-050	OOS (10' x 20')	(b) (7)(F), (b) (3)		VFR	1923	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-051	OOS (10' x 20')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-056	OOS (11'6" x 25'6")			VFR	1929	Leak/Rupture	Instantaneous	None	E	
WB-057	OOS (11'6" x 25'6")			VFR	1929	Leak/Rupture	Instantaneous	None	E	
WB-058	OOS (11'6" x 25'6")			VFR	1929	Leak/Rupture	Instantaneous	None	E	
WB-059	OOS (11'6" x 25'6")			VFR	1929	Leak/Rupture	Instantaneous	None	E	
WB-060	OOS (11'6" x 25'6")			VFR	1929	Leak/Rupture	Instantaneous	None	E	
WB-076	OOS (11'6" x 31')			VFR	1938	Leak/Rupture	Instantaneous	None	E	
WB-077	OOS (11'6" x 31')			VFR	1938	Leak/Rupture	Instantaneous	None	E	
WB-082	OOS (10' x 20')			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-083	OOS (11'6" x 26'6")			VFR	1923	Leak/Rupture	Instantaneous	None	E	
WB-127	OOS (11'6" x 32')			VFR	1923	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – LUBE OIL TANK AREA (OOS) (Cont'd)										
WB-129	OOS (11'6" x 10')	(b) (7)(F), (b) (3)		VFR	1927	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
WB-131	OOS (9' x 10')			VFR	1954	Leak/Rupture	Instantaneous	None	E	
WB-145	OOS (8'6" x 18')			VFR	1960	Leak/Rupture	Instantaneous	None	E	
WB-146	OOS (8'6" x 18')			VFR	1960	Leak/Rupture	Instantaneous	None	E	
WB-147	OOS (8'6" x 18')			VFR	1961	Leak/Rupture	Instantaneous	None	E	
WB-148	OOS (8'6" x 18')			VFR	1961	Leak/Rupture	Instantaneous	None	E	
WB-153	OOS (8'6" x 18')			VFR	1965	Leak/Rupture	Instantaneous	None	E	
WB-154	OOS (8'6" x 18')			VFR	1965	Leak/Rupture	Instantaneous	None	E	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
*	=	DOT Jurisdictional Tank			
**	=	Complex Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING RACK							
Light Oil Loading Stand	Red Dye Refined Product, Additives	7,000	Leak/Rupture	Instantaneous	None	To Drain	15,393 Curbing, Sump, OWS
Ethanol Rail Rack	Ethanol	29,000	Leak/Rupture	Instantaneous	None	E	23,237 Concrete Pads, Sump, OWS
AvGas Rail Rack	Aviation Gasoline	29,000	Leak/Rupture	Instantaneous	None	E	23,237 Concrete Pads, Sump, OWS
Additive Offloading Lube Area	Additives	7,000	Leak/Rupture	Instantaneous	None	N	84 Curbs, Drains, VT, OWS
Lube Oil Truck Rack	Ethanol	7,000	Leak/Rupture	Instantaneous	None	To Drain	9,886 Curbs, Sump, OWS

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
			There are no Underground Storage Tanks at this Facility.						

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.
- High and redundant high level alarms are tested on a monthly basis by manually activating the alarm sensor on the tank.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valve locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

The tank farm is protected with concrete block walls and earthen berms designed to withstand pressure from freestanding product. The floors of the tanks have impervious linings. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

The EPA Planning Distance Calculation is presented in Section 8.3 of this Volume.

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

(b) (3), (b) (7)(F)

Residential Areas

CITY/STATE	POPULATION
WILLAMETTE RIVER	
Portland, Oregon	582,130
University Park, Oregon	5,250
Linnton, Oregon	465
St. John's, Oregon	11,346
MULTNOMAH CHANNEL	
Burlington, Oregon	Unincorporated
McNulty, Oregon	Unincorporated
Ridgefield, Washington	4,314
Columbia City, Oregon	1,955
St. Helens, Oregon	10,019
COLUMBIA RIVER	
Woodland, Washington	4,843
Deer Island, Oregon	Unincorporated
Kalama, Washington	1,783
Goble, Oregon	2,739
Prescott, Oregon	72
Rainier, Oregon	1,687
Longview, Washington	36,562
Clatskanie, Oregon	1,710
Eagle Cliff, Washington	Unincorporated
West Port, Oregon	Unincorporated
Cathlamet, Washington	565
Skamokawa, Washington	449
Brownsmead, Oregon	Unincorporated
Knappa, Oregon	Unincorporated
Altoona/Brookfield/Dahlia/Rosburg, Washington	395
Svensen, Oregon	Unincorporated
Tongue Point, Oregon	Unincorporated
Astoria, Oregon	10,045
Ilwaco, Washington	945

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Businesses

The area surrounding the Facility is heavily industrialized. There are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance:

Businesses	Distance from Facility
Anderson Roofing Co., Inc.	0.15 miles SW *(approximate)*
Reinhard Petroleum	0.15 miles SW *(approximate)*
Rogers Repair Service	0.11 miles WSW *(approximate)*
Beaver State Scaffolding & Equipment Co.	0.13 miles WSW *(approximate)*
Chevron	0.14 miles SE *(approximate)*
ConocoPhillips	0.28 miles SE *(approximate)*
Certainteed Roofing	0.17 miles NE *(approximate)*
Gilmore Steel	0.13 miles NW *(approximate)*
Delco	0.2 miles WNW *(approximate)*
A Bear Box Company	0.33 miles NW *(approximate)*
Port of Portland	0.50 to 4.98 miles NNW to NW *(approximate)*
Nustar	2.07 miles NW *(approximate)*
BP/Arco	2.41 miles NW *(approximate)*
KM Linnton Terminal	3.30 miles NW *(approximate)*
Fred's Marina	4.62 miles NW *(approximate)*
Tidewater Barge Lines	5.77 miles N *(approximate)*
Boise	19.51 miles N *(approximate)*
Saint Helens Marina	20.68 miles N *(approximate)*
Harvest States	29.25 miles N *(approximate)*

Fish and Wildlife, Wetlands, and other Sensitive Environments

Fish and wildlife, wetlands and other sensitive environments within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Lakes and Streams

Lakes and streams within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Recreational areas within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies.

Transportation Routes (air, land, and water)

Review of GIS Data determined that the following transportation routes are within the planning distance:

Transportation Routes	Location
Portland & Western Railroad	0.0 miles W (approximate)
NW Front Street	0.0 miles NE (approximate)
Willamette River	0.0 miles NE (approximate)
St. Helens Road	0.09 miles SW *(approximate)*
Port of Portland	0.50 to 4.98 miles NNW to NW *(approximate)*
St. John's RR Bridge	0.77 miles NNW (approximate)
St. John's Bridge	1.65 miles NW (approximate)
Columbia River	5.95 miles NNW (approximate)

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Other areas of economic importance within the planning distance of the Facility are listed in the Lower Columbia River Geographic Response Plan contained on the CD inside the front cover of Volume 1 of this ICP or in a separate ACP/GRP folder in the electronic copies.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Any spilled material which might escape a diked area would be mitigated through the implementation of spill response activities by: Facility personnel, or if necessary, one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

The Facility is located in a semi-active earthquake zone with occasional seismic activity.

The Company has historical data that defines the probability of seismic activity in the Oregon area. The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of tank farms away from slide prone areas and, constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

The actions taken to lessen hazards at the Facility tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

History of Oil Discharges Greater in Excess of 25 Barrels (OAR 340-141-0160 (3)(h))

Date of Discharge	Location of Discharge	Cause of Discharge	Product Discharged	Amount Discharged	NRC Incident Report #
08/06/2009	Willbridge Terminal – Spill contained on property.	Water drain valve on Tank 124 left partially open. Incorrect operation. Personnel retrained.	Gasoline	(b) (7)(F), (b) (3)	914066
10/16/2009	Willbridge Terminal – Spill contained on property.	Upstream drain valve on jet fuel filter bank left partially open causing WB-173 to overflow. Incorrect operation. Procedure developed. Valves relabeled. Personnel retrained.	Jet Fuel		922998

FIGURE 8.7

DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

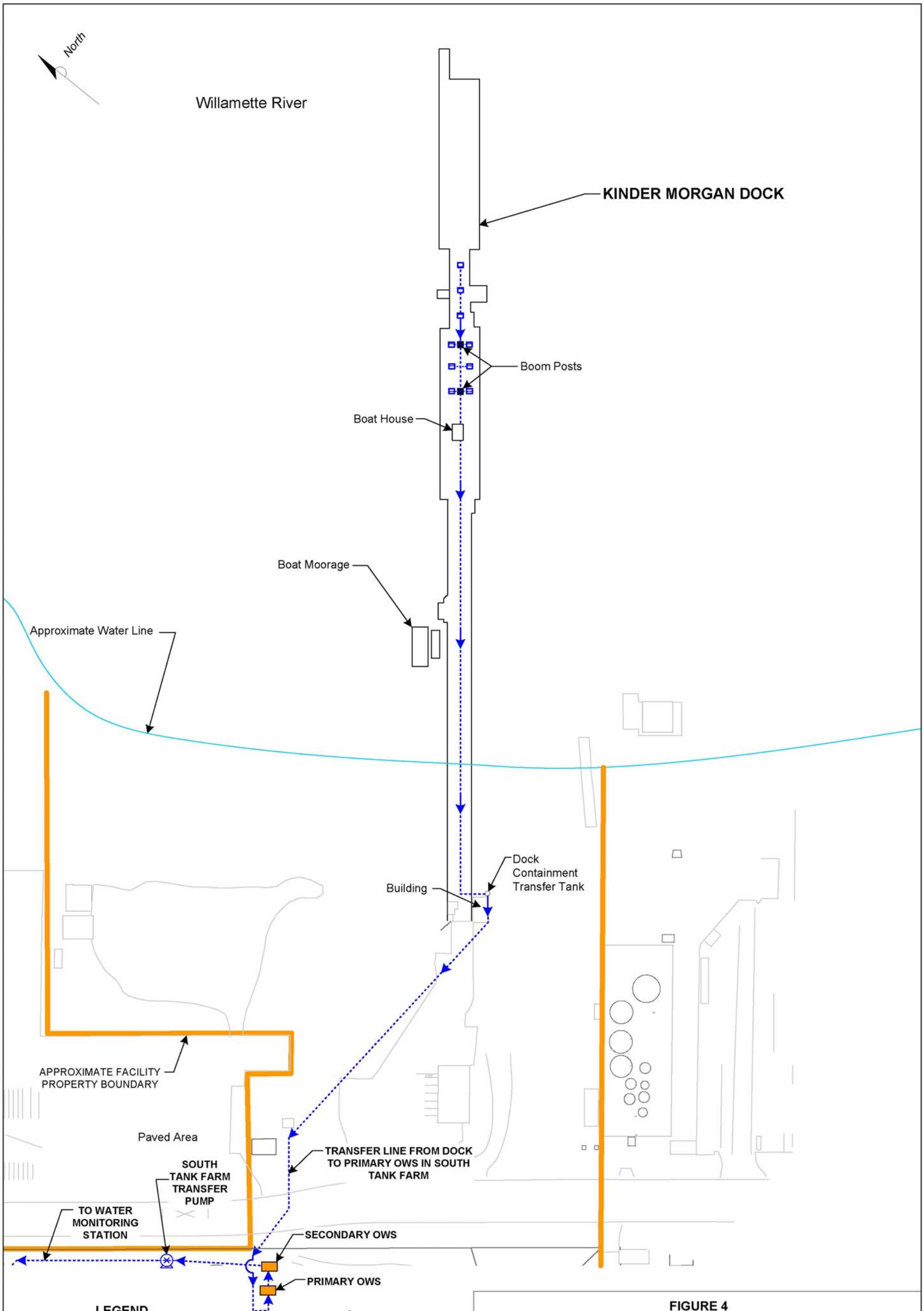


FIGURE 4

SITE DRAINAGE PLAN - DOCK FACILITY

Kinder Morgan Liquid Terminals LLC
Willbridge Terminal
Portland, Oregon

PROJECT NO. PTWB-03-03	DRAWN BY
FILE NO. WILLBRIDGE JSCS	PREPARED BY CRF 2/5/08
REVISION NO.	REVIEWED BY

DELTA

PHMSA 000102880

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Eugene Terminal is classified as a "Complex Facility" which operates in a Non-Higher Volume Port Area.

"Complex" means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act (CWA).

Complexes must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. Volume 2, Section 6 contains the Worst Case Discharge Volumes required by DOT-RSPA. The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

ODEQ Discharge Volume Calculation

- **Worst Case Spill (WCS)**
  In the case of an onshore or offshore facility, the largest foreseeable spill in adverse weather conditions.

- **Average Most Probable Spill, Release or Discharge**
  The probable volume of oil that may spill as defined in a plan considering the history of spills from similar facilities or vessels of the same class operating on the west coast of the United States. It may be defined as the lesser of one percent of the worst case spill, or 50 barrels, when used as a planning volume.

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Eugene Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	20%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	15%
Removal Capacity Planning Volume - Percent Oil Onshore	65%
Emulsification Factor	2.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)		
On-Water Recovery Volume (bbls)			
On-Shore Recovery Volume (bbls)			
Shoreline Cleanup Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the loading rack could be diverted to the in line oil/water separator.

The closest waterway is Crow Creek, which is east of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the creek or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a Small Discharge with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is Crow Creek, which is east of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the creek. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd) ● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes: ● Equipment and manpower resources are detailed in Section 3 of Volume 2. ● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1. ● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Willamette River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is Crow Creek so the potential for a spill of this size reaching water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a Medium Discharge with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline or Diesel.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow east and enter Crow Creek which is located east of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located west of Crow Creek, which flows into the north. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate initial boom deployment and anchoring at the waterway within one hour. Several commercial and residential areas as well as other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Linnton Terminal is classified as a "Marine Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

"Complex" means a facility processing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act (CWA).

Complexes must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. Volume 2 Section 6 contains the Worst Case Discharge Volumes required by DOT-RSPA. The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

USCG Discharge Volume Calculation

(b) (7)(F), (b) (3)

8.3 DISCHARGE SCENARIOS (Cont'd)

Worst Case Discharge Volume Calculations from Marine Operations (WCD)

(b) (7)(F), (b) (3)

[redacted]

ODEQ Discharge Volume Calculation

- **Worst Case Spill (WCS)**
  In the case of an onshore or offshore facility, the largest foreseeable spill in adverse weather conditions.

- **Average Most Probable Spill, Release or Discharge**
  The probable volume of oil that may spill as defined in a plan considering the history of spills from similar facilities or vessels of the same class operating on the west coast of the United States. It may be defined as the lesser of one percent of the worst case spill, or 50 barrels, when used as a planning volume.

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

ODEQ - RESPONSE PLANNING STANDARDS			
Areas Impacted:		Columbia River - Portland Sub-Zone	
Product Type:		Diesel	
Product Group:		2	
Worst Case Spill (bbls)		(b) (7)(F), (b) (3)	
Average Most Probable Discharge (AMP = lesser of 1% WCS or 50 bbls) (bbls)			
Category	Boom Requirements	Recovery Requirements	Storage Requirements
1-Hour Planning Standard	Boom deployed around spill source = 4x length of largest vessel = 2,800 ft 2,800 ft KMEP (Facility) Total: 2,800 ft.	(b) (7)(F), (b) (3)	
2-Hour Planning Standard	Boom deployed and available in reserve to be deployed = 8x length of largest vessel = 5,600 ft 2,800 ft. (1 hr.) 25,000 ft. NRCES Portland Total: 27,800 ft.		
6-Hour Planning Standard	None		
12-Hour Planning Standard	35,000 ft 27,800 ft. Various (2 hrs.) 4,500 ft. NRCES Rainier 1,000 ft. NRCES Wuana 1,000 ft. NRCES St. Helens 1,300 ft. NRCES Kalama Total: 35,600 ft.		
24-Hour Planning Standard	Amount needed to protect sensitive areas Total: 35,600 ft.		
48-Hour Planning Standard	Amount needed to protect sensitive areas Total: 35,600 ft.		
All Recovery Capacities listed are Derated Barrels Per Day			

Linnton Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	40%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	15%
Removal Capacity Planning Volume - Percent Oil Onshore	45%
Emulsification Factor	1.8
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Shoreline Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

EPA PLANNING DISTANCE CALCULATION

Planning Distance Calculation **D = V x T x C**

V = Chezy-Manning Equation
= 2.17 feet/sec

T = Substantial harm planning time interval
= 24 hours arrival plus 3 hours deployment = 27 hours

C = Constant conversion factor = 0.68 sec•mile/hr•ft, Therefore;

D = *Distance downstream from a facility within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down in the event of an oil discharge.*
= 2.17 feet/sec x 27 hours x 0.68 sec•mile/hr•ft =
= 39.9 miles

ODEQ PLANNING DISTANCE CALCULATION

Planning Distance Calculation **D = V x T**
V = 4 nautical miles per hour (knots)
T = 24 hours
D = 96 nautical miles (192,000 yards)
This distance encompasses the Willamette River from the Terminal to the confluence with the Columbia River and the Columbia River into the Pacific Ocean to Longitude 124^{0} 16’ 24” W approximately 10.4 miles west of the Cape Disappointment Light. The environmental variables for the area defined by this distance are addressed in the Northwest Area Contingency Plan and Lower Columbia River Geographic Response Plan.

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks.

The closest body of navigable water is the Willamette River, which is northeast of the Facility. The storage tanks and truck loading racks have adequate secondary containment so it is unlikely that a spill would reach the river. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall include:

- 1,000' of containment boom (or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater) and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the dock while loading Gasoline. In the event of a spill, the dock operations would immediately be shut down by manually activating one of the ESDs that are located at the dock. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the dock manifold area.

Offsite Impact

- The closest waterway is the Willamette River, which is northeast of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the River. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be deployed at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage tanks, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Willamette River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a Medium Discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Willamette River so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the Medium Discharge volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage tanks.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO

This section outlines a fictitious worst case spill scenario which illustrates how KMEP could be expected to respond to a major gasoline spill. Due to the number of spill containment devices and features in place, and most areas within the Facility being monitored on a 24-hour basis, this scenario is extremely unlikely.

The weather is cool and very foggy with limited visibility. Winds are from the south-southeast at approximately 7 knots. River currents range between 0.5 and 1.5 knots, depending on location. A volume of diesel equal to the Facility's largest storage tank, (b) (7) (F) (b) Bbls, has spilled into the Willamette River from an unknown source.

At the 6-hour mark the center of the spill is still in the vicinity of the KMEP Linnton Terminal, after which it begins to migrate north along the river. At 9 hours the slick center is off Sauvie Island and continues north, passing the northern tip of the island after 12 hours. After 24 hours the slick center is in the Columbia River directly in front of the Port of Longview where the river turns in a northwesterly direction. Winds then begin to play a factor, pushing the diesel toward the northern shoreline of the Columbia River between Longview and Astoria. Diesel remains in the water and reaches Astoria in 54 hours. At this point, the current slows dramatically as tidal effects become more pronounced.

Time	Actions	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0701	The dock is out-of-service for maintenance and is not continually manned although a ship is moored but is not engaged in transfer operations. The Terminal Operator is making his regular check of the dock area and notices a strong hydrocarbon odor. After further investigation, he notices that diesel is covering the entire surface of the water around the dock. The Terminal Operator immediately notifies the Orange Control Center. The Operator then: ● Notifies local police and fire (via 911) ● Notifies the Area Manager (QI) The Area Manager (QI): ● Initiates Emergency Response Line (ERL) notification ● Assumes the role of Incident Commander (IC) ● Notifies local response personnel ● Mobilizes to the Willbridge Terminal Office Building (Command Post (CP))	
0712	The IC arrives at the CP and receives an update on the spill status. A systems check has been completed and no leaks are indicated. Although the spill origin is unknown, the IC conservatively assumes that KMEP is responsible and continues to implement a response. The IC then performs an initial assessment of the health and safety hazards and reviews the MSDS for diesel and determines the appropriate PPE. At the direction of the IC, local responders deploy 1400' of KMEP boom backed by sorbent boom at the Linnton Terminal Tactical Site #1	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0720	The Area Manager/IC participates in the ERL teleconference with the Operations Manger, Director of Operations (Fairfield, CA), V.P. of Operations (Orange, CA) and representatives from Products Movement, EHS, CCS, Engineering, Pipeline Integrity, Remediation, and Public Relations (Fairfield, CA; Orange, CA; Houston, TX). During the call the IC also requests KMEP management to dispatch the appropriate personnel to the CP. The CCS representative notifies: ● National Response Center (NRC) ● Oregon Emergency Response System (OERS) ● Washington Department of Ecology (WDOE) since Columbia River impact is likely Following these initial notifications the CCS representative contacts the Portland Fire Department, US Coast Guard Sector Columbia River, EPA Region 10, and Oregon Department of Environmental Quality.	
0725	Additional local response personnel arrive at the CP and the IC: ● Communicates spill, MSDS, and potential PPE information to response team members. ● Assigns continuing hazard monitoring responsibility to qualified team members. ● Activates National Response Corporation Environmental Services (NRCES) and O'Brien's Response Management response contractors. ● Directs response team members to begin staging equipment at CP. ● Requests security services from a local security company to secure the Facility and limit access to response personnel only. ● Reviews the Site Safety Plan. ● Dispatches personnel to shoreline access/viewing points to assess spill movements.	
0745	The IC directs National Response Corporation Environmental Services (NRCES) to provide a Marco skimmer at the Linnton Terminal Tactical Site #1; 2800' of boom at the Linnton Terminal Tactical Site #2/GRP MC-1: and 800' of boom at GRP LCR 100.8. Officials of the International Bird Rescue Research Center are alerted and the Coast Guard is requested to restrict marine traffic in the Columbia and Willamette Rivers.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0755	The Command Post (CP) has been established at the Willbridge Terminal Office and key personnel have arrived to staff the various positions. The Operations Manager assumes the role of Liaison Officer and the IC assigns Terminal personnel the roles of Safety Officer, Operations Section Chief, Planning Section Chief and Logistics Section Chief. Terminal personnel issue orange ICS Vests and 'Black Books' (ICS roles and responsibilities) The IC contacts O'Brien's Response Management to request Spill Management Team Support Personnel. O'Brien's RM dispatches personnel from Seattle, Brea, and Houston with estimated arrival times between 4 and 8 hours. O'Brien's RM Northwest Manager contacts NOAA to request a trajectory based on available information. The IC directs the Logistics Section begin establishing a communications system. The Facility radio system is used initially for all response activities and will switch over to the NRC communications systems for offshore operations once they arrive on-site. Local radio suppliers are contacted to provide additional VHF radios for offshore and remote shoreline operations. Level D PPE is required although contractors are advised to carry respirators. The response team established hot zones at the dock area and the IC directs the Safety Officer to continually reassess the optimal hot zone location at the dock and establish other hot zones at remote response locations. The spill is considerably larger than originally assumed, although dense fog has prevented a thorough evaluation. The IC then: ● Directs the response team to begin deploying KMEP's response equipment. ● Directs the Logistics Section to arrange for a helicopter for aerial surveillance at first opportunity. ● Initiates the preparation of an Incident Action Plan.	
0800	Surveillance personnel downriver estimate that the center of the spill is located half way between the Facility dock and Sauvie Island, although visibility is still very poor. This would indicate that the spill was undetected for approximately 3 hours before the Operator initiated the notification procedure. **Boom Required: 2,500 Feet** (4 x length of largest vessel) **Total Boom Available: 2,500 Feet** **Total Boom Deployed: 1,400 Feet** **Required Recovery: None** **Required Temporary Storage: None** **Recovered Oil: 0** **Evaporated Oil: 0** **Remaining Oil: 67,674 barrels**	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0820	Shoreline protection operations are underway. The fog is still too dense to adequately assess the extent of the spill or permit aerial reconnaissance. NRCES personnel begin to arrive on-site and are assigned roles in the Operations, Planning and Logistics Sections.	
0900	Additional NRCES personnel are dispatched to Hewlett Point to deploy deflection boom in an attempt to protect the Shillapoo Wildlife Recreational Area. One of the NRCES response boats at Tactical Site #3/GRP WR-0.9 (Kelly Point) is redirected to deploy 500 feet of exclusion boom in front of the Port of Vancouver water intake/GRP LCR-100.8. The other boat at Kelly Point informs the IC that the slick appears to be approaching Kelly Point. Staff at the Port of Vancouver Facility are instructed by the IC to shut down the intake. NRCES personnel and equipment are dispatched by the IC to establish a staging area at Bachelor Point. **Boom Required: 5,000 Feet** **Total Boom Available: 27,800 Feet** **Total Boom Deployed: 1,400 Feet** **Required Recovery: None** **Available Recovery: 17,379 bpd** **Recovery Deployed: 7,176 bpd** **Required Temporary Storage: None** **Available Temporary Storage: 47,421 Barrels** **Temporary Storage Deployed: 1260 Barrels** **Recovered Oil: 0** **Evaporated Oil: 300 Barrels** **Remaining Oil: 67,374 Barrels (in water)**	
1145	The slick is still moving north and the center point is offshore of Blurock Landing. NRCES boom and other equipment begins to arrive from Rainier, Wuana, St. Helens, and Kalama. NRCES crews are dispatched to the eastern shore of Sauvie Island to prepare for exclusion booming operations along the shoreline on an as needed basis. ODEQ, Coast Guard, EPA, Multnomah County, WDOE, and other agency personnel have arrived on-site and are briefed on the status of the spill and response operations by the IC. The ODEQ and Coast Guard OSCs confer with the IC on the intended response strategies and assume positions at the CP. Consistent with the Unified Command System, the OSCs and other state and federal agency ICS members begin to work with their KMEP counterparts in an advisory role. The local police department personnel arrive and are requested by the IC to assist in controlling access to the Facility and response operations at St. Helens Road.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
1150	The IC directs the Logistics Section to make immediate arrangements for housing, food, protective clothing, decontamination facilities, and cleanup supplies. The Logistics Section is also directed to establish equipment staging areas in the Linnton Terminal parking lot, and warehouse. The Logistics Section establishes procedures for purchasing equipment and supplies and tracking deliveries and inventories. Buses and additional helicopters are contracted to provide transportation support for equipment, supplies, and personnel. The IC also directs the Planning Section to begin establishing interim waste storage sites in remote areas of the Facility parking lot and other clear areas for interim storage of oily debris and other waste materials.	
1200	The fog abates sufficiently for flight operations and an overflight is conducted to assess the extent of the spill. The spill is considerably larger than anticipated and estimated to range from 60,000 to 70,000 bbls in size. The center of the spill is now offshore of Sauvie Island but the leading edge is approaching the Willow Bar Islands. Several crews staged at Bachelor Point are directed to begin booming operations for the sensitive areas in their vicinity. One boat crew deploys exclusion boom around the Campbell Lake intake to protect the Ridgefield National Wildlife Refuge. A second boat crew is deployed to anchor exclusion boom around water intakes around Bachelor Island on an as needed basis. The last crew remains in their boat on standby, ready to boom the eastern side of Sauvie Island on an as-need basis to protect the game management area.	
1300	Supplies and equipment continue to arrive as operations continue. **Boom Required: 5,000 Feet (2-Hour Planning Standard)** **Total Boom Available: 27,800 Feet** **Total Boom Deployed: 11,100 Feet** **Required Recovery: 6.767 bpd (10% of WCS)** **Available Recovery: 17,379 bpd** **Recovery Deployed: 8,500 bpd** **Required Temporary Storage: 20,301 Barrels** **Temporary Storage Available: 47,421 Barrels** **Recovered Oil: 1,196 Barrels** **Evaporated Oil: 900 Barrels** **Dispersed Oil: 0** **Remaining Oil: 54,778 Barrels**	
1330	Aerial surveillance reports the slick has continued north with the river and has reached the tip of Sauvie Island. The IC directs shoreline booming operations in this area to continue. A number of media representatives have arrived and are given a briefing and tour by the Public Affairs Representative prior to a news conference with the Incident Commander and regulatory agency representatives.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
1400	NRCES crews, equipment, and response vessels are deployed to set up staging areas, one at Waterview and the other at Kalama to prepare for deflection and exclusion booming operations in those areas.	
1430	The slick center is continuing to move north and is centered off Bachelor Point.	
1530	Three NRCES boat crews have arrived at the Waterview staging area and initiate boom deployment activities. One response vessel is deployed to install exclusion boom at the mouth of Island Slough. The other two vessel crews are dispatched to the southern end of Martin Island to anchor exclusion boom wherever accessible for protection of the Canada goose nesting area.	
1630	Five response crews with vessels have arrived at the staging area at Kalama to begin booming operations in that area. Exclusion boom is deployed at the mouth of Merill Creek, Carolls Channel, and the Kalama Chemical water intake. Kalama Chemical is notified of the impending slick and alerted to prepare to shut down their intakes.	
1700	Portable lighting obtained from contractors and rental yards is set up at the shoreline booming locations to enable operations to continue through the night. NRCES personnel and equipment have arrived in Longview and begun protection operations deploying exclusion boom around water intakes at Longview Fibre, Weyerhaeuser, and City of Longview intakes. These facilities are also notified of the impending hazard. Another crew anchors deflection boom along the southeast side of Lord Island.	
1730	Operations in most areas are scaled back approximately 50 percent because of darkness. A press conference is held involving the Incident Commander, Public Affairs Staff, and agency representatives to summarize the status of the spill and response operations.	
1900	The Logistics, Operations, and Planning personnel along with O'Brien's RM, NRCES, and agency representatives, begin to develop an Incident Action Plan for the following day's activities. Winds are monitored continually and spill trajectories are updated every 2 hours. **Boom Required: 35,000 feet** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 10,151 bpd** **Available Recovery: 17,379 bpd** **Recovery Deployed: 8,980 bpd** **Temporary Storage Required: 30,453 Barrels** **Temporary Storage Available: 54,291 Barrels** **Recovered Oil: 3,321 Barrels** **Evaporated Oil: 3,300 Barrels** **Dispersed Oil: 300 Barrels** **Remaining Oil: 60,753 Barrels**	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0631	**Day 2**	**Sun Set 1720**
0530	The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
0630	The helicopter overflight launches from PDX with observers from the Coast Guard, ODEQ and O'Brien's RM on board.	
0700	**Boom Required: Amount needed to protect sensitive areas** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 13,535 bpd** **Available Recovery: 31,129 bpd** **Recovery Deployed: 8,980 bpd** **Temporary Storage Required: 40,604 Barrels** **Temporary Storage Available: 64,291 Barrels** **Recovered Oil: 7,811 Barrels** **Evaporated Oil: 7,650 Barrels** **Dispersed Oil: 2,190 Barrels** **Remaining Oil: 50,023 Barrels**	
0800	Extra boom and spill response vessels are deployed to staging areas in Westport, Cathlamet, and Skamokawa.	
1100	The Joint Information Center (JIC) issues a press release describing what has occurred and what actions are being taken to protect sensitive areas while waiting for the spill to completely evaporate. The spill has not reached the southern tip of Puget Island. Crews staged in Westport deploy boom at the mouth of the Westport Slough and water intakes around the Wauna area.	
1230	Fog lifts sufficiently to launch flight operations. Aerial reconnaissance reports that the center of the spill is still in the vicinity of Puget Island. The leading edge of the slick, however, has reached Tenasillahe Island. Exclusion boom is deployed at the entrance to the Elochoman Slough. Oiled/injured birds are encountered and arrangements are made with the IBRRC to establish a bird cleaning and rehabilitation center. These activities are coordinated with the Department of Wildlife.	
1300	Crews staged at Skamokawa deploy diversion and exclusion boom at Steamboat Slough and Brooks Slough, respectively.	
1330	Aerial surveillance reports that the slick is centered off the northern tip of Puget Island.	
1530	Aerial surveillance reports the slick is centered off Goose Island.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0631	**Day 2**	**Sun Set 1720**
1600	Two response crews are dispatched from the Skamokawa Marina to deploy deflection boom in the Snag Island area for protection of the Miller Sands. Three other crews deploy exclusion booming around the entrance to the Karlson Marshes, the mouth of Grays River and Crooked Creek, and the mouth of the John Day River. Land crews also deploy exclusion boom at the mouth of the Sisson Creek and Deep River.	
1800	The last aerial flight for the day indicates that the spill has moved slowly west into the Lewis and Clark National Wildlife Refuge. Operations are reduced with the onset of darkness. A press conference is held involving the IC, Public Affairs staff, and agency representatives to summarize the status of the spill and response operations. Operations, Logistics, Planning, O'Brien's RM, and NRCES personnel work into the night to develop an Incident Action Plan for the following day's activities. Spill trajectories are updated every two hours.	
Sun Rise 0632	**Day 3**	**Sun Set 1718**
0530	The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
0630	The helicopter overflight launches from PDX with observers from the Coast Guard, ODEQ and O'Brien's RM on board.	
0700	**Boom Required: Amount needed to protect sensitive areas** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 16,919 bpd** **Available Recovery: 31,129 bpd** **Recovery Deployed: 8,980** **Temporary Storage Required: 50,756 Barrels** **Temporary Storage Available: 64,219 Barrels** **Recovered Oil: 16,791 Barrels** **Evaporated Oil: 13,200 Barrels** **Dispersed Oil: 9,600 Barrels** **Remaining Oil: 28,083 Barrels**	
0800	The JIC issues a press release describing what has occurred and what actions are being taken to clean up the spill and restore the environment.	
1200	Crews stationed in Astoria are alerted to standby and prepare for deployment of deflection, diversion, and exclusion boom on an as needed basis.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0632	**Day 3**	**Sun Set 1718**
1800	A small portion of the spill has reached Fort Stevens. However, the speed with which the slick is spreading is dramatically reduced as the river enters marine waters. Operations, Logistics, Planning, O'Brien's RM, and NRCES personnel work into the night to develop an Incident Action Plan for the following day's activities. Spill trajectories are updated every two hours.	
Sun Rise 0633	**Day 4**	**Sun Set 1717**
0530	The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
0630	The helicopter overflight launches from PDX with observers from the Coast Guard, ODEQ and O'Brien's RM on board.	
0700	**Boom Required: Amount needed to protect sensitive areas** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 16,919 bpd** **Available Recovery: 31,129 bpd** **Recovery Deployed: 8,980** **Temporary Storage Required: 50,756 Barrels** **Temporary Storage Available: 64,219 Barrels** **Recovered Oil: 25,771 Barrels** **Evaporated Oil: 18,750 Barrels** **Dispersed Oil: 17,010 Barrels** **Remaining Oil: 6,143 Barrels**	
0800	All operations continue. The JIC issues a press release describing what has occurred and what actions are being taken.	
Sun Rise 0634	**Day 5**	**Sun Set 1715**
0530	The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
0630	The helicopter overflight launches from PDX with observers from the Coast Guard, ODEQ and O'Brien's RM on board.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO		
Time	**Actions**	
Sun Rise 0634	**Day 5 and Beyond**	**Sun Set 1715**
0700	**Boom Required: Amount needed to protect sensitive areas** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 16,919 bpd** **Available Recovery: 31,129 bpd** **Recovery Deployed: 8,980** **Temporary Storage Required: 50,756 Barrels** **Temporary Storage Available: 64,219 Barrels** **Recovered Oil: 34,751 Barrels** **Evaporated Oil: 24,300 Barrels** **Dispersed Oil: 24,420 Barrels** **Remaining Oil: 0 Barrels**	
0800	All surveillance and shoreline cleanup operations continue. The JIC issues a press release describing what has occurred and what actions are being taken. Upon completion of operations, demobilization is authorized by the USCG, ODEQ, WDOE, and the resource trustee agencies. KMEP continues to monitor the area affected by the spill. The Documentation Unit completed documentation of the incident.	

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Willbridge Terminal is classified as a "Marine Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

"Complex" means a facility processing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act (CWA).

Complexes must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. Volume 2 Section 6 contains the Worst Case Discharge Volumes required by DOT-PHMSA. The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F), (b) (3)

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

ODEQ Discharge Volume Calculation

- **Worst Case Spill (WCS)**
  In the case of an onshore or offshore facility, the largest foreseeable spill in adverse weather conditions.

- **Average Most Probable Spill, Release or Discharge**
  The probable volume of oil that may spill as defined in a plan considering the history of spills from similar facilities or vessels of the same class operating on the west coast of the United States. It may be defined as the lesser of one percent of the worst case spill, or 50 barrels, when used as a planning volume.

8.3 DISCHARGE SCENARIOS (Cont'd)

USCG Discharge Volume Calculation

(b) (7)(F), (b) (3)

Worst Case Discharge Volume Calculations from Marine Operations (WCD)

(b) (7)(F), (b) (3)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

ODEQ - RESPONSE PLANNING STANDARDS			
Areas Impacted:			Columbia River - Portland Sub-Zone
Product Type:			Diesel
Product Group:			2
Worst Case Spill (bbls)			(b) (7)(F), (b) (3)
Average Most Probable Discharge (AMPD = lesser of 1% WCS or 50 bbls)			
Category	Boom Requirements	Recovery Requirements	Storage Requirements
1-Hour Planning Standard	Boom deployed around spill source = 4x length of largest vessel = 2,800 ft 2,800 ft KMEP (Facility) Total: 2,800 ft.	(b) (7)(F), (b) (3)	
2-Hour Planning Standard	Boom deployed and available in reserve to be deployed = 8x length of largest vessel = 5,600 ft 2,800 ft. (1 hr.) 25,000 ft. NRC Portland Total: 27,800 ft.		
6-Hour Planning Standard	None		
12-Hour Planning Standard	35,000 ft 27,800 ft. Various (2 hrs.) 4,500 ft. NRC Rainier 1,000 ft. NRC Wuana 1,000 ft. NRC St. Helens 1,300 ft. NRC Kalama Total: 35,600 ft.		
24-Hour Planning Standard	Amount needed to protect sensitive areas		
48-Hour Planning Standard	Amount needed to protect sensitive areas		
All Recovery Capacities listed are Derated Barrels Per Day			

Willbridge Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	40%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	15%
Removal Capacity Planning Volume - Percent Oil Onshore	45%
Emulsification Factor	1.8
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Shoreline Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

EPA PLANNING DISTANCE CALCULATION

Planning Distance Calculation **D = V x T x C**

V = Chezy-Manning Equation
= 2.17 feet/sec

T = Substantial harm planning time interval
= 24 hours arrival plus 3 hours deployment = 27 hours

C = Constant conversion factor = 0.68 sec•mile/hr•ft, Therefore;

D = *Distance downstream from a facility within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down in the event of an oil discharge.*
= 2.17 feet/sec x 27 hours x 0.68 sec•mile/hr•ft =
= 39.9 miles

ODEQ PLANNING DISTANCE CALCULATION

Planning Distance Calculation **D = V x T**
V = 4 nautical miles per hour (knots)
T = 24 hours
D = 96 nautical miles (192,000 yards)
This distance encompasses the Willamette River from the Terminal to the confluence with the Columbia River and the Columbia River into the Pacific Ocean to Longitude 124° 11' 17" W approximately 6.9 miles west of the Cape Disappointment Light. The environmental variables for the area defined by this distance are addressed in the Northwest Area Contingency Plan and Lower Columbia River Geographic Response Plan.

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 barrels (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks.

The closest waterway is the Willamette River, which is adjacent to the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall include:

- 1,000' of containment boom (or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater) and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Willamette River, which is adjacent to the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be deployed at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage tanks, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Willamette River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a Medium Discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Willamette River so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the Medium Discharge volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage tanks.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the Willamette River.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO

This section outlines a fictitious incident involving a Worst Case Spill (as defined by ODEQ) scenario which illustrates how KMEP could be expected to respond to a major diesel spill at the Willbridge Terminal.

The weather is cool and very foggy with limited visibility. Winds are blowing from the south-southeast at approximately 7 knots. River currents range between .5 and 1.5 knots, depending on location. After a minor seismic event Tank WB-12002, containing120,000 barrels (5,040,000 gallons) of diesel fuel, collapses releasing its entire contents into the South Tank Yard. The spilled product sloshes over the containment wall and begins to flow across the rail car loading/unloading area, into Saltzman Creek and on to the Willamette River.

At the 6-hour mark the leading edge of the spill is beginning to enter to Columbia River. At 9 hours the leading edge off Willow Bar Islands and continues north, approaching Bachelor Point after 12 hours. After 24 hours the slick is approaching Prescott, OR. Winds then begin to play a factor, pushing the diesel toward the northern shoreline of the Columbia River between Longview and Astoria. Diesel remains in the water and reaches Tenasillahe Island at 48 hours. At this point, the current slows dramatically as tidal effects become more pronounced.

Time	Actions	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0701	Upon feeling the earthquake, the Terminal Operator immediately notifies the Orange Control Center and stops all pipeline and truck transfer operations. The Operator then: ● Notifies the Area Manager (QI) ● Begins an inspection of the terminal The Area Manager (QI): ● Initiates Emergency Response Line (ERL) notification ● Mobilizes to Terminal Office Building	
0711	The Terminal Operator sees the diesel fuel flowing into Saltzman creek and immediately notifies the Area Manager.	
0715	The Area Manager arrives at the Terminal and receives an update on the spill status. A systems check has been completed and no other damage is indicated. The Area Manager assumes the role of IC then performs an initial assessment of the health and safety hazards and reviews the MSDS for diesel to determine the appropriate PPE.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)

Time	Actions	
Sun Rise 0630	Day 1	Sun Set 1721
0730	The Area Manager participates in the ERL teleconference with the Operations Manger, Director of Operations (Fairfield, CA), V.P. of Operations (Orange, CA) and representatives from Products Movement, EHS, CCS, Engineering, Pipeline Integrity, Remediation, and Public Relations (Fairfield, CA; Orange, CA; Houston, TX). During the call the IC also requests KMEP management to dispatch the appropriate personnel to the CP. The CCS representative notifies: ● National Response Center (NRC) ● Oregon Emergency Response System (OERS) ● Washington Department of Ecology (WDOE) since Columbia River impact is likely Following these initial notifications the CCS representative contacts the Portland Fire Department, US Coast Guard Sector Portland, EPA Region 10, and Oregon Department of Environmental Quality. At the direction of the IC, local responders deploy two (2) 1400' lengths of KMEP boom backed by sorbent boom at the Willbridge Terminal Tactical Site #2/GRP WR-7.5 across the mouth of Saltzman Creek. Of the 120,000 barrels released approximately 30,000 barrels escaped secondary containment and is flowing into Saltzman Creek.	
0740	The IC activates National Response Corporation Environmental Services (NRCES) and directs them to provide a Marco skimmer at the Willbridge Terminal Tactical Site #2; deploy 2000' of boom and skimmer at the Willbridge Terminal Tactical Site #3/GRP WR-6.9b; 2000' of boom and skimmer at GRP WR-5.8; 2800' of boom at the Linnton Terminal Tactical Site #2/GRP MC-1: and 800' of boom at GRP LCR 100.8.	
0745	The Command Post (CP) has been established at the Terminal Office and key personnel have arrived to staff the various positions. The Operations Manager assumes the role of Liaison Officer and the IC assigns Terminal personnel the roles of Safety Officer, Operations Section Chief, Planning Section Chief and Logistics Section Chief. Terminal personnel issue orange ICS Vests and 'Black Books' (ICS roles and responsibilities) The IC contacts O'Brien's Response Management to request Spill Management Team Support Personnel. O'Brien's RM dispatches personnel from Seattle, Brea, and Houston with estimated arrival times between 4 and 8 hours. O'Brien's RM Northwest Manager contacts NOAA to request a trajectory based on available information. Linnton and Willbridge Terminal Operators begin transferring product from the undamaged tanks in the South Yard to available tanks at the Linnton Terminal. Thermo Fluids Environmental is contacted to provide vacuum trucks and temporary storage for product recovery in the South Yard.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)

Time	Actions	
Sun Rise 0630	Day 1	Sun Set 1721
0801	**Boom Required: 2,800 Feet** (4 x length of largest vessel) **Total Boom Available: 2,800 Feet** **Total Boom Deployed: 2,800 Feet** **Required Recovery: None** **Required Temporary Storage: None** **Recovered Oil: 0** **Evaporated Oil: 0** **Remaining Oil: 30,000 barrels (in water)**	
0815	The IC directs the Logistics Section Chief to establish a communications plan using Terminal radios, company cell phones and land lines.	
0820	Officials of the International Bird Rescue Research Center are alerted and the Coast Guard is requested to advise marine traffic on the Columbia and Willamette Rivers.	
0835	Surveillance personnel downriver estimate that the leading edge of the spill is located just upstream of the St. John's Bridge, although visibility is still very poor. Initial containment operations are underway. The fog is still too dense to adequately assess the extent of the spill or permit aerial reconnaissance. NRCES representatives begin to arrive at the CP and are assigned roles in the Operations, Planning and Logistics Sections. NRCES skimmers arrive at Willbridge Terminal Tactical Sites #2 and #3/ GRPs WR-7.5 and 6.9b.	
0855	NRCES personnel complete deployment of 2000' of boom at Willbridge Terminal Tactical Site #3/GRP WR-6.9b and 2000' of boom at GRP WR-5.8.	
0901	NRCES personnel and equipment are dispatched by the IC to establish a staging area at Bachelor Point. **Boom Required: 5,600 Feet** **Total Boom Available: 27,800 Feet** **Total Boom Deployed: 5,500 Feet** **Required Recovery: None** **Available Recovery: 47,828 bpd** **Recovery Deployed: 7,176 bpd** **Required Temporary Storage: None** **Temporary Storage Deployed: 23,850 Barrels** **Recovered Oil: 0** **Evaporated Oil: 300 Barrels** **Remaining Oil: 29,700 Barrels (in water)**	
0935	NRCES personnel complete deployment of 2,800' of boom at Linnton Terminal Tactical Site #2/GRP MC-1.	
1035	NRCES personnel complete deployment of 800' of boom at GRP LCR-100.8. Additional personnel, boom and skimmers are deployed to the Linnton Terminal Tactical Site #3/GRP WR-0.9	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)

Time	Actions	
Sun Rise 0630	Day 1	Sun Set 1721
1045	ODEQ, Coast Guard, EPA, Multnomah County, WDOE, and other agency personnel have arrived on-site and are briefed on the status of the spill and response operations by the IC. Consistent with the Unified Command System local, state and federal agency ICS members begin to work with their KMEP counterparts. The Planning Section Chief (PSC) facilitates the Objectives Meeting with the IC, FOSC, SOSC, and LOSC. The local police department personnel arrive and are requested by the IC to assist in controlling access to the Terminal and response operations at NW Front Ave. NRCES personnel and equipment are dispatched to GRPs LCR-94.5 and LCR-91.0 to deploy protective boom (1,400 feet) at the Willow Bar Islands and south end of Bachelor Island Slough.	
1100	The IC directs the Logistics Section to make arrangements for housing, food, protective clothing, decontamination facilities, and cleanup supplies. The Logistics Section is also directed to establish equipment staging areas in the Linnton Terminal parking lot, and warehouse. The Logistics Section works with procurement personnel in Orange, CA to establish procedures for purchasing equipment and supplies and tracking deliveries and inventories. The IC also directs the Planning Section to establish an interim waste storage site near the out of service Asphalt Fill Stand for oily debris and other waste materials.	
1151	O'Brien's RM Northwest Manager arrives and, following briefing, assumes the role of Planning Section Chief. NRCES personnel complete deployment of Linnton Terminal Tactical Site #3/GRP WR-0.9.	
1235	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
1301	**Boom Required: 5,600 Feet (2-Hour Planning Standard)** **Total Boom Available: 27,800 Feet** **Total Boom Deployed: 11,100 Feet** **Required Recovery: 12,000 bpd (10% of WCS)** **Available Recovery: 47,828 bpd** **Recovery Deployed: 8,500 bpd** **Recovered Oil: 1,196 Barrels** **Evaporated Oil: 900 Barrels** **Dispersed Oil: 0** **Remaining Oil: 27,904 Barrels (in water)**	
1335	The PSC facilitates the Tactics Meeting with the Operations and Logistics Section Chiefs, Resource Unit Leader, Situation Unit Leader, Safety Officer, Documentation Unit Leader, and Communications Unit Leader. Based on the NOAA trajectory and known river conditions NRCES is directed to deploy boom at LCR GRPs 87.6, 87.3, 82.4, 81.8, 81.2, 81.0, 79.8, 79.5, 76.0, 73.7, 71.6, and 71.5 (7,400 feet).	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
1445	KM Northern Region Director of Operations and EHS/Remediation personnel arrive from Fairfield, CA. EHS/Remediation personnel are assigned to the Environmental Unit within the Planning Section.	
1515	The PSC facilitates the Planning Meeting with UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
1715	The Incident Action Plan (IAP) for the Operational Period is completed and approved by the UC and the Operations Briefing held. On-water operations are suspended for the night. On-shore recovery operations continue through the night.	
1745	The KM Manager – Emergency Response Programs arrives from Houston, TX and, following briefing, relieves the Planning Section Chief. The O'Brien's RM Northwest Manager assumes the role of Deputy IC. Additional O'Brien's RM personnel arriving from Brea, CA and Spring, TX are assigned to the Operations and Planning Sections, and Documentation Unit. The Planning, Operations and Logistics Sections work through the evening to develop plans for the next operational period and monitor ongoing recovery operations. The visibility is forecast to clear so the UC schedules a helicopter overflight to determine the extent of the spill at first light.	
1901	**Boom Required: 35,000 feet** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 18,000 bpd** **Available Recovery: 60,193 bpd** **Recovery Deployed: 8,980 bpd** **Temporary Storage Required: 54,000 Barrels** **Temporary Storage Available: 54,441 Barrels** **Recovered Oil: 3,321 Barrels** **Evaporated Oil: 3,300 Barrels** **Dispersed Oil: 300 Barrels** **Remaining Oil: 23,709 Barrels**	
Sun Rise 0631	**Day 2**	**Sun Set 1720**
0530	The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
0630	The helicopter overflight launches from PDX with observers from the Coast Guard, ODEQ and O'Brien's RM on board.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0631	**Day 2**	**Sun Set 1720**
0701	**Boom Required: Amount needed to protect sensitive areas** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 24,000 bpd** **Available Recovery: 60,193 bpd** **Recovery Deployed: 8,980 bpd** **Temporary Storage Required: 72,000 Barrels** **Temporary Storage Available: 75,215 Barrels** **Recovered Oil: 7,811 Barrels** **Evaporated Oil: 7,650 Barrels** **Dispersed Oil: 2,190 Barrels** **Remaining Oil: 12, 349 Barrels**	
0800	The JIC issues a press release describing what has occurred and what actions are being taken.	
0830	The overflight observers report that the leading edge of the sheen is approaching the northwestern end of Cottonwood Island. Four NRCES response boats, skimmer, vacuum truck, two Baker tanks, and 3,000 feet of boom are dispatched to the Port of Longview (GRP LCR-66.2) to establish an on-water recovery site. The boats, working in pairs towing 1,000 feet of boom between them, will capture product and transport it to the Port where it will be recovered using a skimmer.	
1715	On-water operations are suspended for the night. On-shore recovery operations continue through the night. The Planning, Operations and Logistics Sections work through the evening to develop plans for the next operational period and monitor ongoing recovery operations. The visibility is forecast to remain clear so the UC schedules a helicopter overflight to determine the extent of the spill at first light.	
Sun Rise 0632	**Day 3**	**Sun Set 1718**
0530	The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
0630	The helicopter overflight launches from PDX with observers from the Coast Guard, ODEQ and O'Brien's RM on board.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0632	**Day 3**	**Sun Set 1718**
0701	**Boom Required: Amount needed to protect sensitive areas** **Total Boom Available: 35,600 Feet** **Total Boom Deployed: 18,500 Feet** **Required Recovery: 30,000 bpd** **Available Recovery: 60,139 bpd** **Recovery Deployed: 8,980 bpd** **Temporary Storage Required: 90,000 Barrels** **Temporary Storage Available: 95,615 Barrels** **Recovered Oil: 16,791 Barrels** **Evaporated Oil: 13,200 Barrels** **Dispersed Oil: 9,600 Barrels** **Remaining Oil: 0**	
0830	The overflight observers report some small patches of weathered sheen but no large concentrations of product. On-water recovery operations are demobilized and protective booming removed. All equipment is decontaminated prior to return to storage. Shore lie clean up continues until all evidence of diesel has been removed from impacted areas. Clean up and remediation in the South Tank Yard continue until all trace of diesel has been removed. The Unified Command agrees to meet at a later date to discuss lessons learned from the incident. The Documentation unit completes documentation of the event.	
0900	The JIC issues a press release describing what has occurred and what actions are being taken.	

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 1765 Prairie Road
Eugene, OR 97402
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Southern Pacific Railroad, if applicable.
h. Staging area for Emergency Command Post will be at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Employee Parking Lot west of the office building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the frontage road west of the office building, in the parking lot of the old Shell office building or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, control building, or the north or south staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to Sacred Heart Medical Center

Start going south on Prairie Road to Hwy 99. Turn left on Hwy 99. Head straight on Hwy 99 and exit to Chambers Street. Turn right on Chambers Street and go south to 13th Avenue. Turn left on 13th Avenue and go to Hilyard. The hospital is located at 1255 Hilyard Street.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located southwest of the Office Building.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest at an average speed of 5-10 mph year round.

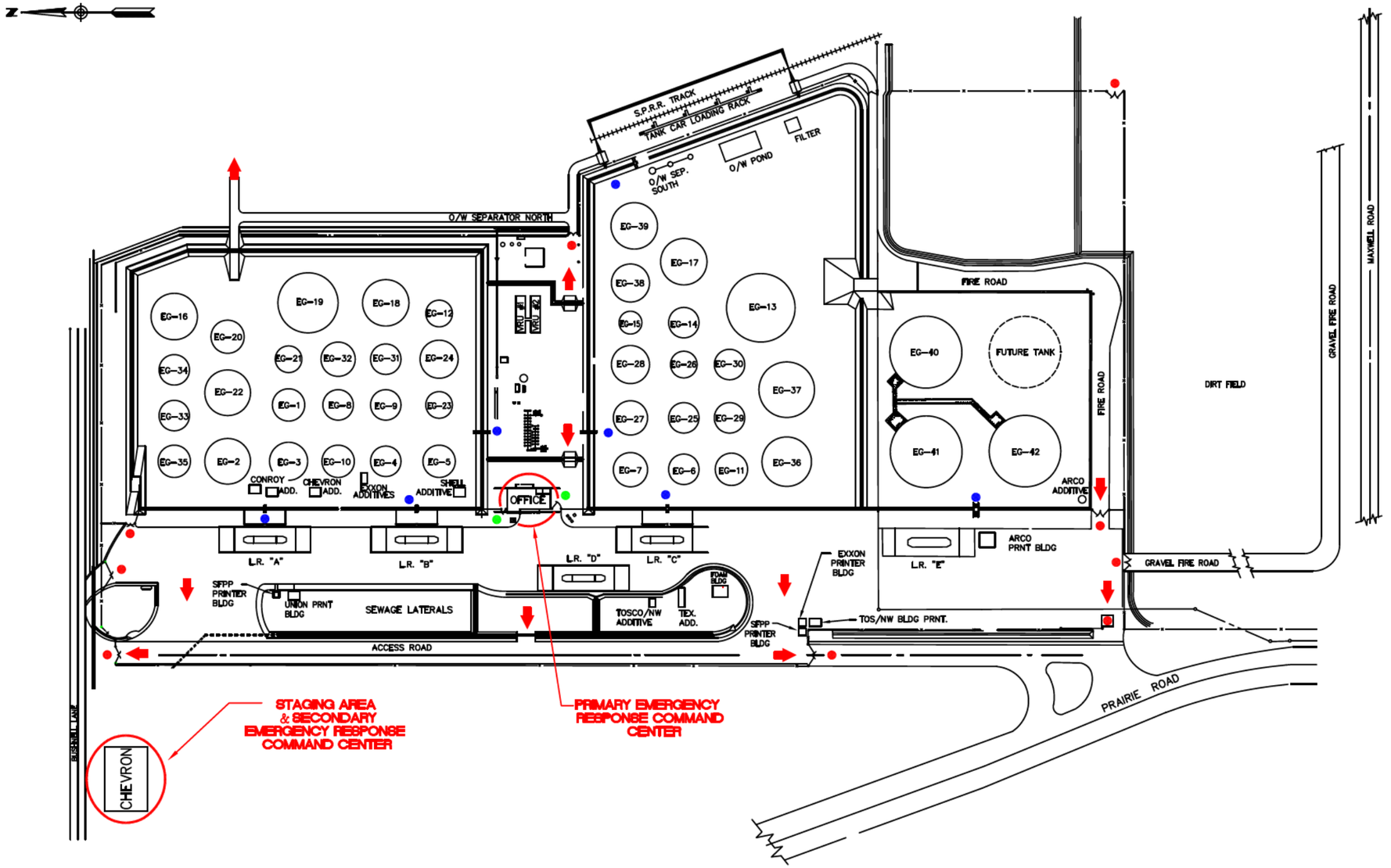
9. Water Currents

Currents in the Willamette River are swift.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION PLAN



EMERGENCY PHONE NO'S

(503) 688-9217 CHEVRON
(503) 688-9218 FAX
(503) 954-5688 SFPP MOBIL UNIT

LEGEND

- SLIDING GATE
- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
EUGENE TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-EG	DESIGN SUPV	EVAC-EG
BY: DR	MGR. SAFETY	
DATE: 6-17-97	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 11400 NW St. Helens Road
Portland, OR 97231
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility, if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, Control Building, or the north or south staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the Linnton Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to Oregon Health & Science University Hospital

From the Facility go southwest on NW St. Helens Rd/Columbia River Hwy/US-30. Stay straight to go onto NW Yeon Ave. Take US-30 W. Merge onto I-405 S toward Beaverton. Take exit number 1C toward 6th Ave./US-26 E/Ross 1s. Br. The ramp becomes SW Broadway. Make a slight right onto SW 6th Ave., which becomes SW Terwilliger Blvd. Stay straight to go onto SW Sam Jackson Park Rd. OHSU is located at 3181 SW Sam Jackson Park Road.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located east of St. Helens Road.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing summer winds in the Facility area generally come from the northwest with speeds ranging from 10-15 knots. Winter winds are primarily from the east and southeast with speeds ranging from 10-15 knots.

9. Water Currents

Currents in the Willamette River average 0.5 knots.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION PLAN

BOATHOUSE
WILLAMETTE RIVER
WHARF
CONTROL STATION
FIRE PUMP HOUSE
DOUBLE WALL PUMP FUEL TANK
CONTROL STATION
WALKWAY
WALKWAY
WALKWAY
BULKHEADS
SUMP #2
FIREWALL
BARGE PUMP
SUMP #1
CONCRETE
WAREHOUSE"C"
17020
17018
17027
45028
11019
11017
30016
SFPP & OLYMPIC MANIFOLD
TANK FARM BERM
WAREHOUSE "A"
SHOP
SHOP
SHOP
WAREHOUSE "B"
3034
ELECTRICAL SERVICE
BOILER & PUMP HOUSE
PUMP PIT
PLATFORM
2024
326
55023
55022
55008
20011
59029
RAMP
GATE
OFFICE
10007
WAREHOUSE "D"
2502
2501
2503
5004
72021
RAMP
GATE
PRIMARY EMERGENCY RESPONSE COMMAND CENTER
VRU1
TRUCK LOADING RACK
FIRE PUMP
STAGING AREA AND SECONDARY EMERGENCY RESPONSE COMMAND CENTER
RAIL CAR LOADING RACK
BURLINGTON NORTHERN MAIN LINE
KINDER MORGAN PROPERTY BOUNDARY

LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- SLIDING GATE
- AUTOMATIC SLIDING GATE
- AUTOMATIC SWING GATE
- EMERGENCY PANIC BAR EXIT GATE
- MAIN EXITS
- FACILITY FENCELINE
- RAILROAD SPUR

1"=30' 30' 0' 30' 60'

KINDER MORGAN
LIQUIDS TERMINALS — ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
LINNTON TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-LN	DESIGN SUPT	EVAC-LN
BY: CLV	MGR. SAFETY	
DATE: 01-18-13	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 5880 NW St. Helens Rd.
Portland, OR 97210
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Burlington Northern if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility main office (Building #6) or the warehouse (Building #2).

4. Community Evacuation

The Company has confirmed with the Portland Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to Oregon Health & Science University Hospital (OHSU)

From the Facility go southwest on NW St. Helens Rd/Columbia River Hwy/US-30. Stay straight to go onto NW Yeon Ave. Take US-30 E. Merge onto I-405 S toward Beaverton. Take exit number 1C toward 6th Ave./US-26 E/Ross Is. Br. The ramp becomes SW Broadway. Make a slight right onto SW 6th Ave., which becomes SW Terwilliger Blvd. Stay straight to go onto SW Sam Jackson Park Rd. OHSU is located at 3181 SW Sam Jackson Park Road.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located northeast of NW Culebra Avenue.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram in Section 8.2.

8. Prevailing Winds

The prevailing summer winds in the Facility area generally come from the northwest with speeds ranging from 10-15 knots. Winter winds are primarily from the east and southeast with speeds ranging from 10-15 knots.

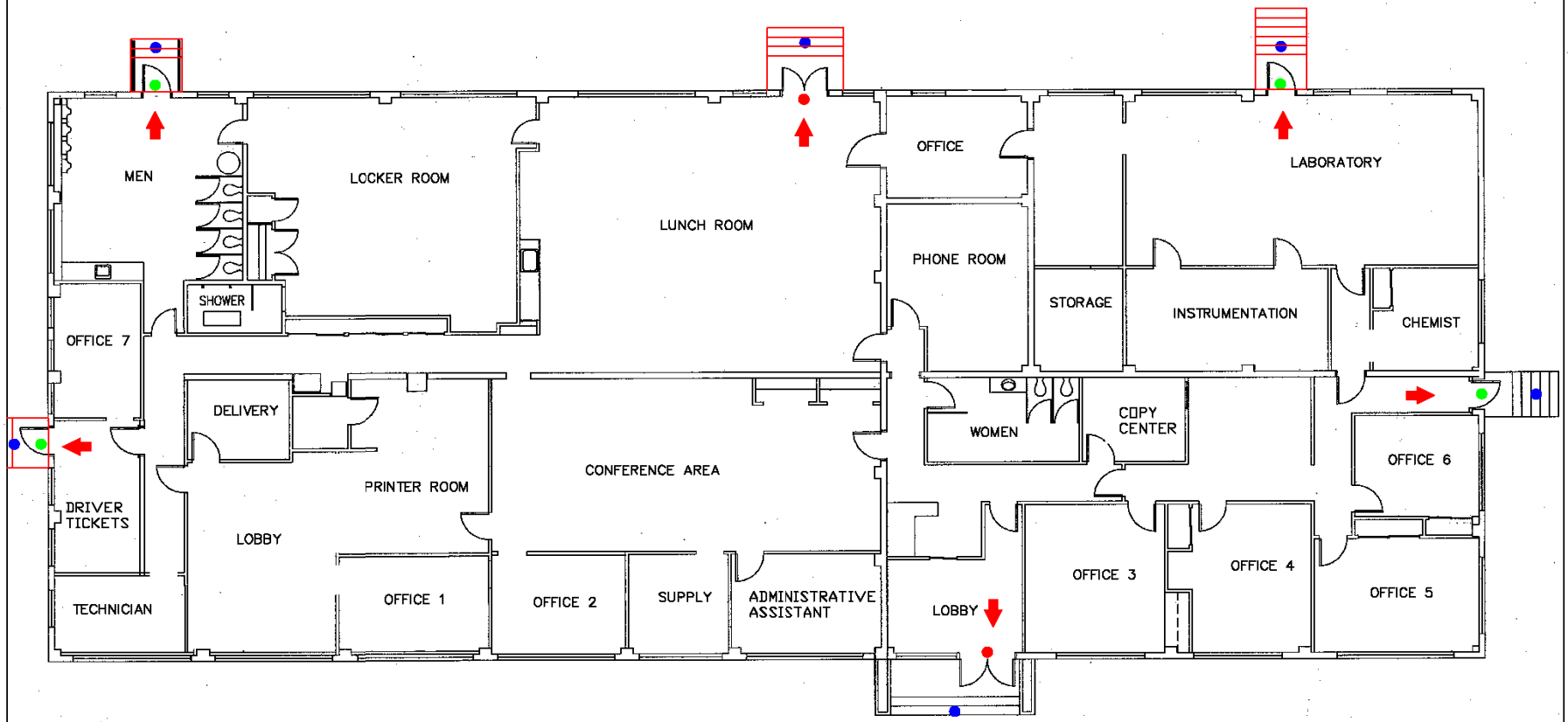
9. Water Currents

Currents in the Willamette River average 0.5 knots.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION PLAN



LEGEND:

- SINGLE DOOR
- DOUBLE DOOR
- STAIR
- MAIN EXITS

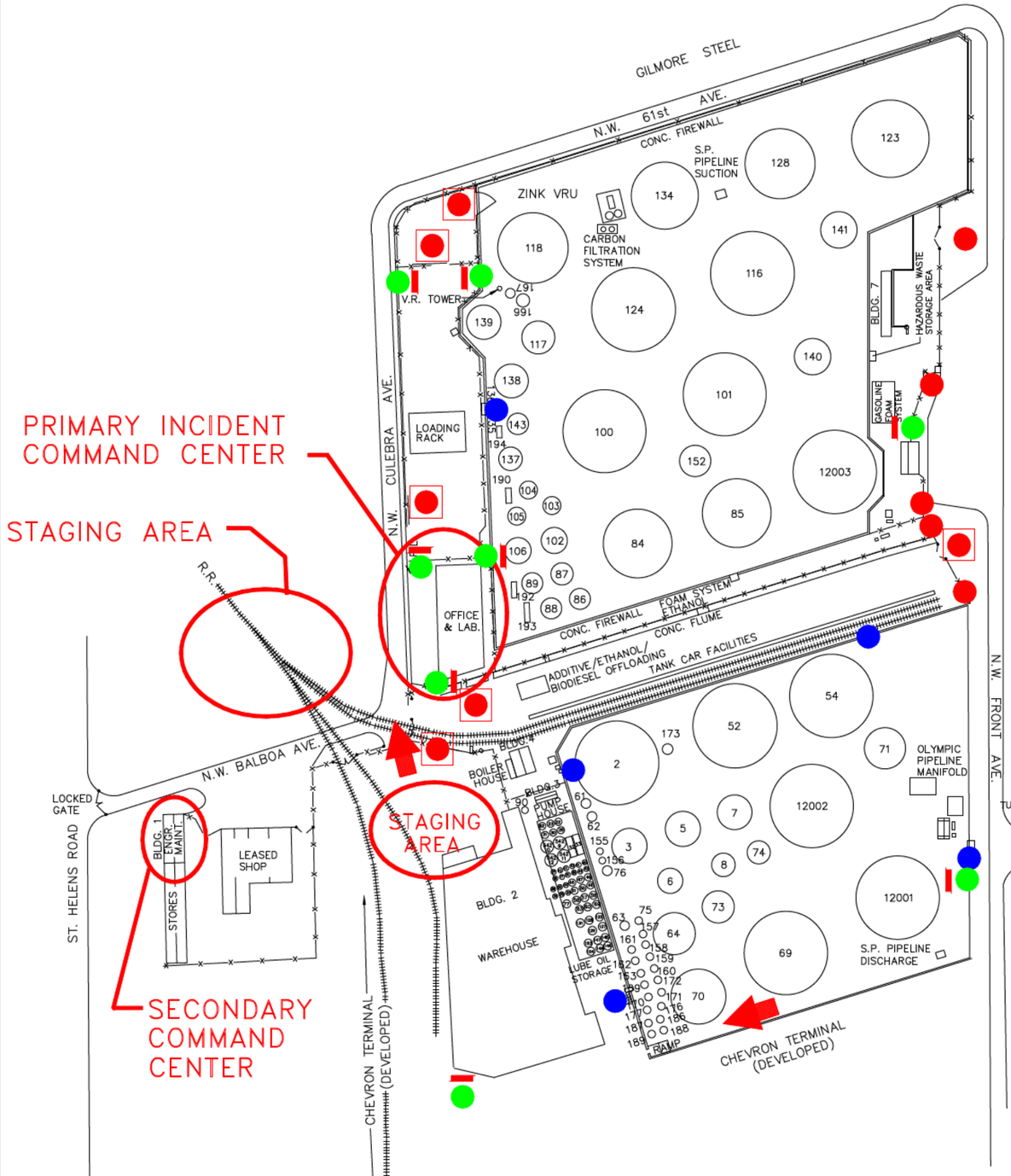
KINDER MORGAN

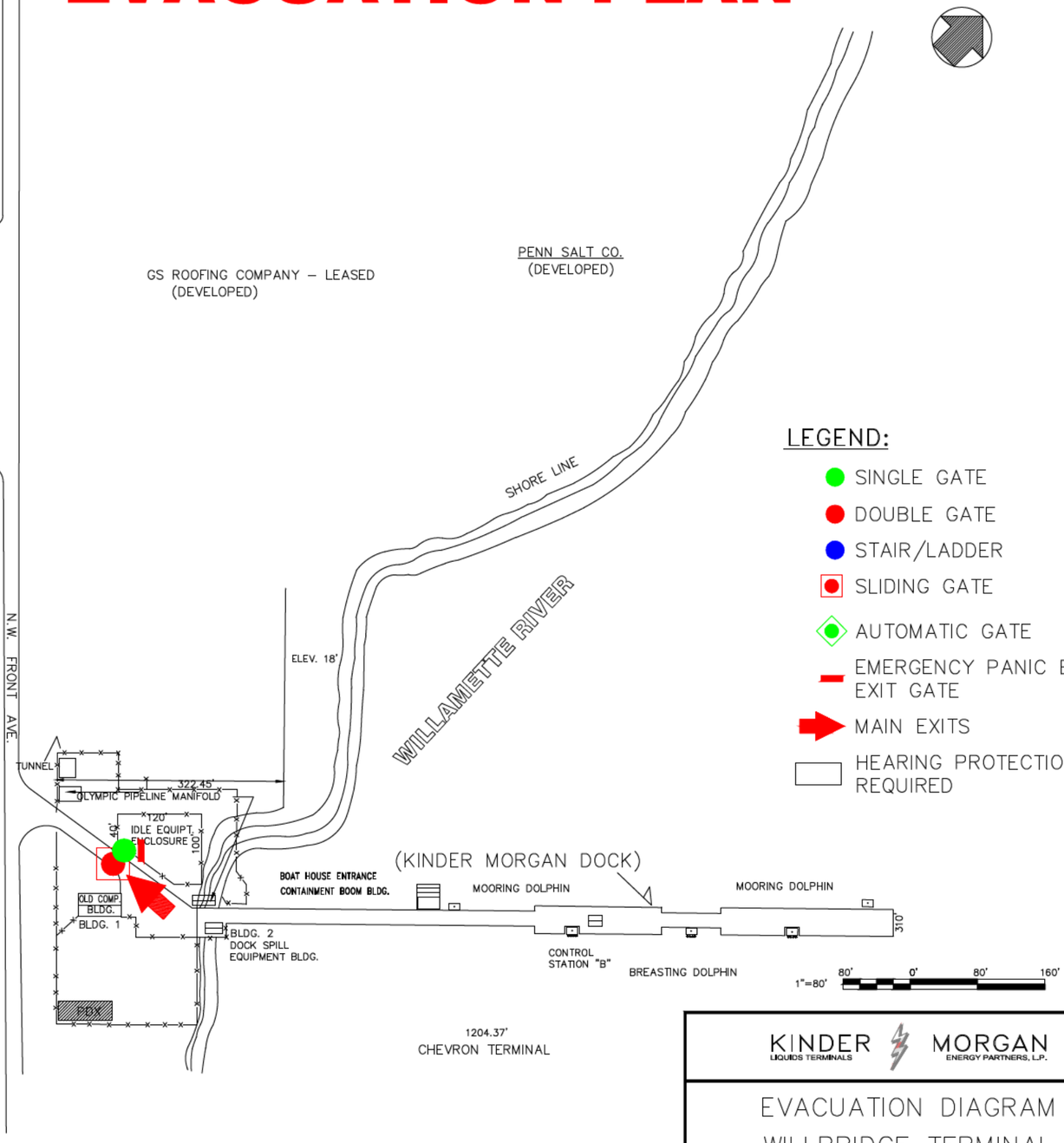
EVACUATION DIAGRAM
OFFICE BUILDING
WILLBRIDGE TERMINAL

EVAC-WB-OFFICE

PHMSA 000102954

EVACUATION PLAN





LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- SLIDING GATE
- AUTOMATIC GATE
- EMERGENCY PANIC BAR EXIT GATE
- MAIN EXITS
- HEARING PROTECTION REQUIRED

TERMINAL: 5880 NW SAINT HELENS RD.
DOCK: 6080 NW FRONT STREET.

KINDER MORGAN LIQUIDS TERMINALS / ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
WILLBRIDGE TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC–WB	DESIGN SUPT	EVAC–WB
BY: CLV	MGR. SAFETY	
DATE: 11–19–12	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

SECTION 8

EUGENE TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.
● **ODEQ** - Oregon Administrative Rule 340 - Division 141: Oil Spill Contingency Planning

SECTION 8

LINNTON TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.
● **USCG** - Federal Oil Pollution Act of 1990: US Coast Guard Final Rule for Transportation Related On-Shore Facilities as published in 33 CFR Part 154.
● **ODEQ** - Oregon Administrative Rule 340 - Division 141: Oil Spill Contingency Planning

I certify that this Integrated Contingency Plan (Plan) fulfills the requirements of 33 CFR Subpart F. The information and procedures contained herein are also consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plan (ACP).

9/8/2010

Area Manager – Jeffery A. Hibner

SECTION 8

WILLBRIDGE TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.
● **USCG** - Federal Oil Pollution Act of 1990: US Coast Guard Final Rule for Transportation Related On-Shore Facilities as published in 33 CFR Part 154.
● **ODEQ** - Oregon Administrative Rule 340 - Division 141: Oil Spill Contingency Planning

I certify that this Integrated Contingency Plan (Plan) fulfills the requirements of 33 CFR Subpart F. The information and procedures contained herein are also consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plan (ACP).

9/8/2010

Area Manager – Jeffery A. Hibner

SECTION 9

NORTHERN REGION – NORTHWEST
ODEQ-JURISDICTIONAL PIPELINE SEGMENTS

REGULATORY COMPLIANCE
● **ODEQ** - Oregon Administrative Rules, Department of Environmental Quality, Title 340, Division 141, Section 0160 Prevention Strategies for Facilities.

9.1 PROFESSIONAL ENGINEER CERTIFICATION

PROFESSIONAL ENGINEER CERTIFICATION

By means of this Professional Engineer Certification, I hereby attest to the following:

- I am familiar with the requirements of OAR 340-141-0160 and have verified that this Plan has been prepared in accordance with the requirements of this regulation.
- I have verified that this plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards.
- I have verified that the Plan is adequate for the Facility.

(Seal)

Registered Professional Engineer

Date of Seal/Signature: 29 July 2010

Benjamin E. Entrekin
Kinder Morgan Energy Partners, L.P.
State of Georgia Registration No. PE031706

9.2 INTRODUCTION

KMEP, in compliance with OAR 340-141-0160 (1) (a), has elected to substitute its approved DOT Oil Spill Response Plan, supplemented by this section, for a stand alone prevention plan. A complete Cross Reference of ODEQ regulations to this substitute plan is included in Volume 1.

This ODEQ section for the Northern Region – Northwest Oregon Pipelines Area provides additional spill prevention, planning and response information appropriate for use along identified ODEQ line segments of the KMEP pipeline system in this Area.

The line segments referenced in Figure 9.1 have been identified as subject to ODEQ jurisdiction based on the likelihood of a worst case pipeline rupture potentially resulting in impact to navigable waters of the state.

This Section 9 is provided in order to document the following ODEQ pipeline segment-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- ODEQ Pipeline Segments Information (Figure 9.1)
- LS-14 Environmental Sensitivity Index Maps (Figure 9.2)
- Discharge Scenarios (Section 9.3)
- Reportable Oil Discharge History (Section 9.4)
- Drug and Alcohol Policies (Figure 9.3)

9.3 ODEQ LINE SEGMENTS

The pipeline segments identified in Figure 9.1 for this area have been identified as subject to ODEQ contingency and prevention plan requirements. The segments were selected based on the likelihood of a worst case pipeline release potentially resulting in impacts to navigable waters of the state. Some minor ephemeral drainages crossed at substantial distances from navigable waters are not included due to the sufficient time to respond and avoid navigable water impacts.

FIGURE 9.1

ODEQ JURISDICTIONAL PIPELINE SEGMENTS

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	1100 Town and Country Road Orange, CA 92868
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 (713) 369-9454 *(Office)* (713) 495-2713 *(Fax)* Send correspondence to: Chuck Mathis Manager – Emergency Response Programs 500 Dallas Street, Suite 1000 Houston, TX 77002 (713) 369-8530 *(Office)* (713) 369-9215 *(Fax)* charles_mathis@kindermorgan.com *(email)*
Qualified Individual:	Jeff Hibner Area Manager 5880 NW St. Helens Road Portland, OR 97210 (503) 220-1263 *(Office)* (b) (6) *(Mobile)* jeff_hibner@kindermorgan.com *(email)*
Alternate Qualified Individual:	Ron Metcalf Assistant Area Manager 5880 NW St. Helens Road Portland, OR 97210 (503) 220-1247 *(Office)* (b) (6) metcalfr@kindermorgan.com *(email)*
Alternate Qualified Individual:	Andrew Holbrook Operations Manager 5880 NW St. Helens Rd. Portland, OR 97210 (503) 220-1257 *(Office)* (b) (6) *(Mobile)* andrew_holbrook@kindermorgan.com *(email)*

FIGURE 9.1

ODEQ JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

GENERAL INFORMATION

Seasonal Weather Conditions:

Air Temperature:	Ranges from 33° to 79.7°F
Winds:	Generally west-southwest at 7 to 9 mph.
Rain:	Generally 17.89 inches per year.

Site Descriptions:

Oregon Pipelines Area: Most pipeline segments in the Portland area run generally parallel to the Willamette River, the BNSF Railroad and St. Helens Road through the commercial and industrial developments in the area. LS 1880 originates at the Willbridge Terminal and crosses the Willamette River between the Kinder Morgan and Chevron docks running generally northeast and east through residential and commercial areas to the Portland Airport. LS-14 originates at Portland Station and runs northwest parallel to and under St. Helens Road for approximately 0.5 miles before turning southwest then south through residential and agricultural areas of the Willamette Valley to the Eugene Terminal.

PIPELINE SECTION	LINE NO.	WCS (BBLS)
Oregon Area Lines		
• Portland – Eugene 8"	14	(b) (7)(F), (b) (3) [redacted]
• Linnton – Portland 8"	82/83/84	
• Nustar – Portland 8"	83/84	
• BP/Arco – Portland 8"	82	
• Willbridge – Portland 8"	81	
• ConocoPhillips – Portland 8"	78/78B	
• Shell – Portland 8"	77	
• Chevron – Portland 8"	79	
• Portland Airport Pipeline 8"	1880	

FIGURE 9.1 ODEQ JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

PREVENTION MEASURES

KMEP Operations and Maintenance Manuals

KMEP facilities are built and maintained in accordance with all applicable codes and regulations as well as relevant API (American Petroleum Institute) standards. Pipelines are coated and cathodically protected. Any abnormalities found by periodic maintenance inspections and/or internal inspections are promptly repaired. The Company's operating practices meet or exceed industry standards.

KMEP Operations and Maintenance Manuals have been developed in accordance with DOT 49 CFR 195 and various aspects of the operations, inspection, and maintenance procedures have been summarized below for reference. The design and installation details of KMEP's pipelines are provided on large-scale alignment sheets which are revised and updated as needed.

Integrity testing of pipelines and leak detection equipment

Pipelines are hydrostatically pressure tested, in accordance with DOT Part 195 when installed. In addition, KMEP performs integrity testing of pipelines by using internal inspection tools or pressure test every five years. The internal inspection log produces data which is read and interpreted by third party experts and KMEP designs its verification and repair program utilizing these results.

Line monitoring and leak detection is described in the Operations Manual.

Damage criteria for equipment repair or replacement.

Damage criteria for pipelines (which would require action to be taken, such as reducing the maximum operating pressure, pipeline repair or replacement) is included in the Maintenance Manual (and generally follows ASME B31G).

Protection measures for areas subject to flooding.

Certain sections of the pipeline cross streams, rivers and bays. Other areas may be subject to periodic flooding during periods of high rainfall.

- During initial pipeline construction, streambed profiles and pipe profiles are designed and installed to withstand or be protected from the effects of flooding. In addition, major waterway crossings are inspected periodically. For example, pipeline crossings are inspected every 5 years. If necessary, rip-rap or other protective covering is installed.

Describe any leak detection, spill prevention safety and alarm systems, devices, equipment or procedures.

(b) (7)(F), (b) (3)

[redacted]

FIGURE 9.1 OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

[redacted]

PREVENTION MEASURES (Cont'd)

(b) (7)(F), (b) (3)

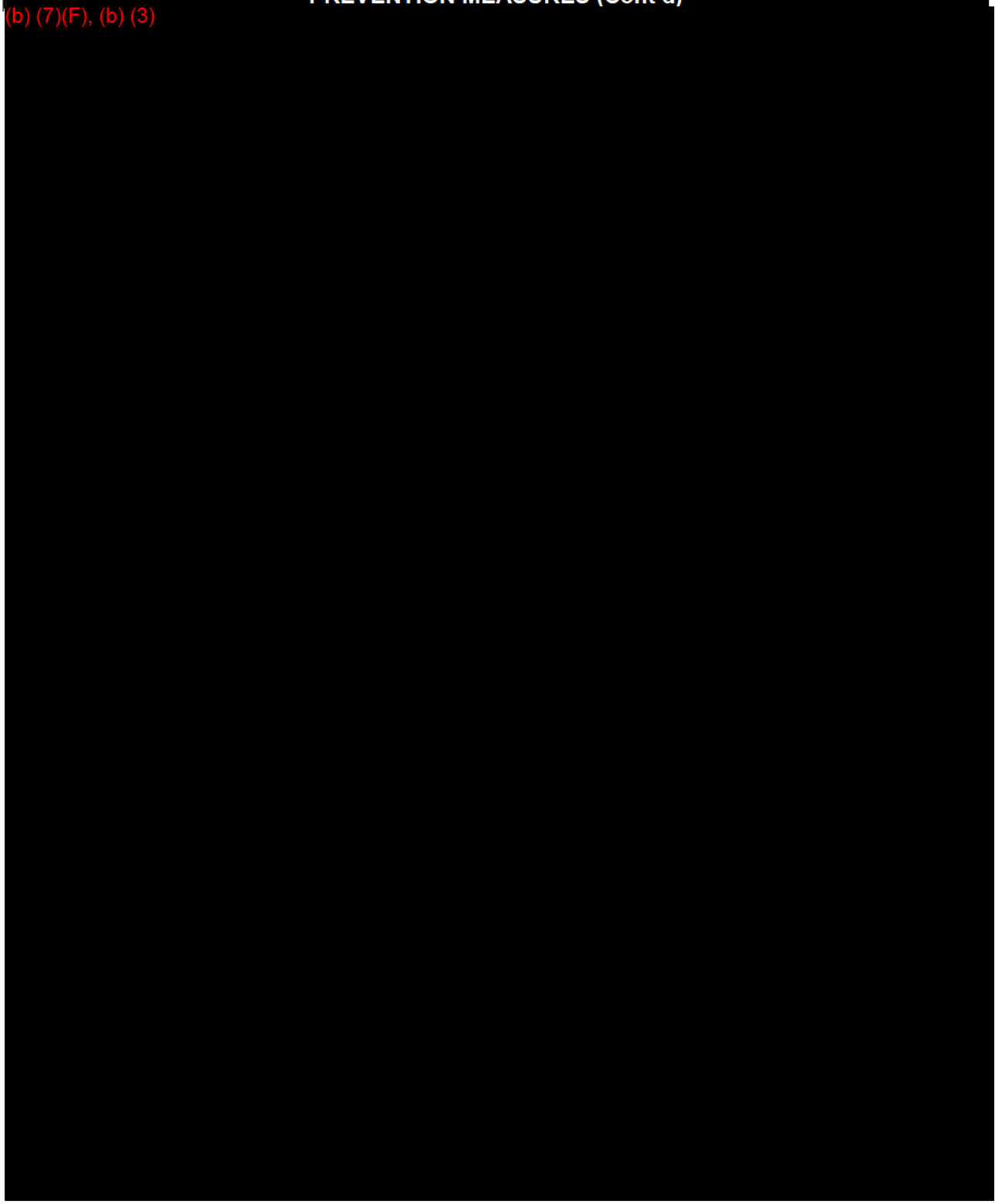


FIGURE 9.2

NORTHERN REGION NORTHWEST – OREGON PIPELINES AREA
LS 14 WILLAMETTE AND TUALATIN RIVER CROSSINGS
ENVIRONMENTAL SENSITIVITY INDEX MAPS

The following maps shows environmental sensitivities identified between the Willamette and Tualatin River crossings and Willamette Falls. Downstream of Willamette Falls the environmental sensitivities are identified in the Lower Columbia River Geographic Response Plan.

(b) (7)(F), (b) (3)

9.4 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES

ODEQ PLANNING DISTANCE CALCULATION

Planning Distance Calculation **D = V x T**

V = 4 nautical miles per hour (knots)
T = 24 hours
D = 96 nautical miles (192,000 yards)

For the LS-14 Willamette River Crossing this distance encompasses the Willamette River from the LS-14 crossing at (b) (7)(F), (b) (3) to the confluence with the Columbia River, and the Columbia River to Longitude 123° 31' 56.97" W between Grassy and Woody Islands approximately 15 miles northeast of Astoria, OR. The environmental variables for the area defined from the crossing to Willamette Falls are addressed in Figure 9.2 and from Willamette Falls to the full extent of the planning distance are addressed in the Northwest Area Contingency Plan Lower Columbia River Geographic Response Plan.

For the LS-14 Tualatin River Crossing this distance encompasses the Tualatin River from the LS-14 crossing at (b) (7)(F), (b) (3) the Willamette River to the confluence with the Columbia River; and the Columbia River to Longitude (b) (7)(F), (b) (3) near Fitzpatrick Island approximately 16 miles northeast of Astoria, OR. The environmental variables for the area defined from the crossing to Willamette Falls are addressed in Figure 9.2 and from Willamette Falls to the full extent of the planning distance are addressed in the Northwest Area Contingency Plan Lower Columbia River Geographic Response Plan.

For the LS-1880/Willamette River Crossing this distance encompasses the Willamette River from the LS-1880 crossing at (b) (7)(F), (b) (3) The environmental variables for the area defined by this distance are addressed in the Northwest Area Contingency Plan Lower Columbia River Geographic Response Plan.

Note: The crossing locations above are not the Worst Case Spill locations for these line segments.

9.3 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES (Cont'd)

PORTLAND – ALBANY 8" (14)			
ODEQ - RESPONSE PLANNING STANDARDS			
Areas Impacted:			Inland Zone
Product Type:			Diesel
Product Group:			2
Worst Case Spill (bbls)			(b) (7)(F), (b) (3)
Average Most Probable Discharge (AMPD = lesser of 1% WCS or 50 bbls)			
	Boom	Recovery	Temporary Storage
1-Hour Planning Standard – Leak Detected and Pipeline Shut Down			(b) (7)(F), (b) (3)
Requirement:	None	None	
Available:	0	0	
Source:			
2-Hour Planning Standard – Pipeline Personnel and Equipment Assigned to Locate Leak		(b) (7)(F), (b) (3)	(b) (7)(F), (b) (3)
Requirement:	None		
Available:	1,450 ft.		
Source:	1,450 ft. NW Hazmat Eugene		
6-Hour Planning Standard – Complete Assessment and Dispatch Response Personnel and Equipment		(b) (7)(F), (b) (3)	
Requirement:	None		None
Available:	5,450 ft.		(b) (7)(F), (b) (3)
Source:	1,450 ft. (2-Hour) 4,000 ft. NRCES Portland		
12-Hour Planning Standard			
Requirement:	None		None
Available:	5,450 ft.		b) (7)(F), (b) (3)
Source:	5,450 ft. Various (6-Hour)		
24-Hour Planning Standard			
Requirement:	None		None
Available:	5,450 ft.		(b) (7)(F), (b) (3)
Source:	5,450 ft. Various (12-Hour)		
48-Hour Planning Standard			
Requirement:	Amount needed to protect sensitive areas		None
Available:	5,450 ft.		(b) (7)(F), (b) (3)
Source:	5,450 ft. Various (24-Hour)		
All Recovery Capacities listed are Derated Barrels Per Day			

9.3 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES (Cont'd)

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO

This section outlines a fictitious incident involving a Worst Case Spill (as defined by ODEQ) scenario which illustrates how KMEP could be expected to respond to a diesel spill from LS-14 near Woodburn, Oregon.

The weather is cool with winds are blowing from the south-southeast at approximately 7 knots. Rain is expected later in the day. At approximately 0700 a backhoe operator working near Butteville Road NE and Crosby Road NE strikes LS-14 causing the line to rupture.

Time	Actions	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0701	The Portland Station Operator notices a pressure fluctuation and flow deviations at the Fargo and Morgan Pump Stations. The Operator shuts down the Fargo Pump Station and closes upstream valves. The Morgan Pump Station is kept in operation to move as much product as possible away from the potential pipeline rupture. The Operator then: ● Notifies the Area Manager (QI) ● Notifies the Orange Control Center (ORCC) The QI: ● Initiates Emergency Response Line (ERL) notification ● Dispatches the Line Rider from Portland Station to investigate	
0715	The QI participates in the ERL teleconference with the Operations Manger, Director of Operations (Fairfield, CA), V.P. of Operations (Orange, CA) and representatives from Products Movement, EHS, CCS, Engineering, Pipeline Integrity, Remediation, and Public Relations (Fairfield, CA; Orange, CA; Houston, TX). The QI contacts Terra Hydro, NW Hazmat and National Response Corporation Environmental Services to place them on stand-by for response to the possible spill.	
0720	ORCC receives a telephone call from a construction foreman reporting that the pipeline has been ruptured in the vicinity of Butteville Road NE and Crosby Road NE. Escaping product has filled the excavation and is flowing into roadside ditches along both roads. ORCC passes this information to the QI who notifies the Line Rider. The QI requests earth moving equipment, vacuum trucks and temporary storage tanks from contractors.	

9.3 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES (Cont'd)

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0745	The Line Rider arrives at the spill site, relays his observations to the Area Manager and begins an initial Site Safety Plan. Based on information provided by the Line Rider the QI estimates the spill volume to be in excess of 2,400 barrels.	
0750	The QI initiates a follow-up ERL to discuss the Line Rider's observations and subsequent actions. Following the ERL the CCS representative notifies: ● National Response Center (NRC) ● Oregon Emergency Response System (OERS) Following these initial notifications the CCS representative contacts the EPA Region 10, and Oregon Department of Environmental Quality. Local police and fire departments are notified. The Manager-Pipeline Maintenance and EHS/Remediation personnel mobilize from the Fairfield Office with estimated arrival times between 6 and 8 hours. The KM Public Relations office issues a press release describing the incident and activates the KM Response Web Site.	
0800	The QI assumes the role of Incident Commander (IC) and the Operations Manager assumes the role of Liaison. Via teleconference, the IC assigns personnel from Portland Station, Linnton and Willbridge Terminals as Safety, Operations, Planning, and Logistics. Pipeline personnel issue orange ICS Vests and 'Black Books' (ICS roles and responsibilities) and mobilize to the site.	
0801	**Leak Detected and Pipeline Shutdown**	
0900	Portland area personnel and the Operations Manager arrive at the site and direct arriving contractors to construct berms in the roadside ditches to restrict the spread and create recovery sites. Local police are requested to restrict traffic on Butteville Road NE and Crosby Road NE. An equipment staging area is established at the northwest corner of Butteville Road NE and Crosby Road NE.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0901	**Pipeline Personnel and Equipment Assigned to Locate Leak** **Required Boom: None** **Available Boom: 1,450 Feet** **Required Recovery: None** **Available Recovery: 1,000 bpd** **Required Storage: None** **Available Storage: 2,352 Barrels** **Volume Spilled: 5,719** **Volume Recovered: 0**	
0930	The IC and additional Portland area personnel arrive at the site. The IC directs the Logistics Section Chief to acquire a suitable location for an Incident Command Post.	
0945	The ODEQ On Scene Coordinator and additional ODEQ personnel arrive at the site and are briefed on the situation and actions taken. ODEQ personnel are assigned to the Environmental Unit. The Planning Section Chief (PSC) facilitates the Objectives Meeting with the IC, SOSC, and LOSC.	
1015	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
1100	The PSC facilitates the Tactics Meeting with the Operations and Logistics Section Chiefs, Resource Unit Leader, Situation Unit Leader, Safety Officer, Documentation Unit Leader, and Communications Unit Leader.	
1145	The PSC facilitates the Planning Meeting with UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
1215	The EPA Federal On Scene Coordinator (FOSC) arrives on site and is briefed on the situation and actions taken.	
1301	**Complete Assessment and Dispatch Response Personnel and Equipment** **Required Boom: None** **Available Boom: 5,450 Feet** **Required Recovery: None** **Available Recovery: 5,274 bpd** **Required Storage: None** **Available Storage: 2,765 Barrels** **Volume Spilled: 5,719** **Volume Recovered: 166 Barrels** **Oil Remaining: 5,553 Barrels**	
1345	The Incident Action Plan (IAP) for the Operational Period is completed and approved by the UC and the Operations Briefing held.	
1550	Personnel from the Fairfield Office arrive and are briefed on the incident. EHS/Remediation personnel are assigned to the Operations Section and Environmental Unit.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)	
Time	**Actions**
Sun Rise 0630	**Day 1** **Sun Set 1721**
1615	The Logistics Section arranges for work space at the Best Western Woodburn facility and sets up an Incident Command Post (ICP). IMT personnel mobilize to the ICP.
1845	The IMT is scaled back for the evening. Recovery activities continue through the night.
1901	**Required Boom: None** **Available Boom: 5,450 Feet** **Required Recovery: 286 bpd** **Available Recovery: 5,274 bpd** **Required Storage: None** **Available Storage: 9,315 Barrels** **Volume Spilled: 5,719** **Volume Recovered: 1,484.5 Barrels** **Oil Remaining: 4,234.5 Barrels**
Sun Rise 0631	**Day 2** **Sun Set 1720**
0530	The Manager-Pipeline Maintenance assumes the role of IC. The Area Manager assumes the role of Planning Section Chief. The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader. The recovery operations from the previous day are continued.
0630	Environmental Unit personnel develop a plan to collect soil samples and place monitoring wells to determine the subsurface spread of the spill.
0701	**Required Boom: None** **Available Boom: 5,450 Feet** **Required Recovery: 572 bpd** **Available Recovery: 5,274 bpd** **Required Storage: None** **Available Storage: 19,315 Barrels** **Volume Spilled: 5,719** **Volume Recovered: 4,121.5 Barrels** **Oil Remaining: 1,597.5 Barrels**
0800	The JIC issues a press release describing what has occurred and what actions are being taken.

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0631	**Day 2**	**Sun Set 1720**
1431	Recovery activities continue until all free standing product has been recovered. Contaminated soil is removed for processing at an approved treatment facility. The damaged pipe section is removed and work begins to install a replacement section. With the concurrence of the Federal, State and Local On Scene Coordinators the IC begins demobilizing response resources. The UC agrees to meet at a later date toe review lessons learned. The Documentation Unit collects all relevant documentation for the Post Incident Report.	

9.3 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES (Cont'd)

PORTLAND Airport Pipeline 8" (1880)	
ODEQ - RESPONSE PLANNING STANDARDS	
Areas Impacted:	Columbia River - Portland Sub-Zone
Product Type:	Jet A
Product Group:	2
Worst Case Spill (bbls)	[redacted] (b) (7)(F), (b) (3)
Average Most Probable Discharge (AMPD = lesser of 1% WCS or 50 bbls)	[redacted]

	Boom	Recovery	Temporary Storage
1-Hour Planning Standard – Leak Detected and Pipeli		[redacted] (b) (7)(F), (b) (3)	
Requirement:	None		
Available:			
Source:			
2-Hour Planning Standard			
Requirement:	Boom deployed = 1,000 ft		
Available:	32,600 ft.		
Source:	7,600 ft. CRC Portland 25,000 ft. NRCES Portland		
6-Hour Planning Standard			
Requirement:	None		
Available:	37,100 ft.		
Source:	32,600 ft. Various (2-Hour) 4,500 ft. CRC Vancouver		
12-Hour Planning Standard			
Requirement:	15,000 ft.		
Available:	56,200 ft.		
Source:	37,100 ft. Various (6-Hour) 11,300 ft. CRC Longview 4,500 ft. NRCES Rainier 1,000 ft. NRCES Wuana 1,000 ft. NRCES St. Helens 1,300 ft. NRCES Kalama		
24-Hour Planning Standard			
Requirement:	Amount needed to protect sensitive areas		
Available:	88,500 ft.		
Source:	56,200 ft. Various (12-Hour) 14,800 ft. CRC Astoria 12,400 ft. CRC Wuana 5,100 ft. CRC St. Helens		
48-Hour Planning Standard			
Requirement:	Amount needed to protect sensitive areas		
Available:	88,500 ft.		
Source:	88,500 ft. Various (24-Hour)		

All Recovery Capacities listed are Derated Barrels Per Day

9.3 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES (Cont'd)

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO

This section outlines a fictitious incident involving a Worst Case Spill (as defined by ODEQ) scenario which illustrates how KMEP could be expected to respond to a jet fuel spill from LS 1880 (Portland Airport Line).

The weather is cool and very foggy with limited visibility. Winds are blowing from the northeast at approximately 9 knots. River currents range between .5 and 1.5 knots, depending on location. Columbia Slough currents are minimal and tidally influenced. Tide predictions are:
High – 0030 Low – 0919
High – 1320 Low – 193

Time	Actions	
Sun Rise 0630	Day 1	Sun Set 1721
0605	The Portland Station Operator notices a sudden pressure drop and flow deviation on LS 1880. The Operator initiates pipeline shut down. The Operator then: ● Notifies the Area Manager (Qualified Individual (QI)) ● Notifies the Orange Control Center The Area Manager (QI): ● Initiates Emergency Response Line (ERL) notification ● Dispatches the Line Rider to investigate	
0630	The Line Rider reports the line has ruptured near Columbia Slough and oil is flowing southeast across the parking lot adjacent to Multnomah County Drainage District Pump Station #1 into the slough.	
0640	The Line Rider dials 911 to alert local police and fire of the incident.	

9.3 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES (Cont'd)

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0635	The Operations Manager and Area Manager participate in the ERL+ teleconference with the V.P. of Operations and Engineering (Houston, TX), V.P. of Operations (Orange, CA), Director of Operations (Fairfield, CA), and representatives from Products Movement, Environmental Health and Safety, Compliance Codes and Standards, Engineering, Pipeline Integrity, Remediation, and Public Relations (Fairfield, CA; Orange, CA; Houston, TX). The CCS representative notifies: ● National Response Center (NRC) ● Oregon Emergency Response System (OERS) Following these initial notifications the CCS representative contacts the Portland Fire Department, US Coast Guard Sector Portland, EPA Region 10, Oregon Department of Environmental Quality, and Washington Department of Ecology (since there is potential to impact the Columbia River). The Manager-Pipeline Maintenance and EHS/Remediation personnel mobilize from the Fairfield Office with estimated arrival times between 5 and 7 hours. The KM Public Relations office issues a press release describing the incident and activates the KM Response Web Site. The Lead Operator at the direction of the Area Manager assumes the role of Incident Commander (IC) and establishes an Incident Command Post (ICP) in the Willbridge Terminal Office. Pipeline personnel issue orange ICS Vests and 'Black Books' (ICS roles and responsibilities) and mobilize to the ICP.	
0645	The QI contacts Clean Rivers Cooperative (CRC) and National Response Corporation Environmental Services (NRCES) directing them to provide a skimmer at the spill site and deploy boom and a rope mop skimmer in Columbia Slough downstream of Pump Station #1. The Line Rider notifies Multnomah County Drainage District arriving at their office of the incident and request that they secure Pump Station #1 to prevent the spread of additional product to Columbia Slough.	
0700	Portland Fire Department personnel arrive at the scene and apply foam to the product in the pool area upstream of Pump Station #1.	
0735	**Leak Detected and Pipeline Shut Down** **Boom Required: None** **Required Recovery: None** **Required Storage: None**	

9.3 DISCHARGE SCENARIOS/RESPONSE STRATEGY OUTLINES (Cont'd)

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
0740	NRCES personnel arrive at Columbia Slough and begin deploying containment boom, sorbet boom and skimmer upstream of the HWY 99E/NE Martin Luther King, Jr. Blvd bridge.	
0835	**Boom Required: 1,000 feet** **Boom Available: 32,600 feet** **Boom Deployed: 1,000 feet** **Required Recovery: None** **Available Recovery: 44,926 bpd** **Deployed Recovery: 384 bpd** **Required Storage: None** **Available Storage: 48,068 bbl** **Volume Spilled: 1,427 Barrels** **Volume Recovered: 0**	
0845	The QI arrives at the Incident Command Post and assumes the role of IC. The Lead Operator assumes the role of Planning Section Chief. Personnel from ODEQ, Sector Portland, the Portland Fire Department, and NRCES arrive at the ICP. ODEQ, Coast Guard and NRCES personnel are assigned to the Operations and Planning Sections, and the Environmental Unit. Officials of the International Bird Rescue Research Center are alerted	
0900	The Planning Section Chief (PSC) facilitates the Objectives Meeting with the IC, SOSC, and LOSC. Four (4) additional rope mop skimmers are in place at Pump Station #1.	
0915	The Safety Officer and the Environmental Unit develop a comprehensive air monitoring plan for the site.	
0930	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	
1015	The PSC facilitates the Tactics Meeting with the Operations and Logistics Section Chiefs, Resource Unit Leader, Situation Unit Leader, Safety Officer, Documentation Unit Leader, and Communications Unit Leader.	
1145	The PSC facilitates the Planning Meeting with UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0630	**Day 1**	**Sun Set 1721**
1235	**Boom Required: 1,000 feet** **Boom Available: 42,400 feet** **Boom Deployed: 1,000 feet** **Required Recovery: 179 bpd (10% of WCS)** **Available Recovery: 55,700 bpd** **Deployed Recovery: 624 bpd** **Required Storage: None** **Available Storage: 64,525 bbls** **Volume Spilled: 1,427 Barrels** **Volume Recovered: 64 Barrels** **Volume Evaporated: 54 barrels** **Volume Remaining: 1,309 Barrels**	
1305	The Incident Action Plan (IAP) for the Operational Period is completed and approved by the UC and the Operations Briefing held.	
1550	Personnel from the Fairfield Office arrive and are briefed on the incident. EHS/Remediation personnel are assigned to the Operations Section and Environmental Unit.	
1835	**Boom Required: 15,000 feet** **Boom Available: 61,500 feet** **Boom Deployed: 1,000 feet** **Required Recovery: 268 bpd (15% of WCS)** **Available Recovery: 61,871 bpd** **Deployed Recovery: 624 bpd** **Required Storage: None** **Available Storage: 120,449 bbls** **Volume Spilled: 1,427 Barrels** **Volume Recovered: 220 Barrels** **Volume Evaporated: 196 Barrels** **Volume Remaining: 1,011 Barrels**	
1930	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader. ICP operations are scaled back for the evening. On site recovery operations continue through the night.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0631	**Day 2**	**Sun Set 1720**
Weather and current conditions are essentially unchanged. Tide predictions are: High – 0125 Low – 1036 High – 1452 Low – 2025		
0530	The Manager-Pipeline Maintenance assumes the role of IC. The Area Manager assumes the role of Planning Section Chief. The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader. The recovery operations from the previous day are continued.	
0630	Environmental Unit personnel develop a plan to collect soil samples and place monitoring wells to determine the subsurface spread of the spill.	
0635	**Boom Required: Amount Needed to Protect Sensitive Areas** **Boom Available: 93,800 feet** **Boom Deployed: 1,500 feet** **Required Recovery: 357 bpd (20% of WCS)** **Available Recovery: 73,870 bpd** **Deployed Recovery: 624 bpd** **Required Storage: None** **Available Storage: 120,449 bbls** **Volume Spilled: 1,427 Barrels** **Volume Recovered: 532 Barrels** **Volume Evaporated: 455 Barrels** **Volume Remaining: 440 Barrels**	
0800	The JIC issues a press release describing what has occurred and what actions are being taken.	
0900	Air monitoring and on site recovery operations continue throughout the day.	
1930	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader. ICP operations are scaled back for the evening. On site recovery operations continue through the night.	
Sun Rise 0629	**Day 3**	**Sun Set 1719**
Weather and current conditions are essentially unchanged. Tide predictions are: High – 0221 Low – 1137 High – 1610 Low – 2126		
0530	The PSC facilitates a UC meeting with the IC, LOSC, SOSC, and FOSC to review the previous day's objectives and situation status.	

WORST CASE SPILL RESPONSE STRATEGY OUTLINE/ RESPONSE CAPABILITY SCENARIO (Cont'd)		
Time	**Actions**	
Sun Rise 0629	**Day 3**	**Sun Set 1719**
0600	The PSC facilitates the Command & General Staff Meeting with the UC Members, Command and General Staff, Situation Unit Leader, and Documentation Unit Leader. The recovery operations from the previous day are continued.	
0635	**Boom Required: Amount Needed to Protect Sensitive Areas** **Boom Available: 93,800 feet** **Boom Deployed: 1,500 feet** **Required Recovery: 446 bpd (25% of WCS)** **Available Recovery: 73,870 bpd** **Deployed Recovery: 694 bpd** **Required Storage: None** **Available Storage: 120,449 bbls** **Volume Spilled: 1,427 Barrels** **Volume Recovered: 1226 Barrels** **Volume Evaporated: 785 Barrels** **Volume Remaining: 0**	
0800	The JIC issues a press release describing what has occurred and what actions are being taken.	
1431	Recovery activities continue until all free standing product has been recovered. Contaminated soil is removed for processing at an approved treatment facility. The damaged pipe section is removed and work begins to install a replacement section. With the concurrence of the Federal, State and Local On Scene Coordinators the IC begins demobilizing response resources. The UC agrees to meet at a later date toe review lessons learned. The Documentation Unit collects all relevant documentation for the Post Incident Report.	

9.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

History of Oil Discharges Greater in Excess of 25 Barrels (OAR 340-141-0160 (3)(h))

Date of Discharge	Location of Discharge	Cause of Discharge	Product Discharged	Amount Discharged	NRC Incident Report #
Searches of the Kinder Morgan incident database and the NRC incident report database showed no discharges of oil in excess of 25 barrels (1,050 gallons) to land or waters of the state from the Oregon pipelines system in the five years preceding submittal of this ICP.					

FIGURE 9.3

DRUG AND ALCOHOL POLICY

Kinder Morgan **500 Dallas Street** **Houston, TX 77002 (713) 369-9480** **Effective Date: April 1, 1997**	Alcohol Misuse Prevention Plan U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) Federal Motor Carrier Safety Administration (FMCSA) Plan Revision Date: October 1, 2010

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Kinder Morgan 500 Dallas Street Houston, TX 77002 (713) 369-9480 Effective Date: April 1, 1997	Alcohol Misuse Prevention Plan U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) Federal Motor Carrier Safety Administration (FMCSA) Plan Revision Date: October 1, 2010

I. INTRODUCTION

A. Alcohol Misuse Prevention Policy (AMPP) - (§199.202).

1. The Company has a long-standing commitment to maintain the highest standards for employee safety and health and to help prevent accidents and injuries resulting from the misuse of alcohol by employees who perform covered functions.

2. Company Purpose (§199.200). The purpose of 49 CFR Part 199 is to establish programs designed to help prevent accidents and injuries resulting from the misuse of alcohol by employees who perform covered functions for operators of certain pipeline facilities subject to 49 CFR Parts 192, 193, or 195 of this part.

3. In addition, the company must comply with all DOT regulations and other regulations, which require affirmative actions to eliminate the impact of the misuse of alcohol in the workplace. The purpose of the alcohol misuse prevention plan is to reduce accidents that result from the misuse of alcohol, thereby reducing fatalities, injuries, and property damage.

4. The company will maintain and follow a written alcohol misuse prevention plan that conforms to the requirements of 49 CFR Part 199 and DOT procedures 49 CFR Part 40 concerning alcohol testing programs.

5. The use or possession of alcoholic beverages while on company property, or in any company vehicle, or on company time, including breaks or lunch, paid or unpaid, on any shift, is strictly prohibited. Nothing in Part 199 shall be construed to affect the company's independent authority, or the rights of their employees with respect to the use or possession of alcohol when conducting alcohol testing and rehabilitation.

6. The use or possession of alcoholic beverages while on company property, or in any company vehicle, or on company time, including breaks or lunch, paid or unpaid, on any shift, is strictly prohibited.

7. **In addition, all Company employees are subject to Kinder Morgan's Human Resource Policy Manual "Drug and Alcohol In The Workplace".**

B. Implementation of Alcohol Misuse Prevention Plan (AMPP).

1. The company has implemented the Pipeline Hazardous and Materials Safety Administration (PHMSA), Alcohol and Drug Testing Regulations as set forth in 49 CFR Part 199 and the Department of Transportation, Procedures for Transportation Workplace Alcohol and Drug Testing Programs as set forth in 49 CFR Part 40.

2. Alcohol materials supplied to covered employees may also include information on additional company mandated policies with respect to the use or possession of alcohol, including any consequences for an employee found to have a specified alcohol level, that are based on the company's authority independent of the federal regulations under 49 CFR Part 199 and 40.

3. Applicability (§199.2).

   a. 49 CFR Part 199 applies to pipeline operators only with respect to employees located within the territory of the United States including those employees located within the limits of the "outer Continental Shelf" as that term is defined in the Outer Continental Shelf Lands Act (43 U.S.C. 1331).

   b. 49 CFR Part 199 does not apply to any person for whom compliance with this part would violate the domestic laws or policies of another country.

   c. 49 CFR Part 199 does not apply to covered functions performed on:

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(1) Master meter systems, as defined in 49 CFR Part 199.3.
(2) Pipeline systems that transport only petroleum gas or petroleum gas/air mixtures.

4. **Compliance with DOT Regulations §40.1 -** DOT Part 40 regulations provide that all parties who conduct drug and alcohol tests required by Department of Transportation (DOT) agency regulations how to conduct these tests and what procedures to use. DOT Part 40 concerns the activities of transportation employers, safety-sensitive transportation employees (including self-employed individuals, contractors and volunteers as covered by DOT agency regulations), and service agents.

5. Other Requirements Imposed by Operators (§199.209). Except as expressly provided in 49 CFR Part 199 nothing in this subpart shall be construed to affect the authority of pipeline operators, or the right of employees, with respect to the use or possession of alcohol, including authority and rights with respect to alcohol testing and rehabilitation.

6. **The alcohol misuse prevention plan herein sets forth the requirements of 49 CFR Parts 199 and 40. Those areas of the plan that appears in bold and underlined print reflect this company's independent authority to require additional provisions with regard to the alcohol testing procedures.**

C. Background.

1. The catalyst for the alcohol misuse plan is Title 49 Code of Federal Regulations (CFR) Part 199 which requires pipeline operators subject to 49 CFR Parts 192, 193, and 195, and their contractors to test their employees for misuse of alcohol under the following work-related conditions:

   a. Pre-Employment (Optional)
   b. Post-Accident
   c. Reasonable Suspicion
   d. Return-to-duty
   e. Follow-up

2. Title 49 CFR Part 40 specifies procedures, which must be followed by the company when conducting alcohol misuse testing pursuant to regulations issued by agencies of the Department of Transportation.

3. DOT Procedures (§199.5) - Title 49 CFR Part 40 specifies procedures that must be followed by the company when conducting drug testing pursuant to regulations issued by agencies of the Department of Transportation. The anti-drug and alcohol programs required by 49 CFR Part 199 must be conducted in accordance to the requirements of 49 CFR Part 199 and DOT procedures. Terms and concepts used in 49 CFR Part 199 have the same meaning as in DOT procedures. Violations of DOT procedures with respect to anti-drug and alcohol programs required by 49 CFR Part 199 are violations of this part.

4. Authoritative interpretations (§40.5) – The DOT Office of Drug and Alcohol Policy Compliance (ODAPC) and the DOT Office of General Counsel (OGC) provide written interpretations of the provisions of 49 CFR Part 40. These written DOT interpretations are the only official and authoritative interpretations concerning the provisions of this part. DOT agencies may incorporate ODAPC/OGC interpretations in written guidance they issue concerning drug and alcohol testing matters.

D. Preemption Provisions.

1. Except as provided in paragraph 2 of this section, Part 199 preempts any state or local law, rule, regulation, or order to the extent that:

   a. Compliance with both state or local requirement and this regulation is not possible;

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b. Compliance with state or local requirement is an obstacle to the accomplishment and execution of any requirement as set forth in 49 CFR Part 199.

c. The state or local requirement is a pipeline safety standard applicable to interstate pipeline facilities.

2. This provision shall not be construed to preempt provisions of state criminal law that impose sanctions for reckless conduct leading to actual loss of life, injury, or damage to property, whether the provisions apply specifically to transportation employees or employers or to the general public.

E. Definitions - (§199.3 & 40.3). For purposes of this AMPP the following definitions apply:

1. Accident - means an incident reportable under Part 191 involving gas pipeline facilities or LNG facilities or an accident reportable under Part 195 involving hazardous liquid pipeline facilities.

a. § 191.3 - An accident on a gas pipeline or LNG facility is defined as an "incident," as follows:

(1) An event that involves a release of gas from a pipeline or of liquefied natural gas or gas from an LNG facility and:

(a) A death, or personal injury necessitating inpatient hospitalization; or

(b) Estimated property damage, including cost of gas lost, to the operator or others, or both, of $50,000 or more ($5,000 or more for intrastate operators/contractors in Oklahoma and New Mexico).

.

(2) An event that results in an emergency shutdown of an LNG facility.

(3) An event that is significant, in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2).

b. §195.50 – An accident report is required for each failure in a pipeline system in which there is a release of the hazardous liquid or carbon dioxide transported resulting in any of the following:

(1) Explosion or fire not intentionally set by the operator.
(2) Release of 5 gallons (19 liters) or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels (0.8 cubic meters) resulting from a pipeline maintenance activity if this release is:

(a) Not otherwise reportable under this section;
(b) Not one described in §195.52(a)(4);
(c) Confined to company property or pipeline right-of-way; and
(d) Cleaned up promptly;

(3) Death of any person.

(4) Personal injury necessitating hospitalization;

(5) Estimated property damage, including cost of clean-up and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000.

2. Administrator – means the Administrator of the Pipeline Hazardous and Materials Safety Administration (PHMSA) or any person to whom authority in the matter concerned has been delegated by the Secretary of Transportation.

3. Affiliate. Persons are affiliates of one another if, directly or indirectly, one controls or has the power to control the other or a third party controls or has the power to control both. Indicators of control include, but are not limited to interlocking management or ownership; shared interest among family

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members; shared facilities or equipment or common use of employees. Following the issuance of a Public Interest Exclusion, an organization having the same or similar management, ownership, or principal employees as the service agent concerning whom a public interest exclusion is in effect is regarded as an affiliate. This definition is used in connection with the public interest exclusion procedures of 49 CFR Part 40, Subpart F.

4. Air Blank – In evidential breath testing devices (EBTs) using gas chromatography technology, a reading of the device's internal standard. In all other EBTs, a reading of ambient air containing no alcohol.

5. Alcohol - means the intoxicating agent in beverage alcohol, ethyl alcohol or other low molecular weight alcohol's including methyl or isopropyl alcohol.

6. Alcohol concentration - means the alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath as indicated by an evidential breath test conducted under the federal regulations.

7. Alcohol Screening Device - A breath or saliva device, other than an EBT, that is approved by the National Highway Traffic Safety Administration (NHTSA) and placed on a conforming products list (CPL) for such devices.

8. Alcohol Testing Site – A place selected by the company where employees present themselves for the purpose of providing breath or saliva for an alcohol test.

9. Alcohol Use - means the consumption of any beverage, mixture, or preparation, including any medication, containing alcohol.

10. Breath Alcohol Technician (BAT) - means an individual who instructs and assists individuals in the alcohol testing process and operates an EBT.

11. Cancelled test – A drug or alcohol test that has a problem identified that cannot be or has not been corrected, or which this part otherwise requires to be cancelled. A cancelled test is neither a positive nor a negative test.

12. Confirmation Test - means a second test following a screening test with a result of 0.02 or greater that provides quantitative data of alcohol concentration.

13. Consortium/Third Party Administrator (C-TPA) – A service agent that provides or coordinates the provision of a variety of drug and alcohol testing services to employees. C/TPAs typically perform administrative tasks concerning the operation of the employers' drug and alcohol testing programs. This term includes, but is not limited to groups of employers who join together to administer, as a single entity, the DOT drug and alcohol program of its members. C/TPAs are not "employers" for the purpose of this part.

14 Continuing education – Training for medical review officers (MROs) and substance abuse professionals (SAPs) who have completed qualification training and are performing MRO or SAP functions, designed to keep MROs and SAPs current on changes and developments in the DOT drug and alcohol testing program.

15. Covered employee, employee, or individual to be tested - means any person who performs a covered function, including persons employed by operators, contractors engaged by operators, and persons employed by such contractors.

16. Covered Function (safety-sensitive function) - means an operations, maintenance, or emergency-response function regulated by Part 192, 193, or 195 of 49 CFR that is performed on a pipeline or on an LNG facility.

17. Designated Employer Representative (DER) – An employee authorized by the employer to take immediate action(s) to remove employees from safety-sensitive duties, or cause employees to be removed from these covered duties, and to make required decisions in the testing and evaluation processes. The DER also receives test results and other communications for the employer,

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consistent with the requirements of 49 CFR Part 40. Service agents cannot act as DERs.

18. DOT Procedures – means the Procedures for Transportation Workplace Drug and Alcohol Testing Program published by the Office of the Secretary of Transportation in 49 CFR Part 40.

19. DOT, The Department, DOT agency – These terms encompass all DOT agencies, including, but not limited to, the United States Coast Guard (USCG), the Federal Aviation Administration (FAA), the Federal Railroad Administration (FRA), the Federal Motor Carrier Safety Administration (FMCSA), the Federal Transit Administration (FTA), the National Highway Traffic Safety Administration (NHTSA), the Pipeline Hazardous Materials and Safety Administration (PHMSA), and the Office of the Secretary (OST). These terms include any designee of a DOT agency.

20. EBT (or evidential breath testing device) - means an EBT approved by the National Highway Traffic Safety Administration (NHTSA) for the evidential testing of breath and placed on NHTSA's "Conforming Products List" (CPL) of evidential breath measurement devices.

21. Employee - Any person who is designated in a DOT agency regulation as subject to drug testing and/or alcohol testing. The term includes individuals currently performing safety-sensitive functions designated in DOT agency regulations and applicants for employment subject to pre-employment testing. For purposes of drug testing under this part, the term employee has the same meaning as the term "donor" as found on CCF and related guidance materials produced by the Department of Health and Human Services.

22. Employer - A person or entity employing one or more employees (including an individual who is self-employed) subject to DOT agency regulations requiring compliance with this part. The term includes an employer's officers, representatives, and management personnel. Service agents are not employers for the purposes of this part.

23. Error Correction Training - Training provided to BATs, collectors, and screening test technicians (STTs) following an error that resulted in the cancellation of a drug or alcohol test. Error correction training must be provided in person or by a means that provides real-time observation and interaction between the instructor and trainee.

24. Office of Drug and Alcohol Policy and Compliance (ODAPC) -The office in the Office of the Secretary, DOT, that is responsible for coordinating drug and alcohol testing program matters within the Department and providing information concerning the implementation of this part.

25. Operator - is defined as an owner or operator of pipeline facilities.

26. Performing a Covered Function – includes actually performing, ready to perform, or immediately available to perform a covered function.

27. Pipeline - means all parts of the physical facilities through which product moves in transportation. This includes pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, delivery stations, holders, and fabricated assemblies.

28. Pipeline Facilities - include new and existing pipeline, rights-of-way, and any equipment, facility, or building used in the transportation of product.

29. Prohibited Conduct - means anyone who has an alcohol concentration of 0.02 or greater, who has used alcohol within 4 hours of reporting for duty and anyone who has used alcohol on-duty.

30. Qualification Training - The training required in order for a collector, BAT, MRO, SAP, or STT to be qualified to perform their functions in the DOT drug and alcohol testing program. Qualification training may be provided by any appropriate means (e.g., classroom instruction, internet application, CD-ROM, video).

31. Refresher Training - The training required periodically for qualified collectors, BATs, and STTs to review basic requirements and provide instruction concerning changes in technology (e.g., new testing methods that may be authorized) and amendments, interpretations, guidance, and issues concerning this part and DOT agency drug and alcohol testing regulations. Refresher training can

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be provided by any appropriate means (e.g., classroom instruction, internet application, CD-ROM, video).

32. Refusal to Submit, Refuse, or Refuse to take - means behavior consistent with DOT Procedures concerning refusal to take a drug test or refusal to take an alcohol test. See Section VII of this plan for additional information.

33. Screening Test (or initial test) - means an analytic procedure to determine whether an employee may have a prohibited concentration of alcohol in a breath specimen.

34. Screening Test Technician (STT) means an individual who has successfully completed an approved Department of Transportation non-evidential training course and who will conduct alcohol-screening tests in accordance with Part 199 and Part 40.

35. Secretary - The Secretary of Transportation or the Secretary's designee.

36. Service Agent - Any person or entity, other than an employee of the employer, who provides services specified under this part to employers and/or employees in connection with DOT drug and alcohol testing requirements. This includes, but is not limited to, collectors, BATs and STTs, laboratories, MROs, substance abuse professionals, and C/TPAs. To act as service agents, persons and organizations must meet the qualifications set forth in applicable sections of 49 CFR Part 199 and Part 40. Service agents are not employers for purposes of 49 CFR Part 199 and 40.

37. Stand-Down - The practice of temporarily removing an employee from the performance of safety-sensitive functions based only on a report from a laboratory to the MRO of a confirmed positive test for a drug or drug metabolite, an adulterated test, or a substituted test, before the MRO has completed verification of the test result.

38. State Agency - means an agency of any of the several states, the District of Columbia, or Puerto Rico that participates under section 5 of the Natural Gas Pipeline Safety Act of 1968 (49 App. U.S.C. 1674) or section 205 of the Hazardous Liquid Pipeline Safety Act of 1979 (49 App. U.S.C. 2009).

39. Substance Abuse Professional (SAP) - A person who evaluates employees who have violated a DOT drug and alcohol regulation and makes recommendations concerning education, treatment, follow-up testing, and aftercare.

F. Company Responsibilities.

1. Alcohol Program Manager (APM) or Designated Employer Representative (DER). Appendix A contains the name, address, and phone number of the responsible individual(s). The APM or DER shall be responsible for the preparation of an alcohol misuse plan which complies with requirements of the Department of Transportation regulations as set forth in 49 CFR Parts 199 and 49 CFR Part 40. The APM or DER shall be responsible for providing oversight and evaluation on the plan; providing guidance and counseling; reviewing of all discipline applied under this plan for consistency and conformance to human resources policies and procedures; scheduling for types of testing (post-accident, reasonable suspicion, etc.); maintaining a locked file system on all alcohol test results; and overseeing the referral of employees for evaluation and treatment. The company shall ensure that all covered employees are aware of the provisions and coverage of the company's AMPP and that all employees are notified prior to testing that such a test is required by Part 199.

2. Requirement for Notice (§199.211). The company shall ensure that all covered employees are aware of the provisions and coverage of the company's AMPP and that all employees are notified prior to testing. Before performing an alcohol test under this plan, the company shall notify a covered employee that the alcohol test is required by 49 CFR Part 199. The company shall not falsely represent that an alcohol test is being conducted under the provisions of Part 199.

3. Supervisor(s). Any Company individuals responsible for observing the performance and behavior of employees; observation/documentation of events suggestive of reasonable suspicion; and post-accident testing if determined that it is applicable.

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4. Employees. The company shall ensure that each employee is notified and aware of the provisions of the company AMPP and has knowledgeable of the requirements of the company's AMPP and to fully comply with the provisions of the plan.

5. The company shall be responsible for compliance with all applicable requirements and procedures of 49 CFR Part 40.

6. The company is responsible for all actions of its officials, representatives, and agents (including service agents) in carrying out the requirements of the DOT agency regulations.

7. All agreements and arrangements, written or unwritten, between and among employers and service agents concerning the implementation of DOT drug and alcohol testing requirements are deemed, as a matter of law, to require compliance with all applicable provisions of 49 CFR Part 40 and DOT agency drug and alcohol testing regulations. Compliance with these provisions is a material term of all such agreements and arrangements.

G. Background Check Procedures (§40.25) – The company must check on the drug and alcohol testing records of employees it is intending to use to perform safety-sensitive duties.

1. The company must, after obtaining an employee's written consent, request the information about the employee listed in paragraph 2 of this section. This requirement applies only to employees seeking to begin performing safety-sensitive duties for the company for the first time (i.e., a new hire, an employee transfers into a safety-sensitive position). If the employee refuses to provide this written consent, the company must not permit the employee to perform safety-sensitive functions.

2. The company must request the information listed below from DOT-regulated companies who have employed the employee during any period during the two years before the date of the employee's application or transfer:

   a. Alcohol tests with a result of 0.04 or higher alcohol concentration;

   b. Verified positive drug tests;

   c. Refusals to be tested (including verified adulterated or substituted drug test results);

   d. Other violations of DOT agency drug and alcohol testing regulations; and

   e. With respect to any employee who violated a DOT drug and alcohol regulation, documentation of the employee's successful completion of DOT return-to-duty requirements (including follow-up tests) is required. If the previous company does not have information about the return-do-duty process (e.g., a company who did not hire an employee who tested positive on a pre-employment test), the company must seek to obtain this information from the employee.

3. The information obtained from a previous employer includes any drug or alcohol test information obtained from previous employers under this section or other applicable DOT agency regulations.

4 If feasible, the company must obtain and review this information before the employee first performs safety-sensitive functions. If this is not feasible, the company must obtain and review the information as soon as possible. However, the company must not permit the employee to perform safety-sensitive functions after 30 days from the date on which the employee first performed safety-sensitive functions, unless the company has obtained or made and documented a good faith effort to obtain this information.

5. If the company obtains information that the employee has violated a DOT agency drug and alcohol regulation, the company must not use the employee to perform safety-sensitive functions unless the company also obtains information that the employee has subsequently complied with the return-to-duty requirements of Subpart O of 49 CFR Part 40 and DOT agency drug and alcohol regulations.

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6. The company must provide to each of the employers from whom they request information under paragraph 2 of this section written consent for the release of the information cited in paragraph 1 of this section.

7. The release of information under this section must be in any written form (e.g., fax, e-mail, letter) that ensures confidentiality. The previous company must maintain a written record of the information released, including the date, the party to whom it was released, and a summary of the information provided.

8. The company from whom information is requested under paragraph 2 of this section must, after reviewing the employee's specific, written consent, immediately release the requested information to the company making the inquiry.

9. As the company requesting the information required under this section, the company must maintain a written, confidential record of the information the company obtained or of the good faith efforts the company made to obtain the information. The company must retain this information for three years from the date of the employee's first performance of safety-sensitive duties for the company.

10. The company must also ask the employee whether he or she has tested positive, or refused to test, on any pre-employment drug or alcohol test administered by a company to which the employee applied for, but did not obtain, safety-sensitive transportation work covered by DOT agency drug and alcohol testing rules during the past two years. If the employee admits that he or she had a positive test or a refusal to test, the company must not use the employee to perform safety-sensitive functions for the company, until and unless the employee documents successful completion of the return-to-duty process (see paragraphs 2(e) and 5 of this section).

H. DOT Testing versus Non-DOT Testing Provisions (§40.13).

1. DOT tests must be completely separate from non-DOT tests in all respects.

2. DOT tests must take priority and must be conducted and completed before a non-DOT test is begun.

3. Except as provided in paragraph 4 of this section, the company must not perform any tests on DOT urine or breath specimens other than those specifically authorized by 49 CFR Part 40 or DOT agency regulations.

4. No one is permitted to change or disregard the results of DOT tests based on the results of non-DOT tests. The company must not disregard a verified breath test result because the employee presents a negative breath test result collected by the employee's physician or a DNA test result purporting to question the identity of the DOT specimen.

5. The company must not use the CCF or the ATF in the non-DOT drug and alcohol testing program. This prohibition includes the use of the DOT forms with references to DOT programs and agencies crossed out. The company must always use the CCF and ATF for all DOT-mandated drug and alcohol tests. Non-DOT custody and control forms must be used for all non-DOT drug and alcohol tests.

I. Company's Use of Service Agent for DOT Drug & Alcohol Testing Requirements (§40.15).

1. The company may use a service agent to perform the tasks needed to comply with 49 CFR Part 40 and DOT agency drug and alcohol testing regulations, consistent with the requirements of Roles and Responsibilities of Service Agents Section in this plan and other applicable provisions of 49 CFR Part 40.

2. The company is responsible for ensuring that the service agents used meet the qualifications set forth in 49 CFR Part 40 (e.g., Medical Review Officer requirements). The company may require service agents to show documentation that they meet the requirements of 49 CFR Part 40 (e.g., documentation of MRO qualifications as required in this plan).

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3. The company remains responsible for compliance with all applicable requirements of 49 CFR Part 40 and other DOT drug and alcohol testing regulations, even when using a service agent. If the company violates any part of this plan or other DOT drug and alcohol testing regulations because a service agent has not provided services as 49 CFR Part 40 requires, a DOT agency can subject the company to sanctions. The company's good faith use of a service agent is not a defense in an enforcement action initiated by a DOT agency in which the company's alleged noncompliance with 49 CFR Part 40 or a DOT agency drug and alcohol regulation may have resulted from the service agent's conduct.

4. The company must not permit a service agent to act as the company's Designated Employer Representative (DER).

J. Company's Responsibility For Obtaining Information From Its Service Agents (§40.17).

1. The company is responsible for obtaining information required by 49 CFR Part 40 from the company's service agents. This is required whether or not the company chooses to use a consortium/third party administrator (C/TPA) as an intermediary in transmitting information to the company. An example of this requirement would be an applicant for a safety-sensitive job takes a pre-employment drug test, but there is a significant delay in the company's receipt of the test result from an MRO or C/TPA. The company must not assume that "no news is good news" and permit the applicant to perform safety-sensitive duties before receiving the result. The company would be in violation of the DOT regulations.

II. ROLES AND RESPONSIBILITIES OF SERVICE AGENTS – 49 CFR Part 40 – Subpart Q

A. General Provisions for Service Agents (§40.341).

1. Service agent's compliance with DOT drug and alcohol testing requirements (§ 40.341).

   a. The service agent who provides services to transportation employers must meet the requirements of 49 CFR Part 40 and the DOT agency drug and alcohol testing regulations.

   b. The employer will not use, or no later than 90 days after the *Federal Register* notification by ODAPC will stop using, any service agent who has been issued a Public Interest Exclusions, under 49 CFR part 40, Subpart R, by DOT.

B. Tasks and Functions of Service Agents. (§40.343 – 40.345 – 40.347).

1. Tasks that a service agent may perform for the company (§40.343) – The service agent may perform for the company the tasks needed to comply with DOT agency drug and alcohol testing regulations, subject to the requirements and limitations of this part.

2. Circumstances in which a C/TPA may act as an intermediary in the transmission of drug and alcohol testing information to the company (§40.345).

   a. The C/TPA or other service agent, may act as an intermediary in the transmission of drug and alcohol testing information in the circumstances specified in this section only if the company chooses to have the C/TPA do so. Each company makes the decision about whether to receive some or all of this information from the C/TPA, acting as an intermediary, rather than directly from the service agent who originates the information (e.g., an MRO or BAT).

   b. The specific provisions of 49 CFR Part 40 concerning which services C/TPAs may act as an intermediary are listed in Appendix F to 49 CFR Part 40.

   c. In every case, the C/TPA must ensure that, in transmitting information to the company,

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the C/TPA must meet all requirements (e.g., concerning confidentiality and timing) that would apply if the service agent originating the information (e.g., an MRO or collector) sent the information directly to the company. For example, if the C/TPA transmits drug test results from MROs to DERs, the C/TPA must transmit each drug test result to the DER in compliance with the MRO requirements set forth in §40.167.

3. Functions that C/TPAs may perform with respect to administering testing (§40.347) -The C/TPA, except as otherwise specified in this part, may perform the following functions for the company concerning random selection and other selections for testing.

   a. The C/TPA may operate random testing programs for the company and may assist (i.e., through contracting with laboratories or collection sites, conducting collections) the company with other types of testing (e.g., pre-employment, post-accident, reasonable suspicion, return-to-duty, and follow-up).

   b. The C/TPA may combine employees from more than one company or one transportation industry in a random pool if permitted by all the DOT agency drug and alcohol testing regulations involved.

      (1) If the C/TPA combines employees from more than one transportation industry, the C/TPA must ensure that the random testing rate is at least equal to the highest rate required by each DOT agency.

      (2) Employees not covered by DOT agency regulations may not be part of the same random pool with DOT covered employees.

   c. The C/TPA may assist the company in ensuring that follow-up testing is conducted in accordance with the plan established by the SAP. However, neither the C/TPA nor the company is permitted to randomly select employees from a '' follow-up pool'' for follow-up testing.

C. Record-Keeping Requirements for Service Agents (§40.349).

1. Records that a service agent may receive and maintain (§40.349).

   a. Except where otherwise specified in 49 CFR Part 40 a service agent may receive and maintain all records concerning DOT drug and alcohol testing programs, including positive, negative, and refusal to test individual test results. The C/TPA does not need the employee's consent to receive and maintain these records.

   b. The C/TPA may maintain all information needed for operating a drug/alcohol program (e.g., CCFs, ATFs, names of employees in random pools, random selection lists, copies of notices to the company of selected employees) on behalf of the company.

   c. A service agent originating drug or alcohol testing information, such as an MRO or BAT, sends the information directly to the DER, he or she may also provide the information simultaneously to the C/TPA or other service agent who maintains this information for the company.

   d. If the C/TPA is serving as an intermediary in transmitting information that is required to be provided to the company, the C/TPA must ensure that it reaches the company in the same time periods required elsewhere in this part.

   e. The C/TPA must ensure that he/she can make available to the company within two days any information the company is asked to produce by a DOT agency representative.

   f. At the request of the company, the C/TPA must transfer immediately all records pertaining to the company and its employees to the company or to any other service agent the company designates. The C/TPA must carry out this transfer as soon as the company requests it. The C/TPA is not required to obtain employee consent for this

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transfer. The C/TPA must not charge more than a reasonable administrative cost for conducting this transfer. The C/TPA may not charge a fee for the release of these records.

g. If the C/TPA is planning to go out of business or the organization will be bought by or merged with another organization, the C/TPA must immediately notify all companies and offer to transfer all records pertaining to the company and its employees to the company or to any other service agent the company designates. The C/TPA must carry out this transfer as soon as the company requests it. The C/TPA is not required to obtain employee consent for this transfer. The C/TPA must not charge more than a reasonable administrative cost for conducting this transfer. The C/TPA may not charge a fee for the release of these records.

D. Confidentiality Requirements for Service Agents (§40.351 - §40.353).

1. Confidentiality requirements that apply to service agents (§40.351) – Except where otherwise specified in 49 CFR Part 40 the confidentiality requirements apply to the C/TPA and shall include the following:

   a. When the C/TPA receives or maintains confidential information about employees (e. g., individual test results), the C/TPA must follow the same confidentiality regulations as the company with respect to the use and release of this information.

   b. The C/TPA must follow all confidentiality and records retention requirements applicable to the company.

   c. The C/TPA may not provide individual test results or other confidential information to another company without a specific, written consent from the employee. For example, suppose a C/TPA that has employers X and Y as clients. Employee Jones works for X, and the C/TPA maintains Jones' drug and alcohol test for X. Jones wants to change jobs and work for Y. The C/TPA may not inform Y of the result of a test conducted for X without having a specific, written consent from Jones. Likewise, the C/TPA may not provide this information to employer Z, who is not a C/TPA member, without this consent.

   d. The C/TPA must not use blanket consent forms authorizing the release of employee testing information.

   e. The C/TPA must establish adequate confidentiality and security measures to ensure that confidential employee records are not available to unauthorized persons. This includes protecting the physical security of records, access controls, and computer security measures to safeguard confidential data in electronic databases.

2. Principles that govern the interaction between MROs and other service agents (§40.353) – The service agent other than an MRO (e.g., a C/TPA) is subject to the following principles that govern the interaction with MROs:

   a. The service agent may provide MRO services to the company, directly or through contract, if the service agent meets all applicable provisions of 49 CFR Part 40.

   b. If the service agent employs or contracts for an MRO, the MRO must perform duties independently and confidentially. When the service agent has a relationship with an MRO, the service agent must structure the relationship to ensure that this independence and confidentiality are not compromised. Specific means (including both physical and operational measures, as appropriate) to separate MRO functions and other service agent functions are essential.

   c. Only the service agents staff who are actually under the day-to-day supervision and control of an MRO with respect to MRO functions may perform these functions. This does not mean that those staff may not perform other functions at other times. However, the designation of the service agent's staff to perform MRO functions under MRO supervision must be limited and not used as a subterfuge to circumvent confidentiality and other

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requirements of this part and DOT agency regulations. The service agent must ensure that MRO staff operates under controls sufficient to ensure that the independence and confidentiality of the MRO process are not compromised.

d. Like other MROs, an MRO the service agent employs or contracts with must personally conduct verification interviews with employees and must personally make all verification decisions. Consequently, the service agent staff cannot perform these functions.

E. Service Agent Limitations (§40.355).

1. Limitations that apply to the activities of service agents – The service agent is subject to the following limitations concerning the service agent's activities in the DOT drug and alcohol-testing program.

a. The service agent must not require an employee to sign a consent, release, waiver of liability, or indemnification agreement with respect to any part of the drug or alcohol testing process covered by this part (including, but not limited to, collections, laboratory testing, MRO, and SAP services). No one may do so on behalf of a service agent.

b. The service agent must not act as an intermediary in the transmission of drug test results from the laboratory to the MRO. That is, the laboratory may not send results to the service agent with the service agent in turn sending them to the MRO for verification. For example, a practice in which the laboratory transmits results to the service agent's computer system, and the service agent then assign the results to a particular MRO, is not permitted.

c. The service agent must not transmit drug test results directly from the laboratory to the company (by electronic or other means) or to a service agent who forwards them to the company. All confirmed laboratory results must be processed by the MRO before they are released to any other party.

d. The service agent must not act as an intermediary in the transmission of alcohol test results of 0.02 or higher from the STT or BAT to the DER.

e. Except as provided in paragraph 1.f. of this section, the service agent must not act as an intermediary in the transmission of individual SAP reports to the company. That is, the SAP may not send such reports to the service agent and then in turn send them to the company. However, the service agent may maintain individual SAP summary reports and follow-up testing plans after they are sent to the DER, and the SAP may transmit such reports to the service agent simultaneously with sending them to the DER.

f. As an exception to paragraph 1.e. of this section, the service agent may act as an intermediary in the transmission of SAP report from the SAP to an owner-operator or other self-employed individual.

g. Except as provided in paragraph 1.h. of this section, the service agent must not make decisions to test an employee based upon reasonable suspicion, post-accident, return-to-duty, and follow-up determination criteria. These are duties the company cannot delegate to a C/TPA. The service agent may, however, provide advice and information to the company regarding these testing issues and how the company should schedule required testing.

h. As an exception to paragraph 1.g. of this section, the service agent may make decisions to test an employee based upon reasonable suspicion, post-accident, return-to-duty, and follow-up determination criteria with respect to an owner-operator or other self-employed individual.

i. Except as provided in paragraph 1.j. of this section, the service agent must not make a determination that an employee has refused a drug or alcohol test. This is a non-delegable duty of the company. The service agent may, however, provide advice and information to the company regarding refusal-to-test issues.

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j. As an exception to paragraph 1.i. of this section, the service agent may make a determination that an employee has refused a drug or alcohol test, if:

(1) The service agent schedules a required test for an owner-operator or other self-employed individual, and the individual fails to appear for the test without a legitimate reason; or

(2) The MRO determines that an individual has refused to test on the basis of adulteration or substitution.

k. The service agent must not act as a DER. For example, while the service agent may be responsible for transmitting information to the company about test results, the service agent must not act on behalf of the company in actions to remove employees from safety-sensitive duties.

l. In transmitting documents to laboratories, the service agent must ensure that the service agent sends to the laboratory that conducts testing only the laboratory copy of the CCF. The service agent is not to transmit other copies of the CCF or any ATFs to the laboratory.

m. The service agent must not impose conditions or requirements on the company that DOT regulations do not authorize. For example, as a C/TPA serving companies in the pipeline or motor carrier industry the service agent must not require companies to have provisions in their DOT plans that PHMSA or FMCSA regulations do not require.

n. The service agent must not intentionally delay the transmission of drug or alcohol testing-related documents concerning actions the service agent has performed, because of a payment dispute or other reasons.

Example 1 to Paragraph (1.n.): A laboratory that has tested a specimen must not delay transmitting the documentation of the test result to an MRO because of a billing or payment dispute with the MRO or a C/TPA.

Example 2 to Paragraph (1.n.): An MRO or SAP who has interviewed an employee must not delay sending a verified test result or SAP report to the company because of such a dispute with the company or employee.

Example 3 to Paragraph (1.n.): A collector who has performed a urine specimen collection must not delay sending the drug specimen and CCF to the laboratory because of a payment or other dispute with the laboratory or a C/TPA.

Example 4 to Paragraph (1.n.): A BAT who has conducted an alcohol test must not delay sending test result information to the company or C/TPA because of a payment or other dispute with the company or C/TPA.

o. While the service agent must follow the DOT agency regulations, the company remains accountable to DOT for compliance, and the service agent's failure to implement any aspect of the program as required in this part and other applicable DOT agency regulations makes the company subject to enforcement action by DOT.

III. EMPLOYEE/SUPERVISOR ALCOHOL TESTING REQUIREMENTS

A. Individuals Subject to Alcohol Testing (§199.200).

1. Any applicant/employee who would perform on a pipeline, an operating, maintenance, or emergency response function regulated by Part 192, 193, or 195, would be subject to alcohol testing under this program. A covered employee, employee, or individual to be tested - means any person who performs a covered function, including persons employed by operators, contractors engaged by operators, and persons employed by such contractors.

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2. Refer to Appendix B for specific employee titles/job classifications subject to testing under this program.

B. Procedure for Notifying Employees (§199.202).

1. This AMPP shall be included in the appropriate company manual. Upon receipt of the company's AMPP, each manager shall post the plan in a prominent location that is readily accessible to all covered employees.

2. All covered employees will be provided a complete copy of the AMPP.

C. Criteria For Employee Notification (§199.202).

1. General Criteria. The company shall provide written educational materials explaining the alcohol misuse requirements and the company's policies and procedures on how they will comply with those requirements.

   a. The company will distribute to each covered employee prior to the start of alcohol testing and to each person subsequently hired/transferred to perform covered functions.

   b. The company shall provide written notice to representatives of employee organizations on the availability of this written educational information.

2. Required Information (§199.239). The company shall provide written materials to all covered employees that shall include detailed information and discussion of the following elements:

   a. Name of company representative designated to answer questions for covered employees about the alcohol regulations. See Appendix A.

   b. List of categories of covered employees who are subject to the alcohol regulations. See Appendix B for listing of employee/supervisor job classifications/titles.

   c. Information about covered functions, which provides sufficient guidance on which portions of the workday the covered employee is required to be in compliance with the AMPP.

   d. Information concerning covered employee conduct that specifies what is prohibited by the AMPP.

   e. Circumstances under which a covered employee will be tested for alcohol under the AMPP.

   f. Procedures that cover:

      (1) Testing for presence of alcohol
      (2) Protection of employee rights
      (3) Integrity of breath testing process
      (4) Safeguarding validity of test results
      (5) Assignment of test results to proper employee

   g. Information concerning requirement for covered employee to submit to various types of alcohol tests.

   h. Information which detailing what constitutes a refusal and consequences of such refusal.

   i. Information detailing consequences of covered employees who violate the prohibitions as set forth in the AMPP. It must address removal from performing covered functions and guidance on referral for evaluation and/or treatment.

   j. Information detailing consequences of covered employees who test at an alcohol

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concentration of 0.02 or greater but less than 0.04.

k. Information detailing alcohol misuse and how it impacts on:

(1) Individual's health, work and personal life
(2) Detecting signs and symptoms of alcohol problem
(3) Intervening evaluation and resolving problems associated with alcohol misuse (suspicions, confrontation, referral to EAP and referral to management official)

IV. ALCOHOL TESTS REQUIRED (§199.225).

A. Pre-Employment (Optional) (§199.209).

1. The company may, but is not required to, conduct pre-employment alcohol testing under 49 CFR Part 199. If the company conducts pre-employment alcohol testing the company must:

a. Conduct a pre-employment alcohol test before the first performance of covered functions by every covered employee (whether a new employee or someone who has transferred to a position involving the performance of covered functions);

b. Treat all employees the same for the purpose of pre-employment alcohol testing (i.e., company must not test some covered employees and not others);

c. Conduct the pre-employment tests after making a contingent offer of employment or transfer, subject to the employee passing the pre-employment alcohol test;

d. Conduct all pre-employment alcohol tests using the alcohol testing procedures in the DOT procedures in 49 CFR Part 40; and

e. Not allow any covered employee to begin performing covered functions unless the result of the employee's test indicates an alcohol concentration of less than 0.04.

B. Post-Accident Testing (§199.225 (a)).

1. The company shall promptly determine and test each surviving covered employee for alcohol if that employee's performance contributed to the "accident" or cannot be completely discounted as a contributing factor to the accident. The decision not to administer an alcohol test under this section shall be based on the company's determination, using the best available information at the time of the determination that the employee's performance could not have contributed to the accident.

2. Each employee shall be required to submit to an alcohol test within 2 hours of the accident. If a test is not administered within two hours following the accident the company shall prepare and maintain on file a record stating the reasons why the test was not administered. If a test is not administered within 8 hours following the accident the company shall cease all attempts to conduct an alcohol test and shall prepare and maintain on file written documentation indicating why the alcohol test was not conducted.

3. An employee who is subject to post-accident testing who fails to remain readily available for such testing, including notifying the company or company representative of his/her location if he/she leaves the scene of the accident prior to submission to such test, may be deemed by the company to have refused to submit to testing.

4. The employee must remain available for alcohol testing and may not consume any alcohol for 8 hours following the accident or until the alcohol test has been conducted. Notwithstanding the previous statement, employees shall not be delayed in seeking necessary medical attention for injured people. An employee shall not be prohibited from leaving the scene of an accident for a period of time necessary to obtain assistance in responding to the accident or to obtain necessary medical personnel to administer medical care to any injured people.

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5. The following steps will be used to guide supervisor to a satisfactory outcome in a post-accident situation.

   a. Verify the post-accident decision. Does the definition of accident in Section I apply to the current situation. Does the possibility exist that the employee's performance contributed to the accident or cannot be completely discounted as a factor, which contributed to the accident? Anonymous tips must be taken seriously, but should not be the sole reason to initiate a request for a specimen. If witnesses saw a specific event or behavior, ask them to describe what they saw. How far away were they? Before proceeding further, individual may need to obtain approval from the division manager/department head or designee to proceed with post-accident testing.

   b. Isolate and inform the employee. Remove the employee from the work place. Explain that you have reason to believe his/her performance contributed to the accident or cannot be completely discounted as a contributing factor to the accident and therefore, they will be required to submit to an alcohol test.

   c. Transport the employee. The potentially affected employee should not be allowed to proceed alone to or from the collection site. In addition to the safety concerns for the employee, accompanying the employee also assures that there is no opportunity enroute to the collection site for the employee to ingest anything that could affect the outcome of the alcohol test.

   d. Document the events. Record the activity performed that support the determination to conduct a post-accident alcohol test. This documentation of the employee's activity should be prepared and signed by the supervisor and remain on file. See Appendix E for documentation format if test is not administered within prescribed time frames.

   e. Denial should be an expected reaction. If a person knows he/she will test positive, he/she may give many explanations and protestations, wanting to avoid submission to an alcohol test. If he/she is not under the influence of alcohol, vehement denial also would be expected. Listen to the employee and carefully evaluate the employee's explanation. Remember, a request for an alcohol test is not an accusation; it is merely a request for additional objective data. To the employee it may feel like an accusation; so it is important to stress that this is merely a request for additional data.

   f. Following administration of alcohol test. After returning from the collection site, the employee should not be allowed to return to performing any covered functions pending the results of the alcohol test and any discussion of disciplinary action that may occur.

   g. Employee Responsibility. As soon as practicable following an accident as defined in this plan, the employee shall make every attempt to contact his/her supervisor and the APM.

      (1) The employee will be given instructions for obtaining alcohol and substance abuse testing.

      (2) An employee who is subject to post-accident testing must remain available for testing, or the company may consider the employee to have refused to submit to an alcohol test.

      (3) The employee subject to post-accident testing must refrain from consuming alcohol for eight hours following the accident, or until he or she submits to an alcohol test, whichever comes first.

   h. Company Responsibility.

      (1) Upon receiving a report of an accident the company shall test the employee (if not a fatality) for alcohol and controlled substance as soon as practicable.

      (2) The DER will instruct the employee in obtaining the required drug and alcohol

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test.

C. Reasonable Suspicion Testing (§199.225 (b)).

1. Reasonable suspicion testing is designed to provide management with a tool (in conjunction with supervisor training on the signs and symptoms of alcohol misuse) to identify alcohol-affected employees who may pose a danger to themselves and others in their job performance. Employees may be at work in a condition that raises concern regarding their safety or productivity. Supervisors must then make a decision as to whether there is reasonable suspicion to believe an employee is using or has used alcohol.

2. Supervisor Reasonable Suspicion Determinations:

   a. The company's determination that reasonable suspicion exists to require a covered employee to undergo an alcohol test shall be based on specific, contemporaneous, articulable observations concerning the appearance, behavior, speech, or body odors of the employee. The required observations shall be made by a supervisor who has received at least 60 minutes of training in detecting the symptoms of alcohol misuse.

   b. The supervisor's observation must be made just before, during, or just after the employee is performing a covered function.

   c. The supervisors who makes such a determination that reasonable suspicion exists shall not be authorized to conduct the breath alcohol test on that employee.

3. In making a determination of reasonable suspicion, the factors to be considered include, but are not limited to the following:

   a. Adequately documented pattern of unsatisfactory work performance, for which no apparent non-impairment related reason exists, or a change in an employee's prior pattern of work performance, especially where there is some evidence of alcohol related behavior on or off the work site.

   b. Physical signs and symptoms consistent with alcohol abuse.

   c. Evidence of prohibited alcohol use, possession, sale, or delivery while on duty.

   d. Occurrence of a serious or potentially serious accident that may have been caused by human error, or flagrant violations of established safety, security, or other operational procedures.

   e. The company will direct a covered employee to under go reasonable suspicion testing only while the employee is performing, just before performing or just after ceasing to perform a covered function. The test must be conducted within 2 hours of the reasonable suspicion determination and the company shall continue to attempt for up to 8 hours and then shall cease all attempts to conduct the test.

4. The following steps will be used to guide the supervisor to a satisfactory outcome in a reasonable suspicion situation.

   a. Verify the reasonable suspicion decision. Anonymous tips must be taken seriously, but should not be the sole reason to initiate a request for a specimen. Hearsay is not an acceptable basis for reasonable suspicion referral. If witnesses saw a specific event or behavior, ask them to describe what they saw. How far away were they? How long did they observe the person? What, if anything, caused them to believe it was alcohol related? On what basis did they reach their conclusion? Before proceeding further, obtain concurrence or approval from the manager/department head or designee to proceed with reasonable suspicion alcohol testing.

   b. Isolate and inform the employee. Remove the employee from the work location. Explain that there is reasonable suspicion to believe the employee's performance is being

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affected by alcohol. Ask the employee to explain the suspected behavior and to describe the events that took place from his/her perspective. Ask if there is any medication or physical condition that would explain the behavior. A persuasive explanation may or may not deter you from asking for the employee to submit to an alcohol test. If there is still a reasonable belief that alcohol is a factor in the situation/ incident, a request for testing should be made; if no reasonable belief is determined then no request for testing should be made. If the decision to test is made, inform the employee that they are being requested to accompany the appropriate company official or representative to the specimen collection site to conduct an alcohol test. Inform the employee of the consequences of refusal to submit to alcohol testing.

c. Review your findings. During the conversation, observe physical and mental symptoms. Be sure to document any characteristics that either support or contradict initial information. In all cases, a reasonable suspicion decision to test must be made by a supervisor who has received the required supervisor training. This creates greater objectivity, provides additional observation, and generally strengthens the defensibility of the reasonable cause determination.

d. Transport the employee. The potentially affected employee should not be allowed to proceed alone to or from the collection site. In addition to the safety concerns for the employee, accompanying the employee also assures that there is no opportunity enroute to the collection site for the employee to ingest anything that could affect the alcohol test result.

e. Document the events. Record the behavioral signs and symptoms that support the determination to conduct a reasonable suspicion alcohol test. This documentation (See Appendix D for guidance) of the employee's conduct should be prepared and maintained on file to document the request for reasonable suspicion alcohol testing. See Appendix E for documentation format if test is not administered within prescribed time frames.

f. Denial should be an expected reaction. If a person knows he/she will test positive, he/she may give many explanations and protestations, wanting to avoid alcohol testing. If he/she is not under the influence or affected by alcohol, vehement denial also would be expected. Listen to the employee and carefully evaluate the employee's explanation. Remember, a request to submit to an alcohol test is not an accusation; it is merely a request for additional objective data. To the employee it may feel like an accusation; so it is important to stress that this is merely a request for additional data.

g. Following administration of alcohol test. After returning from the collection site, the employee should not be allowed to return to performing any covered functions if the result of the alcohol test is positive. A discussion of disciplinary action may occur at this time, if necessary. The employee should make arrangements to be transported home. The employee should be instructed not to drive any motor vehicle due to the reasonable suspicion belief that he/she may be under the influence of alcohol. If the employee insists on driving, the proper local enforcement authority may be notified that an employee who the company believes may be under the influence of alcohol is leaving the company premises driving a motor vehicle.

5. The company shall conduct an alcohol test within two hours of a determination to test under reasonable suspicion. If a reasonable suspicion test is not administered within two hours following the determination, the company shall prepare and maintain on file a record stating the reasons why the test was not promptly administered. If the required test is not administered within eight hours of the determination, the company shall cease all attempts to administer an alcohol test and shall state in the record the reasons for not administering the test. Upon request such records shall be made available to the agency administrator or any person who has been delegated authority in the matter concerned.

6. The company shall not permit a covered employee to report for duty or remain on duty requiring the performance of covered functions while the employee is under the influence of or impaired by alcohol, as shown by the behavioral, speech, or performance indicators of alcohol misuse, nor shall the employee be permitted to perform or continue to perform covered functions until:

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a. An alcohol test is administered and the employee's alcohol concentration measures less than 0.02; or

b. The start of the employee's next regularly scheduled duty period, but not less than 8 hours following the determination that there is reasonable suspicion to believe that the employee has violated the prohibitions as contained in the AMPP.

7. Except as provided above, the company shall not take any action under 49 CFR Part 199 against a covered employee based solely on the employee's behavior and appearance in the absence of an alcohol test. However, this does not prohibit the company from taking any disciplinary action otherwise consistent with local and/or state laws.

D. Return-to-Duty Testing (§199.225 (c)).

- **NOTE: A covered employee who refuses to take or has a positive alcohol test will be terminated. Therefore, return-to-duty testing is not an option, unless the employee is otherwise covered by a bargaining agreement.**

1. The company shall ensure that before an employee may return-to-duty to perform covered functions after engaging in prohibited conduct, as set forth in Section VI of this plan, that the employee shall undergo a return-to-duty alcohol test with a result indicating an alcohol concentration of less than 0.02. The company shall not permit an employee who refuses to submit to an alcohol test to perform or continue to perform covered functions.

2. If the substance abuse professional makes a determination that some form of evaluation and/or treatment is required then the employee must comply with the recommended provisions in order to be considered eligible for consideration in being allowed to return-to-duty.

3. To ensure the individual is fit for duty, any employee with a violation of the alcohol testing rule who has been removed from safety-sensitive functions as indicated by a positive alcohol test result of 0.04 must comply with a return to duty alcohol test. This test must occur following a removal from safety-sensitive duties and prior to resuming covered functions. The test result must be below 0.02 in order to resume safety-sensitive duties. Refusal to cooperate will be viewed as insubordination and the employee would be subject to disciplinary action up to and including discharge.

E. Follow-up Testing (§199.225 (d)).

- **NOTE: A covered employee who refuses to take or has a positive alcohol test will be terminated. Therefore, follow-up testing is not an option, unless the employee is otherwise covered by a bargaining agreement.**

1. Following the determination that a covered employee is in need of assistance in resolving problems associated with alcohol misuse, the employee will be subject to unannounced follow-up alcohol testing as directed by a substance abuse professional. An employee who returns to duty shall be subject to a reasonable program of follow-up alcohol testing, without prior notice, for up to 60 months after his or her return to duty.

2. The employee shall be subject to at least six, unannounced alcohol follow-up tests during the first 12-months following his/her return to duty. The substance abuse professional may terminate the requirement for follow-up testing at any time after the initial six tests have been completed, if the substance abuse professional makes the determination that such testing is no longer warranted.

3. The company may require a covered employee to submit to drug follow-up testing when the substance abuse professional has reason to suspect drug involvement. The drug testing must comply with the requirements contained in 49 CFR Part 40, Subpart A. The same procedures would apply should it be determined that an employee had tested positive for drugs and the substance abuse professional had reason to suspect alcohol misuse.

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4. Follow-up testing will only be conducted when the covered employee is performing, just before performing, or just after ceasing to perform covered functions.

F. Stand Down Procedures (§40.21) - The employer may stand down an employee before the MRO has completed the verification by following these procedures.

1. The company is prohibited from standing employees down, except consistent with a waiver a DOT agency grants under 49 CFR Part 40.

2. The company may make a request to the concerned DOT agency for a waiver from the prohibition of the above paragraph in this section. Such a waiver, if granted, permits the company to stand an employee down following the MRO's receipt of a laboratory report of a confirmed positive test for a drug or drug metabolite, an adulterated test, or a substituted test pertaining to the employee.

   a. For this purpose, the concerned DOT agency is the one whose drug and alcohol testing rules apply to the majority of the covered employees in your organization. The concerned DOT agency uses its applicable procedures for considering requests for waivers.

   b. Before taking action on a waiver request, the concerned DOT agency coordinates with other DOT agencies that regulate the company's other covered employees.

   c. The concerned DOT agency provides a written response to each company that petitions for a waiver, setting forth the reasons for the agency's decision on the waiver request.

3. The company request for a waiver must include, at a minimum, the following elements:

   a. Information about the company's organization:

      (1) The company's determination that standing employees down is necessary for safety in the company's organization and a statement of the company's basis for it, including any data on safety problems or incidents that could have been prevented if a stand-down procedure had been in place;

      (2) Data showing the number of confirmed laboratory positive, adulterated, and substituted test results for the company's employees over the two calendar years preceding your waiver request, and the number and percentage of those test results that were verified positive, adulterated, or substituted by the MRO;

      (3) Information about the work situation of the employees subject to stand-down, including a description of the size and organization of the unit(s) in which the employees work, the process through which employees will be informed of the stand-down, whether there is an in-house MRO, and whether your organization has a medical disqualification or stand-down policy for employees in situations other than drug and alcohol testing; and

      (4) A statement of which DOT agencies regulate the company's employees.

   b. The company's proposed written company policy concerning stand-down, which must include the following elements:

      (1) The company's assurance that they will distribute copies of the company's written policy to all employees that it covers;

      (2) The company's means of ensuring that no information about the confirmed positive, adulterated, or substituted test result or the reason for the employee's temporary removal from performance of safety-sensitive functions becomes available, directly or indirectly, to anyone in the company's organization (or subsequently to another company) other than the employee, the MRO and the DER;

      (3) The company's means of ensuring that all covered employees in a particular job

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category in the company's organization are treated the same way with respect to stand-down;

(4) The company's means of ensuring that a covered employee will be subject to stand-down only with respect to the actual performance of safety-sensitive duties;

(5) The company's means of ensuring that the company will not take any action adversely affecting the employee's pay and benefits pending the completion of the MRO's verification process. This includes continuing to pay the employee during the period of the stand-down in the same way you would have paid him or her had he or she not been stood down;

(6) The company's means of ensuring that the verification process will commence no later than the time an employee is temporarily removed from the performance of safety-sensitive functions and that the period of stand-down for any employee will not exceed five days, unless the company is informed in writing by the MRO that a longer period is needed to complete the verification process; and

(7) The company's means of ensuring that, in the event that the MRO verifies the test negative or cancels it --

(a) The company returns the employee immediately to the performance of safety-sensitive duties;

(b) The employee suffers no adverse personnel or financial consequences as a result; and

(c) The company maintains no individually identifiable record that the employee had a confirmed laboratory positive, adulterated, or substituted test result (i.e., the company maintains a record of the test only as a negative or cancelled test).

4. The Administrator of the concerned DOT agency, or his or her designee, may grant a waiver request only if he or she determines that, in the context of the company's organization, there is a high probability that the procedures the company proposes will effectively enhance safety and protect the interests of employees in fairness and confidentiality.

a. The Administrator, or his or her designee, may impose any conditions he or she deems appropriate on the grant of a waiver.

b. The Administrator, or his or her designee, may immediately suspend or revoke the waiver if he or she determines that the company has failed to protect effectively the interests of employees in fairness and confidentiality, that the company has failed to comply with the requirements of this section, or that the company has failed to comply with any other conditions the DOT agency has attached to the waiver.

5. The company must not stand employees down in the absence of a waiver, or inconsistent with the terms of the waiver. The company shall be in violation of 49 CFR Part 40 and DOT agency drug testing regulations, and the company is subject to enforcement action by the DOT agency just as the company is for other violations of this 49 CFR Part 40 and DOT agency rules.

G. Provisions Governing Retesting of Covered Employee (§199.237).

1. A covered employee tested and found to have an alcohol concentration of 0.02 or greater but less than 0.04 shall not be permitted to perform or continue to perform covered functions until:

a. The employee's alcohol concentration measures less than 0.02 in another alcohol test administered in compliance with this plan; or

b. The start of the employee's next regularly scheduled duty period, but not less than eight

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hours following administration of the alcohol test.

2. Except as provided above, the company shall not take any action under 49 CFR Part 199 against a covered employee based solely on test results showing an alcohol concentration less than 0.04. However, this does not prohibit the company from taking any disciplinary action otherwise consistent with local and/or state law.

V. SUBSTANCE ABUSE PROFESSIONALS AND THE RETURN-TO-DUTY PROCESS – 49 CFR PART 40 – SUBPART O

A. SAP Evaluation (§40.281).

1. Qualifications to act as a SAP **-** To be permitted to act as a SAP in the DOT alcohol and drug-testing program, the SAP must meet each of the requirements of this section:

   a. SAP Credentials. The SAP must have one of the following credentials:

      (1) A licensed physician (Doctor of Medicine or Osteopathy);
      (2) A licensed or certified social worker;
      (3) A licensed or certified psychologist;
      (4) A licensed or certified employee assistance professional;
      (5) A state-licensed or certified marriage and family therapist; or
      (6) A drug and alcohol counselor certified by the National Association of Alcoholism and Drug Abuse Counselors Certification Commission (NAADAC); or by the International Certification Reciprocity Consortium/Alcohol and Other Drug Abuse (ICRC); or by the National Board for Certified Counselors, Inc. and Affiliates/Master Addictions Counselor (NBCC).

   b. SAP Basic Knowledge. The SAP must be knowledgeable in the following areas:

      (1) The SAP must be knowledgeable about and have clinical experience in the diagnosis and treatment of alcohol and controlled substances-related disorders.

      (2) The SAP must be knowledgeable about the SAP function as it relates to company interests in safety-sensitive duties.

      (3) The SAP must be knowledgeable about this part, the DOT agency regulations applicable to the companies for whom the SAP evaluates employees, and the DOT SAP Guidelines, and the SAP must keep current on any changes to these materials.

   c. SAP Qualification Training. The SAP must receive qualification training meeting the requirements of this paragraph.

      (1) Qualification training must provide instruction on the following subjects:

         (a) Background, rationale, and coverage of the Department's drug and alcohol testing program;
         (b) 49 CFR Part 40 and DOT agency drug and alcohol testing rules;
         (c) Key DOT drug testing requirements, including collections, laboratory testing, MRO review, and problems in drug testing;
         (d) Key DOT alcohol testing requirements, including the testing process, the role of BATs and STTs, and problems in alcohol tests;
         (e) SAP qualifications and prohibitions;
         (f) The role of the SAP in the return-to- duty process, including the initial employee evaluation, referrals for education and/ or treatment, the follow-up evaluation, continuing treatment recommendations, and the follow-up testing plan;
         (g) SAP consultation and communication with companies, MROs, and treatment providers;

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(h) Reporting and record-keeping requirements;
(i) Issues that SAPs confront in carrying out their duties under the program.

(2) Following the SAP completion of qualification training under paragraph 1.c.(1) of this section, the SAP must satisfactorily complete an examination administered by a nationally recognized professional or training organization. The examination must comprehensively cover all the elements of qualification training listed in paragraph 1.c.(1) of this section.

(3) The following is the schedule for qualification training the SAP must meet:

(a) If the individual became a SAP before August 1, 2001, the SAP must meet the qualifications training requirement no later than December 31, 2003.

(b) If the individual becomes a SAP between August 1, 2001, and December 31, 2003, the SAP must meet the qualification training requirements no later than December 31, 2003.

(c) If the individual becomes a SAP on or after January 1, 2004, the SAP must meet the qualification training requirements before the SAP begins to perform SAP functions.

(4) SAP Continuing Education. During each three-year period from the date on which the SAP satisfactorily complete the examination under paragraph 1.c.(2) of this section, the SAP must complete continuing education consisting of at least 12 professional development hours (e.*g.* ,CEUs) relevant to performing SAP functions.

(a) This continuing education must include material concerning new technologies, interpretations, recent guidance, rule changes, and other information about developments in SAP practice, pertaining to the DOT program, since the time the SAP met the qualification training requirements of this section.

(b) The SAP continuing education activities must include documentable assessment tools to assist the SAP in determining whether the SAP has adequately learned the material.

(5) SAP Documentation. The SAP must maintain documentation showing that he/she currently meet all requirements of this section. The SAP must provide this documentation on request to DOT agency representatives and to the company and C/TPAs who are using or contemplating using the SAPs services.

2. Criteria for a certification organization to obtain recognition for its members as SAPs (§40.283).

a. If the SAP represents a certification organization that wants DOT to authorize its certified drug and alcohol counselors to be added to §40.281(a)(6), the SAP may submit a written petition to DOT requesting a review of the SAPs petition for inclusion.

b. The SAP must obtain the National Commission for Certifying Agencies (NCCA) accreditation before DOT will act on the SAPs petition.

c. The SAP must also meet the minimum requirements of 49 CFR Part 40, Appendix E before DOT will act on the SAPs petition.

B. SAP Requirements (§40.285 - §40.289).

1. Requirements for conducting a SAP evaluation.

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a. When an employee violates the DOT drug and alcohol regulations the employee cannot again perform any DOT safety-sensitive duties for the company until and unless the employee has completed the SAP evaluation, referral, and education/ treatment process set forth in this subpart and in applicable DOT agency regulations. The first step in this process is a SAP evaluation.

b. A verified positive DOT drug test result, a DOT alcohol test with a result indicating an alcohol concentration of 0.04 or greater, a refusal to test (including by adulterating or substituting a urine specimen) or any other violation of the prohibition on the use of alcohol or drugs under a DOT agency regulation constitutes a DOT drug and alcohol regulation violation.

2. Information the company is required to provide concerning SAP services to an employee who has a DOT drug and alcohol regulation violation (§40.287).

a. The company must provide to each employee (including an applicant or new employee) who violates a DOT drug and alcohol regulation a listing of SAPs readily available to the employee and acceptable to the company, with names, addresses, and telephone numbers. The company cannot charge the employee any fee for compiling or providing this list.

b. The company may provide this list or through a C/TPA or other service agent.

3. Company requirements regarding SAP evaluation and treatment services to employees (§ 40.289).

a. The company is not required to provide a SAP evaluation or any subsequent recommended education or treatment for an employee who has violated a DOT drug and alcohol regulation.

b. However, if the company offers the employee an opportunity to return to a DOT safety-sensitive duty following a violation, the company must, before the employee again performs that duty, ensure that the employee receives an evaluation by a SAP meeting the requirements of § 40.281 and that the employee successfully complies with the SAP's evaluation recommendations.

c. Payment for SAP evaluations and services is left for the company and employees to decide and may be governed by existing management-labor agreements and health care benefits.

C. SAP Evaluation, Referral, and Treatment (§40.291 - §40.297).

1. The role of the SAP in the evaluation, referral, and treatment process of an employee who has violated DOT agency drug and alcohol testing regulations.

a. The SAP is charged with:

(1) Making a face-to-face clinical assessment and evaluation to determine what assistance is needed by the employee to resolve problems associated with alcohol and/ or drug use;

(2) Referring the employee to an appropriate education and/ or treatment program;

(3) Conducting a face-to-face follow-up evaluation to determine if the employee has actively participated in the education and/or treatment program and has demonstrated successful compliance with the initial assessment and evaluation recommendations;

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(4) Providing the DER with a follow-up drug and/or alcohol testing plan for the employee; and

(5) Providing the employee and company with recommendations for continuing education and/or treatment.

b. The SAP is not an advocate for the company or employee. The SAP function is to protect the public interest in safety by professionally evaluating the employee and recommending appropriate education/ treatment, follow-up tests, and aftercare.

2. The SAP's functions in conducting the initial evaluation of an employee (§ 40.293) – The SAP must for every employee who comes to the SAP following a DOT drug and alcohol regulation violation the SAP must accomplish the following:

a. Provide a comprehensive face-to-face assessment and clinical evaluation.

b. Recommend a course of education and/or treatment with which the employee must demonstrate successful compliance prior to returning to DOT safety-sensitive duty.

(1) The SAP must make such a recommendation for every individual who has violated a DOT drug and alcohol regulation.

(2) The SAP must make a recommendation for education and/ or treatment that will, to the greatest extent possible, protect public safety in the event that the employee returns to the performance of safety-sensitive functions.

c. Appropriate education may include, but is not limited to, self-help groups (e.*g.,* Alcoholics Anonymous) and community lectures, where attendance can be independently verified, and bona fide drug and alcohol education courses.

d. Appropriate treatment may include, but is not limited to, in-patient hospitalization, partial in-patient treatment, outpatient counseling programs, and aftercare.

e. The SAP must provide a written report directly to the DER highlighting the specific recommendations for assistance (see §40.311(c)).

f. For purposes of the evaluation process, the SAP must assume that a verified positive test result has conclusively established that the employee committed a DOT drug and alcohol regulation violation. The SAP must not take into consideration in any way, as a factor in determining what the recommendation will be, any of the following:

(1) A claim by the employee that the test was unjustified or inaccurate;

(2) Statements by the employee that attempt to mitigate the seriousness of a violation of a DOT drug or alcohol regulation (e. *g.,* related to assertions of use of hemp oil, " medical marijuana" use, " contact positives, " poppy seed ingestion, job stress); or

(3) Personal opinions the SAP may have about the justification or rationale for drug and alcohol testing.

g. In the course of gathering information for purposes of the evaluation in the case of a drug-related violation, the SAP may consult with the MRO. The MRO is required to cooperate with the SAP and provide available information the SAP requests. It is not necessary to obtain the consent of the employee to provide this information.

3. Criteria for employees or the company to seek a second SAP evaluation if they disagree with the first SAP's recommendations (§40.295).

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a. The employee with a DOT drug and alcohol regulation violation having been evaluated by a SAP must not seek a second SAPs evaluation in order to obtain another recommendation.

b. The company must not seek a second SAPs evaluation, if the employee has already been evaluated by a qualified SAP. If the employee, contrary to paragraph (a) of this section, has obtained a second SAP evaluation the company may not rely on it for any purpose under this part.

4. Authority to change a SAP's initial evaluation (§40.297).

a. Except as provided in paragraph 4.b. of this section, no one (e. *g.,* the company, employee, a managed-care provider, any service agent) may change in any way the SAPs evaluation or recommendations for assistance. For example, a third party is not permitted to make more or less stringent a SAPs recommendation by changing the SAPs evaluation or seeking another SAPs evaluation.

b. The SAP who made the initial evaluation may modify his or her initial evaluation and recommendations based on new or additional information (e. *g.,* from an education or treatment program).

D. SAP's Role and Limitations (§40.299). - Requirements of SAP's role and the limits on a SAP's discretion in referring employees for education and treatment

1. The SAP upon making a determination of the best recommendation for assistance, the SAP will serve as a referral source to assist the employee's entry into a education and/ or treatment program.

2. To prevent the appearance of a conflict of interest the SAP must not refer an employee requiring assistance to the SAPs private practice or to a person or organization from which the SAP receives payment or to a person or organization in which the SAP has a financial interest. The SAP is precluded from making referrals to entities with which the SAP is financially associated.

3. There are four exceptions to the prohibitions contained in paragraph (b) of this section. The SAP may refer an employee to any of the following providers of assistance, regardless of the company's relationship with them:

a. A public agency (e.*g.,* treatment facility) operated by a state, county, or municipality;

b. The company or a person or organization under contract to the company to provide alcohol or drug treatment and/or education services (e.*g.,* the employer's contracted treatment provider);

c. The sole source of therapeutically appropriate treatment under the employee's health insurance program (e.*g.,* the single substance abuse in-patient treatment program made available by the employee's insurance coverage plan); or

d. The sole source of therapeutically appropriate treatment reasonably available to the employee (e.*g.,* the only treatment facility or education program reasonably located within the general commuting area).

E. SAP Functions in Evaluation, Treatment, and Aftercare or Support Group Services (§40.301 - §40.303).

1. The SAP's functions in the follow-up evaluation of an employee.

a. The SAP, once the prescribed assistance under §40.293 is complete, must re-evaluate the employee to determine if the employee has successfully carried out the SAP's education and/or treatment recommendations.

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(1) This is the SAP's way to gauge for the company the employee's ability to demonstrate successful compliance with the education and/ or treatment plan.

(2) The SAP evaluation may serve as one of the reasons the company decides to return the employee to safety-sensitive duty.

b. The SAP must make the follow-up evaluation determination:

(1) The SAP must confer with or obtain appropriate documentation from the appropriate education and/or treatment program professionals where the employee was referred; and

(2) The SAP must conduct a face-to-face clinical interview with the employee to determine if the employee demonstrates successful compliance with the initial evaluation recommendations.

c. SAP requirements:

(1) If the employee has demonstrated successful compliance, the SAP must provide a written report directly to the DER highlighting the clinical determination that the employee has done complied with the initial evaluation recommendation (see §40.311(d)).

(2) The SAP may determine that an employee has successfully demonstrated compliance even though the employee has not yet completed the full regimen of education and/ or treatment recommended or needs additional assistance. For example, if the employee has successfully completed the 30-day in-patient program prescribed, the SAP may make a "successful compliance" determination even though the SAP concludes that the employee has not yet completed the outpatient counseling you recommended or should continue in an aftercare program.

d. SAP Determinations:

(1) The SAP, as a result of the follow-up evaluation finds, that the employee has not demonstrated successful compliance with recommendations must provide written notice directly to the DER (see §40.311(e)).

(2) The company who receives the SAP's written notice that the employee has not successfully complied with the SAP's recommendations must not return the employee to the performance of safety-sensitive duties.

(3) The SAP may conduct additional follow-up evaluation(s) if the company determines that doing so is consistent with the employee's progress as the SAP has reported it and with the company's policy and/ or labor-management agreements.

(4) The company, following a SAP report that the employee has not demonstrated successful compliance, may take personnel action consistent with company policy and/ or labor-management agreements.

2. Criteria to be followed if the SAP believes the employee needs additional treatment, aftercare, or support group services even after the employee returns to safety-sensitive duties (§ 40.303).

a. The SAP may believe that ongoing services (in addition to follow-up tests) are needed to assist an employee to maintain sobriety or abstinence from drug use after the employee resumes the performance of safety-sensitive duties, the SAP must provide recommendations for these services in the follow-up evaluation report (see §40.311(d)(10)).

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b. The company receiving a recommendation for these services from a SAP may as part of a return-to-duty agreement with the employee, require the employee to participate in the recommended services. The company may monitor and document the employee's participation in the recommended services. The company may also make use of SAP and employee assistance program (EAP) services in assisting and monitoring employees' compliance with SAP recommendations. Nothing in this section permits the company to fail to carry out its obligations with respect to follow-up testing (See §40.309).

c. The employee has an obligation to comply with the SAP's recommendations for these services. If the employee fails or refuses to do so, the employee may be subject to disciplinary action by the company.

F. Completion of the Return-to-Duty Process (§40.305).

1. If the company must decide that the employee is permitted to return to the performance of safety-sensitive functions the employee takes a return-to-duty test. This test cannot occur until after the SAP has determined that the employee has successfully complied with prescribed education and/or treatment. The employee must have a negative drug test result and/ or an alcohol test with an alcohol concentration of less than 0.02 before resuming performance of safety-sensitive duties.

2. The company must not return an employee to safety-sensitive duties until the employee meets the conditions of paragraph 1. above. However, the company is not required to return an employee to safety-sensitive duties because the employee has met these conditions. That is a personnel decision that the company has the discretion to make, subject to collective bargaining agreements or other legal requirements.

3. The SAP or MRO must not make a " fitness for duty" determination as part of this re-evaluation unless required to do so under an applicable DOT agency regulation. It is the company, rather than the SAP or MRO who must decide whether to put the employee back to work in a safety-sensitive position.

G. SAP's Functions in Prescribing the Employee's Follow-up Tests (§40.307).

1. The SAP for each employee who has committed a DOT drug or alcohol regulation violation, and who seeks to resume the performance of safety-sensitive functions, must establish a written follow-up testing plan. The SAP does not establish this plan until after it has been determined that the employee has successfully complied with the recommendations for education and/or treatment.

2. The SAP must present a copy of this plan directly to the DER (see §40.311(d)(9)).

3. The SAP is the sole determiner of the number and frequency of follow-up tests and whether these tests will be for drugs, alcohol, or both, unless otherwise directed by the appropriate DOT agency regulation. For example, if the employee had a positive drug test, but the evaluation or the treatment program professionals determined that the employee had an alcohol problem as well the SAP should require that the employee have follow-up tests for both drugs and alcohol.

4. However, the SAP must, at a minimum, direct that the employee be subject to six unannounced follow-up tests in the first 12 months of safety-sensitive duty following the employee's return to safety-sensitive functions.

   a. The SAP may require a greater number of follow-up tests during the first 12-month period of safety-sensitive duty (e.*g. the SAP* may require one test a month during the 12-month period; the SAP may require two tests per month during the first 6-month period and one test per month during the final 6-month period).

   b. The SAP may also require follow-up tests during the 48 months of safety-sensitive duty following this first 12-month period.

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c. The SAP is not to establish the actual dates for the follow-up tests the SAP prescribes. The decision on specific dates to test is the company's.

d. The company must not impose additional testing requirements (e.*g.,* under company authority) on the employee that go beyond the SAP's follow-up testing plan.

e. The requirements of the SAP's follow-up testing plan " follow the employee" to subsequent employers or through breaks in service.

Example 1 to Paragraph e: The employee returns to duty with Employer A. Two months afterward, after completing the first two of six follow-up tests required by the SAP's plan, the employee quits his job with Employer A and begins to work in a similar position for Employer B. The employee remains obligated to complete the four additional tests during the next 10 months of safety-sensitive duty, and Employer B is responsible for ensuring that the employee does so. Employer B learns of this obligation through the inquiry it makes under § 40.25.

Example 2 to Paragraph e: The employee returns to duty with Employer A. Three months later, after the employee completes the first two of six follow-up tests required by the SAP's plan, Employer A lays the employee off for economic or seasonal employment reasons. Four months later, Employer A recalls the employee. Employer A must ensure that the employee completes the remaining four follow-up tests during the next nine months.

f. The SAP may modify the determinations the SAP has made concerning follow-up tests. For example, even if the SAP recommended follow-up testing beyond the first 12-months the SAP can terminate the testing requirement at any time after the first year of testing. The SAP must not, however, modify the requirement that the employee take at least six follow-up tests within the first 12 months after returning to the performance of safety-sensitive functions.

H. Company's Responsibilities on SAP's Directions for Follow-up Tests (§40.309).

1. The company must carry out the SAP's follow-up testing requirements. The company may not allow the employee to continue to perform safety-sensitive functions unless follow-up testing is conducted as directed by the SAP.

2. The company should schedule follow-up tests on dates of their own choosing, but the company must ensure that the tests are unannounced with no discernable pattern as to their timing, and that the employee is given no advance notice.

3. The company cannot substitute any other tests (e.*g.,* those carried out under the random testing program) conducted on the employee for this follow-up testing requirement.

4. The company cannot count a follow-up test that has been cancelled as a completed test. A cancelled follow-up test must be recollected.

I. Requirements of SAP's Reports (§40.311).

1. The SAP conducting the required evaluations must send the written reports required by this section in writing directly to the DER and not to a third party or entity for forwarding to the DER (except as provided in §40.355(e)). The SAP may, however, forward the document simultaneously to the DER and to a C/TPA.

2. The SAP must ensure that the company receives written reports directly from the SAP performing the evaluation and that no third party or entity changed the SAP's report in any way.

3. The SAP's written report, following an initial evaluation that determines what level of assistance is needed to address the employee's drug and/ or alcohol problems, must be on the SAP's own letterhead (and not the letterhead of another service agent) signed and dated by the SAP, and must contain the following delineated items:

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a. Employee's name and SSN;
b. Employer's name and address;
c. Reason for the assessment (specific violation of DOT regulations and violation date);
d. Date(s) of the assessment;
e. SAP's education and/ or treatment recommendation; and
f. SAP's telephone number.

4. The SAP's written report concerning a follow-up evaluation that determines the employee has demonstrated successful compliance must be on the SAP's own letterhead (and not the letterhead of another service agent), signed by the SAP and dated, and must contain the following items:

a. Employee's name and SSN;
b. Employer's name and address;
c. Reason for the initial assessment (specific violation of DOT regulations and violation date);
d. Date(s) of the initial assessment and synopsis of the treatment plan;
e. Name of practice(s) or service(s) providing the recommended education and/or treatment;
f. Inclusive dates of employee's program participation;
g. Clinical characterization of employee's program participation;
h. SAP's clinical determination as to whether the employee has demonstrated successful compliance;
i. Follow-up testing plan;
j. Employee's continuing care needs with specific treatment, aftercare, and/or support group services recommendations; and
k. SAP's telephone number.

5. The SAP's written report concerning a follow-up evaluation that determines the employee has not demonstrated successful compliance must be on the SAP's own letterhead (and not the letterhead of another service agent), signed by the SAP and dated, and must contain the following items:

a. Employee's name and SSN;
b. Employer's name and address;
c. Reason for the initial assessment (specific DOT violation and date);
d. Date(s) of initial assessment and synopsis of treatment plan;
e. Name of practice(s) or service(s) providing the recommended education and/ or treatment;
f. Inclusive dates of employee's program participation;
g. Clinical characterization of employee's program participation;
h. Date(s) of the first follow-up evaluation;
i. Date(s) of any further follow-up evaluation the SAP has scheduled;
j. SAP's clinical reasons for determining that the employee has not demonstrated successful compliance; and
k. SAP's telephone number.

6. The SAP must also provide these written reports directly to the employee if the employee has no current employer and to the gaining DOT regulated employer in the event the employee obtains another transportation industry safety-sensitive position.

7. The SAP is to maintain copies of the employer's reports to employers for 5 years, and the employer's employee clinical records in accordance with Federal, state, and local laws regarding record maintenance, confidentiality, and release of information. The SAP must make these records available, on request, to DOT agency representatives (e. *g.,* inspectors conducting an audit or safety investigation) and representatives of the NTSB in an accident investigation.

8. The company must maintain the reports from SAP's for 5 years from the date the company receives the reports.

J. Additional Information on SAP Functions and Return-to-duty Process (§40.313).

Other information on the role and functions of SAP's is located in the following sections of 49 CFR Part 40.

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§ 40.3 - Definition.
§ 40.347 - Service agent assistance with SAP-required follow-up testing.
§ 40.355 - Transmission of SAP reports.
§ 40.329(c) - Making SAP reports available to employees on request.
Appendix E to Part 40-SAP Equivalency Requirements for Certification Organizations.

VI. ALCOHOL PROHIBITED CONDUCT (§199.215 – §199.221)

A. General. The company shall provide guidance to all covered employees regarding the various types of alcohol-prohibited conducts.

B. Alcohol Concentration (§199.215 & §40.23).

When the company receives an alcohol test result of 0.04 or higher, the company must immediately remove the employee involved from performing safety-sensitive functions. If the company receives an alcohol test result of 0.02 – 0.039, the company must temporarily remove the employee involved from performing safety-sensitive functions, as provided in applicable DOT agency regulations. Do not wait to receive the written report of the result of the test.

A covered employee shall be prohibited from reporting for duty or remaining on duty requiring the performance of covered functions while having an alcohol concentration of 0.04 or greater. If a company representative has actual knowledge that a covered employee has an alcohol concentration of 0.04 or greater, the employee shall not be permitted to perform or continue to perform covered functions.

C. On-Duty Use (§199.217). The company shall prohibit a covered employee from using alcohol while performing covered functions. If a company representative has actual knowledge that a covered employee is using alcohol while performing covered functions, the employee shall not be permitted to perform or continue to perform covered functions.

D. Pre-Duty Use (§199.219). The company shall prohibit a covered employee from using alcohol within four hours prior to performing covered functions, or, if an employee is called to duty to respond to an emergency, within the time period after the employee has been notified to report for duty, the employee shall not be permitted to perform or continue to perform covered functions.

E. Use Following an Accident (§199.221). Each company shall prohibit a covered employee who has actual knowledge of an accident in which his or her performance of covered functions has not been discounted by the company as a contributing factor to the accident from using alcohol for eight hours following an accident, unless he or she has been given a post-accident test under (§199.225(a)), or the company has determined that the employee's performance could not have contributed to the accident.

F. On-Call Employees.

1. Employees who are not at work, but who could be called at any time to perform covered functions is subject to the pre-duty alcohol prohibition. An employee, who has been notified to report for duty to respond to an emergency, may not use alcohol after being notified to report. If company personnel determine that an employee has used alcohol within the time period after the employee has been notified to report for duty, the company shall not permit the covered employee to perform or continue to perform covered functions.

2. **Employees who are not at work, but who could be called out are expected to be fit for duty upon reporting for work. If an employee is under the influence of alcohol, the employee must notify company personnel when contacted. Failure to advise the company of alcohol consumption may result in disciplinary action. If a covered employee is perceived to be under the influence of alcohol when reporting to work after being called in, the employees supervisor must be notified.**

3. **The supervisor must objectively observe the employee's behavior and if possible,**

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substantiate the behavior with a second supervisor. Supervisors must have received training in alcohol and/or substance abuse detection. The supervisor must follow procedures outlined in the AMPP. If a determination to test for reasonable suspicion is made, the employee is immediately removed from safety-sensitive duties and the alcohol program manager is contacted. An alcohol test site location is identified to conduct the test. The supervisor will accompany the individual to the test site and remain at the location for results of the test. If the results are positive, the individual is removed from safety-sensitive duties and may be subject to disciplinary action up to and including termination.

VII. PROBLEMS ASSOCIATED WITH ALCOHOL TESTING (49 CFR PART 40 – SUBPART N)

A. Refusal Criteria and Consequences (§40.261) - Criteria for refusal to take an alcohol test and the consequences.

1. The employee is considered to have refused to take an alcohol test if he/she

   a. Fail to appear for any test (except a pre-employment test) within a reasonable time, as determined by the company, consistent with applicable DOT agency regulations, after being directed to do so by the company. This includes the failure of an employee (including an owner-operator) to appear for a test when called by C/TPA (see §40.241(b)(1));

   b. Fail to remain at the testing site until the testing process is complete; Provided, that an employee who leaves the testing site before the testing process commences (see Section 40.243(a)) for a pre-employment test is not deemed to have refused to test;

   c. Fail to attempt to provide an adequate amount of saliva or breath for any alcohol test required by this part or DOT Agency regulations; provided, that an employee who does not provide an adequate amount of breath or saliva because he or she has left the testing site before the testing process commences (See Section 40.243(a)) for a pre-employment test is not deemed to have refused to test;

   d. Fail to provide a sufficient breath specimen, and the physician has determined, through a required medical evaluation, that there was no adequate medical explanation for the failure (See §40.265(c));

   e. Fail to undergo a medical examination or evaluation, as directed by the company as part of the insufficient breath procedures outlined at §40.265(c);

   f. Fail to sign the certification at Step 2 of the ATF (see §40.241(g) and §40.251(d));

   g. Fail to cooperate with any part of the testing process.

2. Any employee who refuses to take an alcohol test will incur the same consequences specified under DOT agency regulations for a violation of those DOT agency regulations.

3. As a BAT or an STT, or as the physician evaluating a " shy lung" situation, when an employee refuses to test as provided in paragraph 1. of this section, the collector must terminate the portion of the testing process in which they are involved, document the refusal on the ATF (or in a separate document which should be attached to the form), immediately notify the DER by any means (e. *g.,* telephone or secure fax machine) that ensures the refusal notification is immediately received. The collector must make this notification directly to the DER (not using a C/TPA as an intermediary).

4. An employee who refuses to take a non-DOT test or to sign a non-DOT form, has not refused to take a DOT test. There are no consequences under DOT agency regulations for such a refusal.

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B. Consequences for Inability to Provide Sufficient Saliva for Alcohol Test (§40.263) - Consequences for an employee who is unable to provide a sufficient amount of saliva for an alcohol screening test.

1. The STT must take the following steps if an employee is unable to provide sufficient saliva to complete a test on a saliva screening device (e.*g.,* the employee does not provide sufficient saliva to activate the device). §40.265.

    a. The STT must conduct a new screening test using a new screening device.

    b. If the employee refuses to make the attempt to complete the new test, the STT must discontinue testing, note the fact on the " Remarks" line of the ATF, and immediately notify the DER. This is a refusal to test.

    c. If the employee has not provided a sufficient amount of saliva to complete the new test, the STT must note the fact on the " Remarks" line of the ATF and immediately notify the DER.

2. The DER, when the STT informs the DER that the employee has not provided a sufficient amount of saliva (see paragraph (a)(3) of this section), the DER must immediately arrange to administer an alcohol test to the employee using an EBT or other breath testing device.

C. Criteria for Inability to Provide Sufficient Breath for Alcohol Test (§40.265) - Criteria for an employee who is unable to provide a sufficient amount of breathe for an alcohol test.

1. If an employee does not provide a sufficient amount of breath to permit a valid breath test, the BAT must take the steps listed in this section.

2. The BAT must instruct the employee to attempt again to provide a sufficient amount of breath and about the proper way to do so.

    a. If the employee refuses to make the attempt the BAT must discontinue the test, note the fact on the " Remarks" line of the ATF, and immediately notify the DER. This is a refusal to test.

    b. If the employee again attempts and fails to provide a sufficient amount of breath, the BAT may provide another opportunity to the employee to do so if they believe that there is a strong likelihood that it could result in providing a sufficient amount of breath.

    c. When the employee's attempts under paragraph C.2.b. of this section have failed to produce a sufficient amount of breath, the BAT must note the fact on the " Remarks" line of the ATF and immediately notify the DER.

    d. If the BAT is using an EBT that has the capability of operating manually, he/she may attempt to conduct the test in manual mode.

    e. If the collector is qualified to use an saliva ASD and the collector is in the screening test stage, the collector may change to a saliva ASD only to complete the screening test.

3. The company shall when notified by the BAT that the employee has not provided a sufficient amount of breath, the BAT must direct the employee to obtain, within five days, an evaluation from a licensed physician who is acceptable to the company and the physician has expertise in the medical issues raised by the employee's failure to provide a sufficient specimen.

    a. The company is required to provide the physician who will conduct the evaluation with the following information and instructions:

        (1) That the employee was required to take a DOT breath alcohol test, but was unable to provide a sufficient amount of breath to complete the test;

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(2) The consequences of the appropriate DOT agency regulation for refusing to take the required alcohol test;

(3) That the physician must provide the company with a signed statement of his or her conclusions; and

(4) That the physician, in his or her reasonable medical judgment, must base those conclusions on one of the following determinations:

(a) A medical condition has, or with a high degree of probability could have, precluded the employee from providing a sufficient amount of breath. The physician must not include in the signed statement detailed information on the employee's medical condition. In this case, the test is cancelled.

(b) There is not an adequate basis for determining that a medical condition has, or with a high degree of probability could have, precluded the employee from providing a sufficient amount of breath. This constitutes a refusal to test.

(c) For purposes of paragraphs C.3.a.(4)(a) and (b) of this section, a medical condition includes an ascertainable physiological condition (e.*g.,* a respiratory system dysfunction) or a medically documented pre-existing psychological disorder, but does not include unsupported assertions of " situational anxiety" or hyperventilation.

b. The physician who makes evaluation must provide a written statement of his/her conclusions and the basis for them to the DER directly (and not through a C/TPA acting as an intermediary). The physician must not include in this statement detailed information on the employee's medical condition beyond what is necessary to explain his/her conclusion.

c. Upon receipt of the report from the examining physician the DER must immediately inform the employee and take appropriate action based upon the appropriate DOT agency regulations.

D. Problems Associated with Cancelled Alcohol Tests (§40.267).

1. The company, a BAT, or an STT, must cancel an alcohol test if any of the following problems occur. These are " fatal flaws. " He/she must inform the DER that the test was cancelled and must be treated as if the test never occurred. These problems are:

a. In the case of a screening test conducted on an saliva ASD or a breath tube ASD:

(1) The STT or BAT reads the result either sooner than or later than the time allotted by the manufacturer and 49 CFR 40 – Section §40.245(a)(8)) for the saliva ASD and Section §40.245(b)(8)) for the breath tube ASD.

(2) The saliva ASD does not activate (See §40.245(a)(7)); or

(3) The device is used for a test after the expiration date printed on the device or on its package (See §40.245(a)(1)) for the saliva ASD and (See §40.245(b)(1)) for the breath tube ASD.

b. In the case of a screening or confirmation test conducted on an EBT, the sequential test number or alcohol concentration displayed on the EBT is not the same as the sequential test number or alcohol concentration on the printed result (See § 40.253(c), (e) and (f)).

c. In the case of a confirmation test:

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(1) The BAT conducts the confirmation test before the end of the minimum 15-minute waiting period (See §40.251(a)(1));

(2) The BAT does not conduct an air blank before the confirmation test (See §40.253(a));

(3) There is not a 0.00 result on the air blank conducted before the confirmation test (See §40.253(a)(1) and (2));

(4) The EBT does not print the result (see §40.253(f)); or

(5) The next external calibration check of the EBT produces a result that differs by more than the tolerance stated in the QAP from the known value of the test standard. In this case, every result of 0.02 or above obtained on the EBT since the last valid external calibration check is cancelled (See §40.233(1)(a) and (3)(c)).

E. Problems Associated with Cancelled Test & Corrective Action (§40.269) - Problems that cause an alcohol test to be cancelled unless they are corrected.

1. The BAT or STT, or company must cancel an alcohol test if any of the following problems occur, unless they are corrected. These are " correctable flaws. " These problems are:

   a. The BAT or STT does not sign the ATF (See §40.247(a)(1) and 40.255(a)(1)).

   b. The BAT or STT fails to note on the " Remarks" line of the ATF that the employee has not signed the ATF after the result is obtained (See §40.255(a)(3)).

   c. The BAT or STT uses a non-DOT form for the test (See §40.225(a)).

F. Correction of Alcohol Testing Problems (§40.271).

1. The BAT or STT has the responsibility of trying to complete successfully an alcohol test for each employee.

   a. If, during or shortly after the testing process the collector becomes aware of any event that will cause the test to be cancelled (See §40.267) they must try to correct the problem promptly, if practicable. They may repeat the testing process as part of this effort.

   b. If repeating the testing process is necessary the collector must begin a new test as soon as possible. They must use a new ATF, a new sequential test number, and, if needed, a new ASD and/ or a new EBT. It is permissible to use additional technical capabilities of the EBT (e.*g.,* manual operation) if they have been trained to do so in accordance with §40.213(c).

   c. If repeating the testing process is necessary, the collector is not limited in the number of attempts to complete the test, provided that the employee is making a good faith effort to comply with the testing process.

   d. If another testing device is not available for the new test at the testing site, the collector must immediately notify the DER and advise the DER that the test could not be completed. As the DER who receives this information, you must make all reasonable efforts to ensure that the test is conducted at another testing site as soon as possible.

2. If the STT, BAT, company or other service agent administering the testing process becomes aware of a “correctable flaw” (see § 40.269) that has not already been corrected, they must take all practicable action to correct the problem so that the test is not cancelled.

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a. If the problem resulted from the omission of required information, the BAT or STT is responsible for providing the missing information in writing with a signed statement that it is true and accurate. For example, suppose a BAT or STT forgot to make a notation on the " Remarks" line of the ATF that the employee did not sign the certification. The BAT or STT, when the problem is called to his/her attention, must supply a signed statement that the employee failed or refused to sign the certification after the result was obtained, and that the collector's signed statement is true and accurate.

b. If the problem is the use of a non-DOT form, the BAT or STT must, as the person responsible for the use of the incorrect form, certify in writing that the incorrect form contains all the information needed for a valid DOT alcohol test. The BAT or STT must also provide a signed statement that the incorrect form was used inadvertently or as the only means of conducting a test, in circumstances beyond the BAT or STT control, and the steps taken to prevent future use of non-DOT forms for DOT tests. The BAT or STT must supply this information on the same business day on which notified of the problem, transmitting it by fax or courier.

3. If the BAT or STT cannot correct the problem they must cancel the test.

G. Effects of a Cancelled Alcohol Test (§40.273).

1. A cancelled alcohol test is neither positive nor negative.

   a. The company must not attach to a cancelled test the consequences of a test result that is 0.02 or greater (e.*g.,* removal from a safety-sensitive position).

   b. The company must not use a cancelled test in a situation where an employee needs a test result that is below 0.02 (e.g.*,* in the case of a return-to-duty or follow-up test to authorize the employee to perform safety-sensitive functions).

   c. The company must not direct a recollection for an employee because a test has been cancelled, except in the situations cited in paragraph 1.b. of this section or other provisions of this part.

2. A cancelled test does not count toward compliance with DOT requirements, such as a minimum random testing rate.

3. When a test must be cancelled the BAT, STT, or other person who determines that the cancellation is necessary he/she must inform the affected DER within 48 hours of the cancellation.

4. A cancelled DOT test does not provide a valid basis for the company to conduct a non-DOT test (i.*e.,* a test under company authority).

H. Effects of Procedural Problems that are not Sufficient to Cancel an Alcohol Test (§40.275).

1. The STT, BAT, company, or a service agent administering the testing process must document any errors in the testing process even if they are not " fatal flaws" or " correctable flaws" listed in this subpart. Decisions about the ultimate impact of these errors will be determined by administrative or legal proceedings, subject to the limitation of paragraph 2. of this section.

2. No person concerned with the testing process may declare a test cancelled based on a mistake in the process that does not have a significant adverse effect on the right of the employee to a fair and accurate test. For example, it is inconsistent with this part to cancel a test based on a minor administrative mistake (e.*g.,* the omission of the employee's middle initial) or an error that does not affect employee protections under this part. Nor does the failure of an employee to sign in Step 4 of the ATF result in the cancellation of the test. Nor is a test to be cancelled on the basis of a claim by an employee that he or she was improperly selected for testing.

3. When the company notes these errors, even though not sufficient to cancel an alcohol test result, the company may be subject to enforcement action under DOT agency regulations.

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I. Criteria for Acceptable Alcohol Tests (§40.277) - Alcohol tests other than saliva or breath are not permitted under these regulations.

1. No other types of alcohol tests (e,*g.,* blood and urine) are authorized for testing done in conjunction with 49 CFR Part 40.

2. Only saliva or breath for screening tests and breath for confirmation tests using approved devices are permitted under 49 CFR Part 40.

VIII. EMPLOYEE WHO REFUSES ALCOHOL TEST (§199.223).

A. General.

1. Compliance with this AMPP is a condition of employment.

2. Each company shall require a covered employee to submit to a post-accident, reasonable suspicion, or follow-up alcohol test. No company shall permit a covered employee who refuses to submit to such a test to perform or continue to perform any covered functions.

B. Additional Requirements.

1. **The company may impose additional disciplinary actions, as they deem appropriate. This may include removal from performing covered functions, suspension (with or without pay), and even termination. Some examples of various types of disciplinary action are outlined in Section IX.**

IX. DISCIPLINARY ACTIONS (§199.243)

A. General.

1. A covered employee who has an alcohol test administered and the alcohol concentration is greater than 0.02 shall not be permitted to perform covered functions or not allowed to continue to perform covered functions. An employee who engages in prohibited conduct as outlined in the AMPP shall be advised of available resources to evaluate and resolve problems associated with alcohol misuse.

2. Removal from Covered Function (§199.233). Except as provided in sections 199.239 through 199.243, the company shall not permit any covered employee to perform covered functions if the employee has engaged in conduct prohibited by sections 199.215 through 199.223 or an alcohol misuse rule of another DOT agency.

3. Required Evaluation and Testing (§199.235). The company shall not permit a covered employee who has engaged in conduct prohibited by sections 199.215 through 199.223 to perform covered functions unless the employee has met the requirements of section 199.243 of this plan.

B. Required Referrals and Evaluations (§199.243).

1. The company shall ensure that employees who engage in prohibited conduct are made aware of potential resources to assist in the evaluation of their problems and to help resolve any problems associated with the misuse of alcohol. Employees who engage in prohibited conduct must be referred to a substance abuse professional for evaluation and/or treatment.

2. No covered employee who has violated the rules on alcohol misuse or refuses to submit to testing can perform any covered function unless and until that employee has:

   a. Been evaluated by a SAP to determine whether the employee is in need of assistance in resolving problems related to alcohol use.

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b. Completed any treatment recommended by the SAP.

c. Been evaluated by a SAP to ensure that the employee has properly followed the treatment program.

d. **Entered into a company approved evaluation and/or treatment and/or rehabilitation program and successfully completed the treatment and/or program**.

e. Undergone a return-to-duty alcohol test with resulting alcohol concentration of less than 0.02.

f. Been advised of the follow-up testing provisions as specified in section III of this plan.

C. Evaluation, Treatment and Rehabilitation (§199.243).

1. A Substance Abuse Professional (SAP) is a licensed physician (medical doctor or doctor of osteopathy) or a licensed or certified psychologist, certified social worker, licensed or certified employee assistance professional, state-licensed or certified marriage and family therapist, or a drug and alcohol counselor certified by the National Association of Drug Abuse Counselors Commission (NAADAC) or by the International Certification Reciprocity Consortium/Alcohol and Other Drug Abuse (ICRC); or by the National Board for Certified Counselors, Inc. and Affiliates/Master Addictions Counselor (NBCC) with knowledge about and have clinical experience in the diagnosis and treatment of alcohol and controlled substances-related disorders.

2. The company shall not permit an employee to return to duty requiring the performance of a covered function after engaging in conduct prohibited in Section VI of this plan until the employee has undergone a return-to-duty alcohol test with a result indicating an alcohol concentration of less than 0.02.

3. The company shall ensure that a SAP who determines that a covered employee requires assistance in resolving problems associated with alcohol misuse does not refer the employee to the SAP's private practice or to a person or organization from which the SAP receives remuneration or has a financial interest. This does not prohibit a SAP from referring an employee for assistance to a public agency (State, county, or municipality); a person under contract with the company to provide treatment for alcohol on behalf of the company; the sole source of therapeutic treatment under the employee's health insurance policy; or sole source of therapeutic treatment reasonably accessible to the employee.

4. The employee's evaluation and rehabilitation may be provided by the company, a SAP under contract; or a SAP not affiliated with the company.

D. Levels of Disciplinary Actions. Disciplinary action as set forth below will be taken under each of the described circumstances

1. 0.02 - 0.039 Consequences.

a. When the results of an alcohol (screen/confirmation) test indicate an alcohol concentration of 0.02 or greater, but less than 0.04, the employee will be removed immediately from performing the covered function for the remainder of his/her shift and may be subject to loss of pay for that period of time.

b. When an employee has an alcohol (screen/confirmation) test conducted and the alcohol concentration is 0.02 or greater, but less than 0.04, on a second test, the employee will be removed immediately from performing the covered function and shall be suspended. The employee shall be referred to a substance abuse professional and must follow all the recommendations following completion of the assessment. Any subsequent test at 0.02 or greater will result in disciplinary action up to and including termination from the company.

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c. **When the results of another alcohol (screen/confirmation) test indicate alcohol concentration 0.02 or greater, but less than 0.04 after an alcohol test which had produced an alcohol concentration of 0.04 or greater, then that employee will be removed immediately from performing the covered function. The employee shall be suspended and referred to the substance abuse professional and must follow all the recommendations following completion of the assessment. Any subsequent alcohol concentration 0.02 or greater will result in disciplinary action up to and including termination from the company.**

2. 0.04 or Greater Consequences.

a. **When an employee has tested for alcohol in a concentration of 0.04 or greater, the employee will be removed from performing the covered function and shall be suspended. The employee shall be referred to a substance abuse professional that shall determine what assistance, if any, the employee needs in resolving problems associated with alcohol misuse**.

b. **In all cases when an employee tests at an alcohol concentration of 0.04 or greater after an alcohol test which had on a previous occasion produced an alcohol concentration of 0.04 or greater, then the employee shall be removed immediately from performing the covered function. The employee shall be subject to disciplinary action up to and including immediate termination.**

3. Other Alcohol Consequences.

a. **When an employee refuses to report for assessment, evaluation, and/or referral for treatment with a substance abuse professional he/she will be removed immediately from performing the covered function and will be subject to disciplinary action up to and including termination**.

b. **When an employee, after assessment, is referred for rehabilitation and/or treatment and the employee refuses to enter or successfully complete such a rehabilitation and/or treatment assessment program, he/she will be removed immediately from performing the covered function and subject to disciplinary action up to and including termination.**

c. **An employee who refuses to provide an adequate breath for alcohol testing without a valid medical explanation after he/she has received notice of the requirement to be tested in accordance with the requirements of the AMPP, or who engages in conduct that clearly obstructs the testing procedure will be removed immediately from performing the covered function. The employee will be subject to disciplinary action up to and including termination from the company**.

d. **On duty use or possession of alcohol on company time, on company premises, or in company vehicles will result in immediate removal from performing the covered function. The employee will be subject to disciplinary action up to and including termination from the company**.

X. DISCLOSURE OF ALCOHOL INFORMATION / RECORDS (§199.231)

A. General.

1. The company, or the authorized agent, shall maintain all alcohol related testing information including all test results and other appropriate records in a secure manner to prevent the disclosure of such information to unauthorized personnel.

2. The APM/DER shall maintain a locked file system, which will contain the alcohol testing

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information and records. The APM/DER shall provide all records whenever deemed necessary for inspection by any authorized agency or operator. The files shall be maintained as confidential. Employee files shall be handled on strict "need to know" basis.

3. Alcohol test results shall not be included in personnel files.

4. The company may disclose information without employee's consent as provided by DOT procedures 49 CFR Part 40 concerning certain legal proceedings.

B. Disclosure Provisions.

1. The company shall not release covered employee information that is contained in records as required to be maintained by the provisions of the AMPP and in accordance with federal requirements except as required by law or when expressly authorized or required by 49 CFR Parts 199 and 40.

2. A covered employee is entitled, upon written request, to obtain copies of any records pertaining to the employee's use of alcohol, including any records pertaining to his/her alcohol tests. The company shall promptly provide the requested records. Access to an employee's records shall not be contingent upon payment for records other than those specifically requested.

3. The company shall permit access to all facilities utilized in complying with the requirements of 49 CFR Parts 199 and 40 to the Secretary of Transportation or any DOT or state agency with regulatory authority over the company.

4. The company shall make available copies of all results for alcohol testing conducted under the AMPP as required by 49 CFR Parts 199 and 40 when requested by the Secretary of Transportation or any DOT or state agency with regulatory authority over the company. When specified by the agency the information shall include name-specific alcohol test results, records, and reports.

5. When requested by the National Transportation Safety Board as part of an accident investigation, the company shall disclose information related to its administration of any post-accident alcohol tests administered following the accident under investigation.

6. The company shall make records available to a subsequent employer upon receipt of the written request from the covered employee. Disclosure by the subsequent employer is permitted only as expressly authorized by the terms of the employee's written request.

7. The company may disclose required information pertaining to a covered employee to the employee or the decision maker in a lawsuit, grievance, or other proceeding initiated by or on behalf of the individual, and arising from the results of an alcohol test administered as required by the AMPP and the regulations set forth in 49 CFR Parts 199 and 40 or from the company's determination that the covered employee engaged in prohibited alcohol conduct including, but not limited to, a worker's compensation, unemployment compensation, or other proceeding relating to a benefit sought by the employee.

8. The company shall release information regarding a covered employee's records as directed by the specific, written consent of the employee authorizing release of the information to an identified person. Release of such information by the person receiving the information is permitted only in accordance with the terms of the employee's consent.

C. Drug and Alcohol Testing Information C/TPAs May Transmit to the Company.

1. The C/TPA may, acting as an intermediary, transmit the information in the following sections of 49 CFR Part 40 to the DER for the company, if the company chooses to do so. These are the only items that the C/TPA is permitted to transmit to the company as an intermediary. The use of C/TPA intermediaries is prohibited in all other cases, such as transmission of laboratory drug test results to MROs, the transmission of medical information from MROs to the company, the transmission of

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SAP reports to the company, the transmission of positive alcohol test results, and the transmission of medical information from MROs to the company.

2. In every case, the C/TPA must ensure that, in transmitting the information, the C/TPA meets all requirements (e.g., concerning confidentiality and timing) that would apply if the party originating the information (e.g., an MRO or collector) sent the information directly to the company. For example, if the C/TPA transmitted MROs' drug testing results to DERs, the C/TPA must transmit each drug test result to the DER in compliance with the requirements for MROs set forth in §40.167.

3. Drug Testing Information

Sec. 40.25: Previous two years' test results
Sec. 40.35: Notice to collectors of contact information for DER
Sec. 40.61(a): Notification to DER that an employee is a ``no show'' for a drug test
Sec. 40.63(e): Notification to DER of a collection under direct observation
Sec. 40.65(b)(6) and (7) and (c)(2) and (3): Notification to DER of a refusal to provide a specimen or an insufficient specimen
Sec. 40.73(a)(9): Transmission of CCF copies to DER (However, MRO copy of CCF must be sent by collector directly to the MRO, not through the C/TPA.)
Sec. 40.111(a): Transmission of laboratory statistical report to the company
Sec. 40.127(f): Report of test results to DER
Secs. 40.127(g), 40.129(d); 40.159(a)(4)(ii); 40.161(b): Reports to DER that test is cancelled
Sec. 40.129 (d): Report of test results to DER
Sec. 40.129(g)(1): Report to DER of confirmed positive test in stand-down situation
Secs. 40.149(b): Report to DER of changed test result
Sec. 40.155(a): Report to DER of dilute specimen
Sec. 40.167(b) and (c): Reports of test results to DER
Sec. 40.187(a)-(f) Reports to DER concerning the reconfirmation of tests
Sec. 40.191(d): Notice to DER concerning refusals to test
Sec. 40.193(b)(3): Notification to DER of refusal in shy bladder situation
Sec. 40.193(b)(4): Notification to DER of insufficient specimen
Sec. 40.193(b)(5): Transmission of CCF copies to DER (not to MRO)
Sec. 40.199: Report to DER of cancelled test and direction to DER for additional collection
Sec. 40.201: Report to DER of cancelled test

4. Alcohol testing information

§40.215: Notice to BATs and STTs of contact information for DER
§40.241(b)(1): Notification to DER that an employee is a "no show" for an alcohol test
§40.247(a)(2): Transmission of alcohol screening test results only when the test result is less than 0.02
§40.255(a)(4): Transmission of alcohol confirmation test results only when the test result is less than 0.02
§40.263(a)(3) and 263(b)(3): Notification of insufficient saliva and failure to provide sufficient amount of breath

XI. CONFIDENTIALITY AND RELEASE OF INFORMATION - PART 40 - SUBPART P

A. General Confidentiality Requirements (§40.321 - §40.323).

1. General confidentiality rules for drug and alcohol test information - Except as otherwise provided in this subpart the service agent or company participating in the DOT drug or alcohol testing process is prohibited from releasing individual test results or medical information about an employee to third parties without the employee's specific written consent.

   a. A " third party" is any person or organization to whom other subparts of this regulation do not explicitly authorize or require the transmission of information in the course of the drug or alcohol testing process.

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b. "Specific written consent" means a statement signed by the employee that he or she agrees to the release of a particular piece of information to a particular, explicitly identified, person or organization at a particular time. " Blanket releases, " in which an employee agrees to a release of a category of information (e.g., all test results) or to release information to a category of parties (e.g., other employers who are members of a C/TPA, companies to which the employee may apply for employment), are prohibited under this part.

2. Criteria for program participant's release of drug or alcohol test information in connection with legal proceedings (§40.323).

a. The company may release information pertaining to an employee's drug or alcohol test without the employee's consent in certain legal proceedings.

(1) These proceedings include a lawsuit (e.g., a wrongful discharge action), grievance (e.g., an arbitration concerning disciplinary action taken by the company), or administrative proceeding (e. g., an unemployment compensation hearing) brought by, or on behalf of, an employee and resulting from a positive DOT drug or alcohol test or a refusal to test (including, but not limited to, adulterated or substituted test results).

(2) These proceedings also include a criminal or civil action resulting from an employee's performance of safety-sensitive duties, in which a court of competent jurisdiction determines that the drug or alcohol test information sought is relevant to the case and issues an order directing the company to produce the information. For example, in personal injury litigation following a truck or bus collision, the court could determine that a post-accident drug test result of an employee is relevant to determining whether the driver or the driver's employer was negligent. The company is authorized to respond to the court's order to produce the records.

b. The company may release the information to the decision-maker in the proceeding (e. g., the court in a lawsuit). The company may release the information only with a binding stipulation that the decision-maker to whom it is released will make it available only to parties to the proceeding.

c. If a service agent receives a company request for its employee's drug or alcohol-testing information from the service agent to use in a legal proceeding as authorized in paragraph 1.a. of this section (e.g., the laboratory's data package) the service agent must provide the requested information to the company.

d. The company or service agent must immediately notify the employee in writing of any information the company releases under this section.

B. Release of Medical Information in Verification Process (§40.327).

1. MRO procedures regarding release of medical information gathered in the verification process

a. The MRO must, except as provided in paragraph 1.c of this section, report drug test results and medical information learned as part of the verification process to third parties without the employee's consent if the MRO determines in their reasonable medical judgment, that:

(1) The information is likely to result in the employee being determined to be medically unqualified under an applicable DOT agency regulation; or

(2) The information indicates that continued performance by the employee of his or her safety-sensitive function is likely to pose a significant safety risk.

b. The third parties to whom the MRO is authorized to provide information by this section

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include the company, a physician or other health care provider responsible for determining the medical qualifications of the employee under an applicable DOT agency safety regulation, a SAP evaluating the employee as part of the return to duty process (See § 40.293(g)), a DOT agency, or the National Transportation Safety Board in the course of an accident investigation.

c. If the law of a foreign country (e.g., Canada) prohibits the MRO from providing medical information to the company, the MRO may comply with that prohibition.

C. Release of Information to Employees & Other Parties (§40.329 - §40.331).

1. Information that laboratories, MROs, and other service agents must release to employees

   a. The MRO or service agent must provide, within 10 business days of receiving a written request from an employee, copies of any records pertaining to the employee's use of alcohol and/ or drugs, including records of the employee's DOT-mandated drug and/ or alcohol tests. The MRO or service agent may charge no more than the cost of preparation and reproduction for copies of these records.

   b. The laboratory must provide, within 10 business days of receiving a written request from an employee, and made through the MRO, the records relating to the results of the employee's drug test (i.e., laboratory report and data package). The laboratory may charge no more than the cost of preparation and reproduction for copies of these records.

   c. The SAP must make available to an employee, on request, a copy of all SAP reports (See § 40.311). However, the SAP must redact follow-up testing information before providing it to the employee.

2. Additional parties that the company and service agent must release information (§40.331) - The company or service agent must release information under the following circumstances:

   a. If the company or service agent receives a specific written consent from an employee authorizing the release of information about that employee's drug or alcohol tests to an identified person, the company or service agent must provide the information to the identified person. For example, as an company, when you receive a written request from a former employee to provide information to a subsequent company the company or service agent must do so. In providing the information the company or service agent must comply with the terms of the employee's consent.

   b. The company must, upon request of DOT agency representatives must provide the following:

      (1) Access to your facilities used for this part and DOT agency drug and alcohol program functions.

      (2) All written, printed, and computer-based drug and alcohol program records and reports (including copies of name-specific records or reports), files, materials, data, documents/documentation, agreements, contracts, policies, and statements that are required by 49 CFR part 40 and DOT agency regulations. The company must provide this information at the company's principal place of business in the time required by the DOT agency.

      (3) All items in paragraph 2.b.(2) of this section must be easily accessible, legible, and provided in an organized manner. If electronic records do not meet these standards, they must be converted to printed documentation that meets these standards.

   c. The service agent must, upon request of DOT agency representatives, provide the following:

      (1) Access to the service agent's facilities used for 49 CFR Part 40 and all DOT

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agency drug and alcohol program functions.

(2) All written, printed, and computer-based drug and alcohol program records and reports (including copies of name-specific records or reports), files, materials, data, documents/documentation, agreements, contracts, policies, and statements that are required by 49 CFR Part 40 and DOT agency regulations. The company must provide this information at the company's principal place of business in the time required by the DOT agency.

(3) All items in paragraph 2.c.(2) of this section must be easily accessible, legible, and provided in an organized manner. If electronic records do not meet these standards, they must be converted to printed documentation that meets these standards.

d. If requested by the National Transportation Safety Board as part of an accident investigation the service agent must provide information concerning post-accident tests administered after the accident.

e. If requested by a Federal, state or local safety agency with regulatory authority over the company or service agent or the employee, company or service agent must provide drug and alcohol test records concerning the employee.

f. Except as otherwise provided in 49 CFR Part 40, the laboratory must not release or provide a specimen or a part of a specimen to a requesting party, without first obtaining written consent from ODAPC. If a party seeks a court order directing the release of a specimen or part of a specimen contrary to any provision of 49 CFR Part 40 the laboratory must take necessary legal steps to contest the issuance of the order (e.g., seek to quash a subpoena, citing the requirements of §40.13. The requirement of 49 CFR Part 40 does not require the laboratory to disobey a court order, however.

g. Notwithstanding any other provision of Part 40, as an employer of Commercial Motor Vehicle (CMV) drivers holding commercial driving licenses (CDLs) or as a third-party administrator for owner-operator CMV drivers with CDLs, you are authorized to comply with State laws requiring you to provide to State CDL licensing authorities information about all violations of DOT drug and alcohol testing rules (including positive tests and refusals) by any CMV driver holding a CDL.

D. Record-Keeping Requirements for the Company (§199.227).

1. Records that are maintained by the company (§40.333).

a. The company must keep the following records for the following periods of time:

(1) The company must keep the following records for five years:

(a) Records of employee alcohol test results indicating an alcohol concentration of 0.02 or greater;

(b) Records of employee verified positive drug test results;

(c) Documentation of refusals to take required alcohol and/ or drug tests (including substituted or adulterated drug test results);

(d) SAP reports; and

(e) All follow-up tests and schedules for follow-up tests.

(f) All Management Information System (MIS) Annual reports.

(2) The company must keep records for three years of information obtained from previous employers under § 40.25 concerning drug and alcohol test results of

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employees.

(3) The company must keep records related to the collection process (except calibration of evidential breath testing devices) and training for a minimum of two years.

(4) The company must keep records of negative and cancelled drug test results and alcohol test results with a concentration of less than 0.02 for one year.

b. The company does not have to keep records related to a program requirement that does not apply to the company (e.g., a maritime company who does not have a DOT-mandated random alcohol testing program need not maintain random alcohol testing records).

c. The company must maintain the records in a location with controlled access.

d. A service agent may maintain these records for the company. However, the service agent must ensure that the service agent can produce these records at the company's principal place of business in the time required by the DOT agency. For example, as a motor carrier, when an FMCSA inspector requests your records the company must ensure that the service agent can provide them within two working days.

e. If the company stores records electronically, where permitted by 49 CFR Part 40, the company must ensure that the records are easily accessible, legible, and formatted and stored in an organized manner. If electronic records do not meet these criteria, the company must convert them to printed documentation in a rapid and readily auditable manner, at the request of the DOT agency.

XII. EMPLOYEE ASSISTANCE PROGRAM (EAP) (§199.241)

A. Scope of Program.

1. The EAP will provide education and training materials on alcohol misuse to all covered employees. The materials should include:

   a. Informational material displayed on bulletin boards, employee break rooms, locker rooms, etc. and distributed to employees.

   b. A community service hot-line telephone number for employees to obtain assistance regarding alcohol misuse should be displayed on bulletin boards and distributed to covered employees.

   c. Distribution of company's policy regarding alcohol misuse to all new employees. The policy should be displayed in prominent places throughout the company.

2. Each covered employee shall receive a copy of the information specified in section III- C. The employee should acknowledge receipt of this information.

3. The informational materials should address:

   a. The effects of alcohol misuse on the individual's health, work, and personal life.

   b. The signs and symptoms of an alcohol problem for an employee or co-worker.

   c. Procedures for intervening evaluations and assistance in resolving problems associated with the misuse of alcohol.

   d. Procedures for intervening when an alcohol problem is suspected, including confrontation and referral to management for assistance.

4. The company may provide optional information and provisions concerning the following:

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a. Company policies with respect to the use or possession of alcohol.
b. Consequences for an employee who is found to have a prohibited alcohol level, based on the company's authority independent of Part 199 requirements.
c. Any additional policies or consequences shall be clearly identified or described as being based on the company authority.

B. Supervisor Training (§199.241).

1. Supervisory personnel responsible for those employees covered under Part 199 and 40 will receive training under the alcohol misuse prevention plan.

2. The training shall include at least *one 60-minute period of training* on the physical, behavioral, speech, and performance indicators of probable alcohol misuse.

3. The supervisory alcohol training materials should address the specific, contemporaneous, articulable observations concerning the appearance, behavior, speech, and body odors of the employee who may be subjected to reasonable suspicion alcohol testing. It shall also address the physical and performance indicators of probable alcohol misuse.

4. The required reasonable suspicion observations shall be made by a company supervisor who is trained in detecting the symptoms of alcohol misuse.

XIII. RECORD-KEEPING PROCEDURES (§199.227)

A. General.

1. The company APM or designee shall maintain the alcohol testing records in accordance with the provisions set out in the AMPP. The APM shall maintain all records under lock and key for the company.

2. Records shall be maintained for the specified periods of time as required in 49 CFR Parts 199 and 49 CFR Part 40.

B. Record Retention Provisions.

1. The following types of records shall be maintained for a minimum period of five years.

   a. Records of employee alcohol test results with results indicating an alcohol concentration of 0.02 or greater.
   b. Documentation of refusals to take required alcohol tests.
   c. Calibration documentation of each EBT used in alcohol testing, including records of the results of external calibration checks.
   d. Employee referrals and evaluations.
   e. MIS annual alcohol misuse report data.
   f. Documentation pertaining to any missed tests (Example of Form in Appendix E - a post-accident or reasonable suspicion test that could not be conducted within the prescribed time frame).

2. The following types of records shall be maintained for a minimum period of two years.

   a. Records related to the collection process (except calibration of EBT devices)
   b. Records related to training.
   c. Records of the inspection and maintenance of each EBT used in employee testing.
   d. Documentation of the company's compliance with the QAP for each EBT it uses for alcohol testing under the AMPP.
   e. Records of the training and proficiency testing of each BAT/STT used in employee testing.
   f. Log books used in conjunction with EBTs.

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3. Records of all test results below 0.02 shall be maintained for a minimum period of one year.

C. Maintenance of Specific Types of Records.

1. The following types of records related to the collection process shall be maintained:

   a. Collection log books, if used.
   b. Calibration documentation for EBT devices.
   c. Documentation of BAT/STT training.
   d. Documents generated in connection with decisions to administer reasonable suspicion alcohol tests.
   e. Documents generated in connection with decisions to administer post-accident alcohol tests.
   f. Documents verifying existence of a medical explanation of the inability of a covered employee to provide adequate breath for alcohol testing.

2. The following types of records related to test results:

   a. Company's copy of the alcohol test form, including the test results.
   b. Documents related to the refusal of any covered employee to submit to a required alcohol test.
   c. Documents presented by a covered employee to dispute the result of an alcohol test administered under the AMPP.

3. Records related to other violations of Part 199 as outlined in the AMPP.

4. The following types of records related to referrals and evaluations:

   a. Records pertaining to a determination by a SAP concerning a covered employee's need for assistance.

   b. Records concerning a covered employee's compliance with the recommendations of the SAP.

5. The following types of records related to education and training of employees and supervisors:

   a. Materials on alcohol misuse awareness, including a copy of the company's policy on alcohol misuse.

   b. Documentation of compliance with the requirements for access to all company facilities and records.

   c. Documentation of training provided to supervisors for the purposes of qualifying the supervisors to make a determination concerning the need for alcohol testing based on reasonable suspicion.

   d. Certification that any training conducted under the AMPP compliance with the requirements of 40 CFR Part 199 and 40.

D. Management Information System (MIS) Requirements (§199.229).

a. Each large pipeline operator (having more than 50 covered employees) shall submit an annual MIS report to PHMSA of its anti-drug testing using the Management Information System (MIS) form and instructions as required by 49 CFR Part 40 (at 40.25 and Appendix H to Part 40), not later than March 15 of each year for the prior calendar year (January 1 through December 31). The Administrator shall require by written notice that small operators (50 or fewer covered employees) not otherwise required to submit annual MIS reports to prepare and submit such reports to PHMSA.

b. Each report, required under this section shall be submitted to the Office of Pipeline Safety, Pipeline Hazardous Materials and Safety Administration (PHMSA). The operators may submit a

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paper report or data electronically using the version of the MIS form provided by DOT.

c. As a company, you may use a service agent (e.g., C/TPA) to perform random selections for your company; and your covered employees may be part of a larger random testing pool of covered employees. However, you must ensure that the service agent you use is testing at the appropriate percentage established for the industry and that only covered employees are in the random testing pool.

d. Each operator that has a covered employee who performs multi-DOT agency functions (e.g., an employee performs pipeline maintenance duties and drives a commercial motor vehicle), count the employee only on the MIS report for the DOT agency under which he or she is randomly tested. Normally, this will be the DOT agency under which the employee performs more than 50% of his or her duties. Operators may have to explain the testing data for these employees in the event of a DOT agency inspection or audit.

e. A service agent (e.g., Consortia/Third Party Administrator as defined in 49 CFR Part 40) may prepare the MIS report on behalf of the operator. However, each report shall be certified by the operator's anti-drug manager or designated representative for accuracy and completeness.

f. Specific pipeline covered employees information will be maintained to include the following elements:

- Company name, address, name of certifying official, e-mail address (if applicable), signature, telephone number, date certified, prepared by (if different) and consortium/TPA name and telephone number
- Check the appropriate DOT agency for which the reporting is being submitted
- Covered Employees: (A) Enter the total number of Safety-sensitive Employees in all employee categories and (B) enter the total number of employee categories.
- Enter "Employee Category" and "Total Number of Employees in this Category"
- Total Number of Test Results (Should equal the sum of columns 2,3,7,and 8) for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up.
- Enter Number of Screening Tests With Results Below 0.02 for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up
- Enter Number of Screening Tests With Results Below 0.02 for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up
- Enter Number of Screening Tests With Results 0.02 or Greater for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up
- Enter Number of Confirmation Tests Results for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up
- Enter Number of Confirmation Tests With Results 0.02 Through 0.039 for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up
- Enter Number of Confirmation Tests With Results 0.04 or Greater for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up
- Enter Number of Tests for "Shy Lung" With No Medical Explanation
- Enter Number of Tests for Other Refusals to Submit to Testing for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up
- Enter Number of Cancelled Tests for Pre-employment, Post-Accident, Reasonable Suspicion/Cause, Return-to-Duty and Follow-up

g. **The company shall prepare and submit to the appropriate pipeline operator and/or designated agent for contractor monitoring the proper statistical data report (as directed by the pipeline operator) twice a year. The first report shall cover the 1st and 2nd quarters of the company's testing program for the current calendar year and shall be due no later than 30-days after the end of the 2nd quarter (June 30). The second report shall cover the 3rd and 4th quarters of the company's testing program and shall be due no later than 30-days after the end of the 4th quarter (January 30 of the calendar year).**

E. Contractor Submission of DOT Management Information System (MIS) report to Pipeline Hazardous Materials & Safety Administration (PHMSA).

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1. General. The contractor shall be required to submit to the Office of Pipeline Safety (OPS), Pipeline Hazardous Materials and Safety Administration (PHMSA) a copy of the contractor's statistical data report for the previous calendar year on the DOT Management Information System data collection form. This annual statistical data report can be submitted by mail or by online transmission.

2. DOT MIS Form. A copy of the MIS form is available on DOT's website at: **www.dot.gov/ost/dapc/testingpubs/**mis_form**.pdf**

F. Maintenance and Disclosure of Records Concerning EBTs and BAT/STTs.

1. The company or its designated agent shall maintain the following records for a minimum period of two years.

   a. All records pertaining to the inspection and maintenance of each EBT used in alcohol testing for its employees.
   b. Documentation of the company's compliance with the QAP for each EBT it uses for testing employees under the alcohol testing regulations as set forth in Part 199 and 40.
   c. All records pertaining to the training and proficiency testing of each BAT/STT used by the company or its designated alcohol testing sites for alcohol testing its employees.
   d. All log books, if applicable, used in conjunction with the alcohol testing provisions.

2. The company or its designated agent shall maintain for a minimum of five years records pertaining to the calibration procedures for each EBT used in conjunction with the alcohol testing as set forth in Part 199 and 40. These records shall also include documentation concerning the results of all external calibration checks conducted on each EBT.

3. The company shall maintain all records required by this section and shall release this information only under the terms as specified in Section XI of this plan. The company will ensure that records regarding the EBTs and BAT/STTs are maintained in a confidential manner and are released only in accordance with applicable federal regulations as outlined in this plan.

XIV. CONTRACTOR MONITORING (§199.245)

A. General. The contractor company will include a clause in the contracts that alcohol breath testing, education, and training may be addressed by the contractor/sub-contractor in accordance with Part 199 and Part 40 for covered functions. The company shall be responsible for ensuring compliance with the provisions of Part 199 and 40.

B. Records and Access.

1. Contractor/Sub-Contractors shall retain copies of appropriate alcohol testing records as required by 49 CFR Part 199 and Part 40.

2. The records and access to the contractor/sub-contractor's property shall be readily accessible for inspection by the pipeline operator, contractor, PHMSA, and representatives of those state agencies under which jurisdiction the company operates.

C. Contractor Coverage.

1. Confirmation of contractor compliance/monitoring - Specific guidance on how to develop an effective contractor compliance and monitoring program is outlined herein.

2. The company can, as an alternative to the above guidance provide coverage for the contractors employees by including them in the company's alcohol testing program for the duration of the contract or work project. When contractor employees are covered under the company's AMPP, the contractor shall ensure that their employees comply with all the provisions contained in the company's AMPP, unless some provisions for exempts are authorized.

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D. Procedures for Determining Compliance.

1. Qualifying Potential Contractor(s). Qualifications of a potential contractor as it pertains to alcohol testing policies/procedures is assured by requesting the potential contractor to submit a copy of its AMPP for review and compliance with PHMSA/DOT regulations. After review of the AMPP is completed, written correspondence to the contractor will advise it whether or not the AMPP plan is acceptable or in need of further additions, deletions, revisions or clarifying language. The review of the contractor plan shall be completed utilizing the criteria established in the PHMSA Alcohol Misuse Inspection form. Addendum's made to the contractor's plan shall be attached to the previously submitted AMPP plan. Upon approval of the addendum, a letter of acceptance is then sent to the contractor. The contractor/sub-contractor is now eligible to bid on company contract work that would be covered under Parts 199 and 40.

2. Monitoring Contractor's Compliance. The contractor may be required to provide information on their employees who will perform covered functions for the operator. This information may include the name and job title of its employees who will perform any work or functions covered by Part 199 under that contract. A list of each contractor's covered employees may be distributed to appropriate company field management personnel and job sites.

3. Statistical Submission. All contractors will be required to submit AMPP testing statistical information on a periodical basis that may be based on the duration of the contract. Typically this requirement will be conducted on a monthly or quarterly basis. The company may require a more frequent schedule for submission of data should they determine a need for such statistics.

4. Statistical Record Retention. The company shall maintain a complete file on each contractor/s statistical alcohol testing data reports. The company shall make available these reports when requested by the PHMSA Administrator, designated representative, or representatives of those state agencies under which jurisdiction the company operates.

5. Access to Records/Property. The company, contractor will allow access to property and records by the operator, the Administrator, contractor, and if the operator is subject to the jurisdiction of a state agency, a representative of the state agency for the purpose of monitoring the operator's compliance with the requirements of the regulations.

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Kinder Morgan **500 Dallas Street** **Houston, TX 77002 (713) 369-9480** **Effective Date: April 1, 1997**	Alcohol Misuse Prevention Plan U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) Federal Motor Carrier Safety Administration (FMCSA) Plan Revision Date: October 1, 2010

APPENDIX A

CONSORTIUM/THIRD PARTY ADMINISTRATOR (C/TPA)

Pipeline Testing Consortium, Inc.
9 Compound Drive
Hutchinson, Kansas 67502
(800) 294-8758

ALCOHOL PROGRAM MANAGER (APM)/DESIGNATED EMPLOYER REPRESENTATIVE (DER)

Valeria Hope
Kinder Morgan, Manager, Director Human Resources
500 Dallas St. Suite 1000
Houston TX, 77002
(713) 369-9480

BREATH ANALYSIS TECHNICIAN (BAT/STT)

A complete listing of the breath analysis technicians is maintained by Pipeline Testing Consortium, Inc.
www.pipelinetesting.com

EMPLOYEE ASSISTANCE PROGRAM (EAP)
SUBSTANCE ABUSE PROFESSIONAL (SAP)*

United Behavioral Health (EAP)
1-866-248-4094
www.liveandworkwell.com
Access code: Kinder

THE APPROVED EVIDENTIAL BREATH TESTING DEVICES (EBTS) UTILIZED:

Drager Breathalyzer 7410
Intoximeters Inc., Alco-Sensor IV
Intoxilyzer 200D

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Kinder Morgan 500 Dallas Street Houston, TX 77002 (713) 369-9480 Effective Date: April 1, 1997	Alcohol Misuse Prevention Plan U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) Federal Motor Carrier Safety Administration (FMCSA) Plan Revision Date: October 1, 2010

APPENDIX B

EMPLOYEE/SUPERVISORY POSITIONS
(JOB CLASSIFICATIONS/TITLES)
SUBJECT TO ALCOHOL TESTING
***Supervisory Positions to Receive 60 minutes of Training.**

PHMSA

ACCOUNT MANAGER
ANALYST
ASSISTANT
ASSISTANT SUPERINTENDENT *
ASSOC CONTROLLER/SCHEDULER
ASSOCIATE CONTROLLER
ASSOCIATE COORDINATOR
ASSOCIATE ENGINEER
BOILER OP STANDARD - ARGO PACE
BOILER OPER + 6 MOS-ARGO PACE
BOILER OPER +12 MOS-ARGO PACE
BOILER OPER +18 MOS-ARGO PACE
BOILER OPER HIRE-ARGO PACE
BUSINESS CNTR SERVICE SPEC-CWA
CHEMIST
CLERK
COMPRESSOR OPERATOR - CWA
COMPRESSOR RELIEF OPERATOR-CWA
CONTROLLER
CONTROLLER/SCHEDULER
COORDINATOR
CORROSION TECH 0 - KMP PACIFIC
CORROSION TECH 1 - KMI GAS
CORROSION TECH 1 - KMI SMSA
CORROSION TECH 2 - KMI GAS
CORROSION TECH 3 - KMI GAS
CORROSION TECH 3 - KMP PACIFIC
CORROSION TECH 4 - KMI SMSA
CORROSION TECH 4 - KMP MIDCONT
CORROSION TECH 4 - KMP PACIFIC
CORROSION TECH 5 - KMI GAS
CORROSION TECH 5 - KMP MIDCONT
CORROSION TECH 5 - KMP PACIFIC
CREW CHIEF - RETAIL
CREW LEADER - KMI GAS
CUSTOMER SERVICE REP-LIQ TERM
DESIGNER
DIRECTOR - IC
DIRECTOR *
DISPATCHER
DISPTCHR-24(RDCRL)-PLANTN PACE
DISTRIBUITON SPEC 5 - RETAIL
DISTRIBUTION SPEC 1 - RETAIL
DISTRIBUTION SPEC 2 - RETAIL
DISTRIBUTION SPEC 3 - RETAIL
DISTRIBUTION SPEC 4 - RETAIL

DISTRICT WELDER-USW
DIVISIONAL CONTROLLER
DOCKMAN - CARTERET PACE
DRAFTER
E&C TECH 1 - KMI GAS
E&C TECH 2 - KMI GAS
E&C TECH 3 - KMI GAS
E&C TECH 4 - KMI GAS
E&C TECH 5 - KMI GAS
ELECTRCL TECH-36MO-PLANTN PACE
ELECTRCL TECH-60MO-PLANTN PACE
ELECTRCL TECH-84MO-PLANTN PACE
ELECTRCL TECH-STRT-PLANTN PACE
ELECTRICIAN - CARTERET PACE
ELECTRICIAN - CO2
ENGINEER
ENGINEER TECHNICIAN
FIELD CONTRL-24MO-PLANTN PACE
FIELD MECHANIC - CARTERET PACE
FIELD METER TECHNICIAN-CWA
FIELD SCHEDULER
FIRE & SFTY ENGR-CARTERET PACE
FORECASTER
GAUGER - CALIFORNIA PACE
GAUGER STANDARD - ARGO PACE
GUARD - LIQUID TERMINALS
HEAD GAUGER - CALIFORNIA PACE
I&E TECH 1 - KMP MIDCONT
I&E TECH 3 - KMP MIDCONT
I&E TECH 4 - KMP MIDCONT
I&E TECH 5 - CO2
I&E TECH 5 - KMP MIDCONT
I&E TECH TRAINEE - TEXAS PACE
I&E TECHNICIAN - TEXAS PACE
INSIDE SALES REP 1 - RETAIL
INSIDE SALES REP 3 - RETAIL
INSTRMNTN MECH-CARTERET PACE
LAB TECHNICIAN
LABORER - CWA
LABORER - TEXAS PACE
LARGE CAPACITY METER TECH-CWA
LDC CREW CHIEF-CWA
LDC SPECIALST-CWA
LDC TECHNICIAN-CWA
LEAD CONTROLLER
LEAD NETWORK CONTROL TECH

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LEAD OPERATOR - CFPL
LEAD OPERATOR 12-1 - KMP PACIF
LEAD OPERATOR 12-2 - KMP PACIF
LEAD OPERATOR 12-3 - KMP PACIF
LEAD OPERATOR 12-4 - KMP PACIF
LEAD OPERATOR 8-2 - KMP PACIFI
LEAD OPERATOR 8-3 - KMP PACIFI
LEAD OPERATOR 8-4 - KMP PACIFI
LEAD PIPELINE OPERATOR - GATX
LEAD PIPELINER 4-KMGP PACIFIC
LEAD TERMINAL OPERATOR - GATX
LEAK DETECTOR OPERATOR-CWA
LINE PATROLLER-USW
LINE RIDER 0 - KMGP PACIFIC
LINE RIDER 1 - KMGP PACIFIC
LINE RIDER 2 - KMGP PACIFIC
LINE RIDER 3 - KMGP PACIFIC
LINE RIDER 4 - KMGP PACIFIC
LINE RIDER 5 - KMGP PACIFIC
MAINT ELECTRICIAN - TEXAS PACE
MAINT HELPER - TEXAS PACE
MAINT MECH STANDARD-ARGO PACE
MAINT MECHANIC - TEXAS PACE
MAINT SPECIALIST 1 - RETAIL
MAINT SPECIALIST 2 - RETAIL
MAINT SPECIALIST 3 - RETAIL
MAINT SPECIALIST 5 - RETAIL
MAINTENANCE CREW CHIEF-CWA
MAINTENANCE SPECALIST-USW
MAINTENANCE TECH - GATX
MAINTENANCE TECH 0 - KMGP PACI
MAINTENANCE TECH 1 - KMP PACIF
MAINTENANCE TECH 2 - KMP PACIF
MAINTENANCE TECH 3 - KMP PACIF
MAINTENANCE TECH 4 - KMP PACIF
MAINTENANCE TECH 5 - KMP PACIF
MAINTENANCE TECHNICIAN-CWA
MANAGER - IC
MANAGER *
MEASUREMENT TECH 1 - KMI GAS
MEASUREMENT TECH 1 - KMI SMSA
MEASUREMENT TECH 1-KMP MIDCONT
MEASUREMENT TECH 2 - KMI GAS
MEASUREMENT TECH 2-KMP MIDCONT
MEASUREMENT TECH 3 - KMI GAS
MEASUREMENT TECH 4 - KMI GAS
MEASUREMENT TECH 5 - KMI GAS
MEASUREMENT TECH 5 - KMI SMSA
MEASUREMENT TECH 5-KMP MIDCONT
MECH 1ST CLASS-CARTERET PACE
MECH 2ND CLASS-CALIFORNIA PACE
MECHANIC 4 - CO2
MECHANIC 4 - KMP MIDCONT
MECHANIC 5 - KMI GAS
MECHANIC 5 - KMP MIDCONT
MECHANIC 5 -CO2
MECHANIC A - CWA

MECHANIC B - CWA
MECHNCL TECH-60MO-PLANTN PACE
MECHNCL TECH-START-PLANTN PACE
METER READER 1 - RETAIL
METER REPAIR TECH-3 RETAIL
METER SHOP CREW CHIEF-CWA
NETWORK CONTROL TECHNICIAN
O&M-I - PLANTATION PACE
O&M-II - PLANTATION PACE
O&M-III - PLANTATION PACE
O&M-START - PLANTATION PACE
OPERATIONS ADMINISTRATOR
OPERATIONS COORD 12-KMP PACIF
OPERATIONS COORDINATOR-USW
OPERATIONS SPEC 1 - KMI GAS
OPERATIONS SPEC 2 - KMI GAS
OPERATIONS SPEC 4 - KMI GAS
OPERATIONS SPEC 5 - KMI GAS
OPERATIONS SPEC 5 - KMI SMSA
OPERATOR - BULK TERMINALS
OPERATOR - PACE
OPERATOR 1 - CO2
OPERATOR 4 - CO2
OPERATOR 5 - CO2
OPERATOR 8-0 - KMGP PACIFIC
OPERATOR 8-2 - KMGP PACIFIC
OPERATOR 8-2 - KMGP PACIFIC
OPERATOR 8-3 - KMGP PACIFIC
OPERATOR 8-4 - KMGP PACIFIC
OPERATOR 8-5 - KMGP PACIFIC
OPERATOR 8-6 - KMGP PACIFIC
OPERATOR12-1 - KMGP PACIFIC
OPERATOR12-2 - KMGP PACIFIC
OPERATOR12-3 - KMGP PACIFIC
OPERATOR12-4 - KMGP PACIFIC
OPERATOR12-5 - KMGP PACIFIC
OPERATOR12-6 - KMGP PACIFIC
OPERATOR2 - CO2
OPLNER5
PERTH AMBOY TMSTRS LABOR START
PERTH AMBOY TMSTRS-MECHANIC A
PERTH AMBOY TMSTRS-MECHANIC C
PERTH AMBOY TMSTRS-OPERATOR A
PERTH AMBOY TMSTRS-OPERATOR B
PERTH AMBOY TMSTRS-UTILITY PER
PERTHAMBOYTMSTRS-OPERATORB OLD
PIPEFITTER - CARTERET PACE
PIPELINE TECHNICIAN 5 - CO2
PIPELINER 0 - KMGP PACIFIC
PIPELINER 1 - KMGP PACIFIC
PIPELINER 2 - KMGP PACIFIC
PIPELINER 4 - KMGP PACIFIC
PIPELINER 5 - KMGP PACIFIC
PLANT OPERATOR 1 - KMI GAS
PLANT OPERATOR 4 - KMI GAS
PLANT OPERATOR 5 - KMI GAS
PLANT OPERATOR-CWA

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PLANT RELIEF OPERATOR-CWA
PRODUCTION TECHNICIAN 5 - CO2
PROJECT MANAGER
PUMPHOUSE OPER - CARTERET PACE
REGIONAL MANAGER *
REPRESENTATIVE
RISK PIPELINE ENGINEER
ROUSTABOUT - CALIFORNIA PACE
ROW TECH-60MOS - PLANTN PACE
SCHEDULER
SPECIALIST
SR ACCOUNT MANAGER
SR ANALYST
SR ASSISTANT
SR CHEMIST
SR CLERK
SR CONTROLLER
SR COORDINATOR
SR DATABASE ADMINISTRATOR
SR DRAFTER
SR ENGINEER
SR INSPECTOR
SR LAB TECHNICIAN
SR MAINTENANCE TECH - GATX
SR NETWORK CONTROL TECHNICIAN
SR OPERATIONS ADMINISTRATOR
SR PROJECT MANAGER
SR REPRESENTATIVE
SR SCHEDULER
SR TELECOMM TECHNICIAN
SR TERMINAL OPERATOR - GATX
STORG CONTL OPR 12-1-KMP MDCNT
STORG CONTL OPR 12-2-KMP MDCNT
STORG CONTL OPR 12-3-KMP MDCNT
STORG CONTL OPR 12-4-KMP MDCNT
STORG CONTL OPR 12-5-KMP MDCNT

STORG CONTL OPR 8-2 -KMP MDCNT
SUPERINTENDENT *
SUPERVISOR-MGMT *
TANK CLEANER - CARTERET PACE
TANKCR SHIFT LDR-CARTERET PACE
TECHNICIAN - KMP PACIFIC
TECHNICIAN 1 - CO2
TECHNICIAN 5 - CO2
TELECOMM TECHNICIAN
TERMINAL CLERK 0 - KMGP PACIFI
TERMINAL OP STANDARD-ARGO PACE
TERMINAL OPER - CARTERET PACE
TERMINAL OPER HIRE - ARGO PACE
TERMINAL OPERATOR - GATX
TERMINAL OPERATOR 5-KMP MDCNT
TERMINAL OPR +18 MOS-ARGO PACE
TERMINAL OPR 12 MOS-TEXAS PACE
TERMINAL OPR START-TEXAS PACE
TRUCK LOADER - CARTERET PACE
UTILITY METER READER-CWA
UTILITY PERSON 0-KMGP PACIFIC
UTILITY PERSON 1 - KMP MIDCONT
UTILITYPERSON - BULK TERMINALS
VICE PRESIDENT *
VOLUME PROCESSOR
WELDER - CARTERET PACE
WELDER - TEXAS PACE
WELDER 3 - RETAIL
WELDER 4 - RETAIL
WELDER 5 - KMGP PACIFIC
WELDER 5 - KMI GAS
WELDER 5 - KMI SMSA
WELDER-CWA

FMCSA

COMPRESSOR OPERATOR - CWA
CORROSION TECH 5 - KMI GAS
CREW CHIEF - RETAIL
CREW LEADER - KMI GAS
DISTRIBUITON SPEC 5 - RETAIL
E&C TECH 1 - KMI GAS
LDC CREW CHIEF-CWA
LDC TECHNICIAN-CWA
MAINT SPECIALIST 5 - RETAIL
MAINTENANCE CREW CHIEF-CWA
MAINTENANCE SPECALIST-USW
MAINTENANCE SPECIALIST-CWA
MAINTENANCE TECHNICIAN-CWA
MANAGER *
MEASUREMENT TECH 3 - KMI GAS
MEASUREMENT TECH 4 - KMI GAS

MEASUREMENT TECH 5 - KMI GAS
MECHANIC 2 - KMP MIDCONT
MECHANIC 3 - KMP MIDCONT
MECHANIC 4 - KMP MIDCONT
MECHANIC 5 - KMI GAS
MECHANIC 5 - KMP MIDCONT
OPERATIONS SPEC 5 - KMI GAS
OPERATIONS SPEC 5 - KMI SMSA
OPLNER5
PIPELINER 0 - KMGP PACIFIC
PLANT OPERATOR 5 - KMI GAS
STORG CONTL OPR 12-5-KMP MDCNT
STORG CONTL OPR 8-2 -KMP MDCNT
SUPERVISOR-MGMT *
TERMINAL OPERATOR 5-KMP MDCNT
WELDER 4 - RETAIL

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WELDER 5 - KMI GAS
WELDER 5 - KMP MIDCONT

WELDER-CWA

USCG

CORA BOAT PILOT - IUOE
CORA MAINTENANCE-IUOE
CORA OPERATOR - IUOE
CORA OPERATOR/DECKHAND - IUOE

CORA OPERATOR/PILOT IUOE
FACILITY OPERATOR 3YR-PET IND
LABORER - BULK TERMINALS
MANAGER *
SUPERVISOR-MGMT *

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APPENDIX C

I. Alcohol Testing Personnel - 49 CFR Part 40 – Subpart J

A. Conducting DOT alcohol tests (§40.211).

1. Screening test technicians (STTs) and breath alcohol technicians (BATs) meeting their respective requirements of 49 CFR Part 40 are the only people authorized to conduct DOT alcohol tests.

2. An STT can conduct only alcohol screening tests, but a BAT can conduct alcohol screening and confirmation tests.

3. The BAT or STT qualified immediate supervisor of a particular employee may not act as the STT or BAT when that employee is tested, unless no other STT or BAT is available and DOT agency regulations do not prohibit the company from doing so.

B. Training requirements for STTs and BATs (§40.213) – To be permitted to act as a BAT or STT in the DOT alcohol testing program the BAT or STT must meet the requirements of 49 CFR Part 40, Subpart J.

1. Basic information. The STT and/or BAT must be knowledgeable about the alcohol testing procedures in this part and the current DOT guidance.

2. Qualification training. The STT and/or BAT must receive qualification training meeting the requirements of this paragraph;

   a. Qualification training must be in accordance with the DOT Model BAT or STT Course, as applicable. The training can also be provided using a course of instruction equivalent to the DOT Model Courses. On request, ODAPC will review BAT and STT instruction courses for equivalency.

   b. Qualification training must include training to proficiency in using the alcohol testing procedures of this part and in the operation of the particular alcohol testing device(s) (i.e., the ASD(s) or EBT(s)) utilized.

   c. The training must emphasize that the BAT or STT is responsible for maintaining the integrity of the testing process, ensuring the privacy of employees being tested, and avoiding conduct or statements that could be viewed as offensive or inappropriate.

   d. The instructor must be an individual who has demonstrated necessary knowledge, skills, and abilities by regularly conducting DOT alcohol tests as an STT or BAT, as applicable, for a period of at least a year, who has conducted STT or BAT training, as applicable, under this part for a year, or who has successfully completed a " train the trainer" course.

3. Initial Proficiency Demonstration. Following the completion of qualification training under paragraph B.2. of this section, the BAT or STT must demonstrate proficiency in alcohol testing under this part by completing seven consecutive error-free mock tests (BATs) or five consecutive error-free tests (STTs).

   a. Another person must monitor and evaluate the BAT or STT performance, in person or by a means that provides real-time observation and interaction between the instructor and trainee, and attest in writing that the mock collections are " error-free. " This person must be an individual who meets the requirements of paragraph B.2.d. of this section.

   b. These tests must use the alcohol testing devices (e.g., EBT(s) or ASD(s)) that

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will be utilized by the BAT or STT.

c. If the STT who will be using an ASD that indicates readings by changes, contrasts, or other readings in color, the STT must demonstrate as part of the mock test that the STT was able to discern changes, contrasts, or readings correctly.

4. Schedule for qualification training and initial proficiency demonstration. The following is the schedule for qualification training and the initial proficiency demonstration the BAT or STT must meet:

a. A collector who became a BAT or STT before August 1, 2001, was required to have met the requirements set forth in paragraphs B.2. and B.3. of this section, and the BAT or STT does not have to meet them again.

b. A collector who becomes a BAT or STT on or after August 1, 2001, must meet the requirements of paragraphs B.2 and B.3. of this section before performing BAT or STT functions.

5. Refresher training. No less frequently than every five years from the date on which the BAT or STT satisfactorily complete the requirements of paragraphs B.2. and B.3. of this section, the BAT or STT must complete refresher training that meets all the requirements of paragraphs B.2. and B.3. of this section. If you are a BAT or STT who completed qualification training before January 1, 1998, then the BAT or STT is not required to complete refresher training until January 1, 2003.

6. Error Correction Training. If the BAT or STT makes a mistake in the alcohol testing process that causes a test to be cancelled (i.e., a fatal or uncorrected flaw), the BAT or STT must undergo error correction training. This training must occur within 30 days of the date the BAT or STT is notified of the error that led to the need for retraining.

a. Error correction training must be provided and the BAT or STT proficiency documented in writing by a person who meets the requirements of paragraph (B)(2)(d) of this section.

b. Error correction training is required to cover only the subject matter area(s) in which the error that caused the test to be cancelled occurred.

c. As part of the error correction training, the BAT or STT must demonstrate his/her proficiency in the alcohol testing procedures of 49 CFR part 40 by completing three consecutive error-free mock tests. The mock tests must include one uneventful scenario and two scenarios related to the area(s) in which the BAT or STT error(s) occurred. The person providing the training must monitor and evaluate the BAT or STT performance and attest in writing that the mock tests were error-free.

7. Documentation. The BAT or STT must maintain documentation showing that he/she currently meet all requirements of this section. The BAT or STT must provide this documentation on request to DOT agency representatives and to the company and C/TPAs who are negotiating to use the BAT or STT services.

8. Other persons who may serve as BATs or STTs.

a. Anyone meeting the requirements of this section to be a BAT may act as an STT, provided that the individual has demonstrated initial proficiency in the operation of the ASD that he or she is using, as provided in paragraph B.3.

b. Law enforcement officers who have been certified by state or local governments to conduct breath alcohol testing are deemed to be qualified as BATs. They are not required to also complete the training requirements of this section in order to act as BATs. In order for a test conducted by such an officer to be accepted

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under DOT alcohol testing requirements, the officer must have been certified by a state or local government to use the EBT or ASD that was used for the test.

C. Information about DER that company must provide to BATs and STTs (§40.215).

1. The company must provide to the STTs and BATs the name and telephone number of the appropriate DER (and C/ TPA, where applicable) to contact about any problems or issues that may arise during the testing process.

D. Additional information on the role of STTs and BATs may be found in the following areas of 49 CFR Part 40 (§40.217).

1. Other information on the role and functions of STTs and BATs can be found in the following sections of 49 CFR Part 40.

§ 40.3-Definitions.
§ 40.223-Responsibility for supervising employees being tested.
§ 40.225-40.227-Use of the alcohol testing form.
§ 40.241-40.245-Screening test procedures with ASDs and EBTs.
§ 40.251-40.255-Confirmation test procedures.
§ 40.261-Refusals to test.
§ 40.263-40.265-Insufficient saliva or breath.
§ 40.267-Problems requiring cancellation of tests.
§ 40.269-40.271-Correcting problems in tests.

II. Testing Sites, Forms, Equipment and Supplies Used in Alcohol Testing 49 CFR Part 40 – Subpart K

A. Procedure for conducting an alcohol test and location (§40.221).

1. A DOT alcohol test must take place at an alcohol testing site meeting the requirements of this section.

2. A collector operating an alcohol testing site must ensure that it meets the security requirements of §40.223.

3. A collector operating an alcohol testing site must ensure that it provides visual and aural privacy to the employee being tested, sufficient to prevent unauthorized persons from seeing or hearing test results.

4. A collector operating an alcohol testing site must ensure that it has all needed personnel, materials, equipment, and facilities to provide for the collection and analysis of breath and/ or saliva samples, and a suitable clean surface for writing.

5. If an alcohol testing site fully meeting all the visual and aural privacy requirements is not readily available, this part allows a reasonable suspicion or post-accident test to be conducted at a site that partially meets these requirements. In this case, the site must afford visual and aural privacy to the employee to the greatest extent practicable.

6. An alcohol testing site can be in a medical facility, a mobile facility (e.g., a van), a dedicated collection facility, or any other location meeting the requirements of this section.

B. Steps that must be taken to protect the security of alcohol testing sites (§40.223).

1. The BAT, STT, or other person operating an alcohol testing site, he/she must prevent unauthorized personnel from entering the testing site.

   a. The only people to be treated as authorized persons are employees being

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tested, BATs, STTs, and other alcohol testing site workers, DERs, employee representatives authorized by the company (e.g., on the basis of company policy or labor-management agreement), and DOT agency representatives.

b. The BAT or STT must ensure that all persons are under the supervision of a BAT or STT at all times when permitted into the site.

c. The BAT or STT may remove any person who obstructs, interferes with, or causes unnecessary delay in the testing process.

2. The BAT or STT must not allow any person other than the BAT or STT, the employee, or a DOT agency representative to actually witness the testing process (See §40.241-40.255).

3. If the BAT or STT is operating an alcohol testing site he/she must ensure that when an EBT or ASD is not being used for testing, it is stored in a secure place.

4. If the BAT or STT is operating an alcohol testing site he/she must ensure that no one other than BATs or other employees of the site have access to the site when an EBT is unsecured.

5. The BAT or STT is to avoid distraction that could compromise security, he/she is limited to conducting an alcohol test for only one employee at a time.

a. When an EBT screening test on an employee indicates an alcohol concentration of 0.02 or higher, and the same EBT will be used for the confirmation test, the BAT is not allowed to use the EBT for a test on another employee before completing the confirmation test on the first employee.

b. The BAT who will conduct both the screening and the confirmation test is to complete the entire screening and confirmation process on one employee before starting the screening process on another employee.

c. The BAT or STT is not allowed to leave the alcohol testing site while the testing process for a given employee is in progress, except to notify a supervisor or contact a DER for assistance in the case an employee or other person who obstructs, interferes with, or unnecessarily delays the testing process.

C. Form to be used for an alcohol test (§40.225).

1. The DOT Alcohol Testing Form (ATF) must be used for every DOT alcohol test. Beginning February 1, 2002. The ATF must be a three-part carbonless manifold form. The ATF can be found in 49 CFR Part 40, Appendix G.

2. The company in using the DOT alcohol-testing program is not permitted to modify or revise the ATF except as follows:

a. The company may include other information needed for billing purposes, outside the boundaries of the form.

b. The company may use a ATF directly generated by an EBT which omits the space for affixing a separate printed result to the ATF, provided the EBT prints the result directly on the ATF.

c. The company may use an ATF that has the company's name, address, and telephone number preprinted. In addition, a C/TPA's name, address, and telephone number may be included, to assist with negative results.

d. The company may use an ATF in which all pages are printed on white paper. The company may modify the ATF by using colored paper, or have clearly discernable borders or designation statements on Copy 2 and Copy 3. When

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colors are used, they must be green for Copy 2 and Blue for Copy 3.

e. The BAT or STT may add, on the " Remarks" line of the ATF, the name of the DOT agency under whose authority the test occurred.

f. The BAT or STT may use a ATF that has your name, address, and telephone number preprinted, but under no circumstances can your signature be preprinted.

3. The company may use an equivalent foreign-language version of the ATF approved by ODAPC. The company may use such a non-English language form only in a situation where both the employee and BAT/STT understand and can use the form in that language.

D. Company's use of ATF for non-DOT tests or non-DOT forms for DOT tests (§40.227).

1. The company, BAT, or STT is prohibited from using the ATF for non-DOT alcohol tests. The company, BAT, or STT are also prohibited from using non-DOT forms for DOT alcohol tests. Doing either will subject the company, BAT, or STT to enforcement action under DOT agency regulations.

2. If the STT or BAT, either by mistake, or as the only means to conduct a test under difficult circumstances (e.g., post-accident test with insufficient time to obtain the ATF), uses a non-DOT form for a DOT test, the use of a non-DOT form does not, in and of itself, require the company or service agent to cancel the test. However, in order for the test to be considered valid, a signed statement must be obtained from the STT or BAT in accordance with § 40.271(b).

E. Devices to be used to conduct alcohol screening tests (§40.229).

1. EBTs and ASDs on the NHTSA conforming products lists (CPL) for evidential and non-evidential devices are the only devices the BAT or STT is allowed to use to conduct alcohol screening tests under 49 CFR Part 40. The BAT or STT may use an ASD that is on the NHTSA CPL for DOT alcohol tests only if there are instructions for its use in 49 CFR Part 40. An ASD can be used only for screening tests for alcohol, and may not be used for confirmation tests.

F. Devices to be used to conduct alcohol confirmation tests (§40.231).

1. EBTs on the NHTSA CPL for evidential devices that meet the requirements of paragraph F.2. of this section are the only devices the company may use to conduct alcohol confirmation tests under this part. Note that, among devices on the CPL for EBTs, only those devices listed without an asterisk (*) are authorized for use in confirmation testing in the DOT alcohol testing program.

2. To conduct a confirmation test, you must use an EBT that has the following capabilities:

a. Provides a printed triplicate result (or three consecutive identical copies of a result) of each breath test;

b. Assigns a unique number to each completed test, which the BAT and employee can read before each test and which is printed on each copy of the result;

c. Prints, on each copy of the result, the manufacturer's name for the device, its serial number, and the time of the test;

d. Distinguishes alcohol from acetone at the 0.02 alcohol concentration level;

e. Tests an air blank; and

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f. Performs an external calibration check.

G. Requirements for proper use and care of EBTs (§40.233).

1. An EBT manufacturer must submit, for NHTSA approval, a quality assurance plan (QAP) for the EBT before NHTSA places the EBT on the CPL.

   a. The manufacturer's QAP must specify the methods used to perform external calibration checks on the EBT, the tolerances within which the EBT is regarded as being in proper calibration, and the intervals at which these checks must be performed. In designating these intervals the manufacturer's QAP must take into account factors like frequency of use, environmental conditions (e.g., temperature, humidity, altitude) and type of operation (e.g., stationary or mobile).

   b. The manufacturer's QAP must also specify the inspection, maintenance, and calibration requirements and intervals for the EBT.

2. The manufacturer must include, with each EBT, instructions for its use and care consistent with the QAP.

3. The user of the EBT (e.g., company, service agent) must do the following:

   a. The user must follow the manufacturer's instructions, including performance of external calibration checks at the intervals the instructions specify.

   b. In conducting external calibration checks, the user must use only calibration devices appearing on NHTSA's CPL for " Calibrating Units for Breath Alcohol Tests. "

   c. If an EBT fails an external check of calibration, the user must take the EBT out of service. The user may not use the EBT again for DOT alcohol testing until it is repaired and passes an external calibration check.

   d. The user must maintain records of the inspection, maintenance, and calibration of EBTs as provided in §40.333(a)(2).

   e. The user must ensure that inspection, maintenance, and calibration of the EBT are performed by its manufacturer or a maintenance representative certified either by the manufacturer or by a state health agency or other appropriate state agency.

H. Requirements for proper use and care of ASDs (§40.235).

1. The ASD manufacturer must submit, for NHTSA approval, a QAP for the ASD before NHTSA places the ASD on the CPL. The manufacturer's QAP must specify the methods used for quality control checks, temperatures at which the ASD must be stored and used, the shelf life of the device, and environmental conditions (e.g., temperature, altitude, humidity) that may affect the ASD's performance.

2. The manufacturer must include with each ASD instructions for its use and care consistent with the QAP. The instructions must include directions on the proper use of the ASD, and, where applicable the time within which the device must be read, and the manner in which the reading is made.

3. The user of the ASD (e.g., company, STT) must follow the QAP instructions.

4. The user is not permitted to use an ASD that does not pass the specified quality control checks or that has passed its expiration date.

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5. The company, with respect to breath ASDs, must also follow the device use and care requirements of §40.233.

III. Alcohol Screening Tests – 49 CFR Part 40 – Subpart L

A. First steps in alcohol screening test (§40.241).

1. The BAT or STT will take the following steps to begin all alcohol screening tests, regardless of the type of testing device the BAT or STT is using:

   a. When a specific time for an employee's test has been scheduled, or the collection site is at the employee's worksite, and the employee does not appear at the collection site at the scheduled time, contact the DER to determine the appropriate interval within which the DER has determined the employee is authorized to arrive. If the employee's arrival is delayed beyond that time, the DER must be notified that the employee has not reported for testing. In a situation where a C/TPA has notified an owner/operator or other individual employee to report for testing and the employee does not appear, the C/TPA must notify the employee that he or she has refused to test.

   b. Ensure that, when the employee enters the alcohol-testing site, the alcohol testing process begins without undue delay. For example, do not wait because the employee says he or she is not ready or because an authorized company or employee representative is delayed in arriving.

      (1) If the employee is also going to take a DOT drug test, ensure that the alcohol test is completed before the urine collection process begins.

      (2) If the employee needs medical attention (e.g., an injured employee in an emergency medical facility who is required to have a post-accident test), do not delay this treatment to conduct a test.

   c. Require the employee to provide positive identification. A photo ID issued by the company (other than in the case of an owner-operator or other self-employer individual) or a Federal, state, or local government (e.g., a driver's license). Faxes or photocopies of identification are not acceptable. Positive identification by a company representative (not a co-worker or another employee being tested) is also acceptable. If the employee cannot produce positive identification, the collector must contact the DER to verify the identity of the employee.

   d. If the employee asks, the BAT or STT must provide identification to the employee. The collector's identification must include name and company's name but is not required to include a picture, address, or telephone number.

   e. Explain the testing procedure to the employee, including showing the employee the instructions on the back of the ATF.

   f. Complete Step 1 of the ATF.

   g. Direct the employee to complete Step 2 on the ATF and sign the certification. If the employee refuses to sign this certification, you must document this refusal on the " Remarks" line of the ATF and immediately notify the DER. This is a refusal to test.

B. Procedure for alcohol screening test using EBT or non-evidential breath ASD (§40.243).

1. The BAT or STT must take the following steps:

   a. Select, or allow the employee to select, an individually wrapped or sealed

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mouthpiece from the testing materials.

b. Open the individually wrapped or sealed mouthpiece in view of the employee and insert it into the device in accordance with the manufacturer's instructions.

c. Instruct the employee to blow steadily and forcefully into the mouthpiece for at least six seconds or until the device indicates that an adequate amount of breath has been obtained.

d. Show the employee the displayed test result.

e. If the device is one that prints the test number, testing device name and serial number, time and result directly onto the ATF, check to ensure that the information has been printed correctly onto the ATF.

f. If the device is one that prints the test number, testing device name and serial number, time and result, but on a separate printout rather than directly onto the ATF, affix the printout of the information to the designated space on the ATF with tamper-evident tape or use a self-adhesive label that is tamper-evident.

g. If the device is one that does not print the test number, testing device name and serial number, time, and result, or it is a device not being used with a printer, record this information in Step 3 of the ATF.

C. Procedure for an alcohol screening test using a saliva ASD (§40.245)

1. The STT or BAT must take the following steps when using the salvia ASD:

a. Check the expiration date on the device or on the package containing the device and show it to the employee. The STT or BAT may not use the device after its expiration date.

b. Open an individually wrapped or sealed package containing the device in the presence of the employee.

c. Offer the employee the opportunity to use the device. If the employee uses it, the STT or BAT must instruct the employee to insert it into his or her mouth and use it in a manner described by the device's manufacturer.

d. If the employee chooses not to use the device, or in all cases in which a new test is necessary because the device did not activate (See paragraph 1.g. of this section), the STT or BAT must insert the device into the employee's mouth and gather saliva in the manner described by the device's manufacturer. The STT or BAT must wear single-use examination or similar gloves while doing so and change them following each test.

e. When the device is removed from the employee's mouth the STT or BAT must follow the manufacturer's instructions regarding necessary next steps in ensuring that the device has activated.

f. Instructions to follow:

(1) If the STT or BAT was unable to successfully follow the procedures of paragraphs 1.c. through 1.e. of this section (e.g., the device breaks, you drop the device on the floor), the STT or BAT must discard the device and conduct a new test using a new device.

(2) The new device the STT or BAT uses must be one that has been under the STTs control or that of the company before the test.

(3) The STT or BAT must note on the " Remarks" line of the ATF the

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reason for the new test. (Note: The STT or BAT may continue using the same ATF with which you began the test.)

(4) The STT or BAT must offer the employee the choice of using the device or having the STT or BAT use it unless the employee, in the opinion of the STT or BAT, was responsible (e.g., the employee dropped the device) for the new test needing to be conducted.

(5) If the STT or BAT is unable to successfully follow the procedures of paragraphs 1.c. through 1.e. of this section on the new test, you must end the collection and put an explanation on the " Remarks" line of the ATF.

(6) The STT or BAT must then direct the employee to take a new test immediately, using an EBT for the screening test.

g. If the STT or BAT is able to successfully follow the procedures of paragraphs 1.c. – 1.e. of this section, but the device does not activate the STT or BAT must discard the device and conduct a new test, in the same manner as provided in paragraph 1.f. of this section. In this case, the STT or BAT must place the device into the employee's mouth to collect saliva for the new test.

h. The STT or BAT must read the result displayed on the device no sooner than the device's manufacturer instructs. In all cases the result displayed must be read within 15 minutes of the test. The STT or BAT must then show the device and its reading to the employee and enter the result on the ATF.

i. The STT or BAT must never re-use devices, swabs, gloves or other materials used in saliva testing.

j. The STT or BAT must note the fact that you used a saliva ASD in Step 3 of the ATF.

2. As the STT or BAT, you must take the following steps when using the breath tube ASD.

a. Check the expiration date on the device or on the package containing the device and show it to the employee. The STT or BAT may not use the device after its expiration date.

b. Remove a device from the package and break the tube’s ampule in the presence of the employee.

c. Secure an inflation bag on to the appropriate end of the device, as directed by the manufacturer on the device’s instructions.

d. Offer the employee the opportunity to use the device. If the employee chooses to use (e.g. hold) the device, instruct the employee to blow forcefully and steadily into the lowing end of the device until the inflation bag fills with air (approximately 12 seconds).

e. If the employee chooses not to hold the device, you must hold it and provide the use instructions in paragraph 2.d. of this section.

f. When the employee completes the breath process, take the device from the employee (or if you were holding it, remove it from the employee’s mouth): remove the inflation bag: and either hold the device or place it on a clean flat surface while waiting for the reading to appear.

g. Instructions to follow:

(1) If you were unable to successfully follow the procedures of paragraphs

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2.d. through 2.f. of this section (e.g., the device breaks apart, the employee did not fill the inflation bag), you must discard the device and conduct a new test using a new one.

(2) The new device you use must be one that has been under your control or that of the employee before the test.

(3) You must note on the "Remarks" line of the ATF the reason for the new test. (Note: You may continue using the same ATF with which you began the test).

(4) You must offer the employee the choice of holding the device or having you hold it unless the employee, in your opinion, was responsible (e.g., the employee failed to fill the inflation bag) for the new test needing to be conducted.

(5) If you were unable to successfully follow the procedures of paragraphs 2.d. through 2.f. of this section on the new test, you must end the collection and put an explanation on the "Remarks" line on the ATF.

(6) You must then direct the employee to take a new test immediately, using another type of ASD (e.g., saliva device) or an EBT.

h. If you were able to successfully follow the procedures of paragraphs 2.d. through 2.f. of this section, you must compare the color of the crystals in the device with the colored crystals on the manufacturer-produced control tube no sooner than the manufacturer instructs. In all cases color comparisons must take place within 15 minutes of the test.

i. You must follow the manufacturer's instructions for determining the result of the test. You must then show both the device and the control tube side-by-side to the employee and record the result on the ATF.

j. You must never re-use devices or gloves used in the breath tube testing. The inflation bag must be voided of air following removal from the device. One inflation bag can be used for up to 10 breath tube tests.

k. You must note the fact that you used a breath tube device in Step 3 of the ATF.

D. Procedures the BAT or STT is to follow after a screening test result (§40.247).

1. If the test result is an alcohol concentration of less than 0.02, the BAT or STT must do the following:

   a. Sign and date Step 3 of the ATF; and

   b. Transmit the result to the DER in a confidential manner, as provided in §40.255

2. If the test result is an alcohol concentration of 0.02 or higher the BAT or STT must direct the employee to take a confirmation test.

   a. The BAT who will conducts the confirmation test must then conduct the test using the procedures beginning at §40.251.

   b. If a different BAT will conduct the confirmation test, direct the employee to take a confirmation test, sign and date Step 3 of the ATF, and give the employee Copy 2 of the ATF.

   c. If the confirmation test will be performed at a different site from the screening test the BAT must take the following additional steps:

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(1) Advise the employee not to eat, drink, put anything (e.g., cigarette, chewing gum) into his or her mouth, or belch;

(2) Tell the employee the reason for the waiting period required by section §40.251(a) (i.e., to prevent an accumulation of mouth alcohol from leading to an artificially high reading);

(3) Explain that following the BAT instructions concerning the waiting period is to the employee's benefit;

(4) Explain that the confirmation test will be conducted at the end of the waiting period, even if the instructions have not been followed;

(5) Note on the " Remarks" line of the ATF that the waiting period instructions were provided;

(6) Instruct the person accompanying the employee to carry a copy of the ATF to the BAT who will perform the confirmation test; and

(7) Ensure that the BAT or another BAT, STT, or company representative observe the employee as he or she is transported to the confirmation testing site. The BAT or STT must direct the employee not to attempt to drive a motor vehicle to the confirmation testing site.

3. If the screening test is invalid the BAT or STT must tell the employee the test is cancelled and note the problem on the " Remarks" line of the ATF. If practicable, repeat the testing process (See § 40.271).

IV. Alcohol Confirmation Tests - 49 CFR Part 40 – Subpart M

A. First steps in an alcohol confirmation test (§40.251). The BAT for an alcohol confirmation test must follow these steps to begin the confirmation test process:

1. The BAT must carry out a requirement for a waiting period before the confirmation test, by taking the following steps:

   a. The BAT must ensure that the waiting period lasts at least 15 minutes, starting with the completion of the screening test. After the waiting period has elapsed, the BAT should begin the confirmation test as soon as possible, but not more than 30 minutes after the completion of the screening test.

      (1) If the confirmation test is taking place at a different location from the screening test (See §40.247(b)(3)) the time of transit between sites counts toward the waiting period if the STT or BAT who conducted the screening test provided the waiting period instructions.

      (2) if the BAT cannot verify, through review of the ATF, that waiting period instructions were provided, then the BAT must carry out the waiting period requirement.

      (3) The BAT or another BAT or STT, or a company representative, must observe the employee during the waiting period.

   b. Concerning the waiting period, the BAT must tell the employee:

      (1) Not to eat, drink, put anything (e.g., cigarette, chewing gum) into his or her mouth, or belch;

      (2) The reason for the waiting period (i.e., to prevent an accumulation of mouth alcohol from leading to an artificially high reading);

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(3) That following the BAT's instructions concerning the waiting period is to the employee's benefit; and

(4) That the confirmation test will be conducted at the end of the waiting period, even if the instructions have not been followed.

c. If the BAT becomes aware that the employee has not followed the instructions, the BAT must note this on the " Remarks" line of the ATF.

2. If the BAT did not conduct the screening test for the employee the BAT must require positive identification of the employee, explain the confirmation procedures, and use a new ATF. The BAT must note on the " Remarks" line of the ATF that a different BAT or STT conducted the screening test.

3. Complete Step 1 of the ATF.

4. Direct the employee to complete Step 2 on the ATF and sign the certification. If the employee refuses to sign this certification the BAT must document this refusal on the " Remarks" line of the ATF and immediately notify the DER. This is a refusal to test.

5. Even if more than 30 minutes have passed since the screening test result was obtained the BAT must begin the confirmation test procedures in §40.253, not another screening test.

6. The BAT must note on the " Remarks" line of the ATF the time that elapsed between the two events, and if the confirmation test could not begin within 30 minutes of the screening test, the reason why.

7. Beginning the confirmation test procedures after the 30 minutes have elapsed does not invalidate the screening or confirmation tests, but it may constitute a regulatory violation subject to DOT agency sanction.

B. Procedures for conducting an alcohol confirmation test (§40.253) - The BAT conducting an alcohol confirmation test must follow these steps in order to complete the confirmation test process:

1. In the presence of the employee the BAT must conduct an air blank on the EBT the BAT is using before beginning the confirmation test and show the reading to the employee.

(1) If the reading is 0.00, the test may proceed. If the reading is greater than 0.00, the BAT must conduct another air blank.

(2) If the reading on the second air blank is 0.00, the test may proceed. If the reading is greater than 0.00, the BAT must take the EBT out of service.

(3) If the BAT takes an EBT out of service for this reason, no one may use it for testing until the EBT is found to be within tolerance limits on an external check of calibration.

(4) The BAT must proceed with the test of the employee using another EBT, if one is available.

2. The BAT must open a new individually wrapped or sealed mouthpiece in view of the employee and insert it into the device in accordance with the manufacturer's instructions.

3. The BAT must ensure that both the BAT and the employee read the unique test number displayed on the EBT.

4. The BAT must instruct the employee to blow steadily and forcefully into the mouthpiece for at least six seconds or until the device indicates that an adequate amount of breath

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has been obtained.

5. The BAT must show the employee the result displayed on the EBT.

6. The BAT must show the employee the result and unique test number that the EBT prints out either directly onto the ATF or onto a separate printout.

7. If the EBT provides a separate printout of the result, the BAT must attach the printout to the designated space on the ATF with tamper-evident tape, or use a self-adhesive label that is tamper-evident.

C. Procedure to follow after the next alcohol confirmation test result (§40.255).

1. After the EBT has printed the result of an alcohol confirmation test the BAT must take the following additional steps:

   a. Sign and date Step 3 of the ATF.

   b. If the alcohol confirmation test result is lower than 0.02, nothing further is required of the employee. The BAT must sign and date Step 3 of the ATF.

   c. If the alcohol confirmation test result is 0.02 or higher, direct the employee to sign and date Step 4 of the ATF. If the employee does not do so, the BAT must note this on the " Remarks" line of the ATF. However, this is not considered a refusal to test.

   d. If the test is invalid, tell the employee the test is cancelled and note the problem on the " Remarks" line of the ATF. If practicable, conduct a re-test. (See §40.271).

   e. Immediately transmit the result directly to the DER in a confidential manner.

      (1) The BAT may transmit the results using Copy 1 of the ATF, in person, by telephone, or by electronic means. In any case, the BAT must immediately notify the DER of any result of 0.02 or greater by any means (e.g., telephone or secure fax machine) that ensures the result is immediately received by the DER. The BAT must not transmit these results through C/TPAs or other service agents.

      (2) If the BAT does not make the initial transmission in writing, the BAT must follow up the initial transmission with Copy 1 of the ATF.

2. The company must take the following steps with respect to the receipt and storage of alcohol test result information:

   a. If the company receives any test results that are not in writing (e.g., by telephone or electronic means), the company must establish a mechanism to establish the identity of the BAT sending you the results.

   b. The company must store all test result information in a way that protects confidentiality.

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APPENDIX D

SUPERVISORS DRUG AND / OR ALCOHOL CHECKLIST

			Yes	No
1.	Smell of alcohol on breath of person?		____	____
2.	Speech: Slurred?		____	____
	Confused?		____	____
	Fragmented?		____	____
	Slow?		____	____
	Unusually soft?		____	____
	Unusually loud?		____	____
3.	Disorientation: Is employee confused about;	Where he or she is?	____	____
		What day it is?	____	____
		What time it is?	____	____
4.	Apparent inability to focus on work?		____	____
5.	Unusual or unexplained resistance to authority or refusal to follow reasonable directions?		____	____
6.	Lack of motor coordination		____	____
7.	Mood: Belligerent?		____	____
	Moody?		____	____
	Ecstatic?		____	____
	More nervous than usual?		____	____
	Giddy?		____	____
	Talkative?		____	____
	Drowsy?		____	____
8.	Skin color: Pale?		____	____
	Flushed?		____	____
9.	Excessive perspiration?		____	____
10.	Excessive trips to the restroom?		____	____
11.	Bloodshot eyes?		____	____
12.	Dilated pupils?		____	____
13.	Pinpoint pupils?		____	____
14.	Traces of alcohol in containers?		____	____
15.	Confession by employee that he/she was drinking alcohol? Ingesting drugs?		____	____
16.	Confirmation by other employees?		____	____
17.	Presence of substances with the appearance of drugs?		____	____
18.	Presence of drug paraphernalia?		____	____
19.	Smell of marijuana?		____	____
20.	Congregation of employees in remote areas of the companies facilities or in areas not usually frequented by employees?		____	____
21.	Weariness, fatigue, or exhaustion?		____	____
22.	Deteriorating physical appearance?		____	____
23.	Yawning excessively?		____	____
24.	Blank stare or expression?		____	____
25.	Sudden and/or unpredictable change in energy level?		____	____
26.	Unusually energetic?		____	____
27.	Shaking or trembling of hands?		____	____
28.	Sunglasses worn at inappropriate times?		____	____
29.	Changes in appearance after lunch break?		____	____
30.	Withdrawal and avoidance of peers?		____	____
31.	Complaints from co workers?		____	____
32.	Excessive absenteeism, especially Mondays, Fridays and days before or after holidays or paydays?		____	____
33.	Unusually high incidence of colds, flu, upset stomach, and/or headaches?		____	____
34.	Unauthorized or unscheduled absences?		____	____

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		Yes	No
35.	Breathing or swallowing difficulties?	____	____
36.	Unusual sneezing / nasal congestion?	____	____
37.	Needle marks on arms?	____	____
38.	Prolonged lunch hours?	____	____
39.	Tardiness?	____	____
40.	Unexplained departures from work or disappearances from the job area?	____	____
41.	More than average number of job related mistakes injuries or accidents?	____	____
42.	Decrease in efficiency or productivity?	____	____
43.	Careless operation of equipment?	____	____
44.	Careless performance of job?	____	____

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APPENDIX E

REASONABLE CAUSE OBSERVATION CHECKLIST

(STRICTLY CONFIDENTIAL)

EMPLOYEE: _____ PERIOD OF EVALUATION: _____

SUPERVISOR #1, NAME AND TELEPHONE: _____

SUPERVISOR #2, NAME AND TELEPHONE: _____

****

This checklist is intended to assist a supervisor in referring a person for drug testing. Has the employee manifested any of the following behaviors? Indicate (D) if documentation exists.

A. QUALITY AND QUANTITY OF WORK

YES	NO	
___	___	1. Clear refusal to do assigned tasks
___	___	2 Significant increase in errors
___	___	3. Repeated errors in spite of increased guidance
___	___	4. Reduced quantity of work
___	___	5. Inconsistent, "up and down" quantity/quality of work
___	___	6. Behavior that disrupts workflow
___	___	7. Procrastination on significant decisions or task
___	___	8. More than usual supervision necessary
___	___	9. Frequent, unsupported explanations for poor work performance
___	___	10.Noticeable change in written or verbal communication
___	___	11.Other (please specify) _____

B. INTERPERSONAL WORK RELATIONSHIPS

YES	NO	
___	___	1. Significant change in relations with co-workers, supervisors
___	___	2 Frequent or intense arguments
___	___	3. Verbal abusiveness
___	___	4. Physical abusiveness
___	___	5. Persistently withdrawn or less involved with people
___	___	6. Intentional avoidance of supervisor
___	___	7. Expressions of frustration or discontent
___	___	8. Change in frequency or nature of complaints
___	___	9. Complaints by co-workers or subordinates
___	___	10. Cynical, "distrustful of human nature" comments
___	___	11. Unusual sensitivity to advice or critique of work
___	___	12. Unpredictable response to supervision
___	___	13. Passive-aggressive attitude or behavior, doing things "behind your back"

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C. GENERAL JOB PERFORMANCE

YES	NO	
___	___	1. Excessive unauthorized absences-number in last 12 months
___	___	2. Excessive authorized absences-number in last 12 months
___	___	3. Excessive use of sick leave in last 12 months
___	___	4. Frequent Monday/Friday absence or other pattern
___	___	5. Frequent unexplained disappearances
___	___	6. Excessive "extension" of breaks or lunch
___	___	7. Frequently leaves work early-number of days per week or month
___	___	8. Increased concern about (actual incidents) safety offenses involving the employee
___	___	9.Experiences or causes job accidents
___	___	10. Major change in duties or responsibilities
___	___	11. Interferes with or ignores established procedures
___	___	12. Inability to follow through on job performance recommendation

D. PERSONAL MATTERS

YES	NO	
___	___	1. Changes in or unusual personal appearance (dress, hygiene)
___	___	2. Changes in or unusual speech (incoherent, stuttering, loud)
___	___	3. Changes in or unusual physical mannerisms (gesture, posture)
___	___	4. Changes in or unusual facial expressions
___	___	5. Changes in or unusual level of activity-much reduced/increased
___	___	6. Changes in or unusual topics of conversation
___	___	7. Engages in detailed discussions about death, suicide, harming others
___	___	8. Increasingly irritable or tearful
___	___	9. Persistently boisterous or rambunctious
___	___	10. Unpredictable or out-of-context displays of emotion
___	___	11. Unusual fears
___	___	12 Lacks appropriate caution
___	___	13. Engages in detailed discussion about obtaining/using drugs/alcohol
___	___	14. Has personal relationship problems (spouse, girl/boyfriend, children, in-laws)
___	___	15. Has received professional assistance for emotional or physical problems
___	___	16. Makes unfounded accusations toward others, i.e., has feelings of persecution
___	___	17. Secretive or furtive
___	___	18. Memory problems (difficulty recalling instructions, data, past behaviors)
___	___	19. Frequent colds, flu, excessive fatigue, or other illnesses
___	___	20. Makes unreliable or false statements
___	___	21. Unrealistic self-appraisal or grandiose statements
___	___	22. Temper tantrums or angry outbursts
___	___	23. Demanding, rigid, inflexible
___	___	24. Major change in physical health
___	___	25. Concerns about sexual behavior or sexual harassment

Other information/observations - (Please be specific & attach additional sheet as needed).

_____ SUPERVISOR #1 (SIGN & DATE)

_____ SUPERVISOR #2 (SIGN & DATE)

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APPENDIX F

ALCOHOL SUPPLEMENT

A. Why You Should Get Involved.

1. Although (company) has not had a history of substance abuse problems, we recognize that alcoholism and alcohol misuse are problems throughout America.

2. There are three good reasons why you should be concerned if any of your coworkers is using drugs or alcohol on the job.

   a. Your health and safety may be at risk.
   b. Alcohol misuse costs you money.
   c. Alcohol creates a negative work environment.

3. According to the National Institute on Alcohol Abuse and Alcoholism, drug and alcohol use on the job costs society an estimated $102 billion a year. Since most of this cost is passed on to you in the form of higher health insurance rates or in consumer prices, drug and alcohol use on the job costs you and your fellow workers a significant amount of money.

4. Absenteeism among problem drinkers or alcoholics is 3.8 to 8.3 times greater than normal. If your fellow workers don't come to work, you may have to do their jobs in addition to your own.

5. Workers who misuse alcohol don't function at their full potential. Not only is absenteeism a problem, when they are at work these employees may have reduced capabilities and productivity. Since our product is the safe transportation of hazardous liquid (or natural gas), alcohol misuse is an especially serious issue.

6. No matter what your position is in the organization, there is something you can do to ensure that drug and alcohol use on the job never becomes a problem at the company. Acceptance of any misuse puts you, this company, and the public, at risk.

B. Effects of Alcohol Misuse on an Individual's Health, Work, and Personal Life.

1. Alcohol is a central nervous system depressant. Taken in large quantities, it causes not only the euphoria, associated with being drunk but also adversely affects your judgment, ability to think, and your motor functions. Drink enough alcohol fast enough and it can kill you.

2. Long term overuse of alcohol can cause liver damage, heart problems, sexual dysfunction, and other serious medical problems.

3. In some cases, alcohol use can lead to physical and psychological dependence on alcohol. Alcoholism is a serious chronic disease. Left untreated it will inevitably get worse.

4. Workers who use alcohol (and other drugs) affect everyone. Studies show that compared to alcohol-and drug-free workers, substance abusers are far less productive, miss more workdays, are more likely to injure themselves or someone else, and file more workers' compensation claims.

5. The measurable dollar costs of workplace substance abuse from absenteeism, overtime pay, tardiness, sick leave, insurance claims, and workers' compensation can be substantial. However, the hidden costs resulting from diverted supervisory and managerial time, friction among workers, damage to equipment, and damage to the company's public image mean that workplace substance abuse can further cut profits and competitiveness.

6. Alcohol can also destroy relationships, lead to serious problems with the law (e.g., drunk driving), and even cause harm to the people you love.

7. If drinking affects your work life, it could lead to job loss and all the financial problems that would follow.

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C. Signs and Symptoms of Alcohol Misuse - Any One or More of the Following Signs May Indicate a Drinking Problem:

- Family or social problems caused by drinking
- Job or financial difficulties related to drinking
- Loss of a consistent ability to control drinking
- "Blackouts" or the inability to remember what happened while drinking
- Distressing physical and/or psychological reactions if you try to stop drinking.
- A need to drink increasing amounts of alcohol to get the desired effect.
- Marked changes in behavior or personality when drinking.
- Getting drunk frequently.
- Injuring yourself-or someone-else while intoxicated
- Breaking the law while intoxicated.
- Starting the day with a drink.

D. Available Methods of Evaluating and Resolving Problems Associated with the Misuse of Alcohol.

1. Outpatient programs exist in a variety of settings:

   a. Community mental health centers.
   b. Full service agencies
   c. Private physicians' and therapists' offices
   d. Occupational settings
   e. Specialized alcoholism treatment facilities

2. Inpatient services, designed for those with more serious alcohol problems, can be found in hospitals, residential care facilities, community halfway houses, and some alcoholism clinics.

3. Your local phone directory will list helpful referral organizations such as:

   a. Local council on alcoholism
   b. Alcoholics Anonymous
   c. Community alcoholism or mental health clinic
   d. Social services or human resources department
   e. County medical society

4. The SAP will perform an initial evaluation, recommend any additional treatment if necessary, and refer employees needing assistance for treatment covered under our health insurance program.

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Kinder Morgan **500 Dallas Street** **Houston, TX 77002 (713) 369-9480** **Effective Date: April 1, 1997**	Alcohol Misuse Prevention Plan U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) Federal Motor Carrier Safety Administration (FMCSA) Plan Revision Date: October 1, 2010

APPENDIX G

ACKNOWLEDGMENT AND AGREEMENT WITH RESPECT TO DRUG AND ALCOHOL TESTING

I, the undersigned employee of the Company, hereby certify that I have been furnished with a copy of the company's DOT Alcohol and Drug testing program, including its Employee Assistance Program, and that I have read and understand same. I further certify that I have been provided with informational material, education and training on the dangers and problems of drug and alcohol misuse.

I am fully aware, and agree that I may be discharged or otherwise disciplined for any violation by me of said DOT Alcohol and Drug Policy, for any failure or refusal to provide urine and /or breath specimens when requested by my employer, for the failure or refusal to identify and certify same, for the failure to cooperate with the forms and other documents, and/or for any other failure or refusal to cooperate with my employer in its said DOT Alcohol and Drug Testing Program.

Executed this the _____ day of _____, 20_____.

_____
Employee Name (Please Print)

_____
Employee Signature

_____
Social Security Number

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APPENDIX H

MANAGEMENT INFORMATION SYSTEMS (MIS) FORM

A copy of the MIS form is available on DOT's website at:
www.dot.gov/ost/dapc/testingpubs/**mis_form**.pdf

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Kinder Morgan 500 Dallas Street Houston, TX 77002 (713) 369-9480 Effective Date: April 1, 1997	Alcohol Misuse Prevention Plan U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) Federal Motor Carrier Safety Administration (FMCSA) Plan Revision Date: October 1, 2010

APPENDIX I

FMCSA ATTACHMENT

FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION (FMSCA)

THIS ATTACHMENT APPLIES ONLY TO COMMERCIAL DRIVER'S LICENSE (CDL) HOLDERS. THESE PROVISIONS ONLY APPLY IF THE CDL IS REQUIRED FOR WORK PURPOSES.

A. General.

1. A complete copy of the alcohol misuse prevention plan is available to all employees. This document only discusses the FMCSA provisions of the mandated alcohol testing regulations.

2. The provisions contained in the Company's Alcohol Misuse Prevention Plan (AMPP) are applicable to those Company employees who perform safety-sensitive trucking functions covered under 49 CFR Part 382.

3. Company employees who only perform trucking functions must be aware of the general testing provisions discussed in the Company's AMPP and must be aware of the specific highway regulations as set forth in this attachment.

4. The Company recognizes that the misuse of alcohol in today's society is a major problem, which has also found its way into the trucking industry. The purpose of this AMPP is to reduce highway accidents that result from driver misuse of alcoholic substances, thereby reducing fatalities, injuries, and property damage. The Department of Transportation, Federal Motor Carrier Safety Administration, has established extensive regulations requiring alcohol testing under certain circumstances. In light of the above, the Company has adopted this plan to specify the circumstances under which alcohol testing may be required, the procedures for conducting such testing and the methods and procedures for complying with the requirements of the Federal Motor Carrier Safety Administration regulations.

5. The Company will implement necessary and reasonable measures to maintain a work environment free of alcohol. Employees with alcohol misuse problems are strongly encouraged to seek assistance.

6. The Alcohol Misuse Prevention Plan herein sets forth the requirements of 49 CFR Parts 199, 382 and 40. Those areas of the plan that appear in bold and underlined print reflect this company's independent authority to require additional provisions with regard to the alcohol testing procedures.

B. Applicability.

1. This information is applicable to every Company employee who operates a commercial motor vehicle in interstate or intrastate commerce, and is subject to the commercial driver's license requirements of 49 CFR Part 383.

2. For purposes of these regulations the Company is considered an employer with regard to the Federal Motor Carrier Safety Administration alcohol regulations. As an employer who employs drivers, the Company must comply with the requirements outlined herein as they apply to the employer and to drivers. All Company employees who perform safety-sensitive trucking functions shall be subject to the alcohol misuse testing provisions.

3. The following exceptions apply with regard to the Company and their drivers:

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a. When required to comply with the alcohol and /or controlled substances testing requirements of parts 655 of this title (Federal Transit Administration alcohol and controlled substances testing regulations); or

b. When granted a full waiver from the requirements of the commercial driver's license program; or

c. When granted an optional State waiver from the requirements of part 383 of this subchapter; or

d. When foreign domiciled operations, with respect to any driver whose place of reporting for duty (home terminal) for commercial motor vehicle transportation services is located outside the territory of the United States.

C. Policy.

1. Prohibited Alcohol - The presence in the body, possession, use, distribution, dispensing, and/or unlawful manufacture of alcohol or alcoholic products is not condoned while conducting Company business, or while in work areas or Company vehicles on or off Company premises. No employee will work under the influence of alcohol.

2. Drivers Subject to Alcohol Testing Covered Under This Plan - Company drivers and contract drivers under contract for 90 days or more in any period of 365 days, who perform safety sensitive trucking functions covered under 49 CFR Parts 382 and 383, and who meet the definition of "Driver" in D.2. of this section.

3. Alcohol Prohibitions.

   a. No driver shall be on duty, as defined in 395.2, if the driver uses alcohol.

   b. No driver shall be on duty, as defined in 395.2, if the driver tests positive for use of alcohol.

   c. A person who tests positive for the use of alcohol is medically unqualified to operate a commercial motor vehicle and will be not be permitted to perform covered functions and may be subject to disciplinary action up to and including termination.

   d. A person who refuses to be tested under the plan provisions shall not be permitted to operate a commercial motor vehicle. Such refusal shall be treated as a positive alcohol test and subject the driver to the restrictions contained in paragraph (c) above.

4. FMCSA Background Checks (40.25) - The company must request the information listed below from DOT-regulated companies who have employed the employee during any period during the three years before the date of the employee's application or transfer:

   a. Alcohol tests with a result of 0.04 or higher alcohol concentration;

   b. Verified positive drug tests;

   c. Refusals to be tested (including verified adulterated or substituted drug test results);

   d. Other violations of DOT agency drug and alcohol testing regulations; and

   e. With respect to any employee who violated a DOT drug and alcohol regulation, documentation of the employee's successful completion of DOT return-to-duty requirements (including follow-up tests). If the previous company does not have information about the return-do-duty process (e.g., a company who did not hire an employee who tested positive on a pre-employment test), the company must seek to obtain this information from the employee.

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D. Definitions:

1. Commercial Motor Vehicle - means a motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the motor vehicle-

   a. Has a gross combination weight rating of 26,001 or more pounds inclusive of a towed unit with a gross vehicle weight rating of more than 10,000 pounds; or

   b. Has a gross vehicle weight rating of 26,001 or more pounds; or

   c. Is designed to transport 16 or more passengers, including the driver; or

   d. Is of any size and is used in the transportation of material found to be hazardous for the purposes of the Hazardous Materials Transportation Act and which require the motor vehicle to be placard under the Hazardous Materials Regulations (CFR part 172, subpart F).

2. Driver - means any person who operates a commercial motor vehicle. This includes, but is not limited to: full time, regularly employed drivers; casual, intermittent or occasional drivers; leased drivers and independent, owner-operator contractors who are either directly employed by or under lease to an employer or who operate a commercial motor vehicle at the direction of or with the consent of an employer. For the purposes of pre-employment/pre-duty testing only, the term *driver* includes a person applying to an employer to drive a commercial motor vehicle.

3. Employer - means any person (including the United States, a State, District of Columbia or a political subdivision of a State) who owns or leases a commercial motor vehicle or assigns persons to operate such a vehicle. The term employer includes an employer's agents, officers and representatives.

4. Interstate Commerce - means (1) any trade, traffic, or transportation within the jurisdiction of the United States between a place in a State and a place outside of such State, including a place outside of the United States, and (2) trade, traffic, and transportation in the United States which affects any trade, traffic, and transportation as described above in this definition.

5. Motor Carrier - means a for-hire motor carrier or a private motor carrier of property. The term "motor carrier" includes a motor carrier's agents, officers and representatives as well as employees responsible for hiring, supervising, training, assigning, or dispatching of drivers and employees concerned with the installation, inspection, and maintenance of motor vehicle equipment and/or accessories.

6. On-Duty Time - means all time from the time a driver begins to work or is required to be in readiness to work until the time he/she is relieved from work and all responsibility for performing work. On duty time shall include:

   a. All time at a carrier or shipper plant, terminal, facility, or other property, or on any public property, waiting to be dispatched, unless the driver has been relieved from duty by the motor carrier;

   b. All time inspecting equipment as required by 392.7 and 392.8 of this chapter or otherwise inspecting, servicing, or conditioning any commercial motor vehicle at any time;

   c. All driving time as defined in the term driving time in this section;

   d. All time, other than driving time, in or upon any commercial motor vehicle except time spent resting in a sleeper berth as defined by the term sleeper berth of this section;

   e. All time loading or unloading a vehicle, supervision, or assisting in the loading or unloading, attending a vehicle being loaded or unloaded, remaining in readiness to operate the vehicle, or in giving or receiving receipts from shipments loaded or unloaded;

   f. All time spent performing the driver requirements of 392.40 and 392.41 of this chapter

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relating to accidents;

g. All time repairing, obtaining assistance, or remaining in attendance upon a disabled vehicle;

7. Performing (a safety-sensitive function) - means a driver is considered to be performing a safety-sensitive function during any period in which he/she is actually performing, ready to perform, or immediately available to perform any safety-sensitive functions.

8. Safety-Sensitive Function - means any of those on-duty functions as set forth in 49 CFR Part 395.2.

E. Alcohol Testing.

1. **Pre-Employment (Background Check Only – Alcohol Testing is Optional).**

The company must obtain and review the information listed below from any employer for whom the driver performed safety-sensitive functions in the previous three years. The information must be obtained and reviewed to later than 30 days after the driver performs safety-sensitive functions (driving).

(a) Information of the driver's alcohol test in which a breath alcohol concentration of 0.04 or greater was indicated.

(b) Information on the driver's controlled substances test in which a positive results was indicated.

(c) Any refusal to submit to a required alcohol or controlled substance test.

The company must provide to each of the driver's previous employers of the past three years a written authorization from the driver for the release of the required information. The company may not use a driver to perform safety-sensitive functions if the employer obtains information indicating the driver has tested positive for controlled substances, tested at or above .04 breath alcohol concentration, or refused to test unless the employer has evidence the driver has been evaluated by a SAP, completed any required counseling, passed a return-to-duty test, and been subject to follow-up testing.

2. Random Testing.

a. Employees in "covered" positions will be subject to random testing at any time with no advance notice. The random selection process will ensure each employee the same fair and equal chance of being selected.

b. An employee randomly selected will be notified by his/her supervisor of the selection and instructed to immediately go to the designated alcohol-testing site.

c. Random testing will be conducted quarterly and will be administered at a 10% annualized rate. This means that the total number of tests conducted during any 12-month period will be equal to at least 10 percent of the total pool of covered employees.

3. Reasonable Suspicion.

a. An employee/driver shall submit to testing, for reasonable suspicion, for the use of alcohol when requested to do so by the Company.

b. The employee’s conduct must be witnessed by at least one supervisor and company official. The supervisor or witnesses must have received training in the specific identification of actions, appearance, behavior, or conduct of a commercial motor vehicle driver, which are indicative of alcohol use.

c. The supervisor shall ensure that the employee is transported to the alcohol-testing site.

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d. If an employee refuses to submit to the alcohol test or attempts to leave Company's premises and is impaired to the extent that he/she would present a danger to either him/herself or others, local law enforcement should be contacted immediately by the Company representative.

e. While waiting for an employee's alcohol test results, that employee will be removed from performing safety-sensitive functions and, if the test results are positive, may be subject to further disciplinary action up to and including termination. Specific disciplinary actions are described in detail in the AMPP.

4. Post-Accident Testing.

a. A driver shall submit to an alcohol test within 2 hours of a determination by the Company officials that a test is required and that circumstances indicate the accident is reportable under the FMSCA regulations. It must be determined that the driver received a citation for a moving traffic violation arising from the accident. A DOT reportable accident is defined in 49 CFR Part 382.303(a)(3).

(1) An occurrence involving a commercial motor vehicle operating on a public road in commerce:

Type of accident involved	Citation issued to the CMV driver	Test must be performed by company
Human fatality	YES NO	YES YES
Bodily injury with immediate medical treatment away from the scene.	YES NO	YES NO
Disabling damage to any motor vehicle requiring tow away.	YES NO	YES NO

b. A driver who is seriously injured and cannot be tested at the time of the accident should provide the necessary authorization for obtaining hospital reports and other documents that would indicate whether there was any alcohol in his/her system.

c. The results of a breath or blood test for the use of alcohol conducted by Federal, State, or Local law enforcement officials having independent authority to conduct such tests, shall be considered to meet the requirements of this section, provided such tests conform to the applicable Federal, State, or Local requirements. Company officials shall obtain such test results.

d. The Company shall provide drivers with necessary information and procedures so that the driver will be able to meet the requirement as set forth in this section.

e. While waiting for an employee's alcohol test results, that employee will be removed from performing safety-sensitive functions and, if the test results are positive, may be subject to further disciplinary action up to and including termination. Specific disciplinary actions are described in detail in the AMPP.

f. Employee Responsibility. As soon as practicable following an accident as defined in this plan, the employee shall make every attempt to contact his/her supervisor and the substance abuse program administrator.

(1) The employee will be given instructions for obtaining alcohol and substance abuse testing.

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(2) An employee who is subject to post-accident testing must remain available for testing, or company may consider the employee to have refused to submit to testing.

(3) The employee subject to post-accident testing must refrain from consuming alcohol for eight hours following the accident, or until he or she submits to an alcohol test, whichever comes first.

g. Company Responsibility.

(1) Upon receiving a report of an accident, the company shall test the employee (if no a fatality) for alcohol and controlled substances as soon as practicable.

5. Return to Duty.

- **NOTE: A covered employee who refuses to take or has a positive alcohol test will be terminated. Therefore, return-to-duty testing is not an option, unless the employee meets the requirements of Section F of this appendix or is otherwise covered by a bargaining agreement.**

a. The requirements for return-to-duty testing must be performed in accordance with 49 CFR Part 40, Subpart O and that information can be found in Section V of the Alcohol Misuse Prevention plan.

6. Follow-up Testing.

- **NOTE: A covered employee who refuses to take or has a positive alcohol test will be terminated. Therefore, follow-up testing is not an option, unless the employee meets the requirements of Section F of this appendix or is otherwise covered by a bargaining agreement.**

a. The requirements for follow-up testing must be performed in accordance with 49 CFR Part 40, Subpart O and that information can be found in Section V of the Alcohol Misuse Prevention plan.

F. Employee Admission of Alcohol and Controlled Substances Use.

1. Employees who admit to alcohol misuse or controlled substances use are not subject to the referral, evaluation and treatment requirements of Part 382 and Part 40 of this title, provided that:

a. The admission is in accordance with a written employer-established voluntary self-identification program or policy that meets the requirements of paragraph (b) of this section;

b. The driver does not self-identify in order to avoid testing under the requirements of this part;

c. The driver makes the admission of alcohol misuse or controlled substances use prior to performing a safety sensitive function (i.e., prior to reporting for duty); and

d. The driver does not perform a safety sensitive function until the employer is satisfied that the employee has been evaluated and has successfully completed education or treatment requirements in accordance with the self-identification program guidelines.

2. A qualified voluntary self-identification program or policy must contain the following elements:

a. It must prohibit the employer from taking adverse action against an employee making a voluntary admission of alcohol misuse or controlled substances use within the parameters of the program or policy and paragraph (a) of this section;

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b. It must allow the employee sufficient opportunity to seek evaluation, education or treatment to establish control over the employee's drug or alcohol problem;

c. It must permit the employee to return to safety sensitive duties only upon successful completion of an educational or treatment program, as determined by a drug and alcohol abuse evaluation expert, i.e., employee assistance professional, substance abuse professional, or qualified drug and alcohol counselor;

d. It must ensure that:

(1) Prior to the employee participating in a safety sensitive function, the employee shall undergo a return to duty test with a result indicating an alcohol concentration of less than 0.02; and/or

(2) Prior to the employee participating in a safety sensitive function, the employee shall undergo a return to duty controlled substance test with a verified negative test result for controlled substances use; and

e. It may incorporate employee monitoring and include non-DOT follow-up testing.

G. Disciplinary Action.

1. Violation of Policy.

a. **Any employee found in violation of the Company's AMPP would be subject to disciplinary action up to and including termination of employment. Any employee found in violation of this policy may be required to successfully complete a rehabilitation/ treatment program for alcohol misuse as a condition of continued employment with the Company.**

b. **Any transferring employee found in violation of the Company's AMPP will be subject to disciplinary action up to an including termination of employment.**

c. **Specific disciplinary actions and rehabilitation provisions are discussed in the AMPP.**

2. Refusal to Test.

a. No employee shall refuse to submit to a random, reasonable-suspicion, post-accident, or follow-up alcohol test as outlined in 49 CFR Part 382.211.

b. **An employee who refuses a return-to-duty test is not in violation of the plan; however, such refusal will result in not allowing the individual to perform safety-sensitive functions and may result in disciplinary action up to and including termination of employment.**

c. Employees who: (1) without a legitimate reason fail to report to the alcohol testing site; or (2) without a valid medical reason fail to provide an adequate breath sample under this policy **may be suspended without pay and be subject to disciplinary action up to and including termination of employment.**

3. Return to Duty.

a. An employee testing positive for alcohol may be allowed to return to a "safety-sensitive" position after successful completion of a rehabilitation/ treatment program, a return-to-duty test with an alcohol concentration of less than 0.02, and the recommendation from the substance abuse professional that the individual has completed any required assessment, evaluation and/or treatment provision.

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b. After returning to work the employee will be subject to: 1) unannounced follow-up testing, as determined by the SAP and the Company officials; and 2) the other required types of testing which includes random.

H. Alcohol Testing Overview.

1. Alcohol Testing Procedures. All collection, transportation, testing procedures, test evaluation measures, quality control measures, substance abuse professionals, record keeping, and reporting of alcohol test results will conform to the Department of Transportation regulations as set forth in 49 CFR Part 40, Procedures for Transportation Workplace Drug and Alcohol Testing Programs.

I. Record Retention.

1. Record keeping.

a. The Company will retain the following records for a period of at least five (5) years:

(1) Records of driver alcohol test results with results indicating a level of greater than 0.02.
(2) Documentation of driver refusal to take required alcohol tests.
(3) Driver referral and evaluation records.

b. The Company will retain records regarding the alcohol collection process for two years.

c. The Company will retain test records of drivers with alcohol concentrations of less than 0.02 for a minimum of one year.

d. The Company will retain records confirming supervisory and employee training for at least three (3) years.

2. Driver Qualification Files.

These records are subject to the Company's current divided record keeping authority and are to be maintained at authorized record keeping locations. Below is a list of information to be maintained in these files regarding employee alcohol abuse.

a. The name of the employee submitted to an alcohol test;
b. Date the alcohol test was conducted;
c. Location of the alcohol test;
d. Test category;
e. Results of the alcohol test.

3. Record Confidentiality.

a. Except for the breath alcohol technician, substance abuse professional, and designated Company personnel with a need to know, the Company will not release information regarding an employee's alcohol use or rehabilitation/treatment records without the express written consent of the tested employee. The only exception is when information must be released, regardless of consent, to the Federal Motor Carrier Safety Administrator to examine all records related to the administration and results of controlled substance testing performed under this program.

b. To maintain confidentiality, written records regarding an employee's alcohol misuse and rehabilitation will be stored in a secured location. The employee's alcohol testing and/or rehabilitation/treatment records will not be made a part of the employee's personnel file.

J. Responsibility.

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1. **Reservation of Rights - The Company reserves the right to interpret, modify, and/or revise this policy in whole or in part without notice. Nothing in this policy is to be construed as an employment contract nor does this alter an employee's employment at-will status. The employee remains free to resign his/her employment at any time for any or no reason, without notice. Similarly, the Company reserves the right to terminate any employee's employment, for any or no reason, without notice.**

2. Compliance with All Laws.
This policy will be amended from time to time to comply with changes in Federal and State Laws.

This policy is a general summary of the Company's Alcohol Misuse Prevention Plan and designed to highlight the more important general provisions. This attachment does not contain every detail but more detailed specific terms are discussed elsewhere in the plan. THEREFORE, IF THERE IS ANY QUESTION OR CONFLICT BETWEEN WHAT IS SAID IN THIS POLICY SUMMARY AND THE LANGUAGE IN THE PLAN, THE PLAN WILL PREVAIL. IF THERE IS ANY QUESTION OR CONFLICT BETWEEN WHAT IS SAID IN THE PLAN AND THE LANGUAGE IN THE DOT REGULATIONS AS CODIFIED AT 49 CFR PART 40 AND 382, THE DOT REGULATIONS WILL PREVAIL.

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APPENDIX J

STATE REGULATORY REQUIREMENTS

02.1 **Nebraska**

Title 155 – STATE FIRE MARSHAL

Chapter 1 – REGULATION RURSUANT TO THE NEBRASKA NATURAL GAS PIPELINE SAFETY ACT OF 1969

001. Federal regulations adopted by reference are Title 49 of the Code of Federal Regulations, Parts 191, 192, 193, and 199, revised as of October 1, 2003.
  02.01. Natural Gas Pipeline Safety Act of 1968. Amendment number 192-87, 88, 89, 89A, 90, 93, and 95.
  002. Copies of the federal regulations are on file at the office of the Nebraska State Fire Marshal, 246 South 14th Street, Lincoln, NE or at the office of the Secretary of State, Division of Rules and Regulations in the Nebraska State Capital.

002. Within two (2) hours or as soon as practical, following the discovery of any reportable incident, an operator shall notify the Sate Fire Marshal Pipeline Safety Division, Lincoln, Nebraska at (402) 471-2027 during normal business hours. After hours, operators shall call the area Pipeline Safety Deputy.
  02.01. Reportable incidents, either before or past the meter are:
    02.01Ai. A death or person injury necessitating in-patient hospitalization; or
    02.01Aii. Estimated property damage, including cost of gas lost, of the operator or others, or both of $50,000 or more; or,
    02.01Aiii. Any failure which results in the explosion or ignition of natural gas.
    02.01B. An event that results in an emergency shutdown of an LNG facility.
    02.01C. An even that is significant in the judgment of the operator, even though it does not meet the criteria of .02.01A or .02.01B.

003. Each written report required by Title 49 of the Code of Federal Regulations, Part 191 adopted herein, shall be submitted in duplicate to the Nebraska Sate Fire Marshal Pipeline Safety Division.
  03.01. One copy of the reports submitted, pursuant to 003 above will be transmitted to the Information Resources Manager, Office of Pipeline Safety, PHMSA, Department of Transportation within 10 day of receipt by the State Fire Marshal.
  03.02. Annual reports shall be submitted to the State Fire Marshal by March 5th and shall be transmitted to the Department of Transportation no later than March 15th.

LEGAL CITATION: Title 155, Chapter 1 – Nebraska State Fire Marshal
STATUTORY CITATION: Neb. Rev. Stat. 81-542 to 81-550 (1996)
NEBRASKA ADMINISTRATIVE CODE
LAST ISSUE DATE: March 27, 2004

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Kinder Morgan 500 Dallas Street Houston, TX 77002 (713) 369-9480 Effective Date: April 1, 1997	Alcohol Misuse Prevention Plan U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) Federal Motor Carrier Safety Administration (FMCSA) Plan Revision Date: October 1, 2010

APPENDIX K

Post Accident or Reasonable Cause/Suspicion Supervisor Written Record

☐ **CDL (FMCSA)**
☐ **Pipeline (PHMSA)**

Employee's Name _____ Dept. _____ Date _____

Employee SSN _____ Job Title _____ Time _____

1. **EBT Breath Alcohol testing not completed within two (2) hours of the Accident or the Reasonable Cause/Suspicion situation because:** ***(Examples – received notification too late, Employee removed from the scene for medical treatment, EBT device not available, injuries precluded testing, Breath Alcohol Technician not available)***

   _____

   _____

2. **EBT Breath Alcohol testing not completed within eight (8) hours because:** ***(Examples – received notification too late, Employee removed from the scene for medical treatment, EBT (device not available, injuries precluded testing, Breath Alcohol Technician not available)***

   _____

   _____

3. **Urine Drug Testing not completed within 32 hours of the Accident or Reasonable Cause/Suspicion situation because:**

   _____

   _____

Supervisor's Name: _____ Date: _____

Supervisor's Signature

Second Supervisor's Signature (if applicable)

***** IMPORTANT *****

The above report is required in Post Accident or Reasonable Cause/Suspicion testing when the **test(s) times were not met.**

The written report of Post Accident or Reasonable Cause/Suspicion testing must be completed and signed by the supervisor within 48 hours of the incident and subsequently faxed to the Company Designated Employer Representative (DER).

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6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Barstow Area Lines	
• Adelanto Junction - Halloran 8”	ML1
• Adelanto Junction - Halloran 14”	ML
• Lenwood Junction – BNSF 12”	ML5A
• Adelanto - George AFB Breakout Station 4”/6”	ML4
• George AFB Breakout Station - Edwards AFB 6”	ED-001
Pipeline Facilities (non-storage)	
• Barstow Pump Station (Booster)	
• Barstow Station - Piping Manifold Only	
• Yermo Station - Meter Manifold Only	
• Baker Pump Station (Booster)	
• Edwards Terminal - Meter Manifold Only	

- Figures 6.1a through 6.1e on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Operational and Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps.
- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.
- Northern and Southern Region pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

ADELANTO JUNCTION - HALLORAN 8" (ML1)		
Pipe and Operational Data		
Section Length:	114.0 Miles	602,130 Feet
Line Diameter:	8.625 in., O.D.	8.187 in., I.D. (note 1)
Line Capacity:	344 Bbls/mile (note 2)	
Capacity of entire line section:	(b) (7)(F), (b)	
Maximum flow rate:	1,300 Bbls/hr or 31,200 Bbls/day	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
County(s)/State(s) Traversed:	San Bernardino, CA	
Location Description:	From Adelanto Junction at the corner of Air Expressway Blvd and Adelanto Road generally northeast to Halloran Summit adjacent to I-15 east of Baker.	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

ADELANTO JUNCTION - HALLORAN 14" (ML)

Pipe and Operational Data

- Section Length: 114.0 Miles 602,805 Feet
- Line Diameter: 14.0 in., O.D. 13.50 in., I.D. (note 1)
- Line Capacity: 935 Bbls/mile (note 2)
- Product types: CARB ULSD, Gas, JP-8, Turbine, Ethanol
- Capacity of entire line section: (b) (7)(F), (b) (3)
- Maximum flow rate: 7,000 Bbls/hr or 168,000 Bbls/day

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

- County(s)/State(s) Traversed: San Bernardino, CA
- Location Description: From Adelanto Junction at the corner of Air Expressway Blvd and Adelanto Road generally northeast to Halloran Summit adjacent to I-15 east of Baker.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

Lenwood Junction – BNSF (ML5A)		
Pipe and Operational Data		
• Section Length:	3.5 Miles	18,320 Feet
• Line Diameter:	12 in., O.D.	12 in., I.D. (note 1)
• Line Capacity:	732 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,400 bph or 105,600 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	San Bernardino, CA
• Location Description:	Lenwood Road, north to BNSF meter site.

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

ADELANTO - GEORGE AFB BREAKOUT STATION 4"/6" (ML4)		
Pipe and Operational Data		
• Section Length:	1.6 Miles	8,665 Feet
• Line Diameter:	6.625 in., O.D.	6.249 in., I.D. (note 1)
• Line Capacity:	200 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,000 bph or 48,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	From Adelanto Junction (Near Adelanto Road and Air Expressway) east to George AFB Breakout Station.	

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

GEORGE AFB BREAKOUT STATION - EDWARDS AFB 6" (ED-001)	
Pipe and Operational Data	
Section Length:	51.8 Miles 273,277 Feet
Line Diameter:	6.625 in., O.D. 6.281 in., I.D. (note 1)
Line Capacity:	202 bbls/mile (note 2)
Capacity of entire line section:	(b) (7)(F),
Maximum flow rate:	500 bph or 12,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
County(s)/State(s) Traversed:	San Bernardino, CA Kern, CA
Location Description:	From George AFB Breakout Station west to Adelanto Road, north to Mirage Road, west to 240 St East, then generally north and west to Edwards AFB.

FIGURE 6.2

HCA INDEX

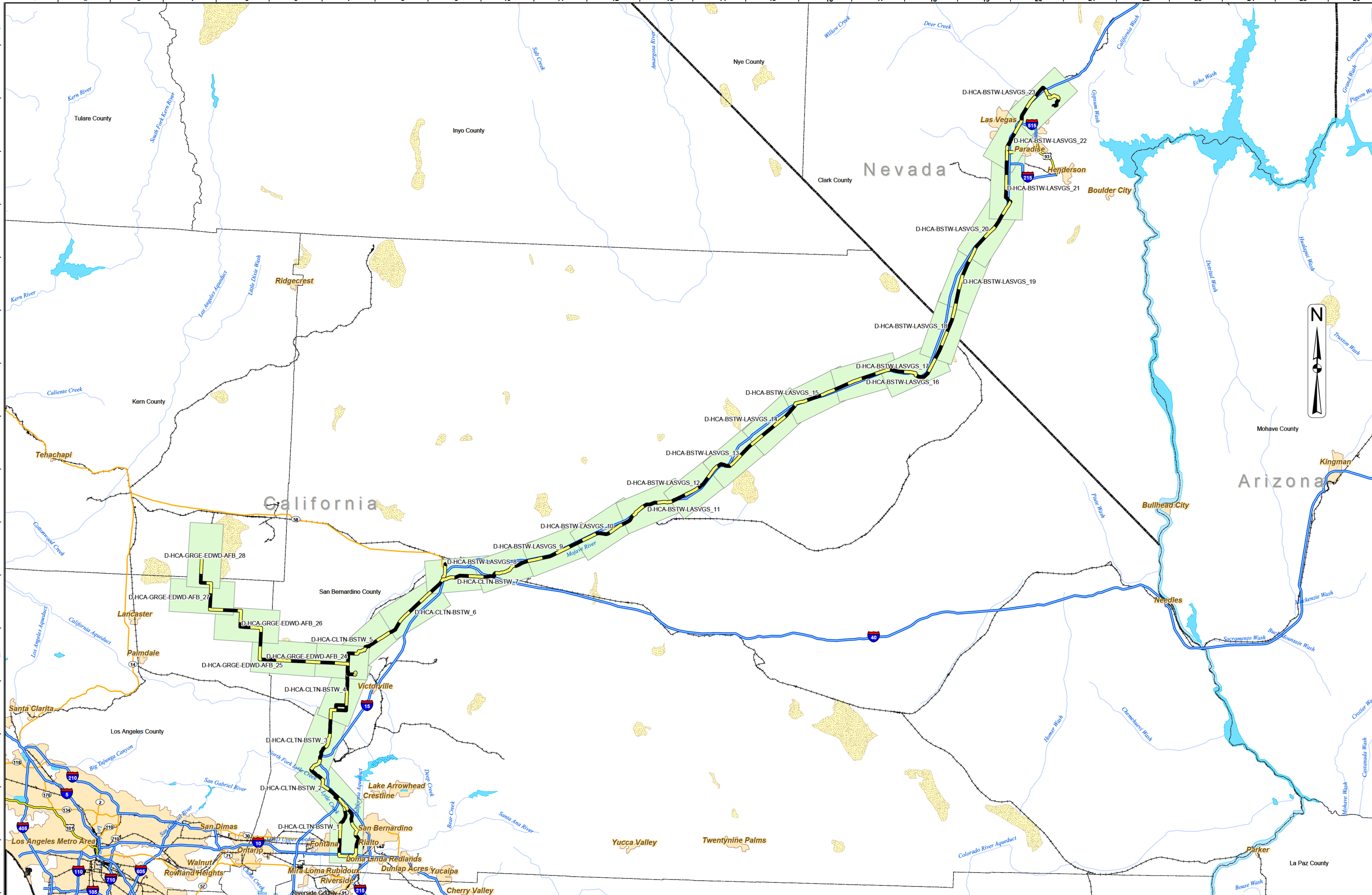
Refer to Figure 6.1a through Figure 6.1e for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

487-D-HCA-INDEX-CALNEV_001.pdf
487-D-HCA-CLTN-BSTW_004.pdf
487-D-HCA-CLTN-BSTW_005.pdf
487-D-HCA-CLTN-BSTW_006.pdf
487-D-HCA-CLTN-BSTW_007.pdf
487-D-HCA-GRGE-EDWD-AFB_024.pdf
487-D-HCA-GRGE-EDWD-AFB_025.pdf
487-D-HCA-GRGE-EDWD-AFB_026.pdf
487-D-HCA-GRGE-EDWD-AFB_027.pdf
487-D-HCA-GRGE-EDWD-AFB_028.pdf
487-D-HCA-BSTW-LASVGS_008.pdf
487-D-HCA-BSTW-LASVGS_009.pdf
487-D-HCA-BSTW-LASVGS_010.pdf
487-D-HCA-BSTW-LASVGS_011.pdf
487-D-HCA-BSTW-LASVGS_012.pdf
487-D-HCA-BSTW-LASVGS_013.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CLTN-BSTW_001	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" MLA; UNLEADED RECEIVING 20" MLB; DIESEL RECEIVING 20" MLE; JET FUEL RECEIVING B 16"
D-HCA-CLTN-BSTW_002	ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14"
D-HCA-CLTN-BSTW_003	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8"
D-HCA-CLTN-BSTW_004	ED; GEORGE TERMINAL - EDWARDS AFB 6" ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" ML4; ADELANTO - GEORGE TERMINAL 6/4" ML4A; GEORGE AFB - GEORGE AFB STORAGE 6/4"
D-HCA-CLTN-BSTW_005	ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14"
D-HCA-CLTN-BSTW_006	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8"
D-HCA-CLTN-BSTW_007	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" ML5A; LENWOOD - BNSF 12"
D-HCA-BSTW-LASVGS_008	ML1; COLTON - BARSTOW 8" ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8" ML; COLTON - BARSTOW 14"
D-HCA-BSTW-LASVGS_009	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_010	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_011	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_012	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_013	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_014	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_015	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_016	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_017	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_018	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_019	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_020	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_021	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_022	MC; BRACKEN - MCCARRAN 6/12" ML; BARSTOW - LAS VEGAS 14" ML1; BRACKEN JCT - LAS VEGAS 8" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_023	ML; BARSTOW - LAS VEGAS 14" ML1; BRACKEN JCT - LAS VEGAS 8" NE; LAS VEGAS - NELLIS AFB 8" NE6; NE8" - NELLIS W OPS BULK STORG 6"
D-HCA-GRGE-EDWD-AFB_024	ED; GEORGE TERMINAL - EDWARDS AFB 6" ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14" ML4; ADELANTO - GEORGE TERMINAL 6/4" ML4A; GEORGE AFB - GEORGE AFB STORAGE 6/4"
D-HCA-GRGE-EDWD-AFB_025	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_026	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_027	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_028	ED; GEORGE TERMINAL - EDWARDS AFB 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

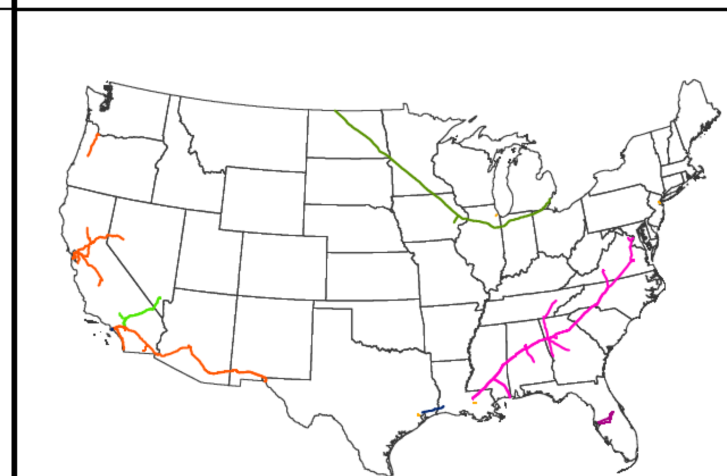
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

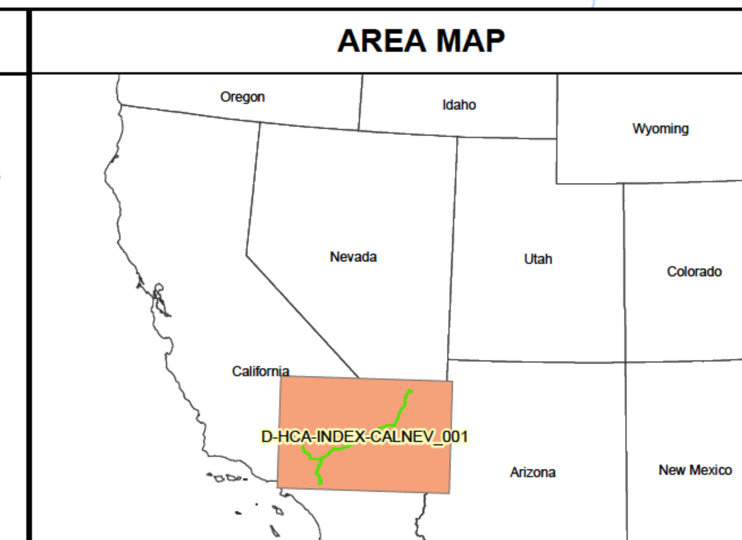
LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_sheet
Cochin-USA	Cochin-USA	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP



AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/26/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Oct, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name: 487-D-HCA-INDEX-CALNEV_001	
Approved:		

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Colton Incoming Lines	
• Industry Station - Colton 16”	1
• Industry Station - Colton 20”	108
Colton Area Lines	
• Ontario - Ontario Airport 6”	102
• Colton - March 6”	51
Colton Inter-Facility Lines	
• Colton - CalNev Jet A 16” (Out of Service)	MLE
• Colton - CalNev Jet B 16”	MLD
• Colton - CalNev Diesel 20”	MLB
• Colton - CalNev Gasoline 20”	MLA
Colton Outgoing Lines	
• Colton - Indio Block 20”	111
• Colton - Adelanto Junction 8”	ML1
• Colton - Adelanto Junction 14”	ML
Pipeline Facilities (Non-Storage)	
• Cajon Pump Station (Booster)	
• March AFB Terminal - Meter Manifold Only	
• Roadway Junction - Piping Manifold Only (OOS)	
• Adelanto Junction - Piping Manifold Only	

- Figures 6.1a through 6.1k on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Operational and Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps
- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.
- Northern and Southern Region pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

INDUSTRY STATION - COLTON 16" (1)		
Pipe and Operational Data		
• Section Length:	28.83 Miles	152,206 Feet
• Line Diameter:	16.0 in., O.D.	15.50 in., I.D. (note 1)
• Line Capacity:	1,232 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	8,000 bph or 192,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA Los Angeles, CA	
• Location Description:	From Industry Station east generally adjacent to the SP Railroad to Colton Terminal east of Riverside Ave in Bloomington.	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

INDUSTRY STATION - COLTON 20" (108)		
Pipe and Operational Data		
• Section Length:	48.77 Miles	257,506 Feet
• Line Diameter:	20.0 in., O.D.	19.376 in., I.D. (note 1)
• Line Capacity:	1,926 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	15,000 bph or 360,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA Los Angeles, CA	
• Location Description:	From Industry Station east generally adjacent to the SP Railroad to Colton Terminal east of Riverside Ave in Bloomington.	

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

ONTARIO - ONTARIO AIRPORT 6" (102)		
Pipe and Operational Data		
• Section Length:	1.65 Miles	8,699 Feet
• Line Diameter:	6.625 in., O.D.	6.125 in., I.D. (note 1)
• Line Capacity:	192 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	2,000 bph or 48,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	From Ontario Breakout Station to Ontario Airport, where it connects to a pipeline owned by others.	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

COLTON - MARCH 6" (51)		
Pipe and Operational Data		
• Section Length:	15.04 Miles	79,395 Feet
• Line Diameter:	6.625 in., O.D.	6.125 in., I.D. (note 1)
• Line Capacity:	192 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	750 bph or 18,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	San Bernardino, CA
• Location Description:	From Colton South Terminal south to the Santa Ana River then generally southeast to March AFB, Cactus Highway east of I-215.

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

COLTON - CALNEV JET A 16" (MLE) (Out of Service)		
Pipe and Operational Data		
• Section Length:	0.38 Miles	2,025 Feet
• Line Diameter:	16.0 in., O.D.	15.25 in., I.D. (note 1)
• Line Capacity:	1,192 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	0 bph or 0 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	Interconnecting Colton South and Colton North tank facilities.	

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

COLTON - CALNEV JET B 16" (MLD)		
Pipe and Operational Data		
• Section Length:	0.38 Miles	2,025 Feet
• Line Diameter:	16.0 in., O.D.	15.25 in., I.D. (note 1)
• Line Capacity:	1,192 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	10,000 bph or 240,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	Interconnecting Colton South and Colton North tank facilities.	

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

COLTON - CALNEV DIESEL 20" (MLB)		
Pipe and Operational Data		
• Section Length:	0.54 Miles	2,844 Feet
• Line Diameter:	20.0 in., O.D.	19.50 in., I.D. (note 1)
• Line Capacity:	1,950 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	10,000 bph or 240,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	Interconnecting Colton South and Colton North tank facilities.	

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

COLTON - CALNEV GASOLINE 20" (MLA)		
Pipe and Operational Data		
• Section Length:	0.54 Miles	2,844 Feet
• Line Diameter:	20.0 in., O.D.	19.50 in., I.D. (note 1)
• Line Capacity:	1,950 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	10,000 bph or 240,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	Interconnecting Colton South and Colton North tank facilities.	

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

COLTON - (b) (3), (b) (7)(F)

Pipe and Operational Data

• Section Length:	72.58 Miles	383,217 Feet
• Line Diameter:	20.0 in., O.D.	19.312 in., I.D. (note 1)
• Line Capacity:	1,913 bbls/mile (note 2)	
• Product types:	CARB ULSD, Gas, Turbine, JP-8, Ethanol	
• Capacity of entire line section:	(b) (7)(F), (b) (3)	
• Maximum flow rate:	12,500 bph or 300,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

• County(s)/State(s) Traversed:	San Bernardino, CA
• Location Description:	From Colton South Terminal generally east to Indio then south along the east side of the Salton Sea.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.1j

PIPELINE SECTION INFORMATION SUMMARY

COLTON – ADELANTO JUNCTION 8" (ML1)		
Pipe and Operational Data		
• Section Length:	45.226 Miles	238,793.28 Feet
• Line Diameter:	8.625 in., O.D.	8.187 in., I.D. (note 1)
• Line Capacity:	344 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b) (3)	
• Maximum flow rate:	1,300 bph or 31,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	From Colton South Terminal generally north through Cajon Pass to Adelanto Junction at the corner of Air Expressway Blvd and Adelanto Road.	

FIGURE 6.1k

PIPELINE SECTION INFORMATION SUMMARY

COLTON - ADELANTO JUNCTION 14" (ML)		
Pipe and Operational Data		
• Section Length:	44.994 Miles	237568.32 Feet
• Line Diameter:	14.0 in., O.D.	13.50 in., I.D. (note 1)
• Line Capacity:	935 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	7,000 bph or 168,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
• Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA	
• Location Description:	From Colton South Terminal generally north through Cajon Pass to Adelanto Junction at the corner of Air Expressway Blvd and Adelanto Road.	

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1k for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

487-D-HCA-INDEX-CalNev_001.pdf

487-D-HCA-CLTN-BSTW_001.pdf

487-D-HCA-CLTN-BSTW_002.pdf

487-D-HCA-CLTN-BSTW_003.pdf

487-D-HCA-CLTN-BSTW_004.pdf

485-D-HCA-INDEX-SFPP_003.pdf

485-D-HCA-CLTN-MARCHAFB_104.pdf

485-D-HCA-COLTON-YUMA_088.pdf

485-D-HCA-COLTON-YUMA_089.pdf

485-D-HCA-COLTON-YUMA_090.pdf

485-D-HCA-COLTON-YUMA_091.pdf

485-D-HCA-COLTON-YUMA_092.pdf

485-D-HCA-COLTON-YUMA_093.pdf

485-D-HCA-COLTON-YUMA_094.pdf

485-D-HCA-COLTON-YUMA_095.pdf

485-D-HCA-WATSON-CLTN_096.pdf

485-D-HCA-WATSON-CLTN_097.pdf

485-D-HCA-WATSON-CLTN_098.pdf

485-D-HCA-WATSON-CLTN_099.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CLTN-BSTW_001	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" MLA; UNLEADED RECEIVING 20" MLB; DIESEL RECEIVING 20" MLE; JET FUEL RECEIVING B 16"
D-HCA-CLTN-BSTW_002	ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14"
D-HCA-CLTN-BSTW_003	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8"
D-HCA-CLTN-BSTW_004	ED; GEORGE TERMINAL - EDWARDS AFB 6" ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" ML4; ADELANTO - GEORGE TERMINAL 6/4" ML4A; GEORGE AFB - GEORGE AFB STORAGE 6/4"
D-HCA-CLTN-BSTW_005	ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14"
D-HCA-CLTN-BSTW_006	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8"
D-HCA-CLTN-BSTW_007	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" ML5A; LENWOOD - BNSF 12"
D-HCA-BSTW-LASVGS_008	ML1; COLTON - BARSTOW 8" ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8" ML; COLTON - BARSTOW 14"
D-HCA-BSTW-LASVGS_009	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_010	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_011	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_012	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_013	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_014	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_015	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_016	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_017	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_018	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_019	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_020	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_021	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_022	MC; BRACKEN - MCCARRAN 6/12" ML; BARSTOW - LAS VEGAS 14" ML1; BRACKEN JCT - LAS VEGAS 8" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_023	ML; BARSTOW - LAS VEGAS 14" ML1; BRACKEN JCT - LAS VEGAS 8" NE; LAS VEGAS - NELLIS AFB 8" NE6; NE8" - NELLIS W OPS BULK STORG 6"
D-HCA-GRGE-EDWD-AFB_024	ED; GEORGE TERMINAL - EDWARDS AFB 6" ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14" ML4; ADELANTO - GEORGE TERMINAL 6/4" ML4A; GEORGE AFB - GEORGE AFB STORAGE 6/4"
D-HCA-GRGE-EDWD-AFB_025	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_026	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_027	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_028	ED; GEORGE TERMINAL - EDWARDS AFB 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES: CalNev, CentFla, Cochin-USA, KMLT, WCLT, Cypress, Plantation, SFPP

INDEX SHEETS: CalNev, CentFla, Cochin-USA, KMLT, WCLT, Cypress, Plantation, SFPP

Pipeline, D_HCA_ sheet

VICINITY MAP

AREA MAP

Oregon, Idaho, Wyoming, Nevada, Utah, Colorado, California, Arizona, New Mexico, D-HCA-INDEX-CALNEV_001

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS HIGH CONSEQUENCE AREA (HCA) INDEX MAP PACIFIC REGION

Date: 03/26/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Oct, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	487-D-HCA-INDEX-CALNEV_001	

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-YUMA-PHNX_068	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_069	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_070	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_071	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_072	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_073	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_074	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_075	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_076	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_077	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_078	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10"
D-HCA-NLND-IMPRL_079	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10" LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_080	LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_081	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-NLND-IMPRL_082	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-COLTON-YUMA_083	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_084	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_085	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_086	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_087	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_088	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_089	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_090	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_091	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_092	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_093	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_094	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_095	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_096	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_097	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_098	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_099	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_100	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_101	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_102	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-WATSON-CLTN_103	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-CLTN-MARCHAFB_104	LS-111/112/113; COLTON - YUMA 22/20" LS-51; COLTON - MARCH AFB 6"
D-HCA-WTSN-SANDIEGO_105	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_106	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_107	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_108	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_109	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_110	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_111	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_112	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_113	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10"
D-HCA-WTSN-SANDIEGO_114	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10" LS-123; MISSION VALLEY - HARBOR JCT. 10/8" LS-124; HARBOR JCT - ARCO/CHEVRON 8/10" LS-141; MISSION VALLEY - SHELL 8" LS-142; MISSION VALLEY - SHELL 8" LS-143; MISSION VALLEY - SHELL 8"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_003**	

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Las Vegas Incoming Lines	
• Halloran - Las Vegas 8"	ML1
• Halloran - Las Vegas 14"	ML
Las Vegas Area Lines	
• Bracken-McCarran 6" - 12"	MC
• Las Vegas – Nellis 8"	NE
Facilities (Non-Storage)	
• Valley Wells Pump Station (Booster)	
• Bracken Junction - Piping Manifold Only	
• McCarran AP Station	
• Nellis AFB Station	

- Figures 6.1a through 6.1d on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled "Worst Case Discharge Data" of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and Southern Region pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

HALLORAN - LAS VEGAS 8" (ML1)		
Pipe and Operational Data		
• Section Length:	88.32 Miles	466,330 Feet
• Line Diameter:	8.625 in., O.D.	8.187 in., I.D. (note 1)
• Line Capacity:	344 Bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	1,300 Bbls/hr or 31,200 Bbls/day	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Bernardino, CA Clark, NV	
• Location Description:	From Halloran Summit adjacent to I-15, generally northeast adjacent to I-15 to North Las Vegas, NV.	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

HALLORAN - LAS VEGAS 14" (ML)	
Pipe and Operational Data	
• Section Length:	93.87 Miles 495,647 Feet
• Line Diameter:	14.0 in., O.D. 13.50 in., I.D. (note 1)
• Line Capacity:	935 Bbls/mile (note 2)
• Product types:	CARB ULSD, Gas, Turbine, JP-8, Ethanol
• Capacity of entire line section:	(b) (7)(F),
• Maximum flow rate:	7,000 Bbls/hr or 168,000 Bbls/day
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	San Bernardino, CA Clark, NV
• Location Description:	From Halloran Summit adjacent to I-15, generally northeast adjacent to I-15 to north Las Vegas, NV.
Worst Case Discharge Data	
(b) (7)(F), (b) (3)	

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

BRACKEN - McCARRAN 6" - 12" (MC)		
Pipe and Operational Data		
• Section Length:	0.227 Miles 1.152 Miles	1,200 Feet of 12" 6,083 Feet of 6"
• Line Diameter:	12.625 in., O.D. 6.625 in., O.D.	12.312 in., I.D. (note 1) 6.125 in., I.D. (note 1)
• Line Capacity:	777 bbls/mile (12") (note 2) 192 bbls/mile (6") (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	1,800 bph or 43,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Clark, NV	
• Location Description:	From Bracken Junction (south of Tropicana Ave., west of I-15) in south Las Vegas, east to McCarran Terminal at McCarran Airport.	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

LAS VEGAS – NELLIS 8" (NE)		
Pipe and Operational Data		
• Section Length:	4.996 Miles	26,405 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (note 1)
• Line Capacity:	337 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	1,815 bph or 43,560 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Clark County, Nevada	
• Location Description:	From KMEP Las Vegas Terminal to Nellis AFB West Bulk Storage then crosses Sloan Lane and Las Vegas Blvd and again on to Nellis AFB property to East Bulk Storage	

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1d for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

487-D-HCA-INDEX-CalNev_001.pdf
487-D-HCA-BSTW-LASVGS_013.pdf
487-D-HCA-BSTW-LASVGS_014.pdf
487-D-HCA-BSTW-LASVGS_015.pdf
487-D-HCA-BSTW-LASVGS_016.pdf
487-D-HCA-BSTW-LASVGS_017.pdf
487-D-HCA-BSTW-LASVGS_018.pdf
487-D-HCA-BSTW-LASVGS_019.pdf
487-D-HCA-BSTW-LASVGS_020.pdf
487-D-HCA-BSTW-LASVGS_021.pdf
487-D-HCA-BSTW-LASVGS_022.pdf
487-D-HCA-BSTW-LASVGS_023.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-CLTN-BSTW_001	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" MLA; UNLEADED RECEIVING 20" MLB; DIESEL RECEIVING 20" MLE; JET FUEL RECEIVING B 16"
D-HCA-CLTN-BSTW_002	ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14"
D-HCA-CLTN-BSTW_003	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8"
D-HCA-CLTN-BSTW_004	ED; GEORGE TERMINAL - EDWARDS AFB 6" ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" ML4; ADELANTO - GEORGE TERMINAL 6/4" ML4A; GEORGE AFB - GEORGE AFB STORAGE 6/4"
D-HCA-CLTN-BSTW_005	ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14"
D-HCA-CLTN-BSTW_006	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8"
D-HCA-CLTN-BSTW_007	ML; COLTON - BARSTOW 14" ML1; COLTON - BARSTOW 8" ML5A; LENWOOD - BNSF 12"
D-HCA-BSTW-LASVGS_008	ML1; COLTON - BARSTOW 8" ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8" ML; COLTON - BARSTOW 14"
D-HCA-BSTW-LASVGS_009	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_010	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_011	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_012	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_013	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_014	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_015	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_016	ML; BARSTOW - LAS VEGAS 14" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_017	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_018	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_019	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_020	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_021	ML1; BARSTOW - BRACKEN STN 8" ML; BARSTOW - LAS VEGAS 14"
D-HCA-BSTW-LASVGS_022	MC; BRACKEN - MCCARRAN 6/12" ML; BARSTOW - LAS VEGAS 14" ML1; BRACKEN JCT - LAS VEGAS 8" ML1; BARSTOW - BRACKEN STN 8"
D-HCA-BSTW-LASVGS_023	ML; BARSTOW - LAS VEGAS 14" ML1; BRACKEN JCT - LAS VEGAS 8" NE; LAS VEGAS - NELLIS AFB 8" NE6; NE8" - NELLIS W OPS BULK STORG 6"
D-HCA-GRGE-EDWD-AFB_024	ED; GEORGE TERMINAL - EDWARDS AFB 6" ML1; COLTON - BARSTOW 8" ML; COLTON - BARSTOW 14" ML4; ADELANTO - GEORGE TERMINAL 6/4" ML4A; GEORGE AFB - GEORGE AFB STORAGE 6/4"
D-HCA-GRGE-EDWD-AFB_025	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_026	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_027	ED; GEORGE TERMINAL - EDWARDS AFB 6"
D-HCA-GRGE-EDWD-AFB_028	ED; GEORGE TERMINAL - EDWARDS AFB 6"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-USA	Cochin-USA	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/26/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Oct, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sep, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	487-D-HCA-INDEX-CALNEV_001	

7.0 BREAKOUT STATIONS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations and/or terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
George Terminal - Tank 212	(b) (7)(F), (b) (3)	
Barstow Terminal - Tank 321		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout station/terminal within this area have adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided in this Section as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume

FIGURE 7.1a

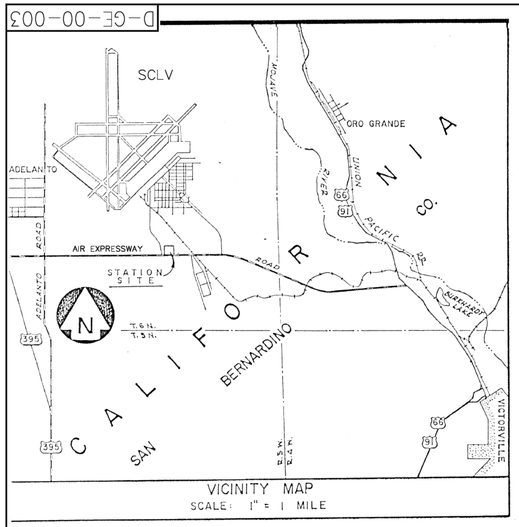
GEORGE TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS)**	**DIAMETER**	**HEIGHT**
210	Jet Fuel	(b) (7)(F), (b) (3)		
211	Jet Fuel			
212	Jet Fuel			
LOCATION DESCRIPTION				
• County/State	San Bernardino, CA			
• Location	Within the city limits of Victorville approximately 2.19 miles east of US Highway 395.			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2a

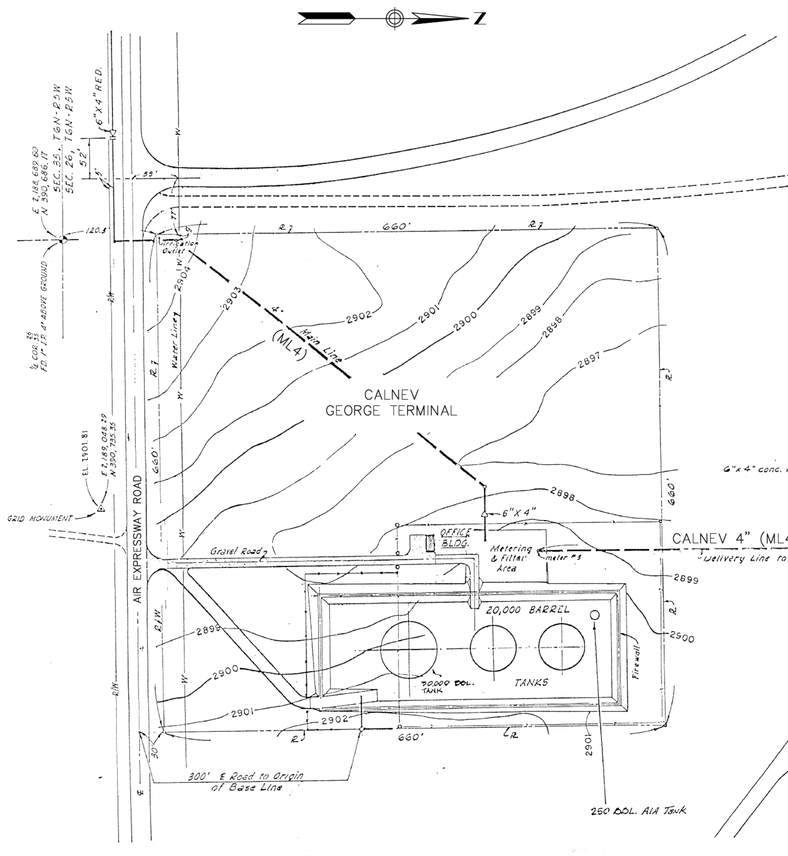
GEORGE TERMINAL
FACILITY DIAGRAMS

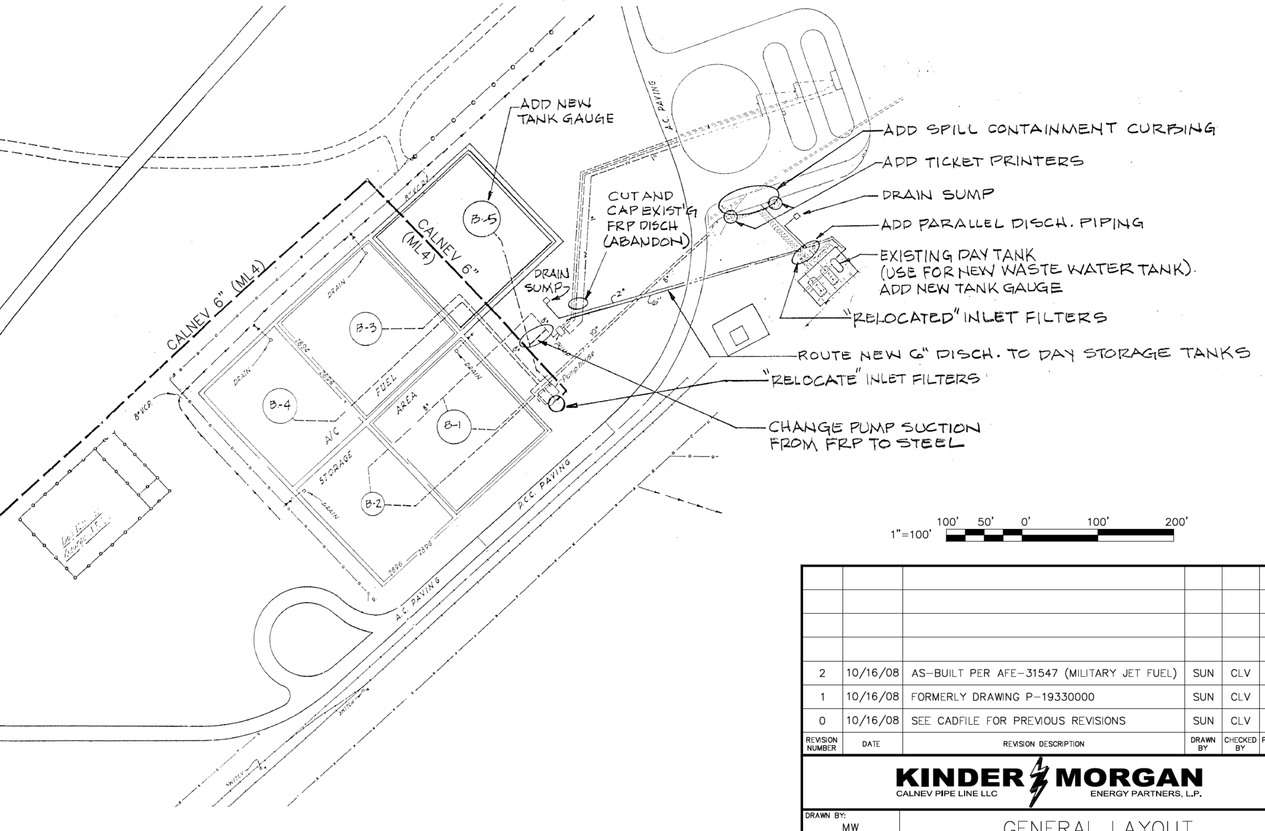
D-GE-00-003



VICINITY MAP
SCALE: 1" = 1 MILE

N





1"=100' 100' 50' 0' 100' 200'

SOUTHERN CALIFORNIA LOGISTICS AIRPORT

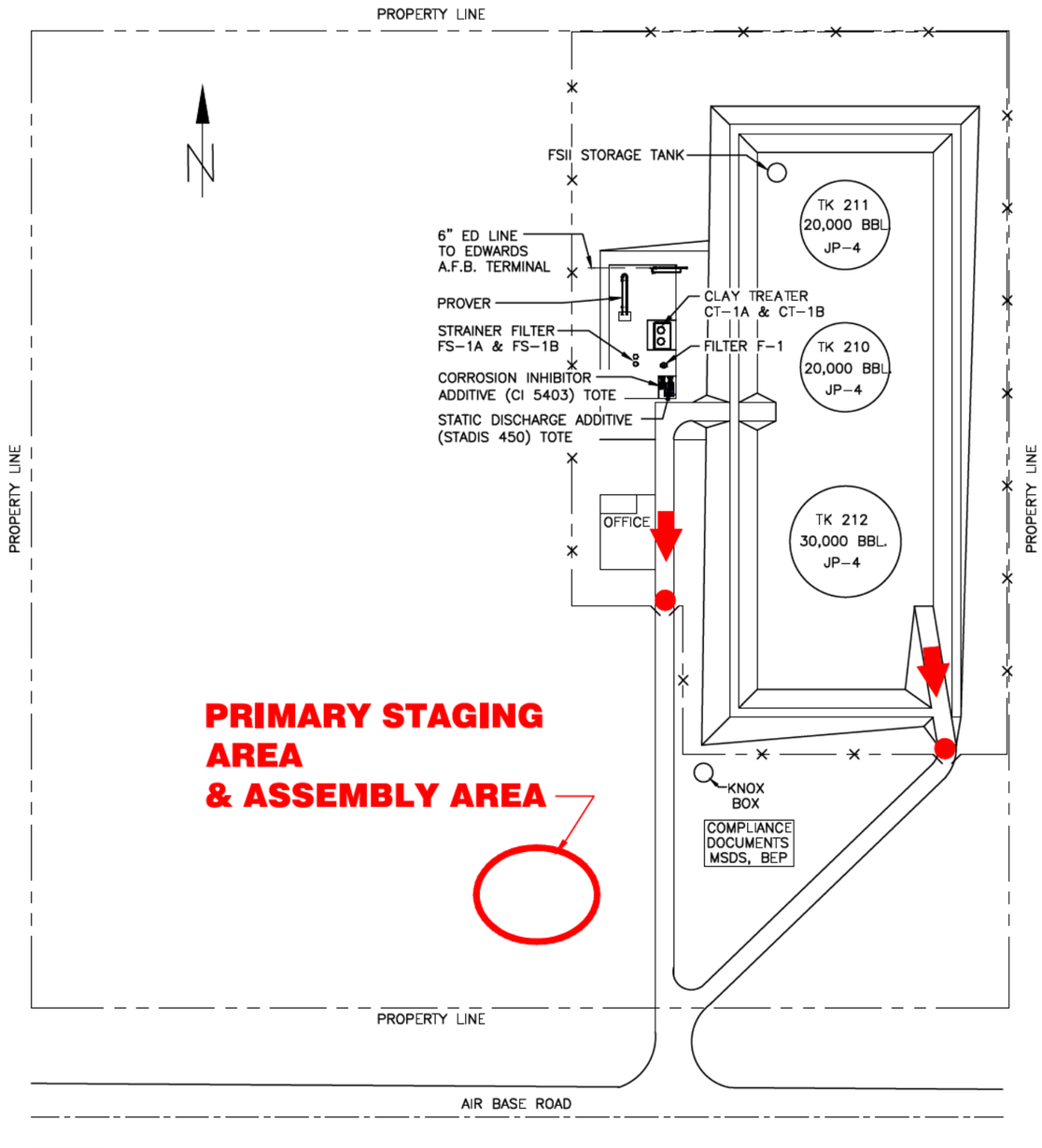
REVISION NUMBER	DATE	REVISION DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT MGR.
2	10/16/08	AS-BUILT PER AFE-31547 (MILITARY JET FUEL)	SUN	CLV	VFV
1	10/16/08	FORMERLY DRAWING P-19330000	SUN	CLV	VFV
0	10/16/08	SEE CADFILE FOR PREVIOUS REVISIONS	SUN	CLV	VFV

KINDER MORGAN
CALNEV PIPE LINE LLC
ENERGY PARTNERS, L.P.

DRAWN BY: MW	GENERAL LAYOUT
DATE: 3/27/09	S. CALIFORNIA LOGISTICS AIRPORT
SCALE: 1"=100'-0"	GEORGE TERMINAL
CADFILE: GE00-003&TIF	RECORD DRAWING No. D-GE-00-003

MAR 07 2012 2:23 PM

EVACUATION DIAGRAM



LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

1"=60' 60' 0' 60' 120'

KINDER MORGAN
CALNEV PIPE LINE LLC ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
GEORGE TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: GE	DESIGN SUPT	EVAC-GE
BY: CLV	MGR. SAFETY	
DATE: 02-26-13	AREA SUPR.	

(b) (7)(F), (b) (3)

FIGURE 7.1b

BARSTOW TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS)**	**DIAMETER**	**HEIGHT**
321	Transmix	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	San Bernardino, CA			
• Location	Barstow Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2b

BARSTOW TERMINAL
FACILITY DIAGRAM

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS / TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations and/or terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Colton North Terminal	(b) (7)(F), (b) (3)	
Ontario Station		
Colton South Terminal (Tank C29)		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout station/terminal within this area have adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided in this Section as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume.

FIGURE 7.1(a)

ONTARIO BREAKOUT STATION				
TANK #	TYPICAL PRODUCT	MAX. CAPACITY (BBLS)	DIAMETER	HEIGHT
OT-1	Turbine Fuel	(b) (7)(F), (b) (3)		
OT-2	Turbine Fuel			
OT-3	Turbine Fuel			

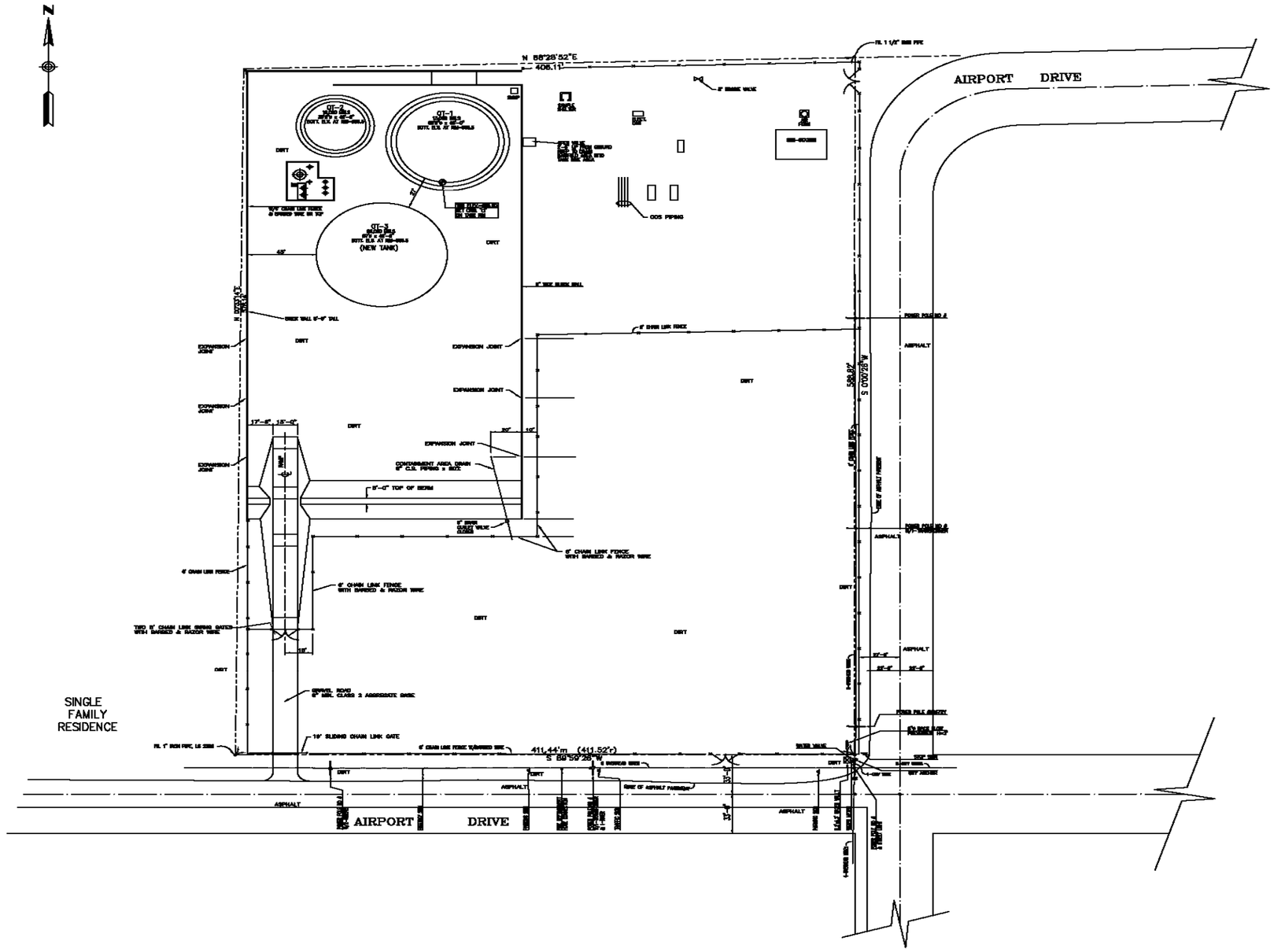
LOCATION DESCRIPTION

- County/State: San Bernardino, CA
- Location: 1321 Airport Drive, Ontario, CA, northwest of Ontario Airport

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.



FACILITY DIAGRAM
FIGURE 7.2(a)

SFPP, L.P.
ORANGE CALIFORNIA

FACILITY DIAGRAM

ONTARIO TERMINAL

CAD MODEL & PLOT SAMPLE | SCALE: 1"=30'-0" | RECORD DRAWING NUMBER

NO. | DATE | BY | CHECKED | APPROVED

KINDER MORGAN
ENERGY PARTNERS, L.P.
ICP-V2

Southern Region-Central
Colton Area - Ontario Terminal
April 2004

FIGURE 7.1(b)

COLTON NORTH TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS)**	**DIAMETER**	**HEIGHT**
100	Transmix	(b) (7)(F), (b) (3)		
110	Turbine			
111	Turbine			
120	Diesel			
121	Diesel			
122	Diesel (OOS)			
130	Various products			
131	Various products			
132	Various products			
133	Various products			
134	Various products			
135	Various products			
136	Various products			
137	Various products			
138	Turbine			
139	Various products			
140	Various products			
	Lubricity Additive			

LOCATION DESCRIPTION

- County/State — San Bernardino, CA
- Location — 2051 E Slover Ave., Bloomington, CA

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

(b) (7)(F), (b) (3)

FIGURE 7.1(c)
SOUTHERN REGION - CENTRAL AREA
BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY
(Note: EPA – Jurisdictional Tanks Not Listed)

COLTON SOUTH TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
C-03	JP-8	(b) (7)(F), (b) (3)		
C-12	Transmix			
C-16	Breakout			
C-17	Breakout			
C-18	Breakout			
C-19	Transmix			
C-27	Breakout			
C-29	Breakout			
C-31	Breakout			
C-32	Breakout			
C-33	Breakout			

LOCATION DESCRIPTION	
• County/State	San Bernardino, CA
• Location	Colton South Terminal

WORST CASE DISCHARGE
(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: This Facility is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS / TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION/TERMINAL	LARGEST TANK (BBLS)	WCD (BBLS)
Las Vegas Terminal	(b) (7)(F), (b) (3)	
Bracken Junction		
McCarran Airport Terminal - West		
Nellis AFB Station		

- The largest Worst Case Discharge (WCD) for this terminal within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

- The specific information summary for this terminal is provided as follows:
  - Breakout Terminal Tank Information Summary (one per station)
  - Facility Diagram
- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume.

FIGURE 7.1a

SOUTHERN REGION - CENTRAL AREA
TERMINAL BREAKOUT TANK INFORMATION SUMMARY
(Note: EPA-Jurisdictional Tanks Not Listed)

LAS VEGAS TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
500	Transmix	(b) (7)(F), (b) (3)		
510	JP-8			
511	JP-8			
512	JP-8			
513	Turbine			
514	Turbine			
521	Transmix			
523	Transmix			

LOCATION DESCRIPTION

- County/State Clark, NV
- Location Las Vegas Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: This Facility is a multi-jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

FIGURE 7.2a

LAS VEGAS TERMINAL
FACILITY DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 7.1b

SOUTHERN REGION - CENTRAL AREA
BREAKOUT TANK INFORMATION SUMMARY

BRACKEN JUNCTION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Relief Tank	Jet	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	Clark, NV			
• Location	Bracken Junction			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2b

BRACKEN JUNCTION
FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

FIGURE 7.1c

SOUTHERN REGION - CENTRAL AREA
BREAKOUT TANK INFORMATION SUMMARY

McCARRAN AIRPORT TERMINAL - WEST				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
MW-1	Jet	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	Clark, NV			
• Location	Bracken Junction			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2c

McCARRAN AIRPORT TERMINAL - WEST FACILITY DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 7.1d

SOUTHERN REGION - CENTRAL AREA
BREAKOUT TANK INFORMATION SUMMARY

NELLIS AFB STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
601	JP-8	(b) (7)(F), (b) (3)		
602	JP-8			
LOCATION DESCRIPTION				
• County/State	Clark, NV			
• Location	Nellis AFB Station			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

FIGURE 7.2d

NELLIS AFB STATION
FACILITY DIAGRAMS

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

FACILITY NAME: CalNev Pipe Line, LLC Barstow Terminal
FACILITY ADDRESS: 34277 Daggett/Yermo Road
Barstow, CA 92327

(Detailed Facility Information, including data required for the Response Plan Cover Sheet, is provided in Figure 1.3)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes [ ]	No [✓]
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes [ ]	No [✓]
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.	Yes [✓]	No [ ]
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes [ ]	No [✓]
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?	Yes [ ]	No [✓]

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

R L Brown — Signature

Area Manager — Title

Robert Brown — Name (please type or print)

12-08-04 — Date

NOTE: The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan. Response Management Associates, Inc. (RMA) provided consulting and plan development services in the preparation of this plan utilizing data provided by the owner/operator and/or the Facility. RMA assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via the Company's pipelines ML into above ground storage. The product is transported out of the Facility by tanker trucks. Offloading of products at the Facility occurs infrequently, since essentially all product is received via pipeline. Product additives and ethanol are received via truck into aboveground tanks. The additives are blended into the product as it is loaded into trucks. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 provides a Facility Diagram.

(Note: ML-1 is not connected to Barstow Terminal. The line does run through the terminal but KMEP does not have a connection into tankage.)

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Barstow Terminal 34277 Daggett/Yermo Road Barstow, CA 92327 (760) 254-2616 (760) 254-2446 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0366
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	July 1962
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Volume 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.
FACILITY LOCATION	
County:	San Bernardino County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Not applicable
Landside Directions:	Take I-40 East 7.34 miles to the Daggett/Yermo Road / Pendleton Road intersection. Turn left on Daggett/Yermo Road and travel 1.37 miles to the Facility on the right.
Waterside Directions:	There is no water access to this Facility.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

Description of Operation (Cont'd):

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Gasoline
- Diesel
- Transmix
- Ethanol
- JP-8

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with four (4) loading bays and four (4) unloading connections which handle various refined petroleum products.
- A maximum of four (4) tank trucks may load and three (3) tank trucks unload simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 90 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to a sump and into the oil water container.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS
• **1970** - Storage Tanks 324 and 325 added.
Figures presented on the following pages include: • Figure 8.2 – Area Map • Figure 8.3 – General Layout Diagram • Figure 8.4 – Fire Protection Diagram

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA		
Facility Name and Address: SFPP, L.P. Colton South Terminal 2359 South Riverside Avenue Bloomington, CA 92316 (Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)		
1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: Gene C. Congiardo Date: 5-8-13

Gene C. Congiardo, Area Manager

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via the Company's pipelines #1/125 and #108/105 into aboveground storage. The product is transported out of the Facility by tanker trucks. Offloading of products at the Facility occurs infrequently, since essentially all product is received via pipeline. Gasoline additives are received via truck into aboveground tanks. The additives are blended into the product as it is loaded into trucks. Product is pumped from the Facility via the Company's pipeline #111 east to Imperial Terminal and pipeline #51 to March AFB. Product is also transferred to the Colton North Terminal for deliveries on lines ML, ML-1, CN-8 and CNP toward Las Vegas Terminal. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Colton South Terminal 2359 South Riverside Ave. Bloomington, CA 92316 (909) 877-2141 (909) 877-5549 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0094
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	February 1956
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Volume 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.
FACILITY LOCATION	
County:	San Bernardino County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	0 - ¼ mile
Landside Directions:	At the intersection of I-10E and S. Riverside, travel south for 0.71 miles to the Facility on the left.
Waterside Directions:	There is no water access to this Facility.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operations:

- This Facility is a bulk storage/distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

Description of Operation (Cont'd):

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Gasoline
- Diesel
- Jet Fuel
- Transmix

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with nine (9) loading spots which handle various refined petroleum products.
- A maximum of nine (9) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- This Facility handles an average of 350 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

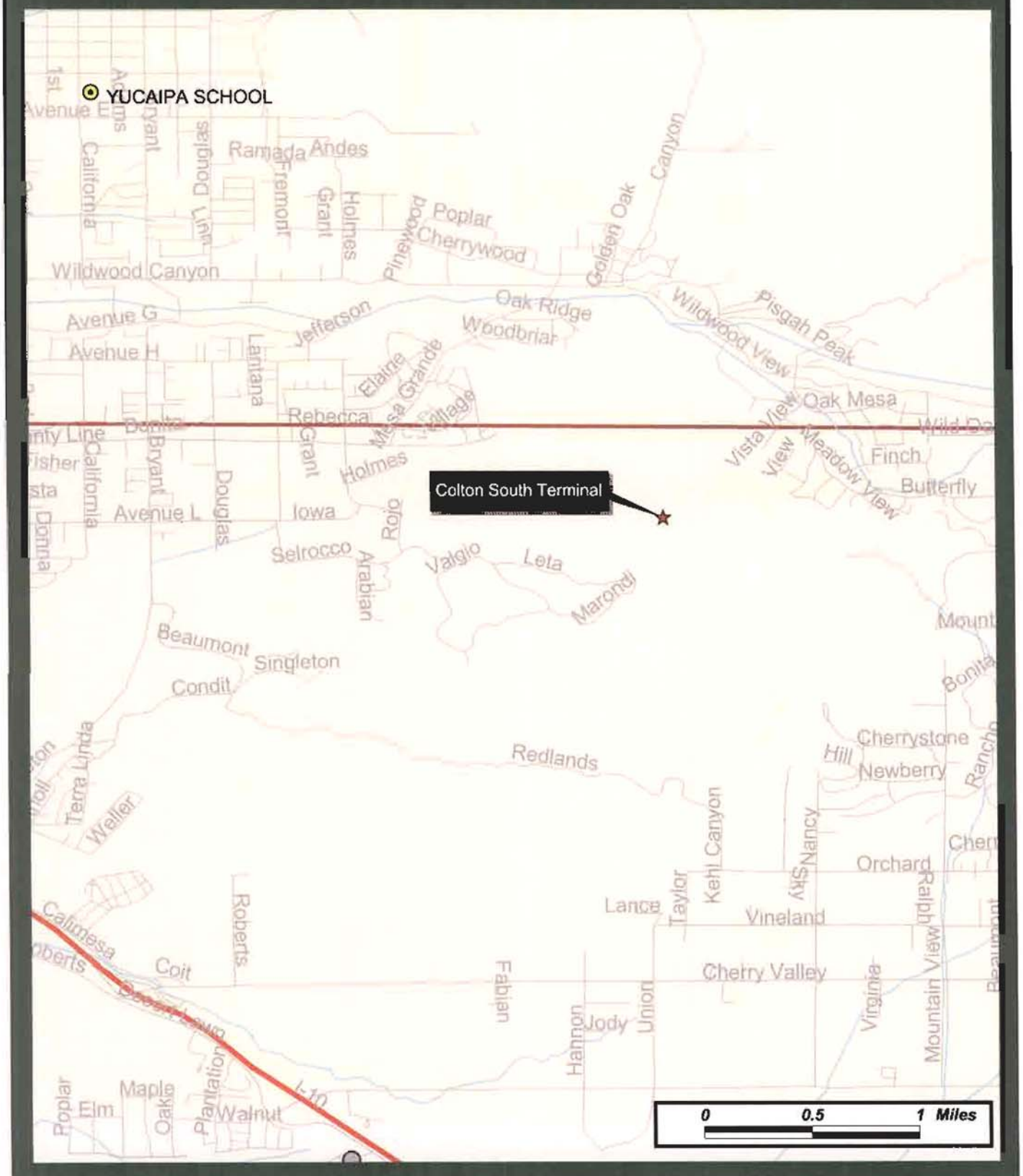
FIGURE 8.1

FACILITY INFORMATION (Cont'd)

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS
● The majority of the Facility was constructed in 1955-56 with three (3) tanks and a maximum capacity of 5,838,000 gallons. The Facility expanded storage capacity by constructing three (3) to four (4) tanks about every three (3) years.

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates
(281) 320-9796



(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: CalNev Pipeline, LLC Las Vegas Terminal
5049 North Sloan Lane
Las Vegas, NV 89115

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1.	Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish and wildlife and sensitive environments?	**Yes:**	**No: X**
4.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: V. J. Lacro Date: 8.26.10

Vern Lacro, Area Manager

8.1.2 INTRODUCTION

Description of Facility

This Facility is a bulk distribution facility for refined petroleum products. The Facility receives product via 8”/14” pipeline, ethanol via railcar and additives via tank truck and railcar. Product is transported out of the Facility by tank trucks and 8”/6” pipeline.

The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P. Las Vegas Terminal
Physical Address:	5049 North Sloan Lane Las Vegas, NV 89115 (702) 644-3943 (702) 644-8166 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0367
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	1961
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002
Qualified Individual (Emergency Coordinator):	Vern Lacro – Area Manager 5049 North Sloan Lane Las Vegas, NV 89115 (702) 643-9130 (Work) (b) (6) (Cell)
Alternate Qualified Individual (Alt. Emergency Coordinator):	David Andries 2359 S. Riverside Ave. Bloomington, CA 92316 (909) 873-5102 (Work) (b) (6) (Cell)
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume 1.

FIGURE 8.1 (Cont'd)

FACILITY INFORMATION

FACILITY LOCATION	
County:	Clark County
Latitude:	(b) (7)(F), (b) (6)
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Greater than one mile
Landside Directions:	From Las Vegas International Airport take I-15 North to exit 48 Craig Road. Go east on Craig Road to Las Vegas Blvd. Turn left onto Las Vegas Blvd. Turn left on N. Sloan Lane. Facility is on the left.
Waterside Directions:	There is no water access to this Facility.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk storage/distribution facility for refined petroleum products. The stored product arrives through the main Company pipeline to aboveground storage tanks, transfers to loading racks through pipelines, and moves out of the Facility by tank trucks. All tank trucks are owned by others. Ethanol is received via rail car and additives via tank truck and railcar.

- The aboveground storage tanks are contained in bermed secondary containment areas. The tanks are filled or drawn down through a system of aboveground and underground pipes that connect this Facility into the Company distribution network.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.

- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

Products Handled:

- Gasoline
- Diesel
- Jet Fuel
- Transmix
- Ethanol
- Additives

- **Note**: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with 13 loading spots which handle various refined petroleum products.
- A maximum of 13 tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 400-500 trucks per day.

Loading Rate: 600 gpm (*per arm connection*)

Truck Capacity: 12,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to a holding tank which is pumped to an oil/water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

PHYSICAL DESCRIPTION - RAIL CAR RACK

Description of Operation:

- The Facility is equipped with one (1) rail car unloading area with 12 unloading spots.
- The Facility can unload from eight (8) tank cars simultaneously.

Unloading Rate: 500 gpm *(typical)*

Railcar Capacity: 29,000 gallons

Discharge Prevention:

- The catch pans drain directly to a containment basin adjacent to the unloading area.
- Unloading events are performed by qualified Company personnel only.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- Since 1999, the Facility has added six (6) tanks, a truck loading rack and a remediation incinerator and water treater. The Facility has also upgraded its VRU.

Figures presented on the following pages include:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout
- Figure 8.4 – Fire Protection Diagram

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates
(281) 320-9796

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the loading rack loading and unloading facilities (transmix, pump-off, additive) is contained in a depressed area (with curbs). Drainage from the north loading rack is through area drains to a 10,000 gallon underground retention tank, which leads to an oil/water separator. Drainage from the south loading rack is through area drains to a 100 barrel sump. Product is then transferred to a transmix tank. Periodically transmix is removed by truck for processing water is pumped to an evaporation tank and allowed to evaporate.
- Due to the location of the transfer area, it is impracticable to provide containment that meets or exceeds the largest compartment of the largest truck. Equivalent environmental protection is provided as follows:
- In the event that a spill did originate from the transfer area, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment areas.
- Stormwater which does accumulate within diked areas, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas is not restrained by manually controlled valves.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas is removed, if necessary, by pumping over the dikes.
- Valves used to discharge stormwater are manually activated.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Piping located outside the diked areas is contained by a perimeter dike that surrounds the west and south sides of the Facility.
- All undiked piping is located in areas away from vehicular traffic.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.
- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Stormwater is not normally drained from the secondary containment areas.
- The Facility has several additive, pump off, and transmit loading/unloading areas that drain to the main loading rack containment system.
- If it becomes necessary to drain stormwater from secondary containment areas, it would be pumped manually over the dike walls.
- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- In the event that drainage of secondary containment is required, records of the drainage event will be stored at the Facility.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Barstow Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection measures.

Automated Detection Systems

(b) (3), (b) (7)(F)

Security

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - NORTH TANK AREA										
300	Transmix	(b) (7)(F), (b) (3)		VFR		Leak/Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
320	Diesel (48' x 40')			EFR	1961	Leak/Rupture	Instantaneous	None	East	
323	Diesel (48' x 40')			EFR	1961	Leak/Rupture	Instantaneous	None	East	
324	Diesel (45' x 50')			VFR	1970	Leak/Rupture	Instantaneous	None	East	
	TOTAL									
BULK STORAGE CONTAINERS - SOUTH TANK AREA I										
321*	Transmix (33'6" x 24')	(b) (7)(F), (b) (3)		IFR	1961	Leak/Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
322	Diesel (30' x 24')			VFR	1961	Leak/Rupture	Instantaneous	None	East	
	TOTAL									

Note 1: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

* DOT Breakout

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS - SOUTH TANK AREA II										
325	JP-8 (44'6" x 42')	(b) (7)(F), (b) (3)		VFR	1970	Leak/Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
	TOTAL									
BULK STORAGE CONTAINERS - SOUTH TANK AREA III										
330	Ethanol (33'6" x 40')	(b) (7)(F), (b) (3)		EFR	1961	Leak/Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
331	JP-8 (36'9" x 40')			EFR	1961	Leak/Rupture	Instantaneous	None	East	
332	JP-8 (36' x 40')			EFR	1961	Leak/Rupture	Instantaneous	None	East	
333	Gasoline (56' x 40')			EFR	1961	Leak/Rupture	Instantaneous	None	East	
334	Gasoline (42'6" x 40')			EFR	1961	Leak/Rupture	Instantaneous	None	East	
335	Gasoline (42'6" x 40')			EFR	1961	Leak/Rupture	Instantaneous	None	East	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
301	Additive	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
302	Lubricity			H	2005	Leak/Rupture	Instantaneous	None	East	
331A	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	East	
332A	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	East	
Red Dye Tote	Red Dye			Tote	Tote	Leak/Rupture	Instantaneous	None	East	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. floating roof, fixed roof, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
OPERATIONAL EQUIPMENT								
Ground Mounted Transformer	Transformer Oil	(b) (7)(F), (b) (3)	Transformer	Leak, Rupture	----	None	East	(b) (7)(F), (b) (3)

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
TRUCK OR RAIL LOADING/UNLOADING AREAS							
North Loading Rack	Diesel	9,000	Equipment Failure/ Rupture/Leak/Overfill	600 gpm	None	To rack drainage system	24,482 Concrete curbing
South Loading Rack	Gasoline, JP-8	9,000	Equipment Failure/ Rupture/Leak/Overfill	600 gpm	None	To rack drainage system	24,482 Concrete curbing
North Offloading Header 1	Additives, Transmix	9,000	Equipment Failure/ Rupture/Leak/Overfill	Instantaneous	None	To rack drainage system	1,400 Concrete curbing
North Offloading Header 2	Additives, Transmix	9,000	Equipment Failure/ Rupture/Leak/Overfill	Instantaneous	None	To rack drainage system	1,400 Concrete curbing
North Offloading Header 3	OOS	-----	-----	-----	None	To rack drainage system	1,400 Concrete curbing
North Offloading Header 4	OOS	-----	-----	-----	None	To rack drainage system	1,400 Concrete curbing
South Offloading Header	Ethanol	9,000	Equipment Failure/ Rupture/Leak/Overfill	Instantaneous	None	To rack drainage system	1,400 Concrete curbing

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure (Leak/Rupture/Overflow	Rate of Flow (gpm)	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
Aboveground piping between manifold and central tank basin	Products	(b) (7)(F), (b) (3)	Piping	Leak/Rupture	Varies	None	East	(b) (7)(F), (b) (3)

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Tank Number	Substance Stored *(Oil & Haz. Substance)*	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Tank Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Containment Capacity *(Gallons)*
COMPLETELY AND PARTIALLY BURIED TANKS							

There are no Underground Storage Tanks.

8.2.2 FACILITY SELF-INSPECTIONS

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds in accordance with the SPCC Plan.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located in a rural area in San Bernardino County, California.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

Additional detail on the medical facilities within the area of the Facility are included on the maps in Section 6.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Residential Areas

No residential areas were identified within the planning distance.

Businesses

The area surrounding the Facility is for the most part sparsely populated.

Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Yermo Marine Corp. Logistics Base	0.25 miles NE *(approximate)*
Barstow MC Logistics Base	3.0 miles West
Barstow Mall Shopping Center	6.0 miles West
Trinity Assembly of God	0.09 miles
Hi Desert Fire Protection Service, Inc.	0.10 miles
Hertz	0.14 miles
U-Haul Co.	0.16 miles
Post Office – Daggett	0.20 miles

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. Refer to Figure 4.1 of this Volume for threatened/endangered species.

No wetlands were identified within the planning distance.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

The Mojave River is located south of the Facility. This river is dry most of the year.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning

Recreational Areas	Location
Lilian Park	6.3 miles West
John Struncale Park	6.3 miles West
Waterman Park	8.5 miles West
Edglesong Park	8.5 miles West
Jasper Park	13.0 miles West
Lenwood Park	13.0 miles West

Transportation Routes (air, land, and water)

There are various public roadways which may be potentially effected by a discharge originating from the Facility.

Review of GIS Data determined that the following transportation routes are within the planning distance

Transportation Route	Distance from Facility
Interstate 15 (I-15)	4.0 miles NW
Interstate 40 (I-40)	2.5 miles S

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility. However, the following areas of economic importance are within the planning distance.

Other Areas of Economic Importance	Distance from the Facility
Logistics Base Golf Course	4.0 miles West
Mountview Cemetery	8.3 miles West
Barstow Branch Library	8.7 miles West
Barstow City Hall	8.7 miles West
Hinkley Valley Grange	14.0 miles West
Sun Valley Country Club	17.0 miles Southwest

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow south through the Facility.

Vulnerability to a Natural Disaster

The Facility has historical data that defines the low probability of seismic activity in the Facility area. The construction of the Facility has taken the possibility of some seismic activity into consideration.

Other Factors

The area in which the Facility is located is prone to minor earthquakes, however, none have resulted in a discharge.

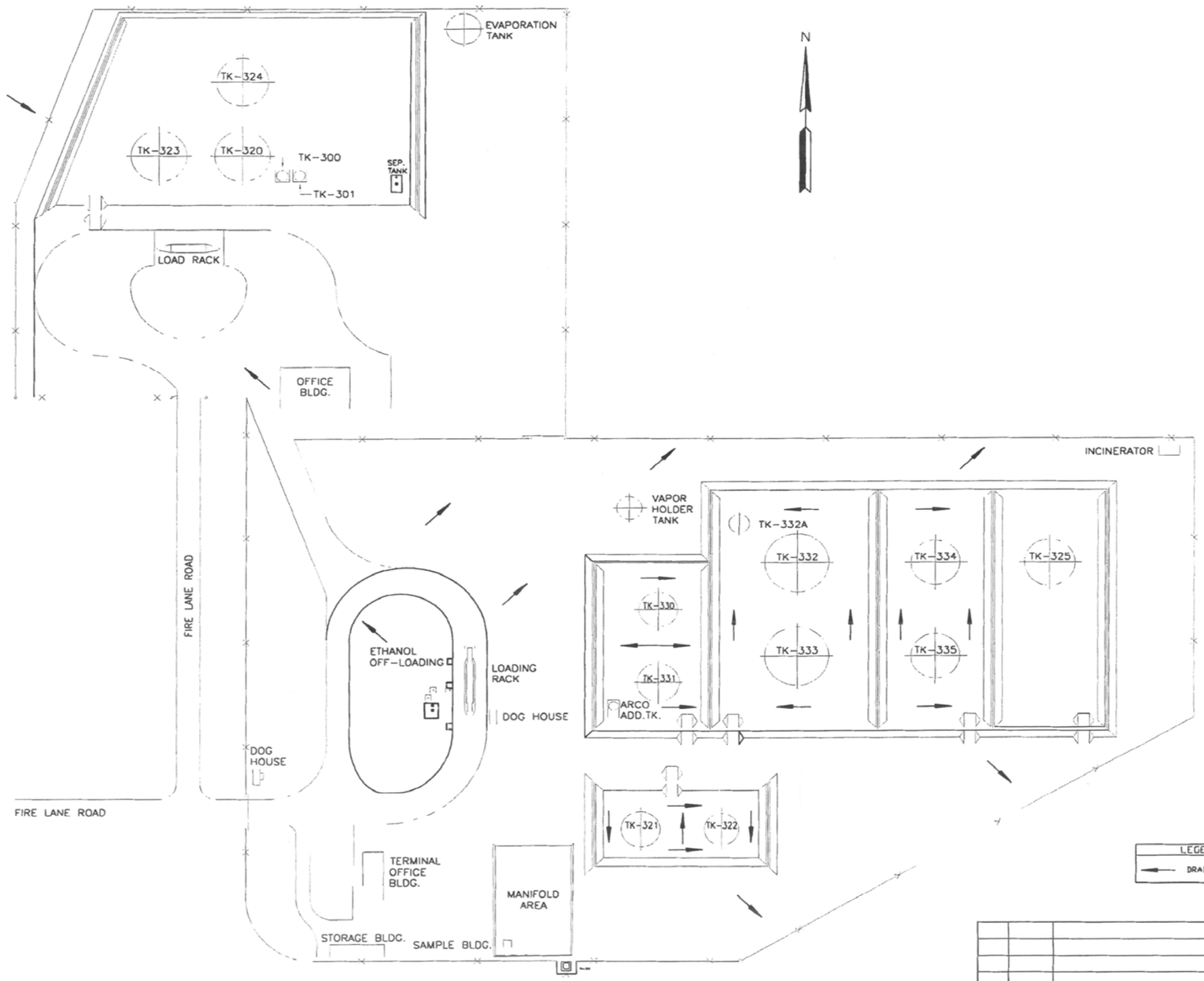
8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

D-BT-00-003



1"=50' 50' 0' 50' 100'

LEGEND
DRAINAGE FLOW

DRAINAGE DIAGRAM
FIGURE 8.7

REVISION NUMBER	DATE	REVISION DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT MGR.
2	8-24-05	CORRECTED TK-310 NO. TO TK-301	VFV	VFV	JCC
1	6-30-04	ADDED ETHANOL OFF-LOADING	VFV	VFV	JCC
0	10/14/02	CREATED PER KINDER MORGAN FORMAT	VFV	VFV	JCC

KINDER MORGAN
CALNEV PIPE LINE LLC — ENERGY PARTNERS, L.P.

DRAWN BY: TC
DATE: 9/29/03
SCALE: 1"=50'-0"
CADFILE: BT00-003

DRAINAGE DIAGRAM
BARSTOW TERMINAL

RECORD DRAWING No. D-BT-00-003

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table in this Section.

Loading Rack Containment System

The loading/unloading rack areas are designed and operated as follows:

- Loading/Unloading area drainage flows into catchment basins, sumps or oil/water separators designed to handle discharges.
- The containment systems are designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Details of the drainage systems for each truck loading/unloading rack is provided in the Potential Spill Sources and Container Identification tables in this Section.

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas (Cont'd)

- Drainage from diked storage areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Individually diked areas all drain to a common collection point located in the corner of the tank area through normally closed and locked butterfly valves.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- The majority of the piping is contained within the diked area(s) except for the section noted on the Potential Spill Sources and Container Identification table in Appendix A. These areas would be contained by a depressed area in an open field due to natural topography.
- All undiked piping is located in areas away from vehicular traffic.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.
- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Water is visually inspected for product and discharged only if no product sheen is visible.
- Facility drainage flows directly into an open watercourse.
- When draining the containment area, water is discharged to an open field north of the Facility and east of the Facility.
- The Facility does not have a wastewater treatment plant nor does it treat water prior to discharge off site.
- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- Adequate records are kept of such drainage events and are maintained at the Facility.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Colton South Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection measures.

Detection by Personnel

- Facility personnel conduct monthly inspections of tank gauges and cathodic protection readings.
- Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds.
- Annual Secondary Containment Inspection as part of the SPCC Plan.

Automated Detection Systems

(b) (3), (b) (7)(F)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER INDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA 1 (TRANSMIX TANK FARM)										
C-12*	Transmix (24' x 32')	(b) (7)(F), (b) (3)		EFR	1961	Leak/Rupture	Instantaneous	None	N to catch basin	(b) (7)(F), (b) (3)
C-19*	Transmix (24' x 32')			IFR	1963	Leak/Rupture	Instantaneous	None	N to catch basin	
C-28	Transmix (33'6" x 32')			IFR	1971	Leak/Rupture	Instantaneous	None	N to catch basin	
	TOTAL									
BULK STORAGE CONTAINERS – AREA 2 (MILITARY TANK FARM)										
C-01	Diesel (90' x 48')	(b) (7)(F), (b) (3)		EFR	1955	Leak/Rupture	Instantaneous	None	SE to catch basin	(b) (7)(F), (b) (3)
C-02	Diesel (90' x 48')			EFR	1955	Leak/Rupture	Instantaneous	None	SE to catch basin	
C-03*	JP-8 (67' x 48')			EFR	1955	Leak/Rupture	Instantaneous	None	SE to catch basin	
C-06	Gasoline (81' x 48')			IFR	1971	Leak/Rupture	Instantaneous	None	SE to catch basin	
C-15	Transmix (60' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	SE to catch basin	
C-25	Transmix (74' x 48')			IFR	1968	Leak/Rupture	Instantaneous	None	SE to catch basin	
C-26	Transmix (74' x 48')			EFR	1968	Leak/Rupture	Instantaneous	None	SE to catch basin	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
CRFP	=	Cone Roof Floating Pan	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	MV	=	Manual Valves
*	=	DOT Jurisdictional Tank	VT	=	Vacuum Trucks
**	=	Tank owned by Others; shown for Containment Capacity Calculations			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA 3 (SHELL TANK FARM)										
C-04	Ethanol (61' x 48')	(b) (7)(F), (b) (3)		EFR	1955	Leak/Rupture	Instantaneous	None	S to locked drain valve	(b) (7)(F), (b) (3)
C-05	Ethanol (61' x 48')			EFR	1955	Leak/Rupture	Instantaneous	None	S to locked drain valve	
C-06**	Equilon (48' x 48')			IFR	Unknown	Leak/Rupture	Instantaneous	None	S to locked drain valve	
C-07	Gasoline (42'6" x 40')			EFR	1955	Leak/Rupture	Instantaneous	None	S to locked drain valve	
C-13**	Equilon (54.5' x 48')			IFR	Unknown	Leak/Rupture	Instantaneous	None	S to locked drain valve	
C-14**	Equilon (54.5' x 48')			IFR	Unknown	Leak/Rupture	Instantaneous	None	S to locked drain valve	
C-20**	Equilon (82' x 50')			IFR	1971	Leak/Rupture	Instantaneous	None	S to locked drain valves	
C-24**	Equilon (48' x 48')			IFR	Unknown	Leak/Rupture	Instantaneous	None	S to locked drain valves	
S-40**	Equilon (73' x 50'))			IFR	Unknown	Leak/Rupture	Instantaneous	None	S to locked drain valve	
6340**	Ethanol (36' x 39')			IFR	2003	Leak/Rupture	Instantaneous	None	S to locked drain valves	
	TOTAL									

VFR = Vertical Fixed Roof
CRFP = Cone Roof Floating Pan
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
* = DOT Jurisdictional Tank
** = Tank owned by Others; shown for Containment Capacity Calculations

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
MV = Manual Valves
VT = Vacuum Trucks

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA 4 (CHEVRON TANK FARM)										
C-08	Diesel (87' x 48')	(b) (7)(F), (b) (3)		EFR	1958	Leak/Rupture	Instantaneous	None	W to catch basin	(b) (7)(F), (b) (3)
C-09	B-100 (50' x 48')			CR	1958	Leak/Rupture	Instantaneous	None	W to catch basin	
C-10	Transmix (82' x 48')			EFR	1958	Leak/Rupture	Instantaneous	None	W to catch basin	
C-11	B-100 (54'6" x 48')			EFR	1959	Leak/Rupture	Instantaneous	None	W to catch basin	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
CRFP	=	Cone Roof Floating Pan	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	MV	=	Manual Valves
*	=	DOT Jurisdictional Tank	VT	=	Vacuum Trucks
**	=	Tank owned by Others; shown for Containment Capacity Calculations			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA 5 (BREAKOUT TANK FARM)										
C-16*	Breakout (50' x 50')	(b) (7)(F), (b) (3)		IFR	1963	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	(b) (7)(F), (b) (3)
C-17*	Breakout (50' x 50')			IFR	1963	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	
C-18*	Breakout (61' x 50')			IFR	1963	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	
C-27*	Breakout (62'2" x 50')			IFR	1969	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	
C-29*	Breakout (90' x 48')			IFR	1973	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	
C-31*	Breakout (61'6" x 50')			IFR	1978	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	
C-32*	Breakout (77'6" x 50')			IFR	1978	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	
C-33*	Breakout (86'6" x 48')			IFR	1987	Leak/Rupture	Instantaneous	None	NW and SW to drain valves	
	TOTAL									

VFR = Vertical Fixed Roof
CRFP = Cone Roof Floating Pan
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
* = DOT Jurisdictional Tank
** = Tank owned by Others; shown for Containment Capacity Calculations

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
MV = Manual Valves
VT = Vacuum Trucks

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA 6 (TEXACO TANK FARM)										
C-21	Diesel (67' x 48')	(b) (7)(F), (b) (3)		IFR	1965	Leak/Rupture	Instantaneous	None	E to catch basin	(b) (7)(F), (b) (3)
C-22	Diesel (48' x 48')			CR	1965	Leak/Rupture	Instantaneous	None	E to catch basin	
C-23	Gasoline (67' x 48')			IFR	1965	Leak/Rupture	Instantaneous	None	E to catch basin	
CT-30	Gasoline (60' x 48')			IFR	1971	Leak/Rupture	Instantaneous	None	E to catch basin	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
CRFP	=	Cone Roof Floating Pan	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	MV	=	Manual Valves
*	=	DOT Jurisdictional Tank	VT	=	Vacuum Trucks
**	=	Tank owned by Others; shown for Containment Capacity Calculations			

POTENTIAL SPILL SOURCES AND CONTAINER INDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA 10 (COMMUNITY TANK FARM)										
C-34	Gasoline (96' x 48')	(b) (7)(F), (b) (3)		IFR	1987	Leak/Rupture	Instantaneous	None	E to drain valves	(b) (7)(F), (b) (3)
C-35	Gasoline (96' x 48')			IFR	1987	Leak/Rupture	Instantaneous	None	E to drain valves	
C-36	Gasoline (96' x 48')			IFR	1987	Leak/Rupture	Instantaneous	None	E to drain valves	
C-37	Gasoline (41' x 40')			IFR	1997	Leak/Rupture	Instantaneous	None	E to drain valves	
C-38	Gasoline (41' x 40')			IFR	1997	Leak/Rupture	Instantaneous	None	E to drain valves	
C-39	Diesel (41' x 40')			IFR	1997	Leak/Rupture	Instantaneous	None	E to drain valves	
C-40	Diesel (41' x 40')			IFR	1997	Leak/Rupture	Instantaneous	None	E to drain valves	
	TOTAL									
BULK STORAGE CONTAINERS – AREA 11										
C-41	Gasoline (48' x 120')	(b) (7)(F), (b) (3)		CRFP	2008	Leak/Rupture	Instantaneous	None	South	(b) (7)(F), (b) (3)
C-42	Diesel (48' x 120')			CRFP	2008	Leak/Rupture	Instantaneous	None	South	
C-43	Gasoline (48' x 120')			CRFP	2010	Leak/Rupture	Instantaneous	None	South	
C-44	Gasoline (48' x 120')			CRFP	2010	Leak/Rupture	Instantaneous	None	South	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
CRFP	=	Cone Roof Floating Pan	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	MV	=	Manual Valves
*	=	DOT Jurisdictional Tank	VT	=	Vacuum Trucks
**	=	Tank owned by Others; shown for Containment Capacity Calculations			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
C11-1	Additive	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	(b) (7)(F), (b) (3)
C11-2	Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
CL-111 (CLCA-1)	OOS			H	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
CL-112 (CLCA-2)	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
CL-113 (CLMA-1)	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
CL-114 (CLMA-2)	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
CL-115	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
CL-116	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
CL-117	Lubricity			H	2005	Leak/Rupture	Instantaneous	None	SE to Area 2	
CL-118	Additive			VFR	2009	Leak/Rupture	Instantaneous	None	South	
CL-119	Lubricity			H	2012	Leak/Rupture	Instantaneous	None	SE to catch basin	
CLRD-1 (C-A3)	Red Dye			Tote	Unknown	Leak/Rupture	Instantaneous	None	SE to catch basin	
CASA-1 (C-A5)	Additive			Tote	Unknown	Leak/Rupture	Instantaneous	None	SE to catch basin	
CLCI (C-A4)	Corrosion Inhibitor			Tote	2008	Leak/Rupture	Instantaneous	None	SE to catch basin	
Red Dye Tote	Red Dye			Tote	Unknown	Leak/Rupture	Instantaneous	None	E to catch basin	
Red Dye Tote	Red Dye			Tote	Unknown	Leak/Rupture	Instantaneous	None	N to catch basin	
Red Dye Tote	Red Dye			Tote	Unknown	Leak/Rupture	Instantaneous	None	East	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
CRFP	=	Cone Roof Floating Pan	CF	=	Concrete Floor
IFR	=	Internal Floating Roof	EW	=	Earthen Walls
EFR	=	External Floating Roof	CW	=	Concrete Walls
DW	=	Double-walled	PP	=	Portable Pump
H	=	Horizontal	MV	=	Manual Valves
*	=	DOT Jurisdictional Tank	VT	=	Vacuum Trucks

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure *(Leak/Rupture/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
Terminal Manifold	Gasoline	(b) (7)(F), (b) (3)	Manifold	Leak/Rupture/ Overflow	11,200 gpm	None	Southeast to military tank farms area & to berms along east side of facility	(b) (7)(F), (b) (3)
Transmix Processing Area	Transmix		Piping	Leak/Rupture/ Overflow	-----	None	Northeast to skid catch basin and oily water separator	
Chevron Pump Back Area (3 lines used, others OOS)	Gasoline		Piping	Leak/Rupture/ Overflow	10,000 gpm	None	South to low spot in drive (bermed); would not leave property	
Mobil L/R Pump Back Line	Gasoline		Piping	Leak/Rupture/ Overflow	300 gpm	None	South to low spot in drive (bermed); would not leave property	
Pipeline across San Bernardino flood control channel (which flows to Santa Ana River)	Gasoline		Piping	Leak/Rupture/ Overflow	10,500 gpm	None	Down	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
TRUCK OR RAIL LOADING/UNLOADING AREAS							
Loading Rack #1 (2 lanes)	Gasoline/Diesel	10,000	Rupture/Leak/Overflow	Instantaneous	None	East to catch basin	Bermed, curbed, drains to catch basin oily water separator
Loading Rack #2 (Chevron) (2 lanes)	Diesel	10,000	Rupture/Leak/Overflow	Instantaneous	None	East to catch basin	Bermed, curbed, drains to catch basin oily water separator
Loading Rack #3 (Chevron) (2 lanes)	Transmix/B-100	10,000	Rupture/Leak/Overflow	Instantaneous	None	East to catch basin	Bermed, curbed, drains to catch basin oily water separator
Loading Rack #4 (Mobil) (2 lanes)	Gasoline/Diesel	10,000	Rupture/Leak/Overflow	Instantaneous	None	South to catch basin	Bermed, curbed, drains to catch basin oily water separator
Loading Rack #5 (1 lane)	Ethanol	10,000	Rupture/Leak/Overflow	Instantaneous	None	East to catch basin	Bermed, curbed, drains to catch basin oily water separator
Loading Rack #6 (2 lanes)	Gasoline/Diesel	10,000	Rupture/Leak/Overflow	Instantaneous	None	North to catch basin	Bermed, curbed, drains to catch basin oily water separator
Loading Rack #7 (2 lanes)	Gasoline/Diesel	10,000	Rupture/Leak/Overflow	Instantaneous	None	East	Bermed, curbed, drains to 10,000 gallon sump

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Tank Number	Substance Stored *(Oil & Haz. Substance)*	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Tank Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Containment Capacity *(Gallons)*
		There are no Underground Storage Tanks.					

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS
(*Surface Impoundment = natural topographic depression, man-made excavation*)

SI Number	Substance Stored	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Surface Area	Year Built	Failure / Cause *(Record cause and date of any SI failure which has resulted in the loss of SI contents)*
		There are no Surface Impoundments.				

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.
- High level alarms are on a monthly basis.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds twice a day. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- A Corrosion Specialist visits the Facility annually to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located in the southeastern portion of the City of Rialto, approximately 48 miles east of Los Angeles.

- The Facility is bi-sected by the Rialto Flood Control Channel, which discharges to the West Riverside Canal, which in turn discharges several miles downstream to the Santa Ana River.

- The Santa Ana River is the closest navigable waterway. It is located about ¼ mile south of the Facility.

- Facility is connected by pipelines to other Company facilities in California, Arizona and Nevada. Petroleum products are stored in aboveground tanks at the Facility. Company customers lease space in these tanks for their individually owned products. This potential spill analysis is for Facility irrespective of the lessee products. The Facility consists of several portions including:

  Area 1 – Transmix Tank Farm
  Area 2 – Military Tank Farm
  Area 3 – Shell Tank Farm
  Area 4 – Chevron Tank Farm
  Area 5 – Breakout Tank Farm
  Area 6 – Texaco Tank Farm
  Area 10 – Community Tank Farm
  Area 11
  Area 12 – Transmix Processing Facility

  In addition two other areas of risk include:

  – Terminal Manifold
  – Transmix Loading Rack area

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Drinking Water Supplies (intakes and wells)

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

maps in Section 6.

Residential Areas

The immediate area around the Facility (within approximately one mile) is sparsely populated; however, beyond that distance to the north and the east, the area becomes more heavily populated.

Additional details on the residential areas within the area of the Facility are included on the maps in Section 6.

8.2.3 VUNERABILITY ANALYSIS (Cont'd)

Businesses

The area surrounding the Facility is for the most part commercialized. Along the Santa Ana River there are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Grand Terrace Shopping Center	1.0 miles S *(approximate)*
Jurupa Grand Center Shopping Center	6.2 miles SW *(approximate)*
Pedley Square Shopping Center	9.3 miles SW *(approximate)*
Butterfield Stage Square Shopping Center	20.0 miles SW *(approximate)*
Canyon Plaza Shopping Center	31.0 miles SW *(approximate)*
Esperanza Village Shopping Center	31.0 miles SW *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Figure 4.1 of this Volume for threatened/endangered species.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Currently there are no specifically identified wetlands in the area of the Facility. Wetland habitats, however, are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

8.2.3 VUNERABILITY ANALYSIS (Cont'd)

Lakes and Streams

The lakes, streams, and rivers that may be potentially impacted by a discharge originating at the Facility are identified on the maps in Section 6.

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning

Recreational Areas	Location
Avalon Park	2.0 miles SW *(approximate)*
Fairmont Park	3.0 miles SW *(approximate)*
Fairmont Park Golf Course	3.0 miles SW *(approximate)*
Camp Evans	3.9 miles SW *(approximate)*
Agricultural Park	8.9 miles SW *(approximate)*
Fairview Park	20.0 miles SW *(approximate)*
Butterfield Stage Trail Park	20.5 miles SW *(approximate)*
Chino Hills State Park	21.2 miles SW *(approximate)*
Eucalyptus Park	32.0 miles SW *(approximate)*
Riverside Golf Course	2.0 miles S (approximate)
Jensen Alvarado Historical Ranch	5.0 miles SW (approximate)
Mount Bibidoux Park	5.0 miles SW (approximate)
Santa Ana River Reg. Park	5.0 miles SW (approximate)
Jurupa Hills Golf Course	6.8 miles SW (approximate)
Jurupa Hills Country Club	7.0 miles SW (approximate)
Nichols Park	7.0 miles SW (approximate)
Paradise Knolls Golf Course	10.0 miles SW (approximate)
River Trails Park	13.0 miles SW (approximate)
Norco Park	15.5 miles SW (approximate)
Wayne Makin Park	15.8 miles SW (approximate)
Prado Basin Park	16.2 miles SW (approximate)
Prado Reg. Park	20.0 miles SW (approximate)
Green River Golf Course	22.0 miles SW (approximate)
Prado Tiro Shooting Range	22.0 miles SW (approximate)
Rancho Santa Ana Botanic Gardens	25.3 miles SW (approximate)
Yorba Reg. Park	29.0 miles SW (approximate)

8.2.3 VUNERABILITY ANALYSIS (Cont'd)

Recreational Areas (Cont'd)

The recreational areas that may be potentially impacted by a discharge originating at the Facility are more fully identified on the maps in Section 6.

Transportation Routes (air, land, and water)

There are various public roadways and waterways within the planning distance of the Facility. The Interstate 10 Freeway is located approximately one-half mile north of Facility with the Santa Fe Railroad running between the freeway and the Facility.

Transportation Route	Distance from Facility
Interstate 10 (I-10)	0.71 miles N
Santa Fe Railroad	0.5 miles N

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Louis Rubidoux Branch Riverside Library	5.0 miles SW *(approximate)*
Norco Branch Riverside Library	15.0 miles SW *(approximate)*
Fuller Ranch	16.0 miles SW *(approximate)*
California Rehabilitation Center	16.3 miles SW *(approximate)*
Yorba Slaughter Adobe	22.5 miles SW *(approximate)*
Canyon Hills Branch Anaheim Public Library	31.0 miles SW *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history for the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow south southeast through the Facility.

Vulnerability to a Natural Disaster

The Company has historical data that defines the low probability of seismic activity in the San Bernardino area. The construction of Facility has taken the possibility of some seismic activity into consideration; the location of Tank Farms away from slide prone areas, and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Other Factors (Cont'd)

The actions taken to lessen hazards at Facility petroleum tank farm reduce the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

FIGURE 8.5

DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Rail unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage containers are detailed in the Potential Spill Sources and Container Identification table in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- Loading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading.
- Drainage from the truck rack loading facilities is contained in depressed areas (with curbs). Drainage is through area drains to two (2) 10,000 gallon sumps. The product is pumped through an oil/water separator to a transmix tank. The water phase is drained to an evaporation tank at the southwest corner of the Facility.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.

- In the unlikely event that stormwater does accumulate within the diked areas, and does not dissipate naturally, it will be removed in accordance with the stormwater drainage procedures.

- Flapper-type drain valves are not used to drain diked areas.

- Stormwater accumulating in diked storage areas will be visually inspected for evidence of oil or oil sheen. If no evidence of contamination is found the water will be discharged to natural drainage using a portable pump.

- Contaminated stormwater will be removed via vacuum truck and transported off site for processing.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Piping located outside the diked areas will flow south through the Facility across the paved areas to a natural depression between the drives in the southern part of the Facility.

- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

- It is impractical to provide secondary containment for undiked piping because installation of secondary containment for undiked piping within the boundaries of the Facility would alter the overall stormwater management plan of the Facility.

- This section, due to its location, would be impracticable to contain and equivalent environmental measures have been developed as follows:

  - The piping is subject to routine inspections during operating rounds.
  - The piping is subject to hydrostatic testing.

- Drainage of stormwater from other undiked areas (non-storage) of the Facility is not controlled due to its origination from non-spill potential areas. Oil which may get into these areas would be cleaned up immediately and not allowed to drain off the property.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Drainage From the Undiked Areas (Cont'd)

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Stormwater is not drained from the secondary containment areas.
- The Facility does have a wastewater treatment plant and it does chemically treat water prior to discharge off site.
- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- Adequate records are kept of such drainage events.
- Adequate records of drainage events are maintained at the Facility office.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Las Vegas Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of manual (personnel) detection systems. The Facility maintains separately from this Plan the following document Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection measures.

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Automated Detection Systems

[redacted]

(b) (7)(F), (b) (3)

8.2.2 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (Tank Area 501/523/521/522)[1]										
501	Ethanol	(b) (7)(F), (b) (3)		IFR	1961	Leak/ Rupture	Instantaneous	None	SSW	(b) (7)(F), (b) (3)
523	Transmix			IFR	1961	Leak/ Rupture	Instantaneous	None	SSW	
521**	Transmix			IFR	1961	Leak/ Rupture	Instantaneous	None	SSW	
522	Ethanol			IFR	1961	Leak/ Rupture	Instantaneous	None	SSW	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

Note[1]: The intermediate wall between Tank 501/523 and 521/522 has been notched to allow product to flow through and share containment.

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank	**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (Tank Area 500/510/511/545/Slop/AIA/546/512/547)[2]										
500	Transmix	(b) (7)(F), (b) (3)		IFR	1961	Leak/ Rupture	Instantaneous	None	SSW	(b) (7)(F), (b) (3)
510*	JP-8			EFR	1961	Leak/ Rupture	Instantaneous	None	SSW	
511*	JP-8			EFR	1961	Leak/ Rupture	Instantaneous	None	SSW	
545	Gasoline			IFR	1991	Leak/ Rupture	Instantaneous	None	SSW	
546	Gasoline			IFR	1995	Leak/ Rupture	Instantaneous	None	SW	
512	JP-8			VFR	1995	Leak/ Rupture	Instantaneous	None	SSW	
547	Gasoline			IFR	1995	Leak/ Rupture	Instantaneous	None	SSW	
	Total									
BULK STORAGE CONTAINERS (Tank Area 524/544)										
524	Gasoline	(b) (7)(F), (b) (3)		IFR	1961	Leak/ Rupture	Instantaneous	None	SSW	(b) (7)(F), (b) (3)
544	Ethanol			IFR	1978	Leak/ Rupture	Instantaneous	None	SSW	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

Note[2]: The intermediate walls between Tank Areas 500/510/511/545/Slop/A1A and 546/512/547 have been notched to allow product to flow through and share containment.

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (Tank Area 525/526/542/543)										
525	Diesel	(b) (7)(F), (b) (3)		VFR	1982	Leak/ Rupture	Instantaneous	None	ESE	(b) (7)(F), (b) (3)
526	Diesel			VFR	1988	Leak/ Rupture	Instantaneous	None	ESE	
542	Diesel			IFR	1970	Leak/ Rupture	Instantaneous	None	ESE	
543	Diesel			IFR	1970	Leak/ Rupture	Instantaneous	None	ESE	
	TOTAL									
BULK STORAGE CONTAINERS (Tank Area 532/533)[3]										
530	Gasoline	(b) (7)(F), (b) (3)		EFR	1960	Leak/ Rupture	Instantaneous	None	S	(b) (7)(F), (b) (3)
531	Gasoline			EFR	1961	Leak/ Rupture	Instantaneous	None	S	
532	Gasoline			EFR	1961	Leak/ Rupture	Instantaneous	None	S	
533	Gasoline			EFR	1690	Leak/ Rupture	Instantaneous	None	S	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

Note[3]: The intermediate wall between Tank areas 530/531 and 532/533 has been notched to allow product to flow through and share containment.

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (Tank Area 534/535)										
534	Gasoline	(b) (7)(F), (b) (3)		EFR	1961	Leak/ Rupture	Instantaneous	None	S	(b) (7)(F), (b) (3)
535	Gasoline			EFR	1961	Leak/ Rupture	Instantaneous	None	S	
	TOTAL									
BULK STORAGE CONTAINERS (Tank Area 536/537/538/539)[4]										
536	Gasoline	(b) (7)(F), (b) (3)		EFR	1961	Leak/ Rupture	Instantaneous	None	S	
537	Gasoline			EFR	1961	Leak/ Rupture	Instantaneous	None	S	
538	Gasoline			EFR	1961	Leak/ Rupture	Instantaneous	None	S	
539	Gasoline			EFR	1961	Leak/ Rupture	Instantaneous	None	S	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

Note[4]: the intermediate wall between Tank Areas 536/537 and 538/539 has been notched to allow product to flow through and share containment.

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	DB	=	Double Bottom

* = DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (Tank Area 540/541)										
540	Ethanol	(b) (7)(F), (b) (3)		EFR	1961	Leak/ Rupture	Instantaneous	None	S	(b) (7)(F), (b) (3)
541	Gasoline			EFR	1961	Leak/ Rupture	Instantaneous	None	S	
	TOTAL									
BULK STORAGE CONTAINERS (Tank Area 548/549/550/551)										
548	Gasoline	(b) (7)(F), (b) (3)		IFR	1961	Leak/ Rupture	Instantaneous	None	SE	(b) (7)(F), (b) (3)
549	Gasoline			IFR	1961	Leak/ Rupture	Instantaneous	None	SE	
550	Gasoline			IFR	1971	Leak/ Rupture	Instantaneous	None	SE	
551	Gasoline			IFR	1961	Leak/ Rupture	Instantaneous	None	SE	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (TANK AREA 513/514)										
513*	Jet-A	(b) (7)(F), (b) (3)		IFR	2002	Leak/ Rupture	Instantaneous	None	SSW	(b) (7)(F), (b) (3)
514*	Jet-A			IFR	2002	Leak/ Rupture	Instantaneous	None	SSW	
	TOTAL									
BULK STORAGE CONTAINERS (TANK AREA 552/553)										
552	Gasoline	(b) (7)(F), (b) (3)		IFR	2003	Leak/ Rupture	Instantaneous	None	SE	
553	Gasoline			IFR	2003	Leak/ Rupture	Instantaneous	None	SE	
554	Diesel			IFR	2007	Leak/ Rupture	Instantaneous	None	SE	
555	Gasoline			IFR	2007	Leak/ Rupture	Instantaneous	None	SE	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	DB	=	Double Bottom
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
Amoco Additive	Additive	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/ Rupture	Instantaneous	None	ESE	(b) (7)(F), (b) (3)
540A	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S	
540B	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S	
Community Additive	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S	
Exxon Additive	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	SE	
Mobil Additive	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S	
Shell Additive	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	SE	
Shell Additive	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	SE	
Red Dye	Red Dye			Tote	Unknown	Leak/ Rupture	Instantaneous	None	ESE	
Unocal Additive	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S	
A1A	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	SSW	
537A	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S	
537B	Chevron Outboard Oil			VRF	Unknown	Leak/ Rupture	Instantaneous	None	S	
Lubricity	Lubricity			H	Unknown	Leak/ Rupture	Instantaneous	None	S	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=Manual Valves	VT	=	Vacuum Trucks	DB	=	Double Bottom

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OPERATIONAL EQUIPMENT								
Transformer	Transformer Oil	(b) (7)(F), (b) (3)	Transformer	Leak/ Rupture	Instantaneous	None	SSW	(b) (7)(F), (b) (3)
Transformer	Transformer Oil		Transformer	Leak/ Rupture	Instantaneous	None	S	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
TRUCK OR RAIL LOADING/UNLOADING RACK							
Lanes 1-4	Refined Products	12,000	Leak/ Rupture	Instantaneous	None	S	8,044.5 Curb, sump, OWS
Lanes 5-10	Refined Products	12,000	Leak/ Rupture	Instantaneous	None	S	Curb, sump, OWS
Lanes 11 &-12	Refined Products	12,000	Leak/ Rupture	Instantaneous	None	S	Curb, sump, OWS
Lanes 13-15	Refined Products	12,000	Leak/ Rupture	Instantaneous	None	ESE	Curb, sump, OWS
Ethanol Offload Facility (Rail)	Ethanol	29,400	Leak/ Rupture	Instantaneous	None	S	> 29,400 Drip Pan, Basin

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
			This Facility is not equipped with completely or partially buried tanks.						

8.2.2 FACILITY SELF-INSPECTIONS

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Orange office.

FIGURES 8.5 AND 8.6

Note: The following Kinder Morgan forms comprise the typical tank and secondary containment Inspection Checklists for this Facility. These forms may change over time to accommodate the specific operations of the Facility.

TANK INTEGRITY REPORT

QUARTERLY | FIRST | SECOND | THIRD | FORTH |

BI-ANNUAL | FIRST | SECOND |

LOCATION _____

REFERENCE NUMBER																				
	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required
1. Shell Plates & Paint																				
2. Shell-Bottom Weld																				
3. Tank Foundation																				
4. Apron Around Tank																				
5. Grounding System																				
6. Auto Gauge Equipment																				
7. Shell Manways																				
8. Bottom Leak Detection																				
9. Stairway Handrails & Ladders																				
10. Lighting																				
11. Walkways & Platforms																				
12. Rain Gutter & Down Spout																				
13. Shell Rim Angle																				
14. Fixed Roof & Paint																				
15. Foam Hole Covers																				
16. Gauge & View Hatches																				
17. Vents																				
18. Liquid Level Control & Alarms																				
19. Wind Girders																				
20. Floating Roof & Pontoons																				
21. Roof Drain Mechanism																				
22. Roof Manways																				
23. Anti-Rota ion Pole/Bar																				
24. Vapor Recovery Pipe																				
25. Foam Injection																				

LEGEND

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

_____

_____

REPORT PREPARED BY: _____ DATE: _____

TANK SEAL INSPECTION SUMMARY

LOCATION: ______________________

INSPECTION PERFORMED BY: ______________

DATE: ______________

Tank Number	Tank Type	Product	Status N or R	Reference Number	DESCRIPTION	Priority A or B	Cost Estimate	Responsibility

REFERENCE NUMBER

1. Primary Seal
2. Secondary Seal
3. Anti-Rotation Pole/Bar Seal
4. Apron Seal
5. Floating Roof Deck
6. Floating Roof Drain Sump
7. Floating Roof Legs
8. Floating Pan Compartments
9. Vapor Recovery Pipe Seal
10. Center Column Seal
11. Gauge Pipe Float Seal
12. Emergency Drain
13. Pressure/Vacuum Vent
14. Sampling Funnel Cover
15. Sampling Hatch
16. Floating Roof Pontoons
17. Auto Gauge Float Well Cover

STATUS

N = NEW

R = REPEAT

TANK SEAL INSPECTION REPORT

QUARTERLY | FIRST | SECOND | THIRD | FORTH |

SEMI-ANNUAL | FIRST | SECOND |

LOCATION _____

REFERENCE NUMBER	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level	
	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required
1 Primary Seal																				
2 Secondary Seal																				
3 Anti-Rotation Pole/Bar Seal																				
4 Apron Seal																				
5 Floating Roof Deck																				
6 Floating Roof Drain Sump																				
7 Floating Roof Legs																				
8 Floating Pan Compartments																				
9 Vapor Recovery Pipe Seal																				
10 Center Column Seal																				
11 Gauge Pipe Float Seal																				
12 Emergency Drain																				
13 Pressure/Vacuum Vent																				
14 Sampling Funnel Cover																				
15 Sampling Hatch																				
16 Floating Roof Pontoons																				
17 Auto Gauge Float Well Cover																				

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

REPORT PREPARED BY: _____ DATE: _____

TANK FARM CONTAINMENT BERMS
INSPECTION REPORT

LOCATION : _____ DATE : _____

AREA OF LOCATION : _____

TYPE OF CONTAINMENT :

Dirt and Gravel	☐	Dirt With asphalt	☐
Dirt With Tar	☐	Dirt With Chip Rock	☐
Dirt With Tar and Chip Rock	☐	Dirt With Concrete	☐
Cinder Block	☐	Other	☐

COMMENTS : _____

CONDITION OF CONTAINMENT BERMS :

Excellent	☐	Good	☐	Fair	☐	Poor	☐
Wore Down / Ruts	☐			Erosion	☐	Gaps	☐
Animal Holes	☐			Cracks	☐	Other	☐
Cave-In / Under-Mined	☐						

COMMENTS : _____

RECOMMENDATIONS : _____

INSPECTED BY : _____

ADDITIVE TANK / SYSTEM INSPECTION REPORT

LOCATION : ______________________ DATE ______________

INSPECTOR : QUARTER

TANK NUMBER	SERVICE VACUUM BREAKER		CHECK TANK GAUGE		PUMP LEAK		PIPE/TUBE LEAKS		CONTAIN-MENT		COMMENTS
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	

TANK MAINTENANCE LOG

LOCATION: _____ INSPECTION PERFORMED BY: _____

DATE: _____

TANK NUMBER	TANK TYPE	DESCRIPTION

TANK LEAK DETECTION REPORT

QUARTERLY	SEMI-ANNUALLY	ANNUALLY

LOCATION : **DATE :**

TANK NO.	TUBE NO.	P.P.M.	BATTERY CHECK	COMMENTS

READINGS TAKEN BY : ______________________________

INTERNAL FLOATER TANK

VAPOR REPORT

LOCATION : DATE :

TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING

INSPECTED BY : _____

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

The tank farm is protected with earthen berms designed to withstand pressure from freestanding product. The floors of the tanks have impervious linings. The berm is constructed to withstand a moderate earthquake without breaching the integrity of the secondary containment.

- The Facility is located in Las Vegas, Nevada approximately one (1) mile north of the Las Vegas Wash.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

(b) (7)(F), (b) (3)

(b) (3), (b) (7)(F)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Residential Areas

Nellis Air Force Base housing areas are located approximately 0.5 miles south and west of the Facility.

Businesses

The area surrounding the Facility is for the most part commercial and industrial. There are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Rebel Oil Company Inc. Terminal	0.01 miles *(approximate)*
Foreland Trucking	0.08 miles *(approximate)*
River City Petroleum/Nevada Truck and Trailer Repair	0.12 miles *(approximate)*
US Fleet Services	0.08 miles *(approximate)*

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The EPA Region 9 - Area Contingency Plan for this area details these categories. Refer to Figure 4.1 of this Volume for additional details.

No wetlands were identified within the planning distance.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Las Vegas Wash	1.0 miles S *(approximate)*
Socio Economic Sensitivities – Las Vegas Bay	17.58 miles SE *(approximate)*
Lake Mead	21.53 miles SE *(approximate)*

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Section 4 of this Volume.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning distance of the Facility:

Recreational Areas	Location
Lake Mead Natural Recreation Area	13.06 miles SE *(approximate)*

Additional details on the recreational areas that may be potentially impacted by a discharge originating at the Facility are more fully identified on the maps in Section 6.

Transportation Routes (air, land, and water)

The Facility is located south of I-15, with the Union Pacific Railroad running along the northwest side of the Facility. Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
North Las Vegas Blvd.	0.5 miles S *(approximate)*
I-15	1.5 miles N *(approximate)*

Utilities

There are no utilities located within the immediate vicinity of the Facility or in the areas that may be potentially impacted by a discharge originating from the Facility.

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Nellis Air Force Base	4.36 miles E *(approximate)*
Socio Economic Sensitivities – Jamestown (historical)	25.54 miles *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Any spilled material which might escape a diked area would be mitigated through the implementation of spill response activities by Facility personnel or, if necessary, one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

The Facility is located in a semi-active earthquake zone with occasional seismic activity.

The Company has historical data that defines the probability of seismic activity in the Northern California / Nevada area. The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of tank farms away from slide prone areas, and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

The actions taken to lessen hazards at the Facility tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file at the Orange, CA office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder-Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

Date of Discharge	Location of Discharge	Cause of Discharge	Product Discharged	Amount Discharged
12/29/04	Oil/Water Separator	Overflow due to heavy rain	Crude Oil	(b) (7)(F), (b) (3)

Note: Additional information can be found at the Kinder Morgan corporate office located at 1100 Town & Country Road, Orange, CA 92868.

(b) (7)(F), (b) (3)

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Barstow Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Barstow Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (2)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b)(3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b)(3)		
On-Water Recovery Volume (bbls)			
On-Shore Recovery Volume (bbls)			
Shoreline Cleanup Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bbls)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bbls)			
Storage Capacity (bbls)			
On-Water Response Caps (bbls)			
Additional Response Req'd (bbls)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. Preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity. Spills that enter the bar ditch can be handled by response contract vacuum truck, absorbent pad and boom, or other equipment.

The closest waterway is the Mojave River which is south of the Facility. The storage tanks have adequate secondary containment so it is unlikely that a spill would reach the river or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Sections 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Mojave River, which is south of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the River. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd)
● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes:
● Equipment and manpower resources are detailed in Section 3 of Volume 2.
● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Mojave River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges.

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

There are no waterways in the vicinity. The adjacent Mojave River is typically dry or with only minimal flow, so the potential for a spill of this size reaching navigable water does not exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow south and enter the Mojave River Bed which is located south of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located north of the Mojave River Bed (a normally dry river bed). The priority during larger spills is to prevent oil from reaching the river bed. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.
- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Colton South Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The agency discharge volume calculations are described as follows:

EPA Discharge Volume Calculation
• **Worst Case Discharge** *100% of the largest single tank* **WCD** = (b) (7)(F), (b) (2)
• **Medium Discharge** *Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD* **MD** = 857 bbls
• **Small Discharge** *Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD* **SD** = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Colton South Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Shoreline Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the loading rack would be diverted to the on-line oil/water separator.

The closest waterway is the Santa Ana River, which is south of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Santa Ana River, which is south of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the River. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd)
● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes:
● Equipment and manpower resources are detailed in Section 3 of Volume 2.
● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Santa Ana River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Santa Ana River so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow south and enter the Santa Ana River which is located south of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located north of the Santa Ana River. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate initial response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of six (6) feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Las Vegas Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7)(F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Las Vegas Terminal
EPA - Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b) (3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation			
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)		
On-Shore Recovery Volume (bbls)			
Shoreline Cleanup Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the truck rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks.

The closest waterway is the Las Vegas Wash, which is south of the Facility. The storage tanks and truck loading racks have adequate secondary containment so it is unlikely that a spill would reach the river. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the truck rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Las Vegas Wash, which is south of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be deployed at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage tanks, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Las Vegas Wash. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a Medium Discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Las Vegas Wash so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the Medium Discharge volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage tanks.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed [redacted]

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages are listed in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow south toward the Las Vegas Wash.

For a spill that is confined to the land along the pathway, Facility personnel would contain the spill using dams or trenches.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located north of the Las Vegas Wash. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate initial boom deployment and anchoring at the waterway within a reasonable time. Several recreation areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.
- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage tanks.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the ICP, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 34277 Daggett/Yermo Road
Daggett, CA 92327
c. Activate the Facility's employee emergency alarm system (siren). (Notifications and announcements to be made to personnel via 2-way radio.)
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility.
h. Establish a Command Center immediately.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the front gate next to office. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the outside gate at the end of driveway by the road or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, or warehouse.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to Barstow Community Hospital

From the Facility take Daggett-Yermo road approximately 1.37 miles to I-40. Take I-40 west approximately 6.18 miles to East Main. Exit right or northwest onto east main and travel 0.86 miles to East Mountain View. Turn left onto East Mountain View and travel 0.88 miles to south 7th street. Turn right to Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located west of the office.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the southwest at an average speed of 5-10 mph year round.

9. Water Currents

The Mojave River is dry most of the year.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION DIAGRAM

VACANT – FIRST STRUCTURE 2000' NORTH

N

EVAPORATION TANK

TK-324

TK-323

TK-320

TK-300

COMM. ADDIT. PURADD AP297-15

TK-310

SEP. TANK

LOAD RACK

RED DYE

WAREHOUSE & MAINTENANCE OFFICE SEE DWG EVAC-BW-03 FOR ADDITIONAL INFORMATION

HAZARDOUS WASTE STORAGE

SECONDARY INCIDENT COMMAND CENTER
(OUT ON ROAD)

VACANT

YERMO DAGGETT ROAD

FIRE LANE ROAD

PRIMARY STAGING & ASSEMBLY AREA

SECONDARY STAGING AREA (ON THE ROAD)

TRUCK INSPECTION & CONT. PAD

DOG HOUSE

FIRE LANE ROAD

LOADING RACK

RACK FIRE FOAM

RED DYE

DOG HOUSE

VAPOR HOLDER TANK

CHEVRON ADDITIVE OGA-72015 TK-332A

TK-332

TK-334

TK-325

TK-330

TK-333

TK-335

TK-331

BP ADD.TK.

AP-NA4M

INCINERATOR

500 GALLON PROPANE

VACANT

TK-321

TK-322

JP-8 FILTRATION SYSTEM

TRUCK ACCESS PAD

JP-8 ADDITIVES

JP-8 METERING CONTAINMENT

TERMINAL OFFICE BLDG.

MANIFOLD AREA SEE DETAIL

MCC

PRIMARY INCIDENT COMMAND CENTER

SEE DWG EVAC-BW-02 FOR ADDITIONAL INFORMATION

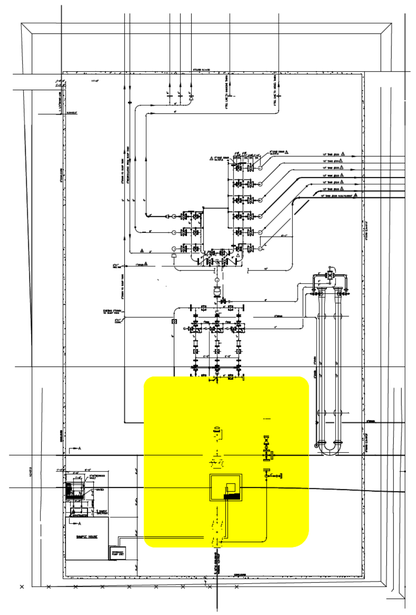
STORAGE BLDG.

SAMPLE BLDG.

MAINLINE PUMP

2000 GALLON DIESEL LUBRICITY ADDITIVE TANK

VACANT



MANIFOLD AREA DETAIL

LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

HEARING PROTECTION REQUIRED

KINDER MORGAN
CALNEV PIPE LINE LLC — ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
BARSTOW TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-BT-01	DESIGN SUPT	EVAC-BW-01
BY: SUN	MGR. SAFETY	
DATE: 01-17-13	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the ICP, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2359 South Riverside Ave.
Bloomington, CA 92316
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site if possible.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Southern Pacific Railroad, if applicable.
h. Staging area for Emergency Command post will be at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the Secondary Emergency Response Command Center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Control Building.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to San Bernardino Community Hospital

Start out going north on S Riverside Ave. towards W Mindanao St. by turning right and travel 0.69 miles. Take the I-10E ramp towards San Bernardino and merge onto I-10E. Travel 3.44 miles and take the I-215 N/I-215 S exit towards San Bernardino/Barstow/Riverside. Then take the I-215 N exit on the left towards San Bernardino/Barstow. Proceed 0.81 miles and merge onto I-215 N. Travel 4.67 miles and then take the CA-30 W Highland Ave. Proceed 0.34 miles and stay straight to go onto W. Highland Ave. Travel 0.53 miles and turn left onto Medical Center Dr. Go 0.35 miles to the Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located west of the Control Building. If the situation permits, the Facility may also be accessed through the southern access road.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest at a speed of 5-10 mph year round.

9. Water Currents

The Santa Ana River in the vicinity of the Facility has no tidal influence.

(b) (7)(F), (b) (3)

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel IC assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 5049 N. Sloan Lane
Las Vegas, NV 89115
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Burlington Northern if applicable.
h. Establish a Command Center immediately at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel IC will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, Control Building, or the north or south staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the Clark County Fire Department that no Community Evacuation Plan currently exists for this area. However, the Fire Department does have Standard Guidelines that are followed in the event of an evacuation.

5. Directions to Lake Mead Hospital Medical Center

Leave the Facility heading south on North Sloan Lane. Turn right onto Las Vegas Boulevard North then left onto Bruce Street. Take another left onto East Lake Mead Boulevard. The hospital is located at 1409 East Lake Mead Boulevard.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located west of North Sloan Lane.

7. Location of Stored Material & Hazards Imposed by Those Materials

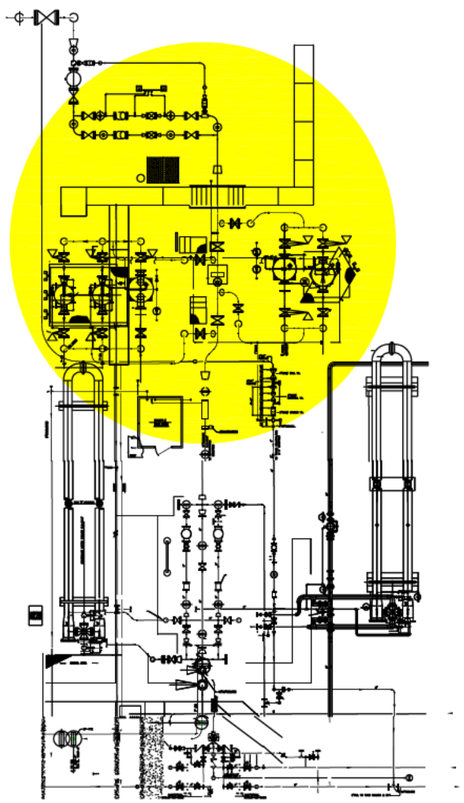
Materials are stored in aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the northeast or southwest, at an average speed of 5-10 mph year round.

9. Water Currents

The Las Vegas Wash is dry most of the year; however, it is prone to flash flood during heavy rains.



FILTER AREA DETAIL

EVACUATION DIAGRAM

NORTH PROPERTY LINE & 1/2 SECTION LINE

ETHANOL OFFLOADING RAIL CAR FACILITIES

WATER STORAGE RESERVOIR

VAPOR COMBUSTION UNIT

WEST PROPERTY LINE

EAST PROPERTY LINE

SOUTH PROPERTY LINE

FILTER AREA SEE DETAIL

ADDITIVE TANKS

OFFICE & WAREHOUSE

VAPOR HOLDER

TERMINAL OFFICE BUILDINGS

ENTRANCE

FIRE EQUIPMENT SHED

FOAM TRAILER

DIESEL L.R. 6

SLOAN LANE

L.R. 1 — LANE 1, LANE 2, LANE 3, LANE 4

L.R. 2 — LANE 5, LANE 6, LANE 7, LANE 8

L.R. 3 — LANE 9, LANE 10

L.R. 4 — LANE 11, LANE 12

L.R. 5 — LANE 13

L.R. A — LANE 14

L.R. B — LANE 15

L.R. C

SECONDARY INCIDENT COMMAND CENTER

SECONDARY STAGING AREA

PRIMARY INCIDENT COMMAND CENTER

PRIMARY ASSEMBLY AREA

PRIMARY STAGING AREA

SECONDARY ASSEMBLY AREA

LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS
- HEARING PROTECTION REQUIRED

1"=100' 100' 50' 0' 100' 200'

KINDER MORGAN
CALNEV PIPE LINE LLC — ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
LAS VEGAS TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-LV	DESIGN SUPT	EVAC-LV
BY: CLV	MGR. SAFETY	
DATE: 03/26/08	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

SECTION 8

BARSTOW TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

COLTON SOUTH TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA -** Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

LAS VEGAS TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

INTEGRATED CONTINGENCY PLAN

Volume 2

Southern Region - Central

Barstow Area
Colton Area
Las Vegas Area

Prepared for:

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street
Houston, TX 77002
or
1100 Town and Country Road
Orange, CA 92868

Prepared by:

Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 ● Fax: (281) 320-9700
www.rmaworld.com

EMERGENCY RESPONSE ACTION PLAN (ERAP)

The users of this Plan carry and maintain the complete Volume 1 and Volume 2 documents and the Plan has been designed for quick reference. Accordingly, the Emergency Response Action Plan (ERAP) for this Integrated Contingency Plan is addressed by cross-reference as follows:

● Qualified Individual	Volume 1 Figure 2.3; Volume 2 § 8.1.2
● Emergency Notification Phone List	Volume 1 §§ 2.1, 2.2; Volume 2 §§ 2.1, 2.2
● Spill Response Notification Form	Volume 1 Figure 2.2
● Response Equipment List and Location	Volume 2 § 3.1 and Figure 3.2
● Response Equipment Testing and Deployment	Volume 2 §§ 3.1, 3.2, 3.3, Figure 3.4
● Facility Response Team	Volume 1 § 2.0; Volume 2 § 2.0
● Evacuation Plan	Volume 2 § 8.4
● Immediate Actions	Volume 1 § 3.4
● Facility Diagram	Volume 2 § 8.1.2, Figure 8.3

REVISION RECORD

CHANGE DATE	REMOVE PAGE NUMBER(S)	INSERT PAGE NUMBER(S)	DESCRIPTION OF CHANGE(S)
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipeline, GATX Terminals, and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	OSPR Lines Update; General Plan Update; Revisions to Address DOT-RSPA Review
January 2005	Pgs. iii, 1-4, 2-2, 3-1, 3-4 thru 3-33 and inserts; Mission Valley - 8.2-12, 8.2-13, 8.2-20, 8.2-21; Orange - 8.2-17, 8.2-18; Barstow - 6-6, 6-8, 6-10, 8.2-17, 8.2-18; Colton South - 8.2-23, 8.2-24; Las Vegas - 6-1, 6-5, 7-1, 7-2, 8.1-2, 8.2-3, 8.2-6, 8.2-11, 8.2-15, 8.2-22, 8.2-23	Pgs. iii, 1-4, 2-2, 3-1, 3-4 thru 3-33 and inserts; Mission Valley - 8.2-12, 8.2-13, 8.2-20, 8.2-21; Orange - 8.2-17, 8.2-18; Barstow - 6-6, 6-8, 6-10, 8.2-17, 8.2-18; Colton South - 8.2-23, 8.2-24; Las Vegas - 6-1, 6-5, 7-1, 7-2, 8.1-2, 8.2-3, 8.2-6, 8.2-11, 8.2-15, 8.2-22, 8.2-23	Facility information update and miscellaneous revisions
June 2005	Pgs. iii thru v; 2-1; 2-7, 2-9; 3-22 to 3-25; Colton Area - pg.6-11, 6-14, 6-16, 6-19; Las Vegas - 8.1-1; OSPR - 9-5, 9-8, 9-10, 9-11, 9-14	Pgs. iii thru v; 2-1; 2-7, 2-9; 3-22 to 3-25; Colton Area - pg.6-11, 6-14, 6-16, 6-19; Las Vegas - 8.1-1; OSPR - 9-5, 9-8, 9-10, 9-11, 9-14	Facility information update and miscellaneous revisions; Revisions to address Notifications and OSPR review.
July 2005	Pgs. iii, 3-2, 9-5, 9-5a	Pgs. iii, 3-2, 9-5, 9-5a	General Plan Update
August 2005	Pgs. iii, Las Vegas – 8.1-3 thru 8.1-6	Pgs. iii, Las Vegas – 8.1-3 thru 8.1-6	General Plan Update
December 2005	Pgs. Foreword, Table of Contents, Section 1.0, Section 2.0, Section 3.0 & inserts, 4-10, Mission Valley - Fig. 7.2(b), Section 8.1, Fig. 8.3, Fig. 8.4, Section 8.2, Fig. 8.7, Fig. 8.8, Orange Area - 6-1, Section 7.0, Section 8.1, Section 8.2, OSPR – 9-5, 9-5a, 9-8, 9-10, 9-11, 9-12, 9-14, Barstow Area – Section 7.0, 8.1-4, Section 8.2, Colton South – Section 6.0,	Pgs. Foreword, Table of Contents, Section 1.0, Section 2.0, Section 3.0 & inserts, 4-10, Mission Valley - Fig. 7.2(b), Section 8.1, Fig. 8.3, Fig. 8.4, Section 8.2, Fig. 8.7, Fig. 8.8, 8.4-4 (Fig. 8.9 & inserts), Orange Area - 6-1, Section 7.0, Section 8.1, Section 8.2, 8.4-4 (Fig. 8.9 & inserts), OSPR – 9-5, 9-5a, 9-8, 9-10, 9-11, 9-12, 9-14, Barstow Area – Section 7.0, 8.1-	General Plan Update *(Continued on next page)*

REVISION RECORD (Cont'd)

CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
December 2005 (Cont'd)	Section 7.0, Section 8.2, Las Vegas Area – 6-1, 6-3, 7-2, Section 8.1, Section 8.2, 9-3 (See revision packet for specific pages.)	4, Section 8.2, 8.4-4 (Fig. 8.9 & inserts), Colton South – Section 6.0, Section 7.0, Section 8.2, Fig. 8.9, Las Vegas Area – 6-1, 6-3, 7-2, Section 8.1, Section 8.2, 8.4-4 (Fig. 8.9 & insets), 9-3 (See revision packet for specific pages.)	
August 2006	Pgs. iiia thru vi, 1-3, 1-4, 1-7, Fig. 1.1 – Barstow Area, 2-2, 2-3, 2-10, 3-4, 3-17, 3-24, Orange Area - 6-1, Mission Valley - 8.1-1, 8.1-8, 8.2-6 thru 8.2-11, 8.2-24, Orange Terminal 8.1-1, 8.1-3, 8.2-5, Fig. 6.2a, 6.2b – Barstow Pg. 6-4, Fig. 6.2c Pg. 6-6, Barstow Terminal - 8.1-2, 8.1-3, 8.1-7, 8.2-5, 8.2-7, 8.4-3, Colton Area - 7-4, 7-6, 7-7, 7-8, Colton South Terminal - 8.1-3, 8.1-7, 8.1-8, 8.2-7, 8.2-12, 8.2-14, 8.2-33, 8.4-3, Las Vegas Area - 6-1, 6-7, 6-8, 7-1, 7-2, 7-3, Las Vegas Terminal - 8.1-2, 8.1-3, 8.1-5, 8.1-6, 8.1-8, 8.1-9, 8.2-4, 8.2-5, 8.2-12, 8.2-14, 8.2-31, 8.4-3, 9-2	Pgs. iiia thru vi, 1-3, 1-4, 1-7, Fig. 1.1 – Barstow Area, 2-2, 2-3, 2-10, 3-4, 3-17, 3-19a, 3-24, Orange Area - 6-1, Mission Valley Terminal - 8.1-1, 8.1-8, 8.2-6 thru 8.2-11, 8.2-24, Orange Terminal - 8.1-1, 8.1-3, 8.2-5, Fig. 6.2a, 6.2b Barstow Area - 6-4, Fig. 6.2c - Barstow Area 6-6, Barstow Terminal - 8.1-2, 8.1-3, 8.1-7, 8.2-5, 8.2-7, 8.4-3, Colton Area - 7-4, 7-6, 7-7, Colton South Terminal - 8.1-3, 8.1-7, 8.1-8, 8.2-7, 8.2-12, 8.2-14, 8.2-33, 8.4-3, Las Vegas Area – 6-1, 6-7, 6-8, 7-1, 7-2, 7-3, Las Vegas Terminal – 8.1-2, 8.1-3, 8.1-5, 8.1-6, 8.1-8, 8.1-9, 8.2-4, 8.2-5, 8.2-12, 8.2-14, 8.2-31, 8.4-3, 9-2	
November 2007	Pg. iiia thru vi, TOC (all), 1-1, 2-1 thru 2-13, 3-22, Orange Area Section 6.0 (all), 8.2-5, 8.2-7, Mission Valley Terminal 8.2-7, 8.2-23, Barstow Area Section 6.0 (all), 7-1, 8.1.8, 8.2-1, 8.2-5, 8.2-7, 8.4-1, 8.4-3, Colton Area Section 6.0 (all), Colton South Terminal 8.1-1, 8.2-4, 8.2-9, 8.2-14, 8.2-33, 8.4-3, Las Vegas Area Section 6-0 (all), Section 7.0 (all), 8.1-1, 8.1-3, 8.1-5, 8.1-6, 8.2-3, 8.2-6, 8.2-9, 8.2-11, 8.2-31	Pg. iv thru vii, TOC (all), 1-1, 2-1 thru 2-13, 3-22, Orange Area Section 6.0 (all), 8.2-5, 8.2-7, Mission Valley Terminal 8.2-7, 8.2-23, Barstow Area Section 6.0 (all), 7-1, 8.1.8, 8.2-1, 8.2-5, 8.2-7, 8.4-1, Colton Area Section 6.0 (all), Colton South Terminal 8.1-1, 8.2-4, 8.2-9, 8.2-14, 8.2-33, 8.4-3, Las Vegas Area Section 6-0 (all), Section 7.0 (all), 8.1-1, 8.1-3, 8.1-5, 8.1-6, 8.2-3, 8.2-6, 8.2-9, 8.2-11, 8.2-31	Annual Update
March 2008	Pgs. iv, vii, TOC-vi, Section 9.0 (all)	Pgs. iv, vii, TOC-vi, Section 9.0 (all),	OSPR Resubmission

REVISION RECORD (Cont'd)

CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
August 2009	Pgs. iv thru vii, 1-5, 1-6, 3-2, 3-20 thru 3-24, 3-28 and OSRO Contracts, Mission Valley Area 7-1 thru 7-3	Pgs. iv thru viii, 1-5, 1-6, 3-2, 3-20 thru 3-24, 3-28 and OSRO Work Directives, Mission Valley Area 7-1 thru 7-3 and Miramar Station Fire Protection Diagram	Annual review, distribution updates.
September 2009	Pgs. v, vii and viii, 6-4, 7-2, 8.1-3, 8.1-6 and Facility Diagrams (retain Area Map), 8.2-6 through 8.2-11, 8.2-14, 8.2-15, 8.2-27, General Layout Containment & Grading Diagram, Section 8.4 Evacuation Diagram	Pgs. v, vii and viii, 6-4, 7-2, 8.1-3, 8.1-6 and Facility Diagrams, 8.2-6 through 8.2-11, 8.2-14, 8.2-15, 8.2-27, General Layout Containment & Grading Diagram, Section 8.4 Evacuation Diagram	Annual review, facility information updates.
December 2009	Pgs. v, viii, 9-3	Pgs. v, viii, 9-3	Distribution update and CA COFR renewal.
March 2010	Pgs. v, 1-5, 6-1, 6-9	Pgs. v, 1-5, 6-1, 6-9, 6-10	Update for pipelines associated with San Diego Terminal purchase.
April 2010	Pgs. v, 2-10 through 2-14 and Open End and On-Call Contract List, Mission Valley-Orange Area – Mission Valley Terminal pgs. 8.1-4, 8.2-1, 8.2-3, 8.2-9 through 8.2-29 (Retain Drainage Diagram)	Pgs. v, 2-10 through 2-13, Mission Valley-Orange Area – Mission Valley Terminal pgs. 8.1-4, 8.2-1, 8.2-3, 8.2-9 through 8.2-22	Update for Shell San Diego Terminal purchase.
June 2010	Title Page, Pgs. v through viii, TOC-i through TOC-vi, 1-1 through 1-7, Figure 1.1 Mission Valley –Orange Area Map, 2-2 through 2-7, 3-1, 3-4 through 3-22 and contract documents, 4-5 through 4-10, Remove Mission Valley-Orange Area Sections 6, 7 and 8; Remove Section 9.	Title Page, Pgs. v through vii, TOC-i through TOC-v, 1-1 through 1-5, 2-2 through 2-7, 3-1, 3-4 through 3-21 and work directives, 4-5 through 4-11	Move Mission Valley and Orange Terminals and associated pipelines to Southern Region-West; update notification information and procedures; update threatened and endangered species information.
July 2010	Pgs. v, 1-4; Colton Area 6-1, 6-3, 6-5, 6-7 through 6-10; Las Vegas Area 6-1, 6-4	Pgs. v, 1-4, Colton Area 6-1, 6-3, 6-5, 6-7 through 6-10; Las Vegas Area 6-1, 6-4	PHMSA Advisory Worst Case Discharge review. Pipeline information updates.
November 2010	Pgs. v, 2-13	Pgs. v, 2-13	Updated Oiled Wildlife Care Network contact information.

NOTE: It is the responsibility of the holder of this plan to insure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

REVISION RECORD (Cont'd)			
CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
January 2011	Pgs. vi through vii, 2-10, 3-12 through 3-15, 3-18, 3-20 and ACTI Work Directives	Pgs. vi through viii, 2-10, 3-12 through 3-15, 3-18, 3-20 and Patriot Work Directive	Updated OSRO/Response Contractor information.
August 2011	Pgs. vi, 2-10, 3-12 through 3-15, 3-21, Ancon Marine Agreement No. 11558.	Pgs. vi, 2-10, 3-12, through 3-15, 3-21, H2O Environmental Work Directive Dated March 9, 2011.	Updated OSRO/Response Contractor information.
September 2011	Pgs. vi, 2-10, 3-12 through 3-15, 3-20, Barstow Terminal WD dated 8/18/10	Pgs. vi, 2-10, 3-12 through 3-15, 3-20, Barstow Terminal WD dated 9/08/11, Colton Terminal WD dated 9/08/11	Updated OSRO/Response Contractor information.
January 2012	Pgs. vi; Barstow Area 6-8 and HCA Index; Colton Area 6-14 and HCA Index, 8.1-1; Las Vegas Area 6-7 and HCA Index	Pgs. vi; Barstow Area 6-8 and 487-D-HCA-INDEX-CALNEV_001; Colton Area 6-14, 487-D-HCA-INDEX-CALNEV_001 and 485-D-HCA-INDEX-SFPP_003, 8.1-1; Las Vegas Area 6-7 and 487-D-HCA-INDEX-CALNEV_001	Updated HCA Indexes.
April 2013	Title Page, vi through viii, Section 1, 2-10, 2-13; Barstow Area Section 6, Section 7, 8.1-2, 8.1-4, 8.1-5, Area Map, General Layout Diagram, Fire Protection Diagram, 8.2-6, 8.2-7, 8.2-9, 8.2-11, 8.4-3, Evacuation Diagram; Colton Area Section 6, 8.1-1, 8.2-1, 8.2-3, 8.2-5 through 8.2-32 and Drainage Diagram; Las Vegas Area Section 6, Section 7, 8.1-1	Title Page, vi through viii, Section 1, 2-10, 2-13; Barstow Area Section 6, Section 7, 8.1-2, 8.1-4, 8.1-5, Area Map, General Layout Diagram, Fire Protection Diagram, 8.2-6, 8.2-7, 8.2-9, 8.2-11, 8.4-3, Evacuation Diagram; Colton Area Section 6, 8.1-1, 8.2-1, 8.2-3, 8.2-5 through 8.2-24 and Drainage Diagram; Las Vegas Area Section 6, Section 7, 8.1-1	Updated contact, pipeline, tank, and Worst Case Discharge information.
February 2014	Pgs.87-102 Vol 2 PSR Central - Section 3 Patriot Contract 2011	Pgs 87-102 Vol 2 PSR Central - Section Patriot Contract 2013	Updated patriot Environmental Contract

NOTE: It is the responsibility of the holder of this plan to insure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

DISTRIBUTION LIST SOUTHERN REGION - CENTRAL					
COPY NUMBER	**PLAN HOLDER (Hard Copies)**	**Plans**			
		Foreword thru Section 5	**Barstow Area**	**Colton Area**	**Las Vegas Area**
1	Director Compliance, Codes and Standards 1001 Louisiana Street, Suite 1000 Houston, TX 77002	C	C	C	C
2, 23 7 43, 44	Director of Operations (2) 2319 S. Riverside Avenue Bloomington, CA 92316 Operations Manager Vehicle and Office Copy – Pipeline Maintenance (Colton Area) (2)	C	C	C	C
10 24 25 26-29 45-49 50-52	Area Manager (Colton Area) 2319 S. Riverside Avenue Bloomington, CA 92316 Control Room (Colton S.) Control Room (Colton N.) Vehicle Copy (4) Vehicle Copy - Pipeline Maintenance (5) Vehicle Copy (Colton Area) (3)	A		A	
55, 56	Area Manager (Colton Transmix) Assistant Area Manager (Colton Terminal South) 2359 S. Riverside Avenue Bloomington, CA 92316	A		A	
    15 16-19 20 21, 22	Orange Facilities 1100 Town & Country Road Orange, CA 92868 Crisis Relocation Center Mission Valley Orange Control Center (4) Orange Remediation Groups (Environmental Specialist) Orange Engineering (2)	C	C	C	C
    36 37, 38	Area Manager (Barstow Area) 34277 Daggett/Yermo Road Daggett, CA 92327 Control Room Vehicle Copy (2)	A	A		

DISTRIBUTION LIST SOUTHERN REGION - CENTRAL					
COPY NUMBER	**PLAN HOLDER (Hard Copies)**	**Plans**			
		Foreword thru Section 5	**Barstow Area**	**Colton Area**	**Las Vegas Area**
12, 40 39 41, 42	Area Manager & Vehicle (Las Vegas Area) (2) 5049 N. Sloan Lane Las Vegas, NV 89115 Control Room Line Rider (2)	A			A
ELECTRONIC COPIES					
U.S. Department of Transportation Office of Pipeline Safety Pipeline and Hazardous Materials Safety Administration (PHMSA) 1200 New Jersey Avenue SE-E-22-321 Washington, DC 20590 (2 Copies)					
U.S. Environmental Protection Agency Region IX (SFD1-4) 75 Hawthorne Street San Francisco, CA 94105 (One (1) per facility)					
Witt O'Brien's 818 Town & Country Blvd, Suite 200 Houston, TX 77024					
COPIES REMOVED FROM CIRCULATION					
3, 4, 5, 6, 11, 13, 14, 30, 53, 54, 57, 58, 59, 60					

NOTE: The Distribution of this Plan is controlled by the Copy Number located on the front cover. The Plan Distribution Procedures and the Plan Review and Update Procedures provided in Volume 1 should be followed when making any and all changes.

A = 2.0" Binder
C = 3.0" Binder

1.0 INTRODUCTION AND PLAN CONTENT

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street, Suite 1000
Houston, Texas 77002
(713) 369-9454

Qualified Individual:	Phil Vasquez Director Operations 909 873-5123 *(Office)* (b) (6) *(Mobile)* vasquezp@kindermorgan.com
Alternate Qualified Individual:	Bill Toepfer Operations Manager 909 873-5102 *(Office)* (b) (6) *(Mobile)* bill_toepfer@kindermorgan.com
Area Manager – Barstow	Rob Brown 760 254-5472 Office (b) (6) Mobile robert_brown@kindermorgan.com
Area Manager – Colton	Gene Congiardo 909 873-5153 Office (b) (6) Mobile congiardog@kindermorgan.com
Area Manager – Las Vegas	Vern Lacro 702 643-1282 Office (b) (6) Mobile vern_lacro@kindermorgan.com

1.2 OPERATING ASSETS COVERED BY THIS PLAN

The following tables provide a general information summary for the pipeline sections, pipeline facilities, breakout stations and terminals in each of the Areas in this Region. Specific detail can be located in the following sections for the applicable area.

- Section 6 – Area Pipeline Sections (for DOT jurisdiction)
- Section 7 – Area Breakout Stations (for DOT jurisdiction)
- Section 8 – Area Terminals (for EPA and OSPR jurisdiction)

BARSTOW AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
Lenwood Junction – BNSF	ML5A	San Bernardino, CA
Adelanto Junction – Halloran 8”	ML1	San Bernardino, CA
Adelanto Junction – Halloran 14”	ML	San Bernardino, CA
Adelanto Junction – George AFB 6”	ML4	San Bernardino, CA
George Terminal – Edwards 6”	ED-001	San Bernardino, CA Los Angeles, CA Kern, CA
PIPELINE FACILITIES (Non-Storage)		
Barstow Pump Station (Booster)		San Bernardino, CA
Barstow Station (Piping Manifold Only)		San Bernardino, CA
Yermo Station (Meter Manifold Only)		San Bernardino, CA
Baker Pump Station (Booster)		San Bernardino, CA
Edwards Terminal (Meter Manifold Only)		Kern, CA
BREAKOUT STATIONS		
George AFB Breakout Station		San Bernardino, CA
TERMINALS		
Barstow Terminal		San Bernardino, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

COLTON AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
COLTON INCOMING LINES		
Industry – Colton 16"	1	Los Angeles, CA San Bernardino, CA
Industry – Colton 20"	108	Los Angeles, CA San Bernardino, CA
COLTON AREA LINES		
Ontario – Airport 6"	102	San Bernardino, CA
Colton – March 6"	51	San Bernardino, CA Riverside, CA
COLTON INTER-TERMINAL LINES (Between former SFPPL and CALNEV)		
Colton – CALNEV Jet A 16"	MLE	San Bernardino, CA
Colton – CALNEV Jet B 16" (Out of Service)	MLD	San Bernardino, CA
Colton – CALNEV Diesel 20"	MLB	San Bernardino, CA
Colton – CALNEV Gasoline 20"	MLA	San Bernardino, CA
COLTON OUTGOING LINES		
Colton – Indio Block 20"	111	Imperial, CA Riverside, CA San Bernardino, CA
Colton – Adelanto Junction 8"	ML1	San Bernardino, CA
Colton – Adelanto Junction 14"	ML	San Bernardino, CA
PIPELINE FACILITIES (Non-Storage)		
March AFB Terminal (Meter Manifold Only)		Riverside, CA
Cajon Pump Station (Booster)		San Bernardino, CA
Roadway Junction (Piping Manifold Only) (OOS)		San Bernardino, CA
Adelanto Junction (Piping Manifold Only)		San Bernardino, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

COLTON AREA (Cont'd)	
BREAKOUT STATIONS	
Ontario Terminal	San Bernardino, CA
Colton North Terminal (Former CALNEV)	San Bernardino, CA
Colton South Terminal (Former SFPP)	San Bernardino, CA
TERMINALS	
Colton South Terminal (Former SFPP)	San Bernardino, CA

LAS VEGAS AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
LAS VEGAS INCOMING LINES		
Halloran - Las Vegas 8"	ML1	San Bernardino, CA Clark, NV
Halloran - Las Vegas 14"	ML	San Bernardino, CA Clark, NV
LAS VEGAS AREA LINES		
Bracken - McCarran 6" - 12"	MC	Clark, NV
Las Vegas – Nellis 8"	NE	Clark, NV
BREAKOUT STATIONS		
Las Vegas Terminal		Clark, NV
TERMINALS		
Las Vegas Terminal		Clark, NV

(b) (3), (b) (7)(F)

1.3 SUBSTANTIAL HARM

It is KMEP's goal to respond as quickly as possible to all uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the over breadth of the definitions provided in each of the applicable regulations, KMEP is compelled to consider all of the Facility's breakout stations, and active line sections listed above in this Section, as capable of a release potentially causing "significant and substantial harm". A summary of the Worst Case Discharge scenarios for these facilities is provided as follows:

SOUTHERN REGION CENTRAL WORST CASE DISCHARGE DOT JURISDICTION

Discharge Scenario	Planning Volume
(b) (7)(F), (b) (3)	

* DOT Worst Case Discharge volumes are based on 50% of the tank's maximum storage capacity and for pipelines based on an annual Integrity Management Program study, as follows:

Release volume prior to line shutdown and valve closures (Initial Loss):

- Full flow release due to rupture. This is computed at the maximum pumping rate the line segment.
- Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of fifteen (15) minutes in the event of a full flow rupture, which would cause an instant alarm.
- Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

Line drainage following pump shutdown (Stabilization Loss) is computed the maximum potential line drainage between adjacent isolation or check valves, and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line. The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

SOUTHERN REGION CENTRAL WORST CASE DISCHARGE EPA JURISDICTION	
Discharge Scenario	**Planning Volume**
Small Discharge	
• Barstow Terminal	50 bbls
• Colton Terminal (SFPPL)	50 bbls
• Las Vegas Terminal	50 bbls
Medium Discharge	
• Barstow Terminal	857 bbls
• Colton Terminal (SFPPL)	857 bbls
• Las Vegas Terminal	857 bbls
Worst Case Discharge	
(b) (7)(F), (b) (3)	

Note: EPA Worst Case Discharge is based on the maximum storage capacity of the largest tank at each Facility.

These Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three-tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. Sections 6, 7, and 8 of this Plan demonstrate a series of calculations and planning volume determinations based on guidance provided by all applicable regulations. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios detailed in the table above.

1.4 FORMAT AND SCOPE OF PLAN

This Volume 2 of the Integrated Contingency Plan (ICP) is intended to guide emergency response activities throughout KMEPs Pacific Operation Southern Region – Central. This Region is divided into three (3) Areas (see Figure 1.1) each of which has its own tab in this document. These areas are as follows:

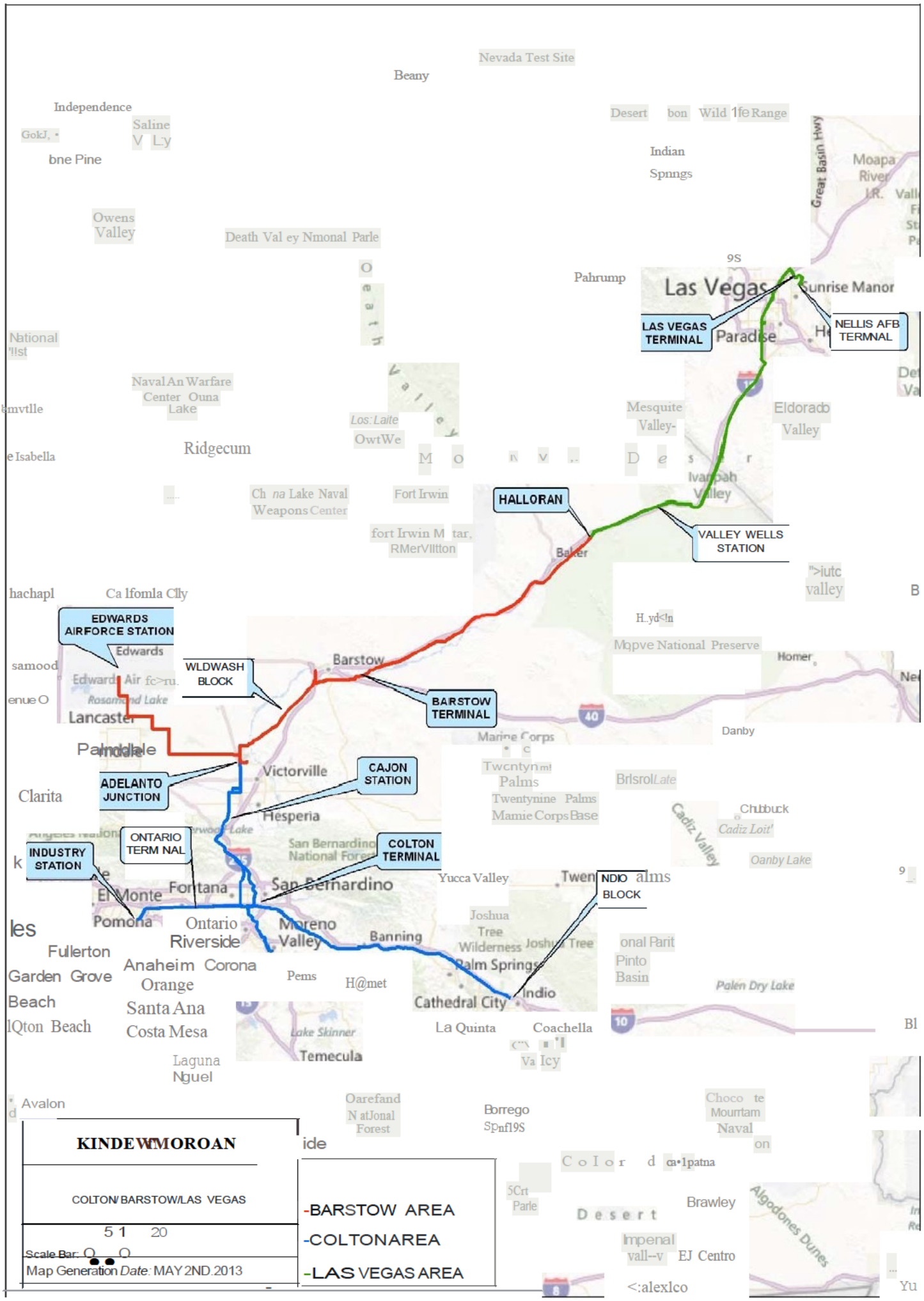
- Barstow Area
- Colton Area
- Las Vegas Area

Each of the Volume 2 plans in this area reflects identical Sections 1 through 5. Section 6 of each Area details the Pipeline Sections in the respective area, Section 7 of each Area details the Breakout Stations (DOT-jurisdictional) in the respective area, and Sections 8 of each Area details the Terminals (multi-jurisdictional) in the respective area*. The Area covered by this particular plan is identified on the front cover of this plan and on the footer of each page and on the maps provided in Figure 1.1.

Volume 1 of the Integrated Contingency Plan provides guidance which is consistent across the Pacific Operations. The two (2) documents are intended to work together as one seamless Integrated Contingency Plan for the various facilities/operations and agency jurisdictions in Pacific Operations.

Figure 1.1

SOUTHERN REGION-CENTRAL AREA MAP


Nevada Test Site
Beany
Independence
Saline
Valley
Indian
Springs
Great Basin Hwy
Moapa
River
Owens
Valley
Death Valley National Parle
Pahrump
Las Vegas
Sunrise Manor
LAS VEGAS TERMINAL
NELLIS AFB TERMNAL
Paradise
National
Naval An Warfare
Center Ouna
Lake
Mesquite
Valley-
Eldorado
Valley
Los: Laite
OwtWe
Ridgecum
Isabella
China Lake Naval
Weapons Center
Fort Irwin
HALLORAN
VALLEY WELLS
STATION
fort Irwin M tar,
RMerVIltton
Baker
valley
Mojave National Preserve
Homer
EDWARDS
AIRFORCE STATION
Edwards
WLDWASH
BLOCK
Barstow
BARSTOW
TERMINAL
Lancaster
Palmdale
Victorville
CAJON
STATION
ADELANTO
JUNCTION
Clarita
Hesperia
ONTARIO
TERM NAL
INDUSTRY
STATION
COLTON
TERMINAL
San Bernardino
National Forest
El Monte
Fontana
San Bernardino
Yucca Valley
NDIO
BLOCK
Pomona
Ontario
Riverside
Moreno
Valley
Banning
Joshua
Tree
Wilderness
Palm Springs
Fullerton
Anaheim
Corona
Orange
Garden Grove
Beach
Santa Ana
Costa Mesa
Pems
H@met
Cathedral City
Indio
La Quinta
Coachella
Lake Skinner
Temecula
Laguna
Nguel
Avalon
Twentynine Palms
Mamie Corps Base
Marine Corps
Danby
Bristol Lake
Cadiz Valley
Chubbuck
Cadiz Loit'
Oanby Lake
Palen Dry Lake
Pinto
Basin
Borrego
Brawley
Desert
Imperial
EJ Centro
Algodones Dunes
Yuma
KINDEWMORGAN
COLTON/BARSTOW/LAS VEGAS
5 1 20
Scale Bar: O O
Map Generation Date: MAY 2ND 2013
-BARSTOW AREA
-COLTONAREA
-LAS VEGAS AREA

2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific reference to all internal notifications is detailed in **Volume 1** Section 2.1 which provides the following:

- KM Employee or Agent Notification Process - California Only (Figure 2.1a)
- Operator Notification Process - Non-California (Figure 2.1b)
- KM Employee Other Than Operator Notification Process - Non-California (Figure 2.1c)
- Controller - Orange, CA Notification Process - California Only (Figure 2.1d-1)
- Controller - Orange, CA Notification Process - Non-California (Figure 2.1d-2)
- Controller - Houston, TX Notification Process (Figure 2.1e)
- Managers Internal Notification Process (Figure 2.1f)
- Field Notification Form (Figure 2.2)
- Northern Region Internal Notifications References (Figure 2.3a)
- Southern Region Internal Notifications References (Figure 2.3b)
- Crisis Support Team Internal Notifications References (Figure 2.3c)

2.2 EXTERNAL NOTIFICATIONS

Specific reference to all **"Regulatory Required"** external notifications is detailed in Volume 1, Section 2.2 and Figure 2.4. **With the exception of notification to 911 and/or local fire/police agencies which are handled by local area operations, the Environmental, Health and Safety (EHS) and/or Compliance, Codes and Standards is responsible for making all regulatory required external notifications in all states other than in California. In California and locations monitoring or controlling, pipeline sections in California, refer to Volume 1, Section 2.2 and Figure 2.4.**

The locally required notifications and additional external notification references which are detailed in the following Volume 2 Figure 2.1 provide for assistance/advisory notifications. Specific notifications for contacting OSRO's are found in Volume 2, Figure, 2.1, "Regional Contractors/Services".

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS
(outside resources)
NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS

AGENCY	LOCATION	OFFICE/ ALTERNATE
FIRE DEPARTMENTS		
California		
Kern County Fire Department	Bakersfield, CA	(661) 391-7000
Riverside City Fire Department	Riverside, CA	(951) 826-5338
Riverside County Environmental Health	Riverside, CA	(951) 358-5055
San Bernardino County Fire Department	San Bernardino, CA	(800) 338-6942 (909) 386-8418
San Bernardino HazMat	San Bernardino, CA	(909) 388-6942
City of Victorville CUPA	Victorville, CA	(760) 955-5229
Imperial County Fire Department	Imperial, CA	(760) 353-5222
Los Angeles County Fire Department	Commerce, CA	(323) 890-4045
Highgrove Volunteer Fire Department	Riverside, CA	(951) 784-9117
Nevada		
Las Vegas Fire Dept.	Las Vegas, NV	(702) 383-2888
Henderson Fire Dept.	Henderson, NV	(702) 267-2222
Clark County Fire Dept.	Las Vegas, NV	(702) 455-7316
North Las Vegas Fire Dept.	North Las Vegas, NV	(702) 633-1102
Nellis AFB Fire Dept.	Nellis AFB, NV	(702) 652-9630

SOUTHERN REGION-CENTRAL

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FEDERAL		
U.S. Coast Guard (Recommended Courtesy Call - As Applicable)		
U.S. Coast Guard - Sector LA/LB (*Los Angeles, Orange, and San Bernardino Counties*)	San Pedro, CA	(310) 732-2000 (310) 732-2044* (800) 221-8724*
U.S. Environmental Protection Agency (EPA)		
U.S. Environmental Protection Agency (EPA) Region IX	San Francisco, CA	(415) 947-4400
U.S. Fish and Wildlife Service		
US Fish and Wildlife Service (USFWS) *(California/Nevada)*	Sacramento, CA	(916) 414-6464
CALIFORNIA		
Office of Spill Prevention and Response (OSPR)		
California Department of Fish and Game Office of Spill Prevention and Response (OSPR)	Sacramento, CA	(888) 334-2258 (916) 445-9338
LEPC		
Local Emergency Planning Committee (LEPC) Region I-*Orange and Los Angeles Counties*	El Segundo, CA	(310) 524-2242
Local Emergency Planning Committee (LEPC) Region VI-*San Bernardino, San Diego, and Imperial Counties*	San Diego, CA	(619) 533-4300
California Department of Transportation (DOT)		
California Department of Transportation/Caltrans	Sacramento, CA	(916) 653-3442

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Regional Water Quality Control Board		
Regional Water Quality Control Board (Region 8)- Colton Terminal	Riverside, CA	(909) 782-4130
Regional Water Quality Control Board (Region 4)- Colton Incoming Lines	Los Angeles, CA	(213) 576-6600
Regional Water Quality Control Board (Region 6)- Barstow Terminal	Victorville, CA	(760) 241-6583
Air Pollution Control District		
South Coast AQMD- Colton Terminal	Diamond Bar, CA	(909) 396-2000
Mojave Desert AQMD - Barstow Terminal	Victorville, CA	(760) 245-1661
California Department of Conservation		
California Department of Conservation Division of Oil and Gas	Cypress, CA	(714) 816-6847
State Lands Commission		
California State Lands Commission So. California Branch	Long Beach, CA	(562) 499-6312
Cal/OSHA		
Cal/OSHA Los Angeles Area San Bernardino Area	 Los Angeles, CA San Bernardino, CA	 (213) 576-7451 (909) 383-4321

SOUTHERN REGION-CENTRAL

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Native American Heritage Commission		
Native American Heritage Commission	Sacramento, CA	(916) 653-4082
Office of Historic Preservation Dept. Parks and Recreation		
Office of Historic Preservation Dept. Parks and Recreation	Sacramento, CA	(916) 653-6624
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)		
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)	Sacramento, CA	(916) 653-4529 (24-Hour recorder)
Dig Alert		
USA Underground Service Alert	Corona, CA	(800) 422-4133
Fire Marshal		
Office of the State Fire Marshal 3950 Paramount Blvd #210 Lakewood, CA 90712	Lakewood, CA	(562) 497-9100 * (562) 497-9104 FAX
Law Enforcement		
State Police (Highway Patrol) - Colton Terminal	San Bernardino, CA	(909) 383-4247
State Police (Highway Patrol) - Barstow Terminal	Barstow, CA	(760) 256-1727 (760) 256-1617*

NOTE: Internal Company Numbers are provided in Volume 1.
* 24-hour number

SOUTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Local Water Supply System		
City of Rialto - Colton Terminal	Rialto, CA	(909) 877-2752 (909) 820-2608*
Daggett Community Services District	Daggett, CA	(760) 254-2415
Weather Report		
Weather Report, Orange County Register	Santa Ana, CA	(714) 550-4636 (ext 2500)
Weather Report National Weather Service-Recorded	San Diego, CA	(619) 289-1212
Radio/ Television		
KFRG - Radio	Colton, CA	(909) 431-3764
KOOL - Radio	Colton, CA	(909) 824-5005
KAWN - Radio	Barstow, CA	(760) 255-2636
KDUC - Radio	Barstow, CA	(760) 256-2121
KHIZ - TV	Victorville, CA	(760) 241-5888
KNBC - TV	Riverside, CA	(909) 788-2221

NOTE: Internal Company Numbers are provided in Volume 1.
* 24-hour number

SOUTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Hospitals/Ambulance Service		
San Bernardino Community Hospital	San Bernardino, CA	(909) 887-6333
Premier Medical Transport	Colton, CA	(909) 433-3939
Desert Ambulance Service Inc.	Barstow, CA	(760) 256-2165
Barstow Community Hospital	Barstow, CA	(760) 256-1761

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
NEVADA		
Nevada Department of Transportation (DOT)		
Nevada Dept. of Transportation	Carson City, NV	(775) 888-7000
Clark County Department of Air Quality and Environmental Management (DAQEM)		
Clark County Department of Air Quality and Environmental Management (DAQEM)	Las Vegas, NV	(702) 455-5942 (702) 383-9994 FAX
Dig Alert		
USA Underground Service Alert (North)	Concord, CA	(800) 227-2600
Fire Marshal		
State Fire Marshal	Carson City, NV	(775) 684-7525
Law Enforcements		
State Police	Carson City, NV	(775) 687-5300
Clark County Sheriffs Civil Bureau	Las Vegas, NV	(702) 455-4237
North Las Vegas Police Dept.	Las Vegas, NV	(702) 633-9111
Las Vegas Metropolitan Police Dept.	Las Vegas, NV	(702) 229-3111
Henderson Police Dept.	Henderson, NV	(702) 565-8933
Weather Report		
National Weather Service	Las Vegas, NV	(702) 263-9744
Radio/Television		
KKVV	Las Vegas, NV	(702) 731-5588
KNEWS	Las Vegas, NV	(702) 735-8644
KLAS – TV Channel 8	Las Vegas, NV	(702) 792-8888
KTNV - TV Channel 13	Las Vegas, NV	(702) 876-1313

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1. LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
NEVADA		
Ambulance/Hospitals		
American Medical Response, Inc.	Las Vegas, NV	(702) 384-3400
Specialized Medical Service, Inc.	Las Vegas, NV	(702) 257-7655
Medic Coach Service	Las Vegas, NV	(702) 454-6176
St. Rose Dominican Hospital	Henderson, NV	(702) 616-6535
Sunrise Hospital	Las Vegas, NV	(702) 731-8057
University Medical Center	Las Vegas, NV	(702) 383-2000
Lake Mead Hospital and Medical Center	N. Las Vegas, NV	(702) 649-7711

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Patriot Environmental Services	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Ontario, CA Wilmington, CA Ventura, CA Saugus, CA San Diego, CA	(800) 624-9136* (562) 436-2614 (805) 921-1112 (661) 287-3737 (619) 449-9014
H2O Environmental, Inc.	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Las Vegas, NV	(702) 396-4148*
National Response Corporation	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Long Beach, CA San Diego, CA	(800) 337-7455*
Marine Spill Response Corporation	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Carson, CA	(800) 645-7745* (310) 527-6565
SPILL MANAGEMENT TEAM SUPPORT			
Witt O'Brien's	Personnel, Comms and Management Equipment	Slidell, LA Houston, TX Brea, CA Seattle, WA	(981) 781-0804* (281) 320-9796 (281) 320-9700 FAX

* 24 Hour Number

SOUTHERN REGION CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS			
ADDITIONAL RESPONSE RESOURCES			
COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Non-USCG Classified OSRO with Contract Agreement			
Filter Recycling	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Rialto, CA	(909) 721-2038
Ecology Control Industries, Inc.	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Torrance, CA Long Beach, CA	(800) 236-7324* (310) 320-2555* (805) 648-5123*
M.P. Environmental Services	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Bakersfield, CA	(661) 393-1151
Universal Environmental	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Benicia, CA	(800) 747-6609* (707) 747-6699*

* 24 Hour Number

SOUTHERN REGION CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL CONTRACTED RESPONSE RESOURCES			
COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Pipeline Contractors			
Arizona Pipeline Co.	Pipeline Contractor Heavy Equipment Vac-Trucks	Apple Valley, CA Corona, CA	(760) 244-8212 (760) 559-4242 (951) 270-3100
Doty Brothers Equipment Company	Pipeline Contractor Heavy Equipment Vac-Trucks	Norwalk, CA	(562) 864-6566
Southwest Contractors	Pipeline Contractor Heavy Equipment Vac-Trucks	Bakersfield, CA Orange, CA	(661) 588-0484 (714) 279-2784
ARB, Inc.	Pipeline Contractor Heavy Equipment Vac-Trucks	Bakersfield, CA	(661) 833-4400
Hood Corporation	Pipeline Contractor Heavy Equipment Vac-Trucks	Whittier, CA	(951) 520-4282

SOUTHERN REGION CENTRAL

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Consultants			
Witt O'Brien's	Consultants	Slidell, LA Houston, TX	(981) 781-0804* (281) 320-9796 (281) 320-9700 FAX
Cleanup Contractors			
Philip Services, Corp.	Environmental Clean-Up, Skimmers, Boom, Vac-Trucks	Benicia, CA	(800) 800-7472 (707) 748-3040
General Environmental Management	Environmental Clean-Up, Skimmers, Boom, Vac-Trucks	Fontana, CA	(800) 326-1011
H2O Environmental	Environmental Clean-Up, Skimmers, Boom, Vac-Trucks	Las Vegas, NV	(702) 396-4148
Heavy Equipment – Vacuum Trucks – Tank Trucks			
Monte Collins Rentals	Backhoe	Los Alamitos, CA	(562) 430-3715
Jimco Backhoe Rental	Backhoe & Heavy Equipment Rental	Rialto, CA	(909) 875-2160
Paul J. Hubs Constr. Company	Rock Rip Rap, Heavy Equipment	Rialto, CA	(909) 877-2726
Ryerson Concrete, Inc	Heavy Equipment, Sand & Rock, Water Trucks	El Centro, CA	(760) 352-4341
E. L. Yeager Contractors	Heavy Equipment, Asphalt Paving Material	Riverside, CA	(951) 684-5360
Wildlife/Rescue			
Oiled Wildlife Care Network	Wildlife Rescue & Rehab.	Davis, CA	(877) 823-6926* (530) 752-4167
International Bird Rescue Research Center	Wildlife Rescue & Rehab.	San Pedro, CA	(310) 514-2573

SOUTHERN REGION CENTRAL

3.0 RESPONSE RESOURCES

The following sections outline the various response equipment/resources available from the Facility, other Company facilities, and other outside resources.

3.1 AREA RESPONSE EQUIPMENT

This Area of the KMEP operations maintains response equipment readily available for spill response as detailed on the "Facility Response Equipment" lists provided in Figure 3.1 and the "Pipeline Repair Equipment" lists provided in Figure 3.2. The equipment is stored at locations in the Area as detailed on the equipment lists.

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. The equipment will be exercised as semi-annually (Terminal equipment) or annually (pipeline equipment) as required (PREP Guidelines). A sample form for documenting these Equipment Deployment Exercises is provided in Figure 3.4.

KMEP has contracts in place with Oil Spill Removal Organizations and other clean-up and response contractors that are capable of responding to all discharges within the Area and supplementing Area KMEP resources.

The Qualified Individual has the authority to activate these and other KMEP resources or that of private contractors and other experts and consultants as the situation demands.

3.2 OTHER COMPANY RESOURCES

Neighboring KMEP Areas have response resources similar to those provided in this Area (Figures 3.1 and 3.2). These resources as well as additional Company spill response equipment and manpower resources may be available to supplement the response operation.

3.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation. *The Company will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.*

Response resources will be secured from a Company approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Volume provides a quick reference to the OSROs and additional clean-up and response contract organizations. A detailed list of the "Pacific Region Open End and On-Call Contractors" is provided in Figure 2.2. Specific reference to their response capability (USCG OSRO classification) is provided in Figure 3.3.

These OSRO's have adequate equipment and personnel resources available within the Area to respond to the applicable regulatory planning volumes in the required time frames.

3.3 CONTRACT RESOURCES (Cont'd)

OSROs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. KMEP personnel will oversee and coordinate with the OSRO to ensure their actions conform with overall incident objectives and established incident action plans.

OSROs also have extensive experience in using the Area Contingency Plans (ACPs) as a resource when responding to an incident that has affected a navigable waterway. The KMEP Incident Commander, Planning Officer and Operations Chief will employ the OSRO's experience to integrate applicable local ACPs into the overall incident action plans.

3.4 AREA CONTINGENCY PLANS (ACP)

Area Committees comprised of Federal, state and local agencies develop ACPs. Response efforts performed within a certain "area" should reference the ACPs for that specific area. ACPs include clean-up strategies and information on environmentally sensitive areas within a particular region. Some of the ACPs include maps, shoreline characteristics and booming strategies for specific areas while other ACPs offer priority lists of environmentally sensitive areas.

ACPs generally contain the following information:

- Physical features
- Seasonal concerns
- Resources of primary concern
- Containment, and cleanup strategies, including recommended techniques
- Equipment considerations
- Incident Command System Roles and Responsibilities (NIMS)

To identify specific spill response and protection strategies for the applicable region/area, ACP and Geographic Response Plan information can be found at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/rmaplan.html Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-KMEP plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1 (inside front cover) or in a separate folder in electronic copies and is referenced in Figure 4.2.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

3.5 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/mutual aid resources will be utilized when available and/or necessary.

3.6 EXPERTS AND CONSULTANTS

KMEP maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

3.7 VOLUNTEERS

Volunteers will not be utilized by KMEP for the response operations. All volunteers will be referred to the state or Federal On-Scene Coordinator.

3.8 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment / diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between KMEP and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

3.8.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with KMEP emergencies. The notification procedures and telephone contacts documented in Section 2 of Volume 1 and Volume 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and state emergency telephone numbers for the Orange Control Center and emergency response personnel (Volume 1; Section 2).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Volume 2; Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Volume 2; Figure 2.1).

3.8 COMMUNICATIONS (Cont'd)

3.8.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing KMEP communications network. This network will utilize existing radios, telephones, beepers, fax machines, and computers and will be maintained by KMEP personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other KMEP and contract resources as the situation demands.

Each KMEP responder has, at a minimum, a cellular telephone. All KMEP response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the KMEP spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and kept in designated KMEP response trailers. In addition, KMEP also utilizes radio sets provided by contract resources. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation. (Exception: CalNev no longer has any radios with the exception of satellite phones. Las Vegas Terminal does not have radios.)

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain KMEP personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and KMEP personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE 3.1
Facility Response Equipment
(Reserved)

Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3

FIGURE 3.2a
PIPELINE REPAIR EQUIPMENT

Colton Terminal		
Qty.	Description	Location
	INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT	
	Floating Booms	Warehouse
	Sorbent Booms	Warehouse
	Sorbent Pads	Warehouse
	Welding Machine, Spare Rod, Cutting Grinding Equipment	Response Vehicle
2	Portable Pumps: 1-Centrifugal, 1-Diaphragm, Parts	Warehouse
	Portable Generator and Extension Cords	Warehouse
	Leak Sleeves: 2- ½", 1-18", 1-24", 1-36"	Yard
	Neoprene Cones and Sheets	Warehouse
	Skinner Clamp	Emergency Trailer
6	Buckets: three - 5 gal., two - 2 gal., one - 1/2 tub	Response Vehicle/Emergency Trailer
	Halogen lights and stands, spare bulbs	
	Line-up clamps (line size)	Emergency Trailer
	Pipe cutter, spare blades (line size)	Emergency Trailer
2	Weld plus ends - (line size)	Warehouse
	Bonding cables and clamps	Response Vehicle/Emergency Trailer
	Line probes	Response Vehicle
	Line Finder	Response Vehicle/Shop
2	Taping machine, valves, plugs, fittings	Response Vehicle/Emergency Trailer
	Coating and primer, trimming knives, brushes, brass hammer	Response Vehicle/Emergency Trailer
	Spare diesel and oil, funnels, gas	
	Hand tools, hammer wrenches, sockets	Response Vehicle
	Spare 1-1/8" bolts and nuts (for clamp - 12 minimum)	
	Shovels, picks, sharp shooters	Response Vehicle
	Hydraulic jacks	Response Vehicle
	Burlap bags	Warehouse
	Skids 4" x 6" (8 to 10)	Yard
	Rope	Emergency Trailer
	Equipment for sleeve modification	
	Five lengths of 2" hose, foot valve, hose fittings	Warehouse
	Full oxygen and acetylene bottles, lines, torches	Response Vehicle/Welding
	150# Ansul fire extinguisher	Warehouse
	30# Ansul fire extinguishers	Emergency Trailer
	Rubber boots and rain gear	Emergency Trailer
	Fans and compressor (if applicable)	Emergency Trailer/Yard
	Fire blanket / water gel	Response Vehicle/Emergency Trailer
	Spare Ansul powder	Warehouse

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2a

PIPELINE REPAIR EQUIPMENT

Colton Terminal (Cont'd)		
Qty.	**Description**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
	Spare CO^2 cartridges for 30# Ansuls	Warehouse
	Barricades	Yard
	"No Smoking" signs	Emergency Trailer
	Flashlights, spare batteries, bulbs	Emergency Trailer
	Shop rags - soap	Response Vehicle/Emergency Trailer
	Spare water	Response Vehicle/Emergency Trailer
	MSA-261 / Gastech	Response Vehicle/Emergency Trailer
	Rubber gloves	Response Vehicle/Emergency Trailer
	Overalls (emergency clothes change)	Response Vehicle/Emergency Trailer
	Air purifiers	Response Vehicle/Emergency Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2a

PIPELINE REPAIR EQUIPMENT

Colton Terminal (Cont'd)		
Qty.	**Description**	**Comments**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
1	Oil Boom (yellow bag, 100')	
200	Sorbent Pads 24 x 24	
1	100' Sorbent sweep	
1	5000 watt Generator	
1	Light Stands 500 watt	
1	First aid Kit 50 person w/ blood pressure set	
1	Sked Rescue unit	
1	KED Rescue device	
1 case	Drinking water	
2 case	Food bars	
1 box	Meals, ready to eat	
20	Tyveck Coveralls	
20 pr.	Leather gloves	
1 box ea	Nitrile gloves, disposable, large, X large	
10 pr.	HD. Nitrite gloves	
10	Rain Suits, assorted sizes	
4	Full face respirators	
24 pks	Replacement APR cartridges	
8	Barricades w/ flashers	
1	Portable eye wash / shower combo	
5	Folding chairs	
1	Folding table	
1	Fire Blankets	
1	10# ABC fire extinguishers	
5	Round shovels	
3	Square shovels	
1	6'x 4" PVC Pipe	
1	6'x 10" PVC pipe	
100	Sand bags	
1	100'x 20' 10mil Visqueen	
1	50' extension cords	
2	Ground Rods	
2	Aluminum Foil	
4	Ground Wire / bonding cables 50'	

NOTE: **This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.**

FIGURE 3.2a

PIPELINE REPAIR EQUIPMENT

Colton Terminal (Cont'd)	
ITEM	**QUANTITY**
CLEAN-UP MATERIALS	
Clear Tape	1
Drop Cloths	1
Duct Tape	1
Haz Mat Bags	1
Paper Cups	1
Paper Towels	1
Plastic Bags	1
Sandbags	1
Wire Ties	1
Zip Lock Bags	1
EQUIP. MISC.	
Batteries, All	1
Binoculars	1
Bullhorn	1
Drager Pump	1
Lock-Out/Tag-Out Equip.	1
Power Strip	1
FIRE EQUIPMENT	
Burn Dressing, Waterjel, Case	1
Fire Blanket, Waterjel	1
PPE	
Back Supports	1
Chest Harness	1
Ear Plugs	1
Eyewash	1
Gastech Parts	1
Gloves, Lg. Rubber, Box	1
Goggles / Glasses, MSA, Case	1
Overall, Disposable, Case	1
Rescue Blanket	1
Respirator, Moldex 8000	1
Shaving Kit	1
Toilet Paper	1
Vests, ICS Orange, Box	1

NOTE: **This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.**

FIGURE 3.2a

PIPELINE REPAIR EQUIPMENT

Colton Terminal (Cont'd)	
ITEM	**QUANTITY**
SITE DEFINITION	
Signs, Plastic Warning, Various	1
SUPPLIES	
Lanterns	1
Whistles	1
TOW VEHICLE	
Brake Controller	1
Brakes	1
Lights / Wiring	1
Tires	5
TRAILER	
Lights / Wiring	1
Mechanical	1
Paint	1
Tires	5
Wheel Bearings	4

NOTE: **This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.**

FIGURE 3.2b

PIPELINE REPAIR EQUIPMENT

Las Vegas Terminal		
Qty.	Description	Comments
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
1	Oil Boom (yellow bag, 100')	
200	Sorbent Pads	
1	5000 watt Generator	
2	Light Stand, 500 watt	
1	First aid Kit 50 person w/ blood pressure set	
1	Sked Rescue unit	
1	KED Rescue device	
1 case	Drinking water, purified	
1 box	Meals, ready to eat	
12	Saranex disposable coveralls	
1 pair	Leather gloves	
20 pairs	HD Nitrile gloves	
5	Rain Suits, assorted sizes	
1	Barricade	
8	Barricade flashers	
1	Portable eye wash / shower combo	
5	Folding chairs	
2	Fire Blankets	
1	10# ABC fire extinguisher	
5	Round shovels	
2	Square shovels	
1	6'x 4" PVC Pipe	
1	6'x 10" PVC Pipe	
100	Sand bags	
1	100'x 20' 10mil Visqueen	
1	50' extension cord	

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.3
Terminal OSRO Information

AMPD INFORMATION – KMEP Barstow Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor
Patriot Environmental Services
1840 East Elm Street
Ontario, CA 91761
(800) 624-9136

Contract Expiration Date
Refer to Work Directive

- **Equipment Address (*1-hour response time):**
34277 Daggett/Yermo Road,
Daggett, CA 92327

Boom: 1,000'

- **Equipment Address (*2-hour response time):**
1840 East Elm Street
Ontario, CA 91761

Skimmer: Skim Pack

Vacuum Trucks: 1 ea. 2,940 Gals. Capacity

Temporary Storage: 2,940 Gals. Total

****Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Los Angeles/Long Beach Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)
OSPR Rated Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Patriot Environmental Services	25286	Rivers/Canals	X				Yes
		Inland	X				

FIGURE 3.3 (Cont'd)
Terminal OSRO Information

AMPD INFORMATION – KMEP Colton Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor
Patriot Environmental Services
1840 East Elm Street
Ontario, CA 91761
(800) 624-9136

Contract Expiration Date
Refer to Work Directive

- **Equipment Address (*1-hour response time):**

1840 East Elm Street
Ontario, CA 91761
Boom: 1,000'

- **Equipment Address (*2-hour response time):**

1840 East Elm Street
Ontario, CA 91761
Skimmer: Skim pack

Vacuum Trucks: 1 ea. 2,940 Gals. Capacity

Temporary Storage: 2,940 Gals.

****Planning Assumptions***: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Los Angeles/Long Beach Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)
OSPR Rated Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Patriot Environmental Services	25286	Rivers/Canals	X				Yes
		Inland	X				

FIGURE 3.3 (Cont'd)
Terminal OSRO Information

AMPD INFORMATION - KMEP Las Vegas Terminal

- **AMPD response provider**

OSRO / Clean-up Contractor
H2O Environmental, Inc.
4035 Flossmoor St.
Las Vegas, NV 89115
(702) 396-4148

Contract Expiration Date
Refer to Work Directive

- **Equipment Address (*1-hour response time):**
5049 North Sloan Lane
Las Vegas, NV 89115

Boom: 1,000'

- **Equipment Address (*2-hour response time):**
5049 North Sloan Lane
Las Vegas, NV 89115

Skimmer: Skim pack

Vacuum Trucks: 1 ea. 70 bbls capacity

Temporary Storage: 70 bbls on-site

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

NON-USCG Classified Oil Spill Removal Organization (OSRO) - Spill Contractor

Spill Contractor	Contract Number
H2O Environmental, Inc.	11593

FIGURE 3.3 (Cont'd)
Response Zone OSRO Information

Southern Region – Central

Oil Spill Removal Organization	Contract Expiration Date
National Response Corporation 11559	Refer to Contract
Patriot Environmental Services 25286	Refer to Work Directive
H2O Environmental 11593	Refer to Work Directive

The identified Oil Spill Removal Organization is capable of arriving at the scene of a discharge within the time specified for the applicable response tier, as follows:

	Tier 1	Tier 2	Tier 3
High Volume Areas	6 Hours	30 Hours	54 Hours
All Other Areas	12 Hours	36 Hours	60 Hours

The Southern Region – Central Response Zone is not in a High Volume Area as defined in 49 CFR 194 Appendix B

***Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

FIGURE 3.3

OIL SPILL REMOVAL ORGANIZATIONS (Cont'd)

USCG OSRO Classifications

The USCG has classified OSROs according to their response capabilities, within each COTP zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

FIGURE 3.4

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Terminal/Response Zone: _____

3. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

4. Deployment location(s):
   _____
   _____
   _____
   _____
   _____
   _____

5. Time started: _____
   Time completed: _____

6. Equipment deployed was:
   - ❑ Facility - owned
   - ❑ Oil spill removal organization - owned if so, which OSRO? _____
   - ❑ Both

7. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:
   _____
   _____
   _____
   _____

8. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):
   _____
   _____
   _____
   _____

9. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's small/average most probable spill?
   _____
   _____

   Was the equipment deployed in its intended operating environment?
   _____
   _____

FIGURE 3.4 (Cont'd)

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

10. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

    Was the equipment deployed in its intended operating environment?

11. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

    If so, describe the program: _____

    Date of last equipment inspection: _____

12. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

13. Was all deployed equipment operational? If not, why not?

14. Attach a description of lessons learned, procedures and schedule for implementation, and persons responsible for follow up of corrective measures.

_____ _____
Certifying/Evaluator Signature Date

Retain this form and other documentation related to this exercise for a minimum of 5 years.

California Facilities/Response Zones: Submit this form and supporting documentation to osprdrills@ospr.dfg.ca.gov or FAX (916) 324-9786.

FIGURE 3.5

OSRO CONTRACTS AND WORK DIRECTIVES

National Response Corporation Environmental Services, Inc. (NRCES)

ORIGINAL

KM REVISION 11-22-05

AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES

NUMBER: 05-ER-45-064-ORG

COMMENCES: JUNE 1, 2005

BETWEEN

KINDER MORGAN OPERATING L.P. "D"

AND

NATIONAL RESPONSE CORPORATION

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AGREEMENT FOR PROFESSIONAL EMERGENCY RESPONSE SERVICES

Agreement Number: 05-ER-45-064-ORG

THIS AGREEMENT is made as of the **22nd day of November , 2005**, by and between **Kinder Morgan Operating L.P. "D"** a Delaware Limited Partnership, and, to the extent of any Work Directive executed by any of its affiliates or subsidiaries, those affiliates and subsidiaries, respectively, acting as agent for Kinder Morgan and its affiliates and subsidiaries who are requiring such work as set forth in this Agreement and/or in **Exhibit A-1** (Work Directive) and who will be releasing payments for such work, with its principal place of business in **Houston, Texas**, hereinafter referred to as "**COMPANY**", and **National Response Corporation**, a Delaware corporation having its principal office at 3500 Sunrise Highway, Great River, New York 11739 hereinafter referred to as "**CONSULTANT**".

WITNESSETH:

WHEREAS, COMPANY desires the services of CONSULTANT and a network of subcontractors and/or Local Contractors (as defined in **Section 2.2** below), including NRC Environmental Services Inc., to provide OSRO Coverage Services and be available to provide Emergency Response Services for the containment and cleanup of oil, discharge of hazardous material and non-hazardous materials, and

WHEREAS, CONSULTANT represents that it is qualified and desires to provide OSRO Coverage Services and to perform such Emergency Response Service (as defined in **Section 2.4** below) for COMPANY.

NOW, THEREFORE, in consideration of the promises and mutual covenants contained herein, the parties do hereby agree as follows:

1.0 TERM

1.1 This Agreement becomes effective upon the date first above written and shall continue until December 31, 2008; (unless earlier terminated pursuant to Section 14.1 or 14.2 below); provided however this Agreement may be extended by agreement of the parties upon COMPANY's written notice given at least ninety (90) days prior to expiration of the then current term; and further provided that if a Work Directive issued under this Agreement is continuing beyond the expiration date, the term of this Agreement shall be extended automatically for ninety (90) days or until that Work Directive has been completed, whichever occurs first. All rates and fees under this agreement shall be subject to adjustment on an annual basis.

2.0 CONTRACT DOCUMENTS, SCOPE OF WORK AND ADMINISTRATION

2.1 This Agreement shall consist of the Contract Documents itemized below. In the event of a conflict between or among the provisions of the Contract Documents, the more or most specific provision shall control:

2.1.1 Agreement Number **05-ER-45-064-ORG**

2.1.2 **Exhibit A** Work Directive(s) as may be issued from time to time (including Scope of Work)

2.1.3 **Exhibit B** Schedule of Values

2.1.4 **Exhibit C** Certificate of Insurance

2.1.5 **Exhibit D** (1) United States Environmental Protection Agency Title III, List of Lists, Consolidated List of Chemicals Subject to the Emergency Planning and Community Right To Know Act (EPCRA) and Section 112(r) of the Clean Air Act, published April 1995, as amended

2.1.6 **Exhibit E** Project Scope Change Order

2.1.7 **Exhibit F** INTENTIONALLY OMITTED

2.1.8 **Exhibit G** Kinder Morgan Contractor Safety Rules & Regulations

2.1.9 **Exhibit H** Parent Guaranty

Note that any references to "CONTRACTOR" in an Exhibit, apply to CONSULTANT.

2.2 Definitions:

2.2.1 ""**Best Endeavors**" means, with respect to either party, the performance in good faith to the extent of its total capabilities;

2.2.2 "**Classification**" means classification or other governmental approval required or available under Federal Law and State Law for an Oil Spill Removal Organization to be designated as such in the Response Plan;

2.2.3 "**Contract Documents**" means all relevant documents described in **Section 2.1** of this Agreement.

2.2.4 ""**Day**" or "**Week**" means, respectively, a calendar day or seven (7) calendar days.

2.2.5 "**Designated Representative**" means the person identified as COMPANY'S Designated Representative in **Section 2.8** of this Agreement.

2.2.6 "**Discharge**" means any emission (other than natural seepage), including, but not limited to, spilling, leaking, pumping, pouring, emitting, emptying or dumping of Oil;

2.2.7 "**Drills**" means any drills, exercises, practices or other preparatory or simulated activities in connection with which the COMPANY has requested the CONSULTANT to mobilize or deploy Response Resources or to provide other services;

2.2.8 **"Emergency Response Services"** shall have the meaning given in **Section 2.4** below.

2.2.9 **"Environmental Law"** means any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment, including the United States Oil Pollution Act (33 U.S.C. 2701, et seq.) ("OPA") and the Federal Water Pollution Control Act (33 U.S.C. 1321, et seq.) ("FWPCA") and any other laws regarding a Discharge and Emergency Response Services and regulations promulgated pursuant thereto;

2.2.10 "**Force Majeure**" has the meaning given in **Section 18.1** below.

2.2.11 "**Hazardous Material**" means (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any Environmental Laws; (b) any "hazardous waste," "hazardous substance" (including , but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," pollutant" or "contaminant", each as defined under any Environmental Laws and (c) oil of any kind or in any form when it is classified as a hazardous substance under any applicable State or Federal Law, including any and all substances defined or identified as oil under OPA.

2.2.12 "**Hereunder**," "**herein**" and words of similar import shall refer to this Agreement as a whole, rather than to a single provision.

2.2.13 "**Local Contractors**" means independent oil spill removal companies located near the Areas of Services, including NRC Environmental Services Inc., with whom the CONSULTANT has contracted to maintain and provide Response Resources in fulfillment of the CONSULTANT's obligations hereunder;

2.2.14 "**Oil**" means oil of any kind or in any form, including any and all substances defined or identified as oil under OPA, but shall not include substances defined or identified as Hazardous Substances;

2.2.15 "**Oil Spill Removal Organization**" means an entity established in a given geographic area to provide the personnel, equipment, supplies and other capability necessary to conduct Emergency Response Services;

2.2.16 "**Qualified Individual**" means an English-speaking shore-based representative of the COMPANY located in the United States, available on a 24-hour basis, familiar with implementation of the Response Plan and trained in his or her responsibilities under the plan, with full written authority to implement Emergency Response Services and to engage the CONSULTANT for services hereunder;

2.2.17 "**Removal Costs**" means the charges of the CONSULTANT for deploying Response Resources to a Discharge or threatened Discharge, including the charges for mobilization and demobilization of personnel, equipment and supplies; and containment, removal and storage of discharged Oil;

2.2.18 "**Responder Immunity Law**" means Federal Law or applicable State Law which provides immunity from liability to those who respond to Discharges for the purpose of attempting to contain and remove Oil from the water, beaches or shoreline;

2.2.19 "**Response Plan**" means any contingency plan or response plan regarding Discharges covering the Facility prepared by or on behalf of the COMPANY pursuant to Federal Law or State Law;

2.2.20 "**Response Resources**" means the trained personnel, equipment, supplies and other capability named in a Response Plan or mobilized to perform Emergency Response Services pursuant to Federal Law and State Law, other than personnel, equipment, supplies and other capability required to be stored at the Facility;

2.2.21 "**Site**" or "**Area of Service**" "**Facility**" or shall mean any, facility, pipeline, or other real property identified in an executed Work Directive on which CONSULTANT will be performing Work pursuant to the terms of the Contract Documents, whether or not owned by COMPANY.

2.2.22 "**Waste**" shall mean any form of material identified or determined by the COMPANY as having no beneficial value and is either a by-product of the COMPANY's operations or is generated during investigation and remediation activities (e.g. soils, debris) and includes personal or real property contaminated as a result of a Discharge.

2.2.23 "**Work**" or "**Services**", shall mean, collectively, any and all obligations, duties and responsibilities necessary to the successful completion of the project assigned to or undertaken by CONSULTANT under the Contract Documents, including the furnishing of all labor, services, materials, equipment and other incidentals necessary to perform Emergency Response Services.

2.3 CONSULTANT agrees to render **OSRO Coverage Services**, as more specifically defined in each applicable Work Directive executed by the COMPANY affiliate or subsidiary to whom the service will be provided and by CONSULTANT, in exchange for the Fee contained in the applicable Work Directive.

2.3.1 In performing OSRO Coverage Services, CONSULTANT shall:

2.3.1.1 obtain and maintain Classification as an Oil Spill Removal Organization as provided under Federal Law and State Law;

2.3.1.1.1 In the event Classification is not available, CONSULTANT warrants that it and its Local Contractors shall have sufficient Response Resources to enable the Client to meet the mandated levels of response capacity under Federal Law and State Law.

2.3.1.2 Subject to the California release notification requirements set forth in **Article 10.0** hereunder, provide sufficient Response Resources to enable the COMPANY to meet the requirements of Federal Law and State Law for precontracting for availability of Response Resources, except as provided in **Section 2.14**;

2.3.1.3 provide the training of the CONSULTANT's and Local Contractors' response personnel, in compliance with Federal Law and State Law requirements for Oil Spill Removal Organization Classification, and maintenance of records of such training;

2.3.1.4 ensure compliance by the CONSULTANT and Local Contractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar State Laws and standards; and

2.3.1.5 provide all information regarding the CONSULTANT's and the Local Contractors' Response Resources which must be included in the Response Plan(s) of the Facility(ies) or to be filed with the U.S. Coast Guard or EPA or appropriate State authorities to obtain Classification, including any equipment that is out of service that would diminish CONSULTANT's Classification as an Oil Spill Removal Organization.

2.4 CONSULTANT agrees to render **Emergency Response Services,** as more specifically defined in each applicable Work Directive executed by the COMPANY affiliate or subsidiary to whom the service will be provided and by CONSULTANT, in exchange for the payment of Removal Costs as provided for in **Section 3.1**.

2.4.1 CONSULTANT agrees to provide or cause to be provided an on-call team of personnel and equipment (Response Resources) to perform Emergency Response Services in the location(s) designated on the applicable Work Directive and as directed by the Designated Representative (or his or her designee). Emergency Response Services may include: 1) containment, characterization, handling, transportation, treatment, processing, recovery, repackaging, removal, storage and transportation for disposal of oil (in accordance with **Section 19.8** hereunder), hazardous material and non-hazardous material; 2) site evaluation, decontamination and restoration; 3) technical services, including sampling, laboratory services, analysis, and other related services; 4) training and mock spill deployments; and 5) coordination with COMPANY'S Designated Representative or his or her designee. Specific description of the Emergency Response Services shall be set forth in the applicable Work Directive. When CONSULTANT needs specific clarification pertaining to the Work, it shall request the same from the Designated Representative.

2.4.2 It is understood and agreed that provision of Response Resources by CONSULTANT under this Agreement is incidental to the performance of the Services hereunder and are subject to CONSULTANT's continuing supervision, direction and control. All Response Resources utilized by CONSULTANT in performance of the Work as directed by the applicable Work Directive, shall be paid for by COMPANY in accordance with the terms, conditions and rates in Exhibit B.

CONSULTANT shall provide, supervise, direct, control and pay for all personnel provided hereunder, including, but not limited to, permanent or temporary personnel of CONSULTANT, and "Subcontractors" of CONSULTANT, including but not limited to, employees of third parties who are assigned to perform services for CONSULTANT on a contract basis, or employees of Local Contractors. CONSULTANT shall not be responsible for, and shall not be required to supervise, direct or control any personnel provided by COMPANY or temporary personnel hired by COMPANY to perform emergency response services unless agreed to in writing between the parties and specified in the applicable Work Directive. Similarly, all equipment utilized by CONSULTANT in the performance of the Work, whether owned, rented or under subcontract, including but not limited to all vessels, boom, and skimmers, shall be installed, operated, monitored, maintained, demobilized and decontaminated by CONSULTANT personnel, employees, agents, subcontractors or Local Contractors. Such equipment, and the labor hours associated with installing, operating, monitoring, maintaining, demobilizing and decontaminating the equipment, shall be paid for by COMPANY in accordance with Exhibit B.

2.5 COMPANY is responsible under this Agreement to:

2.5.1 designate an On-site Representative and provide CONSULTANT with the name, address, twenty four (24) hours-a-day telephone number and telefacsimile number of the Qualified Individual/On-site Representative, and shall amend or update this information as necessary;

2.5.2 deliver, or caused to be delivered, to the CONSULTANT such information concerning the Facility as the CONSULTANT may reasonably request for the performance of the Work;

2.5.3 pay for services and Removal Costs of the CONSULTANT in accordance with **Section 3.0**;

2.5.4 be responsible for deciding which Response Resources shall be requested from the CONSULTANT to conduct Emergency Response Services;

2.5.5 be responsible for coordinating and directing overall Emergency Response Services;

2.5.6 be responsible for disposal of all Oil,Hazardous Materals and Waste collected by the CONSULTANT;

2.5.7 give notice to the CONSULTANT of any significant increase in the volume of Oil movements or any significant changes in operation of the Facility;

2.5.8 obtain and provide CONSULTANT with the COMPANY'S Environmental Protection Agency identification number or other such authorization required by law for any Discharge or threatened Discharge classified as a Hazardous Material, or similar designation, prior to the CONSULTANT providing services hereunder.

2.5.9 Provide a Parent Guaranty to CONSULTANT in accordance with **Section 6.5**.

2.6 Notwithstanding this Agreement, COMPANY shall not be required to utilize CONSULTANT to deploy Response Resources for Emergency Response Services and may arrange for the supply and deployment of Response Resources for Emergency Response Services in the Area of Service by any other person.

2.7 Emergency Response Services Procedure.

2.7.1 COMPANY may initiate a request for the deployment of resources to perform Emergency Response Services by a direct telephone call to the CONSULTANT's Local Representative at (562) 432-1304 or 1-(800) 334-4755, and such telephone

call shall be deemed a request for the deployment of Response Resources by the COMPANY for purposes of this Agreement. A Work Directive for such Emergency Response Services will be executed between the parties as soon as practicable.

2.7.2 The person initiating Emergency Response Services on behalf of the COMPANY shall provide information to the CONSULTANT including:

2.7.2.1 the name of the COMPANY;

2.7.2.2 the caller's name and title;

2.7.2.3 the name and location of the Facility; if applicable, and

2.7.2.4 the location and description of the Discharge.

2.7.3 COMPANY shall be responsible to notify governmental authorities as required by Federal Law or State Law of the Discharge..

2.7.4 Upon CONSULTANT's arrival at the scene of the Discharge, the On-site Representative/Qualified Individual, or other authorized representative of COMPANY, shall give CONSULTANT written authorization to proceed with deployment of Response Resources. CONSULTANT thereafter shall continue to act in accordance with the instructions of the On-site Representative/Qualified Individual, or other authorized representative of COMPANY, subject to the terms of this Agreement.

2.7.5 COMPANY shall give the On-site Representative/Qualified Individual, or other authorized representative on scene, full authority to approve the daily worksheets submitted by CONSULTANT.

2.8 The Designated Representative/On-site Representative/Qualified Individual shall coordinate and sequence the Work with CONSULTANT. Notwithstanding the provisions set forth in **Section 2.5.5** above, it is understood and agreed between the parties hereto that the means or methods of implementing the directions of COMPANY, as well as managing the activities of the workers and crews provided by CONSULTANT, shall be under the exclusive charge and control of CONSULTANT, COMPANY being interested only in the results obtained. In addition to the On-site Representative/Qualified Individual for each Work Directive with on-site responsibility, matters of a technical nature should be directed to the COMPANY'S Designated Representative, **Steve Marositz**, **909-873-5146 x 146** (phone), **303-984-3620** (facsimile), **Steve_Marositz@kindermorgan.com** (electronic mail) or his or her designee(s). Matters of a commercial nature should be directed to the COMPANY'S Contract Administrator, **Sherry Z. Clifford, 714-560-4915** (phone), **714-560-6593** (facsimile), **sherry_clifford@kindermorgan.com** (electronic mail).

2.9 This Agreement is master services agreement governing OSRO Coverage Services requested by COMPANY and an on-call or as available contract for Emergency Response Services (depending whether the Emergency Response Services are pursuant to a Work Directive for OSRO Coverage Services or otherwise). As such, COMPANY may, from time to time and upon acceptance by CONSULTANT, issue Work Directives, substantially in the form attached hereto as **Exhibit A-1**, describing Work that COMPANY wishes CONSULTANT to perform, the location of the Work (the "**Site** or "**Facility**,"), and the compensation to be paid for performing such Work. The Scope of Work may include, without limitation, any modifications or specifications related to the Work, schedules, responsibilities for communications or meetings, and compensation to be paid. In case of emergency, COMPANY, may request CONSULTANT to provide Emergency Response Services prior to the execution of a Work Directive, under the terms and conditions of this Agreement.

2.10 Except as otherwise provided in this Agreement or in another applicable Contract Document, CONSULTANT shall furnish all of the supervision, materials, equipment, tools, supplies and

services required for the complete performance of all Work described in each Work Directive that has been signed and returned by CONSULTANT.

2.11 Time of Completion; Extensions.

2.11.1 For OSRO Coverage Services.

2.11.1.1 For a Work Directive to provide OSRO Coverage Services, CONSULTANT shall commence these services immediately upon request of the COMPANY'S Designated Representative or his or her designee, but in no event no later than as specified in the applicable Work Directive executed by the parties. CONSULTANT acknowledges that COMPANY may require completion of certain portions or phases of the Work ahead of others, and CONSULTANT shall diligently and expeditiously perform the Work in the sequence required by COMPANY. CONSULTANT shall also meet any and all applicable response requirements established by governmental agency orders, permits, or agreements, or by judicial decrees.

2.11.1.2 Under OSRO Coverage Services Work Directives, CONSULTANT understands and agrees that TIME IS OF THE ESSENCE in its provision of this coverage and each of its obligations under this Agreement. Pursuant to this Work Directive, CONSULTANT shall perform Emergency Response Services for COMPANY on an on-call basis, 24-hours per day, seven (7) days per week .

2.11.1.3 If CONSULTANT is delayed in the commencement or performance of OSRO Coverage Services by an act of the COMPANY, by COMPANY issuance of any Project Scope Change Order, by a Force Majeure event, or any other reason beyond the direct control of CONSULTANT, and, to the extent practicable, if the CONSULTANT immediately provides COMPANY with a written request for an extension of time, COMPANY shall extend the time required to respond and/or complete such OSRO Coverage Services by such reasonable time as possible.

2.11.2 For Emergency Response Services.

2.11.2.1 In addition to Emergency Response Services performed pursuant to an OSRO Coverage Work Directive, CONSULTANT is available to perform Emergency Response Services for COMPANY on an as-available basis, 24-hours per day, seven (7) days per week. If CONSULTANT is requested to deploy Response Resources for Emergency Response Services, and agrees to perform such Emergency Response Services, CONSULTANT shall commence the Work immediately upon request of the COMPANY'S Designated Representative or his or her designee, but in no event no later than as specified in the applicable Work Directive executed by the parties. CONSULTANT acknowledges that COMPANY may require completion of certain portions or phases of the Work ahead of others, and CONSULTANT shall diligently and expeditiously perform the Work in the sequence required by COMPANY to the extent practicable and, as applicable, as approved by state and federal On Scene Commanders (OSCs). CONSULTANT shall make a good faith effort to also meet any and all applicable response requirements established by governmental agency orders, permits, or agreements, or by judicial decrees.

2.11.2.2 If CONSULTANT is delayed in the commencement or performance of the Emergency Response Services by an act of the COMPANY, by COMPANY issuance of any Project Scope Change Order, by a Force Majeure event, or any other reason beyond the direct control of CONSULTANT, COMPANY

shall extend the time required to respond such Emergency Response Services by such reasonable time as possible.

2.11.2.3 In the event CONSULTANT is requested to deploy Response Resources for Emergency Response Services for more than one Discharge within the Area of Service, CONSULTANT and COMPANY shall make good faith efforts to agree on allocation of Response Resources between the spills. In the absence of such agreement, CONSULTANT shall allocate its Response Resources as directed by the OSCs for the concurrent spills. In the absence of such direction CONSULTANT shall not be obligated to remove or divert Response Resources from Emergency Response Services in connection with another spill initiated prior to the request for deployment of Response Resources by the COMPANY if CONSULTANT deems that such Response Resources are necessary for proper completion of the previously initiated Emergency Response Services. CONSULTANT shall give notice to the COMPANY if it will be unable to respond due to deployment of Response Resources for a discharge by another client.

2.11.2.4 Should the whole or any part of the Work be delayed or suspended by acts of regulators with jurisdiction over the event, late delivery of materials furnished by the COMPANY, by inability of the COMPANY to obtain necessary rights of access to the Site, by failure of other contractors of the COMPANY to complete work which is a prerequisite to the performance of the Work by CONSULTANT, or any other reason not under the direct control of CONSULTANT, then COMPANY shall extend the time of commencement by such reasonable time as possible under the circumstances.

2.11.3 CONSULTANT shall notify COMPANY in writing when the Work has been completed. If, in the sole good faith discretion of COMPANY, the Work conforms to all of the requirements of this Agreement, COMPANY shall accept the Work within 24 hours after receipt of such written notice. If, in the sole good faith discretion of COMPANY, the Work or any portion of the Work does not conform to all of the requirements of this Agreement, COMPANY shall give CONSULTANT notice of any non-conforming Work. Within five (5) working days after receiving such notice from COMPANY, CONSULTANT shall correct all non-conforming Work or provide a mutually accepted written plan of work for correction of the non-conforming Work. Corrected Work shall be resubmitted by CONSULTANT for acceptance by COMPANY and the above approval process will be repeated until the Work is acceptable. CONSULTANT shall continue to be paid for its services in accordance with the Work Directive unless COMPANY can demonstrate that the non-conforming Work resulted from the negligence or willful misconduct of CONSULTANT in performing the Services.

2.12 Damage or Injury to Subterranean Structures or Utilities

2.12.1 To the extent that Work pursuant to this Agreement requires any sampling, boring, excavation, ditching or other disruption of the soil or subsurface at the Site, COMPANY, prior to such activity shall be responsible for identifying, locating and marking, as necessary, any subterranean archaeological artifacts, structures or utilities (**"Underground Facilities"**). Thereafter, CONSULTANT shall take all reasonable precautions to avoid damage or injury to Underground Facilities which were identified by COMPANY. CONSULTANT will be liable for all costs and claims resulting from damage to such identified Underground Facilities arising out of the Work.

2.13 Both COMPANY and CONSULTANT acknowledge that the most current Kinder Morgan Contractor Safety Rules & Regulations is attached to this Agreement as **Exhibit G** and COMPANY's Contractor Safety Manual is available at all times on COMPANY's website at www.kindermorgan.com. Furthermore, COMPANY and CONSULTANT acknowledge that

COMPANY updates the regulations periodically. COMPANY will provide CONSULTANT with copies of any updated regulations that COMPANY requires CONSULTANT to follow.

2.14 Unless otherwise agreed to under a Work Directive, the CONSULTANT's obligations hereunder exclude providing Response Resources in accordance with U.S. Coast Guard and state planning standards for the average most probable discharge. The CONSULTANT shall arrange for COMPANY to contract with a Local Contractor for the purpose of meeting U.S. Coast Guard and/or state planning standards for the average most probable discharge on an as needed basis and upon request of the COMPANY. The terms and conditions of such engagement, including fees, shall be agreed between the COMPANY and Local Contractor at the time services are rendered. If the Client wants to use such service, it shall notify the CONSULTANT by telefacsimile at least twenty-four hours prior to any cargo transfer activity.

3.0 CONSIDERATION AND CHANGES TO THE WORK

3.1 COMPANY agrees to pay CONSULTANT, Removal Costs related to Emergency Response Services performed pursuant to this Agreement in accordance with CONSULTANT'S rates and terms in **Exhibit B**.

3.2 COMPANY agrees to pay CONSULTANT for OSRO Coverage Services the amount set forth in the applicable Work Directive as an Annual Retainer Fee, subject to annual adjustments.

3.3 Other Services:

3.3.1 The COMPANY shall pay the CONSULTANT for other services requested by the COMPANY and accepted by CONSULTANT in accordance with the time and materials rates specified in Exhibit B, or at such other rates as may be agreed at the time, plus all applicable sales and use taxes;

3.3.2 The fees and charges referred to in this **Article 3.0** shall be established annually and provided to the COMPANY. The CONSULTANT's Annual Retainer Fee shall remain fixed during each one year period of this contract. The CONSULTANT's Rates in Exhibit B shall remain fixed until February 18, 2006 and subject to annual adjustments thereafter. The COMPANY agrees to pay fees and charges in accordance with the fees and charges in effect at the time the Services are rendered.

3.4 COMPANY shall have the right to (i) make changes in any Work performed or to be performed, (ii) require additional Work, or (iii) require the deletion, stoppage or cancellation of Work previously ordered (other than OSRO Coverage Services for an unexpired term except as provided for in **Section 14.1.6** hereunder). The provisions of this Agreement shall apply to all changed and added Work to the same extent as they would have applied to the Work originally described in the applicable release.

3.5 COMPANY or CONSULTANT may generate a written draft Project Scope Change Order, substantially in the form attached hereto as **Exhibit E**, describing any changes, additions or deletions to the Work. COMPANY and CONSULTANT will mutually determine whether Project Scope Change Order is to be authorized or rejected. COMPANY shall not be required to furnish notice of such changes, additions or deletions to CONSULTANT's sureties. CONSULTANT shall perform the Work in accordance with an accepted written Project Scope Change Order. This provision does not relieve CONSULTANT of its obligation to perform such Work under the terms of this Agreement. The parties shall negotiate an equitable adjustment to the amount of compensation to be paid CONSULTANT in connection with the Work Directive to which the Project Scope Change Order applies.

3.6 COMPANY acknowledges that Emergency Responses and other Services that may be provided by CONSULTANT under this Agreement are governed and regulated by certain state, federal and local laws and the regulations and other requirements of various government agencies with jurisdiction over emergency events and other environmental matters (collectively referred to as "governmental requirements"). To the extent that any governmental requirement increases the

scope of the services to be rendered and the expenses associated with such Services, COMPANY will pay CONSULTANT for all such services and expenses as provided in this Article.

4.0 INSPECTION

4.1 Materials Inspections

4.1.1 COMPANY may from time to time, at its sole good faith option, inspect and test certain materials or equipment. Whether or not COMPANY conducts such inspection, COMPANY shall also have the right to reject all materials or equipment that, in the sole good faith discretion of COMPANY, fail to conform to either adequate manufacturing specifications, the specifications under which such materials or equipment were purchased or the specifications required for the performance of the Work, if applicable.

4.2 Field Inspection

4.2.1 Throughout the performance of the Work, COMPANY shall have the right to designate one or more inspectors or engineers to inspect and test the Site and the progress of the Work. CONSULTANT shall cooperate with such inspectors and engineers in order that the Work may be fully inspected and that COMPANY may at all times be fully advised of the progress of the Work and the manner in which it is being performed.

4.3 Inspection Not Acceptance

4.3.1 COMPANY shall verify that CONSULTANT maintains emergency response equipment offsite ready for performance under this Agreement. CONSULTANT expressly understands and agrees that any inspection of equipment by COMPANY for purposes of this Agreement shall be for COMPANY'S sole benefit and shall not be deemed an acceptance by COMPANY of all or any portion of the materials, equipment, or Work so inspected. CONSULTANT further understands and agrees that no inspection by COMPANY pursuant to this Agreement or approval or failure to object to any portion of the Work shall relieve or release CONSULTANT from any duties, obligations, or liabilities provided in this Agreement.

5.0 INSURANCE

5.1 CONSULTANT and/or its Local Contractors performing the Services, as appropriate, shall carry and maintain the following insurance, from carriers with an A.M. Best rating of at least A-/VIII:

5.1.1 Statutory Coverage Workers' Compensation Insurance (including Occupational Disease Coverage) in accordance with the laws of the states where the Work is to be performed;

5.1.1.1 If CONSULTANT performs Work on or adjacent to navigable waterways CONSULTANT shall furnish a certificate of insurance showing compliance with the provisions of the Federal Longshoremen's and Harbor Workers' Compensation Law.

5.1.2 Employer's Liability Insurance with limits of not less than **$1,000,000** per occurrence and **$1,000,000** per disease/each employee.

5.1.3 Commercial General Liability Insurance insuring the indemnity agreement set forth in this contract with a combined single limit of not less than **$1,000,000** per occurrence and **$2,000,000** in the aggregate. All policies shall include coverage for blanket contractual liability assumed hereunder.

5.1.4 Comprehensive Automobile Liability Insurance covering liability arising out of any auto (owned, hired and non-owned); with a combined single limit of not less than **$1,000,000** and including an MCS-90 endorsement. If necessary, the policy shall be endorsed to provide contractual liability coverage.

5.1.5 Umbrella Insurance may be used to satisfy the limit requirements for Employer's Liability Insurance, Commercial General Liability Insurance, and Comprehensive Automobile Liability Insurance set out in **paragraphs 5.1.2**, **5.1.3** and **5.1.4**, above. Such umbrella policy shall follow the form of those primary coverages, be in excess of those underlying policies without gaps in limits and provide coverage as broad as the underlying coverage.

5.1.6 Comprehensive Aircraft Liability Insurance with combined bodily injury, including passengers, and property damage liability single limits of not less than **$5,000,000** each occurrence. This coverage is necessary only when CONSULTANT uses owned or non-owned aircraft in connection with Work performed under this Agreement.

5.1.7 Contractor's Pollution Liability Insurance covering losses caused by pollution conditions that arise from the operations of CONSULTANT at the site, or of the Local Contractor, as appropriate. COMPANY agrees that the entity performing the actual on-site Emergency Response Services shall be the entity that provides this coverage. Insurance mentioned above shall apply to bodily injury, including death; loss or damage to property, including loss of use of damaged property or of property that has not been physically injured; cleanup and monitoring costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. This coverage shall be maintained in force for the full period of this Agreement with available limits of not less than **$2,000,000** per occurrence.

5.1.8 Pollution Legal Liability Insurance. If the work contemplated under this Agreement includes the transportation of any Hazardous Materials, Oil or Waste from the Job Site(s) to a disposal facility selected by COMPANY, CONSULTANT shall endeavor to obtain for COMPANY evidence of pollution legal liability insurance maintained by the disposal site operator, covering losses arising from the insured facility accepting waste under this Agreement. Such coverage must be maintained in minimum amounts of **$5,000,000** per occurrence for bodily injury, including death, or loss or damage to property combined. If CONSULTANT transports any Hazardous Materials, Oil or Waste from the Job Site(s) to a disposal facility NOT designated by COMPANY, CONSULTANT MUST provide evidence of the coverage listed in this **Section 5.1.8**

5.1.9 Marine Liability Insurance with combined bodily injury and property damage liability single limits of not less than **$1,000,000** each occurrence.

5.2 All insurance policies carried by CONSULTANT hereunder, other than Workers Compensation, shall name the COMPANY (**Kinder Morgan Energy Partners, L.P.** and the contracting company), its affiliated and subsidiary companies, and its and their respective directors, officers, agents and employees as additional insureds with respect to liability arising out of work performed by CONSULTANT or subcontractor, as applicable.

5.3 All insurance policies of CONSULTANT, listed above, other than Contractors Pollution Liability shall include waiver of subrogation against **Kinder Morgan Energy Partners, L.P.** and its subsidiary or affiliated companies, successors, and assigns where permitted by law.

5.4 Before commencing any performance under this Agreement, CONSULTANT shall furnish COMPANY with Certificates of Insurance evidencing insurance coverage and provisions provided for in this Agreement. Failure of CONSULTANT to furnish such evidence of insurance coverage shall not be considered a waiver by COMPANY of such coverage. All insurance certificates shall include the following statement:

5.4.1 "**Kinder Morgan Energy Partners, L.P.** and its affiliated or subsidiary companies are named as additional insured on all above policies (except Worker's Compensation) and waiver of subrogation in favor of **Kinder Morgan Energy Partners, L.P.** and its affiliated or subsidiary companies, its and their respective directors, officers, agents and employees applies as required by written contract."

5.5 The insurance provided in accordance herewith shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to or maintained by COMPANY, and shall not require the exhaustion of any other coverage. Insurance coverage required under this Agreement shall not be deemed to limit the amount(s) of CONSULTANT'S liability under this Agreement, nor shall such requirements be considered by CONSULTANT as the limit of the amounts or types of insurance CONSULTANT should carry to protect itself adequately from the risks of its occupation; rather, CONSULTANT shall make its own independent determination in this regard.

5.6 All insurance policies shall provide that the insurance carrier will notify the COMPANY no less than thirty (30) days prior to the termination or cancellation of any policy.

5.7 CONSULTANT shall promptly notify COMPANY when any insurance policy required above is not reasonably available and shall state the reasons therefor.

5.8 All deductibles, self insured retentions and self insurance carried by the CONSULTANT under its insurance program are the sole responsibility of the CONSULTANT and will not be borne in any way by the COMPANY. The CONSULTANT will indemnify the COMPANY, in full, for any amounts related to the above.

5.9 In the event of the CONSULTANT's failure to carry out any of the provisions of this **Article 5.0**, the COMPANY shall, in addition to any right to recover damages or to obtain other relief, have the right to cancel this Agreement or any Work Order.

5.10 CONSULTANT shall require all of its subcontractors and/or Local Contractors to provide the foregoing coverage, as well as any other coverage that CONSULTANT may consider necessary. All subcontractor and/or Local Contractor policies shall be endorsed with the additional insured wording above.

6.0 PAYMENT, AND LIENS

6.1 Unless otherwise agreed in a Work Directive, COMPANY shall pay the Annual Retainer Fee for OSRO Coverage Services in advance at the beginning of the coverage period in accordance with the Work Directive.

6.1.1 COMPANY will accept one invoice upon completion of Emergency Response Services or Other Services per Work Directive or when the amount payable to CONSULTANT under such Work Directive reaches $100,000.00, whichever is sooner. Invoices shall be prepared and submitted to COMPANY in accordance with Exhibit B – Schedule of Values hereto and payable with Commercial Terms Net 60 Days after receipt of invoice. COMPANY will receive a 2% discount on invoices paid 30 Days after receipt of invoice. Discount will not apply to any amounts disputed and later paid over 30 days from date of original invoice.

6.1.2 CONSULTANT shall notify COMPANY in writing when more than one million dollars ($1,000,000.00) of response costs has been incurred under a Work Directive issued with respect to an individual response event. COMPANY shall pay CONSULTANT eighty percent (80%) of such response costs within ten (10) days of its receipt of CONSULTANT's invoice for said 80% progress payment. Further, if COMPANY fails to submit such payment within said ten (10) day period, CONSULTANT shall notify COMPANY in writing of non-receipt and thereupon COMPANY shall have five (5) business days from receipt of said notice to pay said 80% progress payment to CONSULTANT before CONSULTANT may exercise its rights under Section 6.7.1 of the Agreement.

6.1.3 Invoices will be sent to:

Kinder Morgan Operating L.P. "D"
Attn: **As specified in Section 6 of each Work Directive released**

6.2 For undisputed invoices submitted by CONSULTANT in accordance with Exhibit B – Schedule of Values, late payments to CONSULTANT by COMPANY shall earn interest at the rate of 1.5 % per month, or the maximum rate permitted by law, whichever is less, from the due date until paid. In addition to interest, COMPANY shall also be responsible for all costs incurred by CONSULTANT to collect overdue amounts, including collection fees, filing fees, court costs and attorney's fees. CONSULTANT reserves all legal rights and recourses against COMPANY and its property for failure of COMPANY to pay such invoices when due.

6.3 Invoices shall be submitted in such detail so as to delineate Work performed per job assignment described in the applicable Work Directive. For each job assignment, CONSULTANT shall include a description of services, number of hours expended per individual employee job classification, itemization of expenses, location(s) at which expended, receipts for expenses or other evidence in support of CONSULTANT's statement as may be requested by COMPANY, extended subtotals, applicable taxes and grand total.

6.4 Provided COMPANY pays all undisputed invoices in accordance with this Agreement, CONSULTANT covenants and agrees to protect and keep the Site, any and all interests and estates therein, and all improvements or materials now or hereafter placed thereon pursuant to this Agreement, free from any and all claims, liens, charges or encumbrances in the nature of mechanics, labor, or material liens or otherwise, arising out of or in connection with performance of the Work by CONSULTANT or any of its subtier contractors (including the furnishing of any materials hereunder), and to promptly have any such lien released by bond or otherwise. If CONSULTANT disputes in good faith any lien or claim or encumbrance of any laborer, materialman or subcontractor, in lieu of the immediate payment thereof, CONSULTANT shall post adequate security to protect COMPANY from liability for the payment thereof and from any expense of defending against that liability, until the dispute is finally resolved.

6.5 COMPANY shall provide and maintain a Parent Guaranty from Kinder Morgan Energy Partners, L.P. substantially in the form of Exhibit H attached hereto which shall be maintained so long as this Agreement or a Work Directive remains to be performed. If the financial assurance provided by the Parent Guaranty is exhausted during the term of this Agreement and this Agreement is not cancelled, a replacement Parent Guaranty shall be issued in an amount not less than $2,000,000.00. The requirement to maintain the parent guaranty for a Work Directive which is issued during the term of this Agreement but which is open at the expiration of this Agreement shall survive expiration of this Agreement.

6.6 Cessation of Services.

6.6.1 For Emergency Response Services. Notwithstanding any provision of this Agreement to the contrary, the CONSULTANT may, in its discretion, cease to deploy Response Resources for Emergency Response Services of COMPANY if COMPANY fails to make payment in accordance with, and within the time periods provided within this Agreement for such Emergency Response Services. The continuation of deployment of Response Resources after time periods for payment have elapsed shall not be deemed a waiver of the CONSULTANT's rights under this Agreement. If the CONSULTANT ceases to deploy Response Resources, or if COMPANY instructs the CONSULTANT to cease deployment of Response Resources, the CONSULTANT shall be entitled to enter into an agreement with any other party, including governmental authorities, to deploy Response Resources or provide other services in connection with the same Discharge. If COMPANY instructs the CONSULTANT to cease deployment due to Federalizing of a

spill or any other reason, COMPANY shall be responsible for the costs of reasonable and necessary measures taken by the CONSULTANT to demobilize, but not for costs incurred for the account of governmental authorities who may then engage the CONSULTANT.

6.6.2 For OSRO Coverage Services. Notwithstanding any provision of this Agreement to the contrary, the CONSULTANT may, in its discretion, cease to provide OSRO Coverage Services, if COMPANY fails (i) to make or secure payment in accordance with, and within the time periods provided within this Agreement for such OSRO Coverage Services. The continuation of OSRO Coverage Services after time periods for payment have elapsed shall not be deemed a waiver of the CONSULTANT's rights under this Agreement.

7.0 INDEPENDENT CONTRACTOR

7.1 CONSULTANT agrees to undertake the Work directed by COMPANY as an independent contractor, at its sole risk, and agrees to employ and direct any persons or subcontractors performing any Work hereunder, and such persons and subcontractors shall be and remain the sole employees or agents of CONSULTANT, subject to the sole direction and control of CONSULTANT, and shall not be subject to the direction or control of COMPANY nor shall they be employees of COMPANY. CONSULTANT shall comply with all applicable federal and state enactments regarding Employer's Liability, Workers' Compensation, Social Security, and Unemployment Compensation Insurance, as well as be responsible for all valid sales or other taxes levied on the Work performed by CONSULTANT, its employees and agents. CONSULTANT further agrees to indemnify and hold COMPANY harmless from any cost, expense, tax, interest or penalty which COMPANY may be required by law to pay on account of CONSULTANT's failure to comply with the aforementioned laws.

8.0 INDEMNIFICATION

8.1 CONSULTANT agrees to release, defend, and to protect, indemnify and hold harmless COMPANY, its parent, affiliates, and subsidiaries, and its and their respective directors, officers, agents and employees (collectively "COMPANY Indemnitees"), from every kind or character of damages, losses, liabilities, expenses, demands or claims, including any and all costs and fees arising out of litigation or settlement of any claims (collectively "Losses"), to the extent the Losses are related to the performance of the Work and caused by, arise from or relate to, directly to the gross negligence or willful misconduct of CONSULTANT, its agents, employees, Local Contractors or subcontractors or CONSULTANT's failure to observe or comply with and fulfill its obligations under this Agreement. The foregoing obligation of CONSULTANT shall not be diminished in any regard but shall also not extend to cover such Losses covered by **Section 8.2** below.. CONSULTANT further agrees that it shall, at its own expense, defend any suit or action brought against COMPANY Indemnitees where the CONSULTANT'S alleged gross negligent or willful acts or omissions are asserted by either the petitioner or COMPANY, and CONSULTANT shall pay, in proportion to its obligation pursuant to this **Section 8.1**, all damages, costs and expenses (including attorneys' fees) in connection therewith or any matter resulting therefrom. CONSULTANT shall not agree to settle any such suit or action without COMPANY'S prior written consent. **CONSULTANT'S obligations under this section shall survive termination of this Agreement.**

8.1.1 Provided however, CONSULTANT, its parent and affiliates, their directors, officers, agents, employees, Local Contractors and subcontractors (collectively "CONSULTANT Indemnitees") shall be entitled to the protection of Responder Immunity Law and nothing herein shall be construed to allow COMPANY to recover by way of contribution, indemnity or otherwise from CONSULTANT Indemnitees any amounts for which COMPANY is liable to or has paid to third parties and for which CONSULTANT Indemnitees would have no liability under the Responder Immunity Law applicable in the jurisdiction where the Discharge and/or Emergency Response Services have occurred. In no event shall CONSULTANT Indemnitees be liable for or obliged in any manner for damages suffered by COMPANY arising from services hereunder whether

damages to third parties or COMPANY directly, unless the damages were directly caused by the gross negligence or willful misconduct of CONSULTANT Indemnitees.

8.2 COMPANY agrees to release, defend, and to protect, indemnify and hold harmless CONSULTANT , its affiliates, their directors, officers, agents and employees, Local Contractors and subcontractors (collectively, "CONSULTANT Indemnitees"), from every kind or character of damages, losses, liabilities, expenses, demands or claims, including any and all costs and fees arising out of litigation or settlement of any claims (collectively "Losses"), to the extent the Losses are caused by, arise from or relate to, directly the gross negligence or willful misconduct of COMPANY, its agents, COMPANY's other contractors, or employees or COMPANY's failure to observe or comply with and fulfill its obligations under this Agreement. The foregoing obligation of COMPANY shall not be diminished in any regard but shall also not extend to cover such Losses covered by **Section 8.1** above. COMPANY further agrees that it shall at its own expense, defend any suit or action brought against CONSULTANT Indemnitees where the COMPANY'S alleged gross negligent or willful act or omissions are asserted by either the petitioner or CONSULTANT, and COMPANY shall pay, in proportion to its obligation pursuant to this **Section 8.2**, all damages, costs and expenses (including attorneys' fees) in connection therewith or any matter resulting therefrom. COMPANY shall not agree to settle any such suit or action without CONSULTANT'S prior written consent. **COMPANY'S obligations under this section shall survive termination of this Agreement.**

8.3 Subject to the provisions of **Section 8.1** above, COMPANY agrees to release, defend, and to protect, indemnify and hold harmless CONSULTANT Indemnitees from and against all Losses related to CONSULTANT's or its Local Contractor's performance of Emergency Response Services where the CONSULTANT Indemnitees demonstrate that COMPANY would have been liable if COMPANY was sued directly. **COMPANY'S obligations under this section survive termination of this Agreement.**

8.4 Subject to the provisions of **Section 8.1** above, COMPANY further agrees to release, defend, and to protect, indemnify, and hold harmless CONSULTANT Indemnitees from and against all Losses and causes of action for Removal Costs and damages under OPA §1002 or corresponding State Law which result from actions taken or omitted to be taken in the course of rendering care, assistance or advice in connection with a Discharge or threatened Discharge from a Site or Facility consistent with the National Contingency Plan (as defined therein) or as otherwise directed by the COMPANY, the U.S. Coast Guard, the U.S. Environmental Protection Agency or other governmental authorities, which the CONSULTANT Indemnitees, individually or collectively, may suffer, incur, or pay out, except to the extent that:

8.4.1 the CONSULTANT Indemnitee is entitled to immunity from liability under Responder Immunity Law;

8.4.2 Losses arise out of the gross negligence or willful misconduct of the CONSULTANT, its affiliates, officers, directors, employees or subcontractors;

8.4.3 the COMPANY would have been entitled to a complete defense to liability under Federal Law and any relevant State Law had such claim, demand or cause of action been made against the COMPANY or the Facility directly.

8.4.4 such payment or indemnification would result in a payment by the COMPANY in excess of the amount to which the COMPANY would have been entitled to limit its liability under Federal Law and any relevant State Law had such claim, demand or cause of action been made against the COMPANY or the Facility directly.

8.4.5 such liabilities, claims, demands and causes of action arise in respect of death or personal injury.

COMPANY's obligations under this section survive termination of this Agreement.

8.5 Subcontractor Indemnification

8.5.1 CONSULTANT shall, to the extent practicable, require each of its subcontractors and/or Local Contractors engaged for performance of the Work to provide express indemnities, enforceable by and for the benefit of the COMPANY Indemnitees, to the same extent required of CONSULTANT under **Section 8.1** above; provided, however, that no failure by CONSULTANT to obtain such indemnities shall relieve CONSULTANT of its obligations under this Agreement.

9.0 COMPLIANCE WITH LAWS

9.1 Subject to the provisions of section 19.4, CONSULTANT will, in the performance of the Work contemplated hereunder, comply with all valid, applicable federal, state and local laws, ordinances, codes, local and national standards and regulations including without limitation all environmental laws. When it appears during the course of CONSULTANT'S performance of the Work that any of the Work does not conform to the provisions of this Agreement, CONSULTANT at its sole expense, shall immediately make the necessary corrections so that its Work shall so conform.

9.2 CONSULTANT shall observe, and will require to the extent of its authority, its personnel to observe applicable safety laws and regulations and applicable COMPANY Safety policies and procedures. However, CONSULTANT and COMPANY understand that (i) actions carried out in an emergency response in an oil spill environment may be inherently dangerous and difficult, (ii) rules and requirements that may be appropriate and applicable under normal circumstances may not be appropriate or applicable in a particular emergency situation, as recognized by the considerable authority of Governmental or Regulatory Bodies to direct private actions in a response, and (iii) there are unresolved jurisdictional and applicability issues associated with emergency oil spill response that may make it difficult to determine the applicability of a particular requirement. Therefore, the provisions of this **Article 9.0** will not be interpreted in a manner that would hold CONSULTANT to a standard that would be unreasonable under the actual conditions of particular spill event, and all CONSULTANT actions carried out consistently with the directions of the OSC or with approval of applicable safety officials will be deemed to be in compliance with this Article. While on a COMPANY's Facilities, CONSULTANT shall comply with all instructions received by CONSULTANT from COMPANY concerning safety policies and procedures, and will require its employees, agents, subcontractors and/or Local Contractors to comply with all specific instructions given by COMPANY regarding safety and safety policies and procedures. COMPANY shall give such instructions with as much advance notice as is practicable under the circumstances.

10.0 CALIFORNIA RELEASE NOTIFICATION REQUIREMENTS.

10.1 For Work performed in the State of California, CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT's activities in the performance of the Work:

10.1.1 Are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

10.1.2 understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-COMPANY Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT's employees, agents and subcontractors' employees who will be performing at such a site.

10.2 COMPANY has determined that CONSULTANT:

☐ will be working in a Non-COMPANY Onsite Situation and MUST complete the training

☒ Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT's employees, agents and subcontractors' employees will be trained relative to COMPANY's revised release reporting criteria.

10.2.1.1 Because of the obligation under this **Article 10.0** to delay actual Work under this Agreement until a COMPANY representative is on site, in the event that CONSULTANT arrives at a site of Discharge prior to the arrival of a COMPANY representative, CONSULTANT's response time shall be measured from the time of receipt of the request to deploy resources under **Section 2.7.1** and end upon CONSULTANT's arrival at the site of Discharge

11.0 DRUG/ALCOHOL/FIREARMS/OPERATOR QUALIFICATION POLICY AND TESTING

DOT Jurisdictional Work

☐ YES **Section 11.1** and **Section 11.2** apply.

☒ NO **Section 11.2** applies.

11.1 Drug/Alcohol/Operator Qualification Program and Testing

11.1.1 CONSULTANT represents and warrants that it has established, maintains, and enforces both a Drug and Alcohol Program and an Operator Qualification Program per requirements as outlined in **Exhibit F**.

11.2 COMPANY Policy Regarding Drugs/Alcohol/Weapons

11.2.1 CONSULTANT agrees to advise its employees and the employees of its subcontractors and agents that it is the policy of COMPANY that:

11.2.1.1 The use, possession and/or distribution of illegal or unauthorized drugs, drug-related paraphernalia or weapons on COMPANY's premises, right-of-way, or job site is prohibited and the use or possession of alcoholic beverages, except where authorized by COMPANY's management, is also prohibited;

11.2.1.2 Entry onto or presence on COMPANY's premises by any person, including CONSULTANT, CONSULTANT's employees, subcontractors, subcontractors' employees, contract personnel, temporary employees and visitors, constitutes consent to COMPANY to conduct searches, whether announced or unannounced, on COMPANY's premises of the person and his or her personal effects for such prohibited items, and consent to drug testing at any time while on COMPANY's premises; and

11.2.1.3 Any person suspected or found in violation of the policy or who refuses to permit a search or drug or alcohol test may be removed and barred from COMPANY's premises, at the sole discretion of COMPANY; and

11.2.1.4 CONSULTANT personnel who test positive for illegal drugs or unauthorized alcohol as a result of a test conducted on COMPANY premises, or upon request of COMPANY, will be removed from any further performance or services under this Agreement.

12.0 CONFIDENTIALITY

12.1

12.1.1 Subject to the provisions of **Section 12.1.3** below, unless required by court order or valid legal process, CONSULTANT agrees not to publish or disclose to any third party any information conclusion, recommendation, opinion or data or other matter used or arising in the performance of Work under this Agreement without prior written authorization of COMPANY and also agrees to require a similar agreement from any employee, agent, subcontractor and/or Local Contractor participating in the rendering of Work under this Agreement. **CONSULTANT's obligations under this section survive the termination of this Agreement.**

12.1.2 COMPANY agrees not to publish or disclose to any third party any information regarding the terms of this Agreement, Response Resources, Annual Retainer Fee, Rates or Local Contractors or any other information received from CONSULTANT under this Agreement without prior written authorization from CONSULTANT, except to the limited extent necessary to be included in its Contingency Plans. **COMPANY's obligations under this section survive the termination of this Agreement.**

12.1.3 In the event that a court order or valid legal process requires disclosure by CONSULTANT or any employee, agent, or Local Contractor, of any information or other matter used or arising in the performance or Work under this Agreement, or by COMPANY of information related to this Agreement, CONSULTANT'S Response Resources, the Annual Retainer Fee, Rates, Local Contractors or other information obtained from CONSULTANT, the party receiving the legal process shall notify the other party prior to disclosing such information in order to provide the owning party with the opportunity to challenge the court order or legal process.

12.2 All data, including but not limited to, drawings, designs, specifications, notebooks, computer programs, computer output, models, tracings, photographs, negatives, video and/or audio recordings, reports, findings, recommendations, and memoranda of every description relating to the Work under this Agreement, in whole or in part, shall be the property of COMPANY.

12.3 CONSULTANT may retain duplicate copies of the materials identified above for its records subject to the stipulation that such records shall be marked and treated as confidential and shall not be released to any third party or used for any other purpose without the prior written consent of COMPANY.

12.4 CONSULTANT shall not in any manner advertise, publish or release for publication or disclosure any statement mentioning this Agreement, or CONSULTANT's performance of, or contracting to perform the Work, without the prior written consent of COMPANY.

13.0 SUSPENSION

13.1 COMPANY may, at its sole option, by written notice to CONSULTANT, suspend at any time the performance of all or any portion of the Emergency Response Services being or to be performed under this Agreement. Upon receipt of any such notices, CONSULTANT shall immediately discontinue Work, including, without limitation, the placing of orders, contracts, and rental agreements to the extent they relate to Work suspended, on the date and to the extent specified in the notice; and unless otherwise specifically stated in the notice, CONSULTANT shall continue to protect and maintain the Work completed, including those portions on which Work has been suspended.

13.1.1 In the event of such suspension, CONSULTANT will be reimbursed for all costs, reasonably incurred, without duplication of any items, , including (i) all reasonable costs as mutually agreed associated with demobilization and relocation of CONSULTANT's plant, forces, and equipment, and (ii) costs which CONSULTANT is or will be legally obligated to pay related to the performance of the Work.

13.2 COMPANY may, at its option, suspend the Work for a full safety inspection and correction at any time the Designated Representative: 1) discovers a clear safety violation; 2) sees the

possibility of a dangerous condition in any Work area; or 3) notices a pattern by CONSULTANT of disregard for maintaining a safe jobsite.

14.0 TERMINATION AND RIGHT TO AUDIT

14.1 TERMINATION BY COMPANY.

14.1.1 If COMPANY observes a serious safety violation of an OSHA or other published safety requirement or of Exhibit G attached hereto on a Site which is capable of causing imminent serious injury or death, then such violation shall be grounds for immediate termination of this Agreement or all or any part of the Work performed under a Work Directive of this Agreement (including OSRO Coverage Services) at COMPANY's discretion. However, nothing herein shall relieve CONSULTANT of its sole responsibility and liability for safety at the Site.

14.1.2 If two (2) or more times during a six (6) month period, COMPANY suspends Work due to a pattern by CONSULTANT or its Local Contractor of disregard of statutory or other published safety requirements for maintaining a safe jobsite or of Exhibit G and CONSULTANT fails to correct or cause its Local Contractor to correct such pattern, then, upon the occurrence of a third such suspension, COMPANY may, at its discretion, immediately terminate this Agreement or all or any part of the Work performed under a Work Directive of this Agreement (including OSRO Coverage Services) or terminate such Local Contractor from performing Work hereunder.

14.1.3 All or any part of the Work (except for OSRO Coverage Services as provided in **Section 14.1.6** below) performed under the Work Directive of this Agreement may be canceled by COMPANY for its own convenience or for any reason or reasons whatsoever upon 24 hours notice to CONSULTANT (except as provided in **Section 14.1.1** and **Section 14.1.2** above). After the receipt of such notice, and except as otherwise directed by COMPANY, CONSULTANT shall, in good faith and to the best of its ability, do all things in light of such notice and of such request for implementation thereof as COMPANY may make, to assure the efficient, proper close out of canceled Work. Upon receipt of such notice, CONSULTANT shall reasonably cooperate with COMPANY in all matters including, potentially, transferring Work to another consultant.

14.1.4 Upon termination of any or all Work, CONSULTANT shall deliver to COMPANY all specifications, drawings, surveys, reports, plans, maps, calculations, bills of materials and any other data or documents pertaining to the Work which are in CONSULTANT's possession.

14.1.5 In the event COMPANY cancels any part of the Work to be performed hereunder, CONSULTANT shall be paid for Work performed through the date of cancellation or termination and including demobilization and restocking charges for which CONSULTANT has not been previously paid by COMPANY. In no case shall COMPANY be liable for payment to CONSULTANT for unrealized costs or anticipated profits hereunder. In the event termination by COMPANY is due to failure of CONSULTANT to fulfill its contractual obligations (including but not limited to failure to prosecute the Work in a safe manner), COMPANY may pursue any and all remedies available to it at law or in equity.

14.1.6 Except as provided in **Section 14.1.1 and Section 14.1.2** above, COMPANY may not terminate the provision of OSRO Coverage services under any Work Directive upon its convenience. COMPANY may only do so in the event CONSULTANT has materially breached this Agreement.

14.1.7 CONSULTANT shall be deemed to have materially breached this Agreement if (a) fails to prosecute the Work or any portion thereof as required by this Agreement ; (b) consistently fails to achieve milestones, if applicable, or fails to prosecute the

Work with such reasonable speed under the circumstances as in the judgment of COMPANY is necessary to complete the same within the necessary timeframe; (c) fails to make prompt payment to subcontractors or suppliers for materials or labor per the terms of their agreement with CONSULTANT; (d) fails to comply with any applicable laws, rules, regulations, ordinances or permits; (e) institutes or has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation, and (i) this Agreement is not assumed or rejected within thirty (30) days of commencement of any such proceeding, or (ii) such proceeding or petition results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for CONSULTANT's winding-up or liquidation which judgment is not dismissed, discharged, stayed or restrained within thirty (30) days after entry of the action, and this Agreement is not assumed or rejected within such thirty (30) day period; (f) makes a general assignment, arrangement or composition with or for the benefit of its creditors; (g) becomes insolvent or is generally unable to pay its debts or fails or admits in writing its inability to pay its debts as they become due; (h) seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for all or substantially all of its assets; (i) otherwise seeks protection from creditors; (j) suspends OSRO Coverage Services or Emergency Response Services or the execution of the Work other than in accordance with the terms of this Agreement; or (k) fails to comply with the terms of this Agreement in all material respects..

14.2 TERMINATION BY CONSULTANT.

14.2.1 CONSULTANT may terminate this Agreement or a particular Work Directive (i) if payment has been made under the Parent Guaranty under two (2) separate occassions (ii) for COMPANY's breach of a material obligation hereunder by notifying COMPANY in writing of such occurrence or default as the case may be. In the case of (ii), COMPANY shall have ten (10) days from receipt of notice in which to cure its performance or begun expeditious efforts to cure as can be reasonably expected under the circumstances. COMPANY shall be deemed to have materially breached this Agreement if COMPANY defaults in the performance of its obligations under this Agreement and fails to cure or commence cure as the case may be, within such ten (10) day period, or fails to maintain the parent guaranty as required hereunder, or ceases doing business as a going concern, becomes insolvent, commits an act of bankruptcy, or becomes the subject of any proceeding under the Bankruptcy Act or other insolvency laws which is not dismissed or stayed within sixty (60) days, or is seized or nationalized by a government or government instrumentality. If such material breach by COMPANY occurs, then CONSULTANT may, without further notice and without relieving COMPANY of its obligations hereunder, terminate this Agreement, declare the balance of fees and charges for Emergency Response Services and charges for Work already performed under any current Work Directive(s) to be due and payable, and assert maritime or other liens against COMPANY's Facility as permitted by law. In such event, CONSULTANT shall be entitled, without liability to COMPANY, to provide to any governmental agency at any time notice of the status of COMPANY's relationship with CONSULTANT. Without limiting the generality of the foregoing, CONSULTANT is and shall continue to be entitled, upon termination of this Agreement, to notify any governmental agency that this Agreement has been terminated and that COMPANY is not entitled to name CONSULTANT in its contingency plans.

14.3 RIGHT TO AUDIT.

14.3.1 Throughout the term of this Agreement and for a period of three years following the completion or termination of this Agreement and for so long thereafter as there may remain any unresolved questions or disputes regarding any item, COMPANY shall, at all reasonable times and upon prior notice to CONSULTANT, have access to all

CONSULTANT's, subcontractors', and vendors' personnel, books, records, correspondence, instructions, plans, equipment maintenance records, drawings, receipts, vouchers, financial accounts and memoranda of every description pertaining to the Work for the purpose of auditing and verifying the application of the unit rates applicable to the work or reimbursable costs of the Work, CONSULTANT's safety performance under this Agreement or for any other reasonable purpose. COMPANY shall have the right to reproduce any of the aforesaid documents. In the event that any audit reveals an error or discrepancy of any nature whatsoever, such error or discrepancy will be corrected promptly, and any moneys owing and due either COMPANY or CONSULTANT will be paid promptly by the other party. CONSULTANT's obligations under this **Article 14.0** shall survive the termination of this Agreement.

15.0 ASSIGNMENT

15.1 CONSULTANT shall not assign this Agreement without first having obtained COMPANY's written approval. CONSULTANT shall be entitled to contract with Local Contractors to assist in the performance of OSRO Coverage and Emergency Response Services. Such contract will not, in any way, relieve CONSULTANT of its obligations hereunder.

15.2 The fees and costs of Local Contractors shall be calculated in the same manner as CONSULTANT's fees and costs as provided in Exhibit B.

16.0 NOTICES

16.1 Any notice required hereunder to be given to either party shall be deemed duly given when written and delivered personally or when sent by mail or facsimile, to such party at the following addresses:

COMPANY:	CONSULTANT:
Kinder Morgan Operating L.P. "D" **1100 Town & Country Road** **Orange, California 92868** **Attention: Sherry Clifford** **Phone: 714-560-4915** **FAX: 714-560-6593** **E-Mail Address:** **sherry_clifford@kindermorgan.com**	**National Response Corporation** **3500 Sunrise Highway Suite T103** **Great River, NY 11739** **Attention: James J. Godfrey, JR.** **Phone: 206-546-7162** **FAX: 206-546-7170** **Email Address: jgodfrey@nrcc.com**
	LOCAL (Operations)
	NRC Environmental Services
	Long Beach, CA 90802
	Attention: Barry McFarland
	Phone: 310-345-0407
	FAX: 562-432-1826
	E-Mail Address: bmcfarland@nrces.com

16.2 The address for notices may be changed upon written notice to the other party. Notices shall be effective upon receipt.

17.0 CONFLICT OF INTEREST

17.1 During the term of this Agreement, for OSRO Coverage Services and Emergency Response Services authorized under a Work Directive, CONSULTANT will, with respect to response to any specific Discharge, act as consultant for and on behalf of the COMPANY only.

18.0 FORCE MAJEURE

18.1 Force Majeure, as used herein, shall mean acts of God, acts of public enemies, fire, war or civil disturbance, insurrection, blockades, strikes, riots, epidemics, landslides, lightning, earthquakes, floods, washouts, explosions, inability with reasonable diligence to obtain materials because of a Force Majeure event affecting a material supplier's performance, loss or shortage of transportation facilities, commandeering of raw materials or products or plants or facilities by a government, labor disputes involving a general stoppage of work on the job, rules or regulations or orders or acts of governmental authority, the unforeseeable inability to obtain necessary site access, authorization, permits, licenses, certifications and approvals and not involving the fault or negligence of COMPANY or CONSULTANT.

18.2 Nothing herein shall be construed to oblige the CONSULTANT to deploy Response Resources in connection with Emergency Response Services where, in the good faith judgment of the CONSULTANT's supervisory personnel on the scene and with the agreement of the Federal On Scene Coordinator, circumstances in which the Emergency Response Services are to be conducted present an unreasonable risk to life or property.

19.0 LIABILITIES, WARRANTIES AND TITLE

19.1 **IN NO EVENT, WHETHER AS A RESULT OF NEGLIGENCE OR OTHERWISE, SHALL CONSULTANT OR COMPANY BE LIABLE TO THE OTHER FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR SPECIAL DAMAGES OF ANY KIND.**

19.2 CONSULTANT warrants and represents to COMPANY that:

19.2.1 CONSULTANT understands the known hazards and risks to human beings, property, and the environment associated with Emergency Response Services.

19.2.2 CONSULTANT is engaged in the business of Emergency Response Services, and has professional expertise in these areas. CONSULTANT represents to COMPANY that it has the skill and professional competence, expertise, experience with United States Coast Guard classification and all other necessary certification, licenses and approvals to undertake the obligations imposed by this Agreement. The service performed by CONSULTANT will be conducted using this skill, competence and expertise, as indicated by COMPANY.

19.2.3 CONSULTANT will perform Emergency Response Services and all other obligations under this Agreement in a safe manner consistent with Exhibit G and in full compliance with all applicable laws, statutes, ordinances, orders, rules, regulations and guidelines of the federal, state and local governments who have jurisdiction to regulate the activities performed under this Agreement.

19.3 THERE ARE NO WARRANTIES, INCLUDING A WARRANTY OF WORKMANLIKE SERVICE, WHICH EXTEND BEYOND THOSE EXPRESSLY SPECIFIED IN THIS AGREEMENT.

19.4 The COMPANY acknowledges that Response Resources deployed by the CONSULTANT under this Agreement will be deployed on an emergency basis and that the purpose of Emergency Response Services for which such Response Resources will be deployed is to remove, to the maximum extent practicable, Oil from a Discharge. The CONSULTANT does not warrant, by the terms of this Agreement or by undertaking, that Emergency Response Services conducted with Response Resources will render the scene of the Discharge, or areas affected by the Discharge, safe for any form of human activity, or in compliance with any Federal law or State Law.

19.5 CONSULTANT shall provide COMPANY with reasonable advance written notice if any license, permit, certificate or any other approval is necessary to perform the Work hereunder, or if any license, permit, certificate, or any other approval necessary to perform the Work is to expire and cannot be renewed during the term of the corresponding Work Directive or is the subject of any judicial or administrative action seeking to impose a penalty or fine or to revoke or suspend such license, permit, certificate or approval. Such notice shall also be provided if CONSULTANT decides not to obtain any necessary license, permit, certificate or approval which becomes required after execution of the corresponding Work Directive. Upon COMPANY's receipt of such notice or upon COMPANY's learning that CONSULTANT is performing the Work without a required license, permit, certificate or any other necessary approval, COMPANY shall be entitled to terminate the Work Directive upon written notice thereof to CONSULTANT as set forth in **Section 14.1** herein.

19.6 CONSULTANT shall provide each person whom CONSULTANT should reasonably foresee being exposed to Waste, oil, hazardous materials, or non-hazardous material (including, but not limited to, CONSULTANT's employees and subcontractors) with clear and reasonable warning of the hazards associated with the material or Waste, and shall take all actions necessary to protect such persons, property and the environment from such hazards. CONSULTANT shall comply with all applicable laws, statutes, ordinances, orders, rules, regulations and guidance of the federal, state or local government with respect to worker safety during CONSULTANT's activities at the Site.

19.7 COMPANY warrants and represents to CONSULTANT that COMPANY will make available to CONSULTANT all information in its possession or that comes into its possession during the term of this Agreement regarding the Waste, the known surface and subsurface conditions in the vicinity of the Work and the Site, applicable topographical surveys, chemical analysis or other relevant information that would assist CONSULTANT in properly evaluating the nature and character of the Waste and the Work to be performed.

19.8 Handling Hazardous Materials and Waste.

19.8.1 Nothing contained within this Agreement shall be construed or interpreted as requiring CONSULTANT to assume the status of a generator, or of an owner or operator of a treatment, storage and disposal ("TSD") facility as those terms appear within the Resource Conservation Recovery Act, 42 U.S.C. § 6901, et. seq. (hereinafter "RCRA") or within any federal or state statute governing the transportation, treatment, storage or disposal of (1) Hazardous Materials, (2) Oil, or (3) Waste (hereinafter referred to collectively as " Recovered Waste").

19.8.2 COMPANY shall assume the responsibility for compliance with the provisions of RCRA and any federal or state statute governing the transportation, treatment, storage and disposal of Recovered Waste. In the event COMPANY requires CONSULTANT' assistance in meeting its obligations, as set forth within this Paragraph, then CONSULTANT, as requested and directed by COMPANY, and at COMPANY's expense, will provide (a) enter into subcontracts for analytical testing to assist COMPANY in the proper characterization of the Recovered Waste for documentation purposes; and (b) assist COMPANY with completion of shipping papers, manifests and labels that are required for each shipment of Recovered Waste in accordance with all applicable requirements of the United States Department of Transportation, (DOT) and the United States Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA), the Resource Conservation and Recovery Act (RCRA), or any replacement or successor agency thereto, and all other federal, state and local statutes, regulations and ordinances.

19.8.3 If performance of this Agreement requires the treatment, storage or disposal of any Recovered Waste, CONSULTANT will transport the Recovered Waste, or cause it to be transported, only to a disposal or treatment facility selected by COMPANY. Any transportation undertaken or arranged by CONSULTANT under this Agreement

is undertaken or arranged by CONSULTANT solely as COMPANY's agent and under COMPANY's direction.

19.8.4 If any Recovered Waste is designated by any governmental authority as a hazardous waste (or any similar designation) then, as a condition precedent to CONSULTANT' performance under this Agreement with respect to such substance, COMPANY shall provide CONSULTANT with COMPANY's EPA identification number and any other identification or authorization required by law or assigned to COMPANY by any governmental authority for such substances.

19.8.5 Nothing contained within this Agreement shall be construed or interpreted as requiring CONSULTANT to take title to or otherwise own any Recovered Waste. COMPANY acknowledges that CONSULTANT has not taken and will not take title to or otherwise own such Recovered Waste, and that CONSULTANT is not, has not been and will not be in possession or control of any such Recovered Waste, except as COMPANY's agent.

20.0 WAIVER

20.1 Any waiver by either party of any provision or conditions of this Agreement shall not be construed or deemed to be a waiver of any other provision or condition of this Agreement, nor a waiver or subsequent breach of the same provision or condition, unless such waiver be so expressed in writing and signed by the party to be bound.

21.0 SPECIAL PROVISIONS

21.1 It is not the purpose or intention of this Agreement to create and the same shall not be construed as creating a joint venture, oil and gas partnership, commercial partnership or other partnership relation between the parties hereto.

21.2 CONSULTANT shall immediately notify COMPANY of all directions CONSULTANT receives from and all communication with any governmental body or agency with regard to the Emergency Response Services. CONSULTANT shall, to the extent practicable, under the circumstances, coordinate any response to a governmental body or agency's direction, request or other communication with COMPANY's Designated Representative or his or her designee.

21.3 COMPANY may obtain Emergency Response Services to substitute for or supplement those available under this Agreement at COMPANY's sole discretion, cost and expense.

22.0 DISPUTES

22.1 Without giving effect to choice of law rules, the laws of the jurisdiction where the Work is being performed shall govern any interpretations or constructions of this Agreement. Except as provided in **Section 2.11.3** hereof, any dispute between COMPANY and CONSULTANT arising from this Agreement shall be resolved first through discussions among upper management of the parties, and if the dispute cannot be resolved within sixty (60) days from the date the matter was first brought by the disputing party to the attention of the other party, then any party may elect to resolve the matter through litigation brought in a court having jurisdiction thereof.

22.2 Except for CONSULTANT's rights as provided in **Section 6.7** herein, if in COMPANY's sole reasonable discretion the Work cannot be suspended pending the resolution of a dispute, COMPANY may (a) request that CONSULTANT continue prosecuting the Work to completion pursuant to the terms and conditions of this Agreement, or (b) take over the Work and itself prosecute the same to completion.

22.3 It is understood that with respect to any goods and materials provided in the course of performing this Agreement the Uniform Commercial Code shall prevail as the basis for contractual obligations between COMPANY and CONSULTANT in the event that such obligations are not otherwise defined in this Agreement.

23.0 SEPARABILITY

23.1 If any section, subsection, sentence or clause of this Agreement shall be adjudged illegal, invalid or unenforceable, such illegality, invalidity or unenforceability shall not affect the legality, validity or enforceability of the Agreement as a whole or of any remaining sections, subsections, sentences or clauses.

24.0 SURVIVAL OF OBLIGATIONS

24.1 Without limiting the effect of any provisions in this Agreement, the warranties, limits of liability and indemnification provisions of this Agreement shall survive the termination or expiration of this Agreement.

25.0 SUCCESSORS AND ASSIGNS

25.1 The covenants and agreements contained in this Agreement shall apply to, inure to the benefit of and be binding upon the parties hereto and upon their respective heirs, executors, administrators, assigns and successors in interest.

26.0 LIABILITY OF GENERAL PARTNER

26.1 Kinder Morgan G.P., Inc., a Delaware corporation (the "**General Partner**"), is the general partner of COMPANY. CONSULTANT agrees that the General Partner shall not be liable, directly or indirectly, for any of COMPANY's obligations or liabilities under this Agreement. All such obligations and liabilities shall be non-recourse to the General Partner and shall not constitute debts or obligations of the General Partner. No judgment, attachment, execution or other writ or process shall be sought, issued, or levied in connection with this Agreement against the General Partner or any of its assets or properties to satisfy any such liabilities or obligations or any judgments rendered in connection therewith and all such liabilities and obligations shall be satisfied solely from the assets of COMPANY.

27.0 SERVICES FOR AFFILIATES

27.1 The services to be performed by CONSULTANT under this Agreement shall be performed, in certain cases, for one or more of COMPANY's Affiliates except Kinder Morgan, Inc. In the event an Affiliate requires CONSULTANT's services hereunder, a Work Directive for such service shall be issued in the Affiliate's name and executed by the Affiliate and CONSULTANT. Such Work Directive shall be in the form shown on **Exhibit A-1**, attached hereto and made a part hereof for all purposes. Upon execution of said Work Directive, CONSULTANT shall perform such Work for Affiliate in accordance with the Work Directive and the terms and conditions of this Agreement. By execution of the Work Directive, the Affiliate shall be entitled to all rights and privileges, and liable for all commitments and responsibilities held by COMPANY under this Agreement, as same applies to said Work Directive. Upon execution of said Work Directive, CONSULTANT's agreement to indemnify COMPANY pursuant to this Agreement, shall extend to both COMPANY and Affiliate for purposes of said Work Directive. Except as provided in **Section 6.5** hereunder and/or unless expressly provided in the Work Directive, the Kinder Morgan entity which executes the Work Directive shall be solely responsible for the liabilities and obligations set forth in this Agreement under which that Work Directive is being issued as the same apply to the Work to be performed pursuant to that Work Directive. All such liabilities and obligations, as they apply to that Work Directive, shall be non-recourse to the direct and indirect parents (or a general partner, as the case may be) and to the affiliates of the Kinder Morgan entity executing that Work Directive.

28.0 ENTIRE AGREEMENT

28.1 This Agreement, together with the exhibits attached hereto, constitutes the entire agreement between COMPANY and CONSULTANT and supersedes any prior written or oral agreements, or contemporaneous communications with respect to this subject matter. No subsequent amendment to this Agreement between the parties shall be binding on either party unless

reduced to writing and signed by an authorized representative of each of the parties. To the extent any Work Directive issued pursuant to this Agreement conflicts with this Agreement, the Work Directive shall prevail.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

COMPANY:
Kinder Morgan Operating L.P. "D"
By: Kinder Morgan G.P., Inc., its General Partner
By: Kinder Morgan Management, LLC
the delegate of the General Partner

Sherry Z. Clifford
SIGNATURE

November 30, 2005
DATE

Sherry Z. Clifford
NAME (Please Print)

Manager, Contract Administration
TITLE (Please Print)

CONTRACTOR:
National Response Corporation

FOR
SIGNATURE

11/22/05
DATE

James J. Godfrey, JR. SAC
NAME (Please Print)

Vice President, National Response Corporation
TITLE (Please Print)

Agreement Number: 05-ER-45-064-ORG

EXHIBIT A— WORK DIRECTIVE

A Work Directive substantially in the form attached hereto will be executed between the parties for any Work performed under this

Agreement.

Exhibit A—Work Directive No. _____

Attachment No. 01—Revised Release Reporting Criteria

Consultant shall ensure that its employees, agents, and subcontractors' employees engaged in Consultant's activities in the performance of the Work:

(i) are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

(ii) understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-COMPANY Onsite Situation"), unless the training referred to in (i) above has occurred for Consultant's employees, agents and subcontractors' employees who will be performing at such a site.

For purposes of this Exhibit A, "Hazardous Material" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any Environmental Laws; and (b) any "hazardous waste," "hazardous substance" (including , but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any Environmental Law. "Environmental Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

Company has determined that Consultant:

☐ *Will be working in a Non-COMPANY Onsite Situation and MUST complete the training.*

☒ ***Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT's employees, agents and subcontractors' employees will be trained relative to COMPANY's revised release reporting criteria.***

Consultant shall certify its compliance with this training requirement upon Company request.

Acknowledged, agreed and accepted this _____ day of _____, 2005

_____("Consultant")
Company name

_____
Officer name and Title (please print)

_____
Officer signature

File: work directive template 2005 Revised: 10/07/03

Agreement Number: 05-ER-45-064-ORG

EXHIBIT B – SCHEDULE OF VALUES

1.0 OVERVIEW

1.1 The amounts set forth in the Agreement cover payment in full for all materials, work, tools, equipment, insurance, bonds, profit, overhead and all other costs and expense of every kind, character and nature for which the CONTRACTOR is entitled to payment. Unless specifically set forth in the Agreement, no additional payment of any kind will be contemplated.

1.1.1 COMPANY agrees to pay CONSULTANT, for Work performed pursuant to this Agreement either on a COST REIMBURSABLE BASIS or FIRM FIXED PRICE, LUMP SUM BASIS (The "**Contract Price**") as specified in each Work Directive.

1.1.2 COMPANY agrees to pay CONSULTANT for All Emergency Response Services in accordance with CONSULTANT's or Local Contractor's Rates as set forth on CONSULTANT's website, www.nrc.com. For purposes of example, Local Contractor, NRC Environmental Services' rates shall be billed for Work performed on the West Coast and are contained in this **Exhibit B**.

2.0 PROCESSING OF TIMESHEETS & REIMBURSABLE RECEIPTS PRIOR TO INVOICE SUBMITTAL

2.1 For Emergency Response Services, CONSULTANT shall submit the estimates of charges for labor, equipment, materials and expenses to the AUTHORIZED PROJECT REPRESENTATIVE on a daily basis for verification/acknowledgement of expenses and time spent on the project. Signature by these personnel does not preclude revision of the final invoice based on the final invoice not being in accordance with the actual labor, equipment, materials and expenses provided as verified/acknowledged in the daily estimates/timesheets.

3.0 INVOICING

3.1 Standard Invoice Procedure

3.1.1 CONSULTANT shall submit an original detailed invoice, together with one copy of such invoice and one set of supporting documentation to be sent to COMPANY for payment.

3.1.1.1 For OSRO Coverage Services, CONSULTANT shall submit invoice(s) in advance annually for OSRO Coverage Service to be performed during that contract year; and

3.1.1.2 For Emergency Response Services or Other Services, CONSULTANT shall submit invoice(s) upon completion of the Work performed pursuant to a Work Directive or when the total amount owed reaches $100,000, whichever is sooner, per Work Directive.

3.1.2 Reference each individual contract for the appropriate addressee and company name for the invoice to be submitted.

Company Name:	**Kinder Morgan Operating L.P. "D"**
Attn:	**As specified in Section 6 of each Work Directive released**
Address:	
	,
REFERENCE:	
Contract No.:	**05-ER-45-064-ORG**

Work Directive No.:	(Per the Work Directive (Exhibit A-1) Issued for Services)
Amendment / Change Order No.:	(Per the Amendment /Change Order Issued for Services)

3.2 Non-acceptance of Invoices

3.2.1 Invoices that do not relate to this Contract **will not be processed** and such invoices will not be accepted by COMPANY. All charges not in compliance with the stated terms and conditions of this Contract will be deducted from the invoice prior to payment processing.

3.3 Required Invoice Detail

3.3.1 Each of CONSULTANT's invoices shall contain the following information on its face:

3.3.1.1 An invoice date.

3.3.1.2 A reference number (invoice number) which is unique to the transaction

3.3.1.3 Site or project name (if applicable) and COMPANY.

3.3.1.4 Reference of COMPANY'S Project Representative.

3.3.1.5 Contract Number, Change Order Number and Directive Number (as applicable).

3.3.1.6 Billing period (time period of charges).

3.3.1.7 CONSULTANT's or Local Contractor's remittance address or electronic funds transfer routing information, (as applicable).

3.3.1.8 CONSULTANT's or Local Contractor's name and telephone number of contact to handle invoice related questions.

3.3.1.9 Amount due CONSULTANT.

3.3.1.10 Project Status Report

3.3.1.11 Summary of amount invoiced to date, this invoiced amount, retention (as applicable), and the amount remaining to be invoiced.

3.4 Supporting Documentation

3.4.1 Each of CONSULTANT's invoices shall be itemized and submitted to COMPANY together with receipts, time records, vouchers showing payments for itemized material and labor, and any other evidence of CONSULTANT's right to payment under this Contract as COMPANY may, in its sole good faith discretion, from time to time require.

3.5 Final Invoice

3.5.1 When CONSULTANT submits its final invoice to COMPANY for the Work, in addition to the requirements outlined above, CONSULTANT shall additionally include the following which shall be submitted no later than thirty (30) days after the project completion date:

3.5.2 Mechanics lien and stop notice releases executed by CONSULTANT and by each person or entity that furnished any labor, services or materials in connection with the Work;

3.5.3 Reasonable proof satisfactory to COMPANY that any claims for labor, materials or any other claim or potential claim for which COMPANY withheld compensation pursuant to the Contract have been paid or satisfied in a manner acceptable to COMPANY.

4.0 PAYMENT PROCEDURE

4.1 Processing of Approved Invoices

4.1.1 Provided that such invoice meets all of the requirements as explained, COMPANY shall pay all undisputed charges set forth in each invoice, within thirty (30) days after such invoice is received by COMPANY; provided that, if payment is not received by CONSULTANT within thirty (30) days, then CONSULTANT shall notify COMPANY in writing and COMPANY shall have five (5) business days following its receipt of said notice before CONSULTANT may exercise its rights under Section 6.7.1 of the Agreement.

4.1.2 CONSULTANT shall notify COMPANY in writing when more than one million dollars ($1,000,000.00) of response costs has been incurred under a Work Directive issued with respect to an individual response event. COMPANY shall pay CONSULTANT eighty percent (80%) of such response costs within ten (10) days of its receipt of CONSULTANT's invoice for said 80% progress payment. Further, if COMPANY fails to submit such payment within said ten (10) day period, CONSULTANT shall notify COMPANY in writing of non-receipt and thereupon COMPANY shall have five (5) business days from receipt of said notice to pay said 80% progress payment to CONSULTANT before CONSULTANT may exercise its rights under Section 6.7.1 of the Agreement.

4.2 Processing of Disputed Invoices

4.2.1 If COMPANY, in good faith, disputes and does not reasonably approve an item billed, COMPANY shall notify CONSULTANT in writing, of the item or portion of an item disputed including documentation for source of dispute, within ten (10) days of receipt of the invoice and withhold payment thereof until settlement of the dispute. Such right of COMPANY to withhold such payments shall be in addition, and not in any way in lieu of, any other right of COMPANY hereunder, including the right to raise disputes for the first time after audit. Payment shall be contingent upon COMPANY's review of the invoice and determination that the Work described in the invoice complies with all of the terms of this Contract. Interest penalties for disputed invoices will not be paid by COMPANY.

5.0 TIME AND MATERIALS RATES

CONSULTANT's current Rates and terms and conditions related to those rates are included below. Such rates are subject to annual adjustment on Price List anniversary date of February 18.

West Coast Price List

Effective February 18, 2004

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II. EQUIPMENT **PAGES 2 - 5**

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SAFETY 6
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PERSONNEL

CODE	DESCRIPTION	RATE PER HR
SP	Senior Project Manager	125.00
PM	Project Manager	100.00
AM	Assistant Project Manager/Superintendent (Operations, Planning, Logistics, Finance)	85.00
IH	Industrial Hygienist (non-CIH)	100.00
HS	Health & Safety / Training Manager / Field Chemist	65.00
SM	Support Manager (Purchasing, Subcontracts, Communications, Transportation, Decon, Disposal)	72.00
CS	Chemist / Scientific Specialist	100.00
PR	Purchaser / Subcontracts Administrator	60.00
FS	Field Supervisor	60.00
MC	Mechanic / Welder	55.00
RT	Confined Space / Rescue Technician	50.00
SF	Site Foreman	50.00
VO	Vessel Operator	48.00
DH	Deckhand	45.00
TE	Technician – HAZWOPER	45.00
EO	Equipment Operator / Truck Driver/Tankerman	48.00
AS	Administrative Support	42.00
ST	Support Technician (Warehouser, Accounting, Personnel Coordinator)	42.00

Notes:

1. Minimum call out is 4 hours per person, except for projects over 50 miles from office location require 8-hour daily minimum.
2. Rates for FS, MC, RT, SF, VO, DH, TE, EO, AS and ST are subject to the following:
    a. Weekdays: Rate at time and one-half prior to 07:00 and/or after 15:00, up to 12 total hours; after 12 hours Rate at double-time.
    b. Saturday: Rate at time and one-half up to 8 hours; after 8 hours, Rate at double-time.
    c. Sundays and Holidays: Rate at double-time.
    d. The following are included holidays: New Years Day, Presidents Day, Good Friday, Memorial Day, Independence Day, Labor Day, day before Thanksgiving, Thanksgiving Day and Christmas Day.
    e. The above Rates are applied regardless of the number of hours worked for the Customer on any particular day. Rates for hours subsequent to a break of less than 8 hours are calculated as continuous to hours prior to break.
3. All project specific personnel, including accounting, administrative, personnel support, logistics and management, whether on site, at National Response Corporation offices, or at support locations, are chargeable per the above rates. All personnel are charged according to the above rates, regardless of full-time, part-time or third party labor source status, unless provided as part of a specified subcontracted service. Labor rates for remote sites and prevailing-wage projects may require a surcharge.
4. Time charges begin with equipment and personnel mobilization activities. Time charges terminate at the conclusion of the services, which includes transportation of equipment and personnel back to operations centers and any necessary demobilization activities. Personnel time is charged in half-hour increments for all personnel.
5. Transportation and any incidental costs for all emergency response personnel, both on site, at support locations and traveling to and from the site or support locations, are charged at cost plus 20%. Per Diem charges for food in metropolitan areas are $40.00 per person per day. Typical per diem rates for lodging, based on double occupancy, are $85.00 per person per day. Rates for premium areas and remote sites to be determined.

EQUIPMENT

	DESCRIPTION	UNIT	RATE
CONTAINMENT BOOM	Anchor Gear	Day/Each	25.00
	Boom Mooring Light	Day/Each	13.00
	Contractor Boom, up to 21", in oil	Ft/Day	1.75
	Ocean Boom, up to 42", in oil	Ft/Day	6.75
RECOVERY/ SKIMMERS	Air Conveyor, Vac-U-Max	Day	100.00
	Air Conveyor, VS-50	Day	3,000.00
	Belt Skimmer, Marco Class XI-C	Day	4,000.00
	Belt Skimmer Vessel, JBF DIP 3001	Hour	300.00
	Belt Skimmer Vessel, Marco I C	Hour	250.00
	Brush Skimmer, Lamor	Day	3,600.00
	Brush Skimmer, Aquaguard RBS-40	Day	2,500.00
	Brush Skimmer, Aquaguard RBS-25 / 10 Twin	Day	2,000.00
	Brush/Drum/Disc Skimmer, Aquaguard RBS-05	Day	850.00
	Disc Skimmer, MI-30, Komara 12K	Day	1,800.00
	Disc Skimmer, Vikoma Sea Skimmer	Day	2,000.00
	Drum Skimmer, Roto 70	Day	3,500.00
	Drum Skimmer, Action Petroleum Model 60	Day	1,400.00
	Drum Skimmer, Action Petroleum Model 36	Day	1,200.00
	Drum Skimmer, Action Petroleum Model 24	Day	800.00
	Rope Mop Skimmer, II-9	Day	800.00
	Rope Mop Skimmer, I-4, II-4, II-6	Day	600.00
	Rope Mop Skimmer, extra rope, 100'	Day	110.00
	Vacuum/Transfer Unit (VTU)	Day	1800.00
	Weir Skimmer, Desmi 250	Day	2,400.00
	Weir Skimmer, Foilex	Day	2,000.00
	Weir, Cascade LP 3000 or Vikoma Fastflow	Day	1,600.00
	Weir Skimmer, Skimpak or Oleo, 2-3"	Day	300.00
TEMPORARY STORAGE	Bladder Tank, 24 Barrel	Day	250.00
	Bladder Tank, 100 Barrel	Day	500.00
	Portable Barge Sets, SWOB Barge	Day	1,350.00
	Roll-off Bins, 20 cu. yd./40 cu. yd.	Day	22.00/44.00
	Storage Tank, 20-21,000 Gallon Single Wall	Day	49.00
	Storage Tank, 20-21,000 Gallon Double Wall	Day	79.00
	Storage Tank, 6,500 Gallon	Day	25.00
	Tote Tank, DOT approved, 350/500 Gallon	Day	75.00/85.00
	Vacuum Box, up to 25 cy yd	Day	80.00
SUPPORT VESSELS	Response Vessel, 35' - 55'	Hour	225.00
	Response Vessel, 30' - 34'	Hour	160.00
	Response Vessel, 25' - 29'	Hour	125.00
	Response Vessel, 16 '- 24'	Hour	100.00
	Skiffs w/outboard, 15' or less'	Hour	50.00
	Skiffs w/o outboard	Hour	25.00
EXCAVATION	Backhoe	Hour	75.00
	Backhoe Attachment	Each/Day	220.00
	Bobcat (743-853)	Hour	50.00
	Bobcat Attachment	Each/Day	175.00
	Excavator, Mini	Hour	50.00
	Excavator, up to 45,000 lb	Hour	95.00
	Excavator, 45,000 to 85,000 lb	Hour	140.00
	Excavator Attachment	Each/Day	400.00
	Loader	Hour	100.00

	DESCRIPTION	UNIT	RATE
TRAILERS	Container, storage, 20' / 40'	Day	22.00/44.00
	Semi-Trailer, End Dump, 18 yd.	Hour	55.00
	Trailer, Confined Space Entry/Rescue	Day	2,000.00
	Trailer, Decon, up to 24'	Day	150.00
	Trailer, Emergency Response, up to 24'	Day	350.00
	Trailer, Emergency Response, 40'- 48'	Day	500.00
	Trailer, Equipment, Utility, 1-2 ton	Day	100.00
	Trailer, Equipment, Utility, 3-10 ton	Day	150.00
	Trailer, Flatbed, up to 48	Day	125.00
	Trailer, Incident Command Center, 24' (fax, copier)	Day	500.00
	Trailer, Incident Command Center, 48' (fax, copier)	Day	900.00
	Trailer, MTR (includes boom, boat, skimmer)	Day	350.00
	Trailer, Office	Day	200.00
	Trailer, Rocket Launcher	Hour	55.00
	Trailer, Van, up to 48'	Day	175.00
	Trailer, Wildlife Rehab (excludes supplies)	Day	2,500.00
TRUCKS	Truck, Crane, 1 ton - 6 ton	Hour	28.00
	Truck, Crane, 7 ton - 10 ton	Hour	38.00
	Truck, Crane, 10 ton - 18 ton	Hour	50.00
	Tractor, Diesel	Hour	38.00
	Truck, Dump, up to 10 yard	Hour	39.00
	Truck, Dump, over 10 yard	Hour	42.00
	Truck, Dump, over 10 yard w/pup	Hour	55.00
	Truck, Gear, less than 1 ton	Day	100.00
	Truck, Gear, 1 ton	Day	125.00
	Truck, Gear, 2 ton - 5 ton	Day	200.00
	Truck, Gear, over 5 ton	Hour	31.00
	Truck, Marine Response	Hour	50.00
	Truck, Roll Off ($10.00 additional for truck w/ trailer)	Hour	75.00
	Truck, Water, up to 3000 gallons	Hour	75.00
VACUUM TRUCKS	Guzzler/Air Mover	Hour	125.00
	Vacuum Trailer, 120 bbl	Hour	40.00
	Vacuum Truck, 35 bbl - 70 bbl	Hour	38.00
	Vactor/Jetter – Combo Unit	Hour	140.00
VEHICLES	All Terrain Vehicle	Day	240.00
	Auto, Personnel/Support	Day	100.00
	Van, Decon	Day	200.00
	Van, Hazmat Emergency Response, up to 24'	Hour	100.00
	Van, Hazmat Emergency Response, 24' plus	Hour	150.00
	Van, Maintenance	Day	150.00
	Van, Personnel/Support	Day	125.00
BLOWERS/ COMPRESSORS	Air Compressor, up to 100 CFM	Day	100.00
	Air Compressor, 100 - 385 CFM	Day	200.00
	Blower, Copus	Day	100.00
	Blower, Negative Air Exhaust	Day	60.00
	Blower, Venturi, Horn	Day	20.00
PRESSURE WASHERS	Hydroblaster, 20,000 psi	Hour	180.00
	Hydroblaster, 10,000 psi	Hour	70.00
	Hydroblaster, 6,000 psi	Hour	50.00
	I.D. Lance Bundle Blaster	Hour	30.00
	Malsbury, 535, 1M BTU W/Hose	Hour	100.00
	Multi-Gun Valve	Hour	15.00
	O.D. Bundle Blaster Unit	Hour	30.00
	Pressure Washer, 3,000 psi, hot	Hour	45.00

	DESCRIPTION	UNIT	RATE
PRESSURE WASHERS (CONT.)	Pressure Washer, 2,000 psi, special interior	Hour	18.00
	Roto - Jet Nozzle	Hour	25.00
PUMPS	Pump, up to 1"	Day	50.00
	Pump, 2", Petroleum/Chemical	Day	75.00/150.00
	Pump, 3", Petroleum/Chemical	Day	95.00/200.00
	Pump, 4", Trash/Petro-Submersible	Day	175.00/325.00
HOSES	Hose, fire, 1.5"/2.5"	50 Ft/Day	11.00/17.50
	Hose, fresh air	50 Ft/Day	20.00
	Hose, guzzler flex, 4"	Ft/Day	1.25
	Hose, guzzler flex, 6"	Ft/Day	1.50
	Hose, pneumatic	50 Ft/Day	10.00
	Hose, suction & discharge, 2", Petro/Chemical	25 Ft/Day	15.00/30.00
	Hose, suction & discharge, 3", Petro/Chemical	25 Ft/Day	18.00/36.00
	Hose, suction & discharge, 4", Petro/Chemical	25 Ft/Day	20.00/40.00
	Hose, wash, 1"	50 Ft/Day	5.00
SUPPORT	Airless Sprayer	Hour	12.00
	Bag Filter System "Dual Pod" (bag filters not incl.)	Day	75.00
	Barrel Dolly	Day	5.00
	Burning Unit (Oxy/Acetylene)	Day	60.00
	Butterworth Head	Day	50.00
	Carbon Filter, Liquid, 55 gal type (carbon not incl.)	Day	25.00
	Carbon Filter, Vapor, 85 gal type (carbon not incl.)	Day	30.00
	Chain Saw	Day	60.00
	Chipping Gun, Pneumatic	Day	40.00
	Cluster Lights/Light Tower	Day	175.00
	Compactor, Hand Operated	Day	150.00
	Cutoff Saw	Day	125.00
	Decon Cleaning Pool, Portable 10' x 15'	Day	125.00
	Decon Cleaning Pool, Portable 10' x 30'	Day	200.00
	Decon Cleaning Pool, Portable 20' x 100'	Day	550.00
	Decon Cleaning Pool, Portable 25' x 50'	Day	275.00
	Decon Station, Small (supplies not included)	Day	50.00
	Dewatering Box, up to 20 cy yd	Day	105.00
	Forklift, 6K-10K lb.	Day	275.00
	Forklift Attachment	Day	100.00
	Generator, 4 to 7.5 kW	Day	85.00
	Generator, greater than 7.5 kW	Day	Quote
	Generator, less than 4 kW	Day	50.00
	Hand Tools, per each	Day	5.00
	Hepa Vacuum (filters not included)	Day	50.00
	Jackhammer	Day	150.00
	Ladder, extension	Day	40.00
	Light, Portable, explosion-proof	Day	44.00
	Light, Portable, regular	Day	16.00
	Manlift, 4wd, Boom type up to 60'	Day	350.00
	Manlift, 37-45ft, Towable	Day	225.00
	Media Filter System, Sta-Rite (media not included)	Day	100.00
	Pallet Jack	Day	7.00
	Office Space for Command Post (NRC as available)	Day	1,500.00
	Power Pack, Hydraulic, 16 hp	Day	138.00
	Power Pack, Hydraulic, 40 hp	Day	275.00
	Power Pack, Hydraulic, 60 hp	Day	500.00
	Power Tools (Small Drills, Saws, etc.)	Day	25.00
	Road Closure Signs/Reflective	Day/Each	50.00

	DESCRIPTION	UNIT	RATE
SUPPORT (Cont.)	Road Closure Cones & Delineators	Day/Each	1.50
	Sawsall (blades additional)	Day	25.00
	Salvage Cylinder/Coffin	Day	1,500.00
	Soil Sampler, Hollow Stem	Day	50.00
	Truck Rollover/Cylinder Drill Kit	Day	300.00
	Truck Ramps	Day	150.00
	Weed and Turf Cutter	Day	35.00
	Welding Unit, portable	Day	60.00
COMMUNICATION	Base Station	Day	75.00
	Cellular Phone (includes up to $35 per day in airtime)	Day	50.00
	Computer w/Modem and Printer	Day	95.00
	Digital Camera	Day	35.00
	GPS Unit	Day	50.00
	High Power Repeater System w/Generator	Day	300.00
	Radio, UHF or VHF, portable	Day	50.00
SAFETY	Air Pump Sampler	Day	20.00
	Air Sampling Kit (tubes additional)	Day	30.00
	Chest or Hip Waders, Insulated	Day	25.00
	Eyewash Station	Day	35.00
	Floatation Work Suit	Day	50.00
	Floatation Work Vest	Day	10.00
	Full Face Respirator (excluding cartridges)	Day	25.00
	Half Face Respirator (excluding cartridges)	Day	20.00
	Harness/Lanyard	Day	25.00
	Jerome Mercury Meter	Day	200.00
	LEL/O_2 Meter	Day	100.00
	LEL/O_2/H_2S/CO	Day	150.00
	Mercury Vacuum (includes attachments, bags extra)	Day	350.00
	PID/HNU/OVA Meter	Day	150.00
	Regulated Air Supply (2 resp., 100' airline, egress bottle)	Day	200.00
	SCBA	Day	125.00
	Tripod and Winch	Day	150.00

Notes:

1. Equipment prices do not include fuel, operator or mobilization unless otherwise stated. Non-mileage fuel charges will be charged at cost plus 20%. Vacuum truck washouts will be charged at cost plus 20%.
2. Time charges are calculated portal to portal, beginning with equipment mobilization activities from operations centers unless otherwise specified, including all time at the site. Time charges terminate at the conclusion of the operation, which includes transportation of equipment back to operations centers and completion of any necessary demobilization activities, including equipment cleaning, repair, replacement and/or delivery to National Response Corporation of restored equipment.
3. Day rates are based on 12 hours of continuous operation, to coincide with operational periods. If equipment exceeds the 12 hour continuous operations period, then excess time will be based on a prorated hourly basis.
4. Minimum call out for hourly equipment is four hours per day for local projects and eight hours per day for projects over 50 miles from mobilization site. Minimum charge for daily rate equipment is daily charge per day. Customers will be charged for unused requested equipment until released and returned to service per Note 3.
5. Mileage charges are $.50 per mile for cars, $.65 per mile for trucks/vans and $.85 per mile for commercial trucks.
6. Equipment not on price list will be charged per quote. Unless otherwise quoted, services not listed on price list, including equipment and freight, will be charged at cost plus 20%.
7. In addition to payment of rental charges, Customer agrees to pay National Response Corporation, in accordance with rates contained in this Price List, for any cleaning or repairs necessary to return all equipment to the same condition as at the commencement of services (with the exception of normal wear and tear). Customer is also responsible for the payment of all transportation and disposal charges for any waste generated during cleaning. Only National Response Corporation or its subcontractors shall perform any cleaning and decontamination operations on all equipment owned, rented or subcontracted by National Response Corporation. In the event National Response Corporation determines that equipment cannot be returned to the condition it was in at the commencement of the services, Customer shall pay for all costs at cost plus 20%, including freight and other expenses incurred by National Response Corporation to replace this equipment. All boom, whether new or used, that is damaged beyond repair shall be replaced by National Response Corporation with new boom at Customer's expense at cost plus 20%, including freight and other expenses.

MATERIALS AND SUPPLIES

	DESCRIPTION	UNIT	RATE
BAGS/SHEETING	Bulk Bag, 1 yard	Each	42.00
	Plastic Bag, 30" x 40", 50/Box	Box	50.00
	Plastic Bag, 33" x 50", 50/Box	Box	55.00
	Plastic Bag, 36" x 60", 6 mil 50/Roll	Roll	72.00
	Plastic Bag, 38" x 60", 50/Box	Box	92.50
	Roll Off Box Liner	Each	35.00
	Sheeting, 12' x 100', 6 mil	Roll	48.00
	Sheeting, 20' x 100', 10 mil	Roll	115.00
	Sheeting, 20' x 100', 6 mil	Roll	78.00
	Sheeting, 32' x 100', 6 mil	Roll	115.00
CLEANERS	Cleaner, Hand	Gallon	10.00
	Cleaner, Marine (Big Orange, Simple Green, etc.)	Gallon	20.00
	Decon Solvent, 55 gallon Drum	Each	1,950.00
	Decon Solvent, per 5 gallon Bucket	Each	180.00
DRUMS	5 Gallon, Bucket, poly w/ lid	Each	15.00
	10 Gallon Open Top	Each	33.00
	20 Gallon Open Top	Each	35.00
	30 Gallon Open Top	Each	40.00
	55 Gallon, Open Top, heavy gauge	Each	49.40
	55 Gallon, Close Top	Each	40.00
	55 Gallon, Open Top	Each	45.00
	55 Gallon, poly	Each	69.00
	85 Gallon, Overpack, unlined, black	Each	135.00
	85 Gallon, Overpack, lined, yellow	Each	185.00
	95 Gallon, Overpack, poly	Each	200.00
	300 Gallon, Liquid Tote, DOT approved	Each	210.00
SAFETY	Acid Suit, 1 Piece	Each	90.00
	Boot, Steel Toed, PVC/Nitrile	Pair	28.00
	Chemrel Max Suit	Each	75.00
	Chemrel Suit	Each	45.00
	Drager Test Tubes (Benzene/Hydrocarbons/H_2S)	Each	15.00
	Glove, Brown Jersey	Pair	3.00
	Glove, heavy, PVC, green	Pair	9.00
	Glove, inner, cotton	Pair	2.00
	Glove, inner, latex	Pair	1.00
	Glove, inner, Solvex	Pair	2.00
	Glove, latex, exam	Pair	1.00
	Glove, Nitrile, PVC, 14"	Pair	6.00
	Glove, rubber	Pair	3.00
	Glove, rubber, black, heavy duty	Pair	8.00
	Glove, Silver Shield	Pair	4.50
	Hard Hat	Each	21.00
	Overboot, disposable	Pair	6.00
	Protective Gear Level A	Each	See Note 3
	Protective Gear Level B	Each	See Note 3
	Protective Gear Level C	Each/Change	85.00/35.00
	Protective Gear Level D	Each/Change	35.00/35.00
	Rain gear, 2 piece	Set	20.00
	Respirator, Cartridge	Each	17.00
	Respirator, disposable half-face	Each	25.00

	Safety Glasses	Each	6.75

	DESCRIPTION	UNIT	RATE
SAFETY (Cont.)	Safety Goggles	Each	7.25
	Tyvek Suit, coated, Saranex	Each	30.00
	Tyvek Suit, disposable	Each	10.00
	Tyvek Suit, Poly Coated, Durafab	Each	13.00
SORBENTS	Absorbent, Chemical Stabilizer, 35 lb.	Bag	130.00
	Absorbent, Absorb X	Bag	17.50
	Floor Dry 50# bag	Bag	10.50
	Neutralizer, (Citric Acid, Soda Ash or Bicarbonate)	Bag	50.00
	Oil Snare on Rope, 50 ft./Bag	Bag	78.00
	Oil Snare, 30/Carton	Carton	58.00
	Pillows 5" x 14" x 25", 10/Bale	Bale	80.00
	Rubberizer Boom, 60 ft., 1.5" diameter	Each	130.00
	Sorbent Boom 5" x 10', 4/Bale	Bale	100.00
	Sorbent Boom 8" x 10', 4/Bale	Bale	185.00
	Sorbent Roll 38" x 144' x 3/8"	Roll	135.00
	Sorbent Roll, SXT 638, 38" x 144' x 3/8"	Roll	175.00
	Sorbent Sheet 17" x 19" x 3/8", 100/Bale	Bale	75.00
	Sorbent Sheet 17" x 19"x 3/16", 200/Bale	Bale	60.00
	Sorbent Sheet 34" x 38" x 3/8", 50/Bale	Bale	80.00
	Sorbent Sweep 17" x 100' x 3/8"	Each	130.00
	Vermiculite, 6 cu. ft./bag	Bag	28.00
MISCELLANEOUS	Banner Tape, 3" x 1000' roll	Roll	20.00
	Cotton Rags, 50 lb.	Bale	75.00
	Decon Pool, Small Personnel	Each	20.00
	Disposable Camera	Each	15.00
	Duct Tape, 2"	Roll	8.00
	HazCat Kit	Day	75.00
	HazCat Kit (each fingerprint)	Per Test	25.00
	Mercury Meter Bags (cloth only)	Each	135.00
	Petro Flag Test Kit	Per Test	35.00
	Pogo Pump	Each	25.00
	Poly Rope, 600', up to 3/8"	Roll	90.00
	Spilfyter Strips	Each	10.00
	Sprayer, Hand Held (Hudson), 3 gal.	Each	77.50
	Triwall Box, cubic yard, DOT approved	Each	125.00

Notes:

1. All materials utilized, whether listed in daily reports or not, are chargeable. All materials not listed on price list, including Wildlife Trailer supplies and expendables and third-party invoices for services, charged at cost plus 20%.
2. Disposal quotes for waste based on meeting approved profiles. National Response Corporation will assist Customer with disposal plan and provide price quotes, but Customer must designate disposal facility. National Response Corporation will not take title to any wastes: dangerous, hazardous or non-hazardous
3. Protective gear category descriptions:

   Level D: Steel Toe Boots, Safety Glasses, Hard Hat

   Level C: Steel Toe Boots, Safety Glasses, Hard Hat, Disposable Tyvek, Respirator (excluding cartridges)

   Level B: Quoted per Price List with appropriate Protective Clothing and SCBA (air system not included)

   Level A: Quoted per Price List for specific project requests and requirements

Agreement Number: 05-ER-45-064-ORG

EXHIBIT C – CERTIFICATE OF INSURANCE

This page shall serve as a dummy page placed into the Contract Documents in the order listed in **Section 2.1**of the Agreement to be replaced by the insurer's ACORD Standard Form. The kinds and amounts of insurance coverage hereunder shall be in accordance with **Section 5.0** of the Agreement.

Agreement Number: 05-ER-45-064-ORG

EXHIBIT D – UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Agency	(74CS) EPA74C-R-95-CC1	51C1 April 1995

EPA Title III

List of Lists

Consolidated List Of Chemicals Subject To The Emergency Planning And Community Right-To-Know Act (EPCRA) And Section 112(R) Of The Clean Air Act, As Amended

Title III Of The Superfund Amendments, And Reauthorization Act Of 1986, And Title III Of The Clean Air Act Amendments Of 1990

- EPCRA Section 302 Extremely Hazardous Substances
- CERCLA Hazardous Substances
- EPCRA Section 313 Toxic Chemicals
- CAA 112(R) Regulated Chemicals For Accidental Release Prevention

It shall be contractor's responsibility to obtain this publication in its entirety and to abide by its provisions during the performance of any work hereunder.

INFORMATION SOURCES

r Additional Copies Of This Or Other Title III Documents, Send Requests To:

EPCRA Document Distribution Center
Attention: NCIPI
11029 Kenwood Road
Cincinnati, Ohio 45412

efer To Document Number EPA 740-R-95-001 For Additional Copies Of This Document.

A Dbase Version Of This Consolidated List Is Available On Disk From:

National Technical Information Services (NTIS)
5285 Port Royal Road
Springfield, Virginia 22161
Refer To PB95 503165
Phone 703-487-4600

efer To PB95 503165

A dbase version of this consolidated list is available to be downloaded on the internet through the EPA public access gopher server. The internet address is gopher.epa.gov, or it can be accessed through dial-in access (919) 558-0335. The file can be found by following these menu options

EPA Offices And Regions
Office Of Solid Waste And Emergency Response
Oswer Publications
Title III List Of Lists

There is also an accompanying descriptive record called a "metadata record" which describes how to use the dbase file.

Question (s) concerning changes to the list or other aspects of TITLE III of both SARA and the CAA amendments, section 112®, may be submitted in writing to:

Emergency Planning And Community Right-To-Know Information Hotline
U.S. Environmental Protection Agency (5101)
401 M. Street SW
Washington, DC 20460

Alternatively, you may call the hotline a 800-424-9346 or 703-412-9810 between the hours of 8:30 am and 7:30 pm eastern time

Agreement Number: 05-ER-45-064-ORG

EXHIBIT E – PROJECT SCOPE CHANGE ORDER

Consultant or Contractor:	**Consultant/Contractor** **Mailing Address** **City, State Zipcode** Attention: **Designated Representative** Phone #: FAX #:	Date:	
		Amendment (CO) #:	**CO-0X**
		Agreement #:	**XX-XX-XX-XXX-ORG**
		Work Directive #:	**XX-XXXX**
		Work Order/ Account Coding:	**XXXXXX**

Original Project Name & Location:	Original Project Name & Location	
Project Description and $ Value:	Original Project/Services	$0.00
Scope Change & $ Value:	**Scope of Work Change**	**$0.00**
Reason for Change:		Total Contract or Work Directive Value: **$ 0.00**

Start of Scope Change Date:		**Implementation / In-Service Date:**	

Basis Of Payment	Work Order	Expense (RC)	Estimated	Actual
	☐ Lump Sum	☐ Lump Sum	0.00	0.00
	☐ Other (T&M)	☐ Other (T&M)	0.00	0.00
	☐ Force Account	☐ Force Account	0.00	0.00
		Total $ Value (Services):	**$ 0.00**	**$ 0.00**
Materials Provided By:			Estimated	Actual
		☐ Company	0.00	0.00
		☐ Consultant/Contractor	0.00	0.00
		Total $ Value (Materials):	**$ 0.00**	**$ 0.00**

Impact to Other KM Projects:	
Reference Drawings:	

Work Requested by:
☐ COMPANY
☐ CONSULTANT

Work Completed:

Accepted By _____ Date Accepted _____

Contractor shall submit invoices in duplicate to: Representative's Company Name, 1100 Town & Country Road, Orange, California 92868
Attn.: **KM Company Representative** Phone: **KM REP Phone** Fax: **KM REP Fax**

Invoices must clearly indicate the Agreement Number Error! Reference source not found., Work Directive Number **XX-XXXX**, Work Order Number / Account Coding **XXXXXX**, and Change Order Number **CO-0X** indicated above.

By signing below, each party affirms that he/she has the authority to commit the modifications hereunder, and that this Project Scope Change Order Number **CO-0X**, is by reference hereby made part of Agreement Number Error! Reference source not found. / (work directive number) **XXXXXX** as Amendment Number **0X**.

Authorized Representative Signature:

Right Click To Select KM Signature Blocks	**Consultant/Contractor**
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____
NAME (Please Print) _____	NAME (Please Print) _____
TITE (Please Print) _____	NAME (Please Print) _____

Distribution: Originals: ☒ **Consultant/Contractor (1)** ☒ **Contracts Administration (1) W/Attachments**
Copies:

Attachments: ☐ OQ Task List ☐ Successful Bid ☐ Bid Exception Approval ☐ Drawings ☐ Specifications/Standards ☐ Other *Specify*

Please return executed Original Change Order to: Kinder Morgan Energy Partners, L.P., 1100 Town & Country Road, Orange, CA 92868
ATTENTION: CONTRACTS ADMINISTRATION

Agreement Number: 05-ER-45-064-ORG

EXHIBIT F – DRUG & ALCOHOL/OPERATOR QUALIFICATION PROGRAM REQUIREMENTS

INTENTIONALLY OMITTED

Agreement Number: 05-ER-45-064-ORG

EXHIBIT G – KINDER MORGAN CONTRACTOR SAFETY RULES & REGULATIONS

Issued: 8-16-1995
Revised: 01--2005

KINDER MORGAN

CONTRACTOR SAFETY MANUAL

This document is intended to provide all contractors, including inspectors, sub-contractors and contract employees with the essential safety, health and environmental standards required to successfully complete tasks while working on and/or adjacent to Kinder Morgan job sites.

All contractor employees and inspectors are required to read and sign the applicable **Contractor Employee Safety Training Document** (ATTACHMENT 01) upon completion of the pre-job briefing and site orientation prior to the start of any work activity at Kinder Morgan facilities and/or projects.

Thank you for your continued commitment to and implementation of our cooperative Contractor Safety Program.
Your continued safety

IS OUR PRIMARY GOAL!

CONTRACTOR SAFETY RULES AND REGULATIONS

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INTRODUCTION

Contractors are required to comply with all applicable Federal, State and local safety, health, and environmental regulations including all site specific Kinder Morgan policies applicable to work scope. All Contractors must have and adhere to their own Health and Safety Plan. The guidelines presented in this document are not an exhaustive list of all applicable requirements and regulations for the Contractor to conduct work for Kinder Morgan. Instead, these guidelines highlight certain Kinder Morgan standards that may be applicable for the Contractor's scope of work for Kinder Morgan.

It is essential that these rules and safety responsibilities are understood before starting work on Kinder Morgan property and/or project. Violating safety standards could jeopardize the welfare of the Contractor and/or Kinder Morgan employees and could result in expulsion from Kinder Morgan property and/or project and deny the Contractor the opportunity to be considered for future Kinder Morgan work projects.

If these standards are not clearly understood, or if safety problems arise which are not covered by these standards, contact the company EHS representative before proceeding. This company representative will be designated at the pre-job meeting along with contact information.

All Contractors shall provide direct supervision of their employees. Contractors or subcontractors shall not be supervised by Kinder Morgan management or personnel.

All Contractors are required to have, and make available for Kinder Morgan's review, written compliance programs which address specific work related activities such as confined space entry and safe excavation plans. Providing written Health and Safety programs to Kinder Morgan does not constitute an express or implied approval of such programs by Kinder Morgan management.

Additional information specific to Contractor Safety may be accessed through the web site www.kindermorgan.com under "Work with KM". This web site allows access to the various forms available to achieve documentation requirements such as the Contractor Injury/Accident Report, etc.

1.0 DEFINITIONS

1.1 **ACCIDENT/INCIDENT INVESTIGATION**: An accident/incident investigation is an analysis of the factual information gathered by a thorough and conscientious examination of all factors involved. It is an objective evaluation of all facts, opinions, statements, and related information to determine the cause, as well as definite action steps to be taken to prevent reoccurrence.

1.2 **CARRIER ACCESS AGREEMENT**: A facility access agreement specifically developed for truck drivers and their employers (where applicable).

1.3 **CONFINED SPACE**: An area which has, by design, limited openings for entry and exit, unfavorable natural ventilation that could contain or produce dangerous levels of air contaminants, and which is not intended for continuous human occupancy.

1.3.1 Various recognized confined space areas on Kinder Morgan property fall under the OSHA definition of "Permit Required Confined Space". Kinder Morgan may choose to treat all confined space areas as "Permit Required Confined Spaces", depending on the type of work to be performed within the space.

1.4 **CONTRACTOR**: Any person contracted to perform short or long-term work for Kinder Morgan. With respect to this policy, references to "contractor" shall also include subcontractors and third party contractors, inspectors (e.g. customer contract personnel, and other contract personnel that may have an effect on facility safety).

1.5 **FIRE WATCH**: An individual who has been designated for monitoring the hot work site where open flames are present, where work on in-service equipment is being performed, or where sparks have the potential for landing on adjacent, in-service equipment. This individual is capable of evaluating unsafe conditions and who is capable of initiating emergency action in the event of a fire. Fire watch can have "no other assigned duties while conducting this task".

1.6 **HOT WORK**: Any work that involves the use of open flames or other sources of ignition.

1.7 **INSPECTORS/KINDER MORGAN REPRESENTATIVE**: Any person contracted or assigned to perform short or long-term work place inspections for Kinder Morgan. References to "inspector" in these guidelines shall also include company and third party contract inspectors.

1.8 **KINDER MORGAN PROPERTY**: Any Kinder Morgan Property and/or job site which may include terminals, facilities, stations, roads, parking lots, pipeline right-of-ways, common areas, compressor/pump station, offices, etc.

1.9 **WORK PERMIT**: A daily written authorization that describes the scope of the work to be completed, describes where and when the work is to be completed, special precautions, personal protective equipment required, and emergency information. To be valid, the permit must be signed by the designated permit issuer and it shall indicate the date and time of expiration.

2.0 GENERAL REQUIREMENTS

2.1 All contractors are required to participate in Kinder Morgan's Contractor Safety Evaluation Program. Each contractor will be required to complete a Standardized Contractor Questionnaire-Verified (SCQ-V) provided by ISN Software Corporation. The information shall be completed on ISN's online compliance database, ISNetworld. Based on safety performance and training, each contractor will be evaluated and placed on a "contractor" list if appropriate.

ISN Software Corporation

(214) 303-1303

www.isnetworld.com

2.2 Kinder Morgan will evaluate safety performance of contractors as the job progresses. At a minimum, this shall include periodic job site reviews.

2.3 Kinder Morgan has the right to review each contractor's safety data and supporting documentation submitted on the Standardized Contractor Questionnaire – Verified (SCQ-V).

2.4 Kinder Morgan reserves the right to request copies of all applicable procedures, plans and documentation specific to training, inspections, permitting and accident/injury reporting.

2.5 After the project is awarded, the contractor's employees must participate in the contractor employee orientation program consisting of the following elements:

2.5.1 Safety Orientation

2.5.1.1 Prior to beginning any work the Kinder Morgan Company job representative(s) and the General Contractor's representative(s) along with any applicable operations personnel and EHS staff shall conduct a pre-job meeting covering this contractor safety manual and any site specific procedures.

2.5.1.2 The contractor shall ensure all contractor employees and sub-contractors receive a safety orientation. This can be accomplished by viewing the "Contractor Safety Video" and reviewing all applicable requirements outlined in the contractor safety manual based on the scope of work, along with a review of any site specific procedures, emergency action plans and special circumstances associated with the project and/or site.

2.5.1.3 All Contractor employee orientations shall be documented with the content of the orientation on the Contractor Pre-Job Orientation Report CSM-003 (or equivalent form). Each Contractor employee shall sign the Contractor Employee Safety Summary Document (or equivalent form) to verify full

understanding of the covered topics. A copy of the completed form shall be provided to the Kinder Morgan job representative. Where applicable contractor employees shall be issued the current "contractor safety orientation" sticker for their hard hats.

2.5.1.4 The site specific orientation may include a review of procedures, restricted areas, security, hazards that contract personnel may encounter, warning signs, evacuation routes, other emergency procedures, rendezvous areas, emergency systems such as eye washes, safety showers, and contractor access ways and parking requirements.

2.5.1.5 All Contractor employees/visitors must sign in/out each time they enter/leave Kinder Morgan property.

2.6 Visitors shall not be granted entry without prior permission from Kinder Morgan site personnel.

2.7 All communication equipment used by Contractor's employees (radios, phones, computers, beepers) must be determined to be intrinsically safe where appropriate. No cell phones or pagers will be allowed in an area where a Hazardous Atmosphere may exist, unless a Hot Work Permit has been completed - no exceptions.

2.8 Pets are not allowed on Kinder Morgan property.

3.0 GENERAL INSURANCE REQUIREMENTS

3.1 All contractors shall have insurance that complies with Kinder Morgan Contract Administration Department and Procurement requirements. All changes in coverage of Contractor's insurance policies must be approved by the Kinder Morgan Corporate Contract Administrator.

4.0 ACCIDENT / INJURY REPORTING (29 CFR 1904)

4.1 The Contractors shall immediately report all accidents, spills, injuries, and near misses to the Kinder Morgan representative and the company EHS representative.

4.2 Contractors and inspectors are required to investigate and document all contractor incidents within 48hrs, use form CSM-OO1 or equivalent for proper documentation. This includes major property damage incidents, injuries, fires, and significant near misses. These reports shall be forwarded to the company EHS representative for review. Kinder Morgan may conduct investigations of any or all contractor incidents occurring on-site.

4.3 Contractors shall maintain a separate OSHA 300 log for their respective employees. Contractors may also be required to supply on a bi-weekly basis a safety and environmental performance report outlining any accidents, spills, injuries, and near misses that have occurred on the project.

4.4 The following are minimum first aid requirements for construction contract companies working at Kinder Morgan facilities:

4.4.1 First Aid Trained Personnel: Contractor shall have personnel trained and immediately available to provide first aid treatment at the job site. All trained personnel must possess a current (First Aid) certificate.

4.4.2 First Aid Kit: Each Contractor must supply each job site with a first aid kit appropriate for potential exposures and number of employees at the job site.

4.4.3 Emergency Procedures: Each Contractor must post a copy of the company's emergency medical procedures at the job site or have a copy immediately available, at all times, to each employee The procedure must include:

4.4.3.1 The name of the hospital or emergency care center where employees are to be transported for treatment of non life-threatening injuries.

4.4.3.2 Travel route to the hospital or emergency care center and emergency telephone numbers.

4.4.3.3 The statement "IN CASE OF SERIOUS INJURY CALL 911" (or a specified emergency number).

5.0 ASBESTOS (29 CFR 1926.1101 and1910.1001)

5.1 The likelihood of encountering asbestos-containing material while conducting maintenance on equipment in our facilities exists. It is the responsibility of the contractor to test for its existence prior to conducting work. All Contractors who perform any type of work where there is exposure to asbestos as well as maintenance or repair operations where there is exposure to asbestos shall comply with 29 CFR 1926.1101 & 1910.1001 as it relates to their particular scope of work. All Contractors are required to have a written Compliance Program that meets the minimum content requirements specified in 29 CFR 1926.1101 and 1910.1001. Training records and certificates shall be documented and maintained by the Contractor.

6.0 CONFINED SPACE ENTRY (29 CFR 1910.146)

6.1 All Contractors who perform any type of Confined Space Work, as it relates to their particular scope of work, shall comply with OSHA Standard 29 CFR 1910.146. All Contractors are required to have a written Confined Space Entry Program regardless of industry SIC designation (29 CFR 1910.146 (h)(9)(iii)). Contractor's written program must meet the minimum requirements of 29 CFR 1910.146(c)(4) and any applicable state and local Confined Space Entry regulations and requirements. Training records and certificates shall be documented and maintained by the Contractor.

7.0 CONTROL OF ALCOHOL, ILLEGAL DRUGS AND FIREARMS

7.1 The possession of firearms or other perceived dangerous weapons while on ANY Kinder Morgan property is strictly prohibited.

7.2 The use, sale, purchase, transfer, or possession of alcohol or any illegal drugs while on Kinder Morgan property is strictly prohibited.

7.3 Based on business unit or DOT requirements the Contractor and its subcontractors shall establish and maintain acceptable Anti-drug and Alcohol Misuse Programs. Acceptable means the Contractor has demonstrated to Kinder Morgan's satisfaction that the programs are conducted in accordance with the requirements of 49 CFR Parts 40 and 199. Such programs shall be reviewed and approved by National Compliance Management Systems (NCMS) before the Contractor or subcontractor is allowed to perform work that Kinder Morgan deems "Safety Sensitive". Positions that Kinder Morgan classifies as Safety Sensitive under 49 CFR Parts 40 and 199 must be included in an approved Anti-drug Plan and an Alcohol Misuse Plan.

7.4 If applicable National Compliance Management Systems (NCMS) shall evaluate the Contractor's drug/alcohol programs. Based on the above-mentioned drug testing requirements, if the contractor is required to have a drug/alcohol program. The plan shall be submitted to NCMS for evaluation and approval by Kinder Morgan.

National Compliance Management Systems

1-800-294-8758

www.nationalcompliance.com

8.0 ELECTRICAL SAFETY (29 CFR 1910 Subpart S and 1926 Subpart K)

8.1 Contractor shall be responsible for implementing all electrical safety requirements in accordance with 29 CFR 1910 Subpart S and 1926 Subpart K.

8.2 Prior to conducting operations near overhead power lines contractor shall contact the local utility company for specific requirements, and at a minimum, meet the following applicable guidelines:

- National Electric Safety Code - NESC
- National Association of Corrosion Engineers - NACE - Standard RP-01-77
- Occupational Safety and Health Administration - OSHA
- Federal, State, and Local requirements
- US D.O.T. Pipeline Safety Regulations - Parts 192 and 195 as applicable

8.3 Contractor shall identify all overhead power lines with signage where appropriate. When it is determined that electrical lines may be affected, the Contractor must take steps to elevate, cover, or otherwise protect such cables from incidental contact. The Contractor must advise his employees of the location of any power lines, the hazards involved, and the protective measures to be taken.

8.4 In work areas where the exact locations of the underground electrical power lines are unknown, the Contractor must locate and clearly identify all such lines prior to beginning excavation. Power cable systems within the work area must be de-energized during excavation whenever there is doubt about cable location.

8.5 The Contractor must protect his/her employees from electric shock while using power tools, appliances, and related equipment. Contractor must install ground fault interrupters on all power outlets that will be used during construction and maintenance.

9.0 EMERGENCY/EVACUATION PROCEDURES (29 CFR 1910.38, 1926.35)

9.1 The contractor and all of their personnel shall familiarize themselves with the KM site specific emergency action plan, including where assembly areas/evacuation areas are, that they are to be accounted for, and that they are to follow the direction of KM personnel in the event of fire or hazardous materials release or when otherwise directed by Kinder Morgan personnel:

9.1.1.1 Shut-off all equipment if doing so does not present a risk of bodily injury.

9.1.1.2 Evacuate the area. In the event of a fire or other emergency incident, contract employees are to immediately evacuate the area by the safest available route. Normally, evacuation routes shall be as specified by Kinder Morgan personnel.

9.1.1.3 Confirm all Contractor's employees are accounted for.

9.1.1.4 All Contractor employees shall remain at the rendezvous location until directed otherwise by Kinder Morgan.

9.2 If any Contractor employee suspects that an emergency condition exists, they shall immediately contact Kinder Morgan personnel or local authorities (e.g. call 911 or the particular emergency number in your area).

10.0 EXCAVATIONS/TRENCHING/SHORING (29 CFR 1926.650-.652, Subpart P)

10.1 All excavation (trenching/shoring) projects shall comply with the latest requirements as outlined in 29 CFR 1926 Subpart P. The contractor shall develop and have available for review a Site Specific Safe Excavation Plan based on the project scope. This plan will outline the contractors plan for excavation requirements, such as trenching, sloping and or shielding for the particular project.

10.2 The contractor's competent person shall conduct daily excavation inspections prior to anyone entering an excavation and this documentation shall be present at each excavation and retained in job files. Use form CSM-002 or equivalent to document these inspections.

10.3 See the facility or business unit's site specific procedures for any additional requirements.

11.0 FALL PROTECTION (29 CFR 1910.66 & 1926.500-.503)

11.1 Fall protection devices shall be used whenever fall hazards exist. Contractors are required to have a written Fall Protection Compliance Program that meets the minimum content requirements specified in 29 CFR 1910.66 App C & 1926.500-.503. Training records and certificates shall be documented and maintained by the Contractor.

11.2 The contractor shall provide a competent person to oversee fall protection and compliance.

11.3 Contractors shall provide a "rescue plan" wherever personal fall arrest equipment is employed.

12.0 FIRE PREVENTION AND PROTECTION (29 CFR 1910 Subpart L and 1926 Subpart F)

12.1 Contractors shall be required to provide fire prevention protection in accordance with the latest requirements outlined in 29 CFR 1910 Subpart L and 1926 Subpart F or any environmental regulatory requirements. Fire extinguishers shall be used only for the control of incipient stage fires.

12.2 Smoking is allowed only in designated areas. At some locations, there may be no designated areas. "Strike Anywhere" matches or uncovered and trigger-type lighters are not allowed within Kinder Morgan property.

13.0 HAZARD ASSESSMENTS - Task Analysis System

13.1 The contractor shall utilize a Task Analysis System daily, (e.g. Job Safety Analysis (JSA) to identify any Critical Tasks), based on the daily job scope and develop controls for any potential hazards. These controls shall be documented and utilized on a daily basis. The contractor shall communicate any controls required to the KM onsite representatives for review. In addition, the Contractor shall conduct pre-placement qualification checks for critical job tasks to ensure employees match up with the task requirements.

14.0 HAZARDOUS ENERGY CONTROL (LOCKOUT/TAGOUT) (29 CFR 1910.147 & 1926.417, & 1926.702)

14.1 Hazardous energy control procedures shall follow applicable guidelines as outlined in 29 CFR 1910.147. The Contractor's key individual responsible for Lockout/Tagout shall be identified to Kinder Morgan company personnel and/or KM Representative. All Lockout/Tagout must be coordinated with KM company personnel prior to the Contractor working in an area of hazardous or stored energy.

15.0 HOT WORK PERMITS (29 CFR 1910.252)

15.1 Hot Work Permit is required PRIOR to the start of any hot work and/or work that creates a source of ignition. Hot Work permits MUST be coordinated with Kinder Morgan management or designee prior to commencing any Hot Work. Contractors performing hot work shall be responsible for the safe execution of assigned tasks. If an unsafe condition (or potentially unsafe

condition) arises, work shall be stopped and the condition reported to Kinder Morgan management.

15.2 Work involving open flames or other sources of ignition on the exterior of tanks, pipelines, and other structures that contain flammable, combustible liquids, or any other hazardous atmosphere presents a wide variety of potential hazards. Adequate knowledge of the work to be performed is essential. Proper safeguards shall be established to guard against unsuspected changes in the situation that may alter the working conditions.

15.2.1 Hot work intended for "in-service" equipment shall follow procedures set forth for all hot work activities. Special precautions shall be identified in the hot work permit.

15.2.2 Persons welding and cutting shall be qualified in accordance with applicable codes and shall be thoroughly familiar with potential hazards of the operation and precautions necessary to ensure safety.

16.0 HYDROGEN SULFIDE (H2S)

16.1 All personnel working in an H2S environment shall have certificates to verify they have been properly trained and are proficient in the use of emergency air packs. All personnel working in an H2S environment shall be required to be clean-shaven in a manner consistent with accepted practices governing SCBA use with H2S gas.

17.0 IDENTIFICATION OF HAZARDOUS MATERIALS (29 CFR 1910.1200 & 1926.59)

17.1 Kinder Morgan shall inform the Contractor of known hazardous material(s) that may be present, how and where to locate material safety data sheets (MSDS) and any PPE requirements. Contractors are required to maintain copies of MSDS for any and all contractor-supplied materials requiring special handling on the job site. Each Contractor or sub-contactor is required to provide Kinder Morgan a copy of MSDS for all chemicals brought on site. Each Contractor or sub-contactor shall implement a Hazard Communication Program and document employee training.

17.2 All Contractor personnel who are likely to encounter or be exposed to hazardous materials as identified by DOT, shall be trained in hazardous material/waste handling per OSHA 1910.1200.

18.0 LEAD IN CONSTRUCTION (29 CFR 1926.62 and 1910.1025)

18.1 The likelihood of encountering lead while conducting maintenance on equipment in our facilities exists. It is the responsibility of the contractor to test for its existence prior to conducting work. All Contractors who perform any type of work where there is exposure to lead (excluding tetraethyl lead) as well as maintenance or repair operations where there is exposure to lead shall comply with 29 CFR 1926.62 and 1910.1025. Lead Exposure in Construction as it relates to their particular scope of work. All Contractors are required to have a written Compliance Program that meets the minimum content requirements specified in 29 CFR 1926.62 and 1910.1025. Training records and certificates shall be documented and maintained by the Contractor.

19.0 OPERATOR QUALIFICATION (OQ)

19.1 Contractors who perform Kinder Morgan defined covered tasks must be qualified to perform such tasks or be directly observed performing such covered tasks by a qualified individual. Workers or observers shall provide documentation of qualifications. (The contractor will supply this documentation from the ISNetworld database)

19.2 Contractor programs to train and qualify their employees to perform covered tasks must be reviewed and approved by Kinder Morgan's Operator Qualification Administrator prior to performing contracted covered tasks.

19.3 Contractors must supply a daily roster of qualified covered task workers to a Kinder Morgan representative unless the roster of covered task workers does not change from day to day during the project.

20.0 PERMIT TO BEGIN WORK

20.1 The Contractor is responsible for obtaining all appropriate agency required permits and or other notifications PRIOR to the start of work, unless otherwise obtained by Kinder Morgan. This includes "One Call" or excavation notices within required timelines.

20.2 Where applicable Kinder Morgan may require the Contractor to obtain general or safe work permits, on a daily basis, from facility management or a Kinder Morgan representative PRIOR to the start of work. The permits shall identify work to be completed, additional permits that may be required, potential hazards, and safety measures to be followed. Additional permits that may be required are discussed in the following two sections.

21.0 PERSONAL PROTECTIVE EQUIPMENT (29 CFR 1910 Subpart I)

21.1 Hazard Assessment - Proper Personal Protective Equipment (PPE) shall be determined by one of two methods:

21.1.1 The Contractor shall conduct a daily Job Safety Analysis (JSA), of the current work assignment area and confirm the existence of safe working conditions for its employees. The Contractor shall provide and insure proper use of personal protective equipment to its employees PRIOR to beginning work as required. The daily JSA, shall determine the minimum applicable PPE requirements and then those requirements shall be documented. The Contractor shall provide and insure proper use of personal protective equipment to its employees PRIOR to beginning work as required.

21.2 All personal protective equipment shall comply with the applicable standards specified for that equipment.

21.3 Kinder Morgan shall not supply any Personal Protective Equipment.

21.4 PPE Equipment includes but is not limited to:

21.4.1 Eye and Face Protection (29 CFR 1910.133 & 1926.102). Eye protection equipment shall comply with the latest revision of ANSI Z87.1.

21.4.2 Head Protection (29 CFR 1910.135 & 1926.100) – (HARDHATS). Head protection shall comply with the latest revision of ANSI Z89.1

21.4.3 Foot Protection (29 CFR 1910.136 & 1926.96). Foot protection shall comply with the latest revision of ANSI Z41. Open-toe footwear is prohibited

21.4.4 Hearing Protection (29 CFR 1910.95 & 1926.52). Hearing protection shall be worn in areas that have been identified or where there is a potential for exposure to high sound levels (in excess of 85 dB).

21.4.5 Hand Protection (29 CFR 1910.138). Gloves must be worn where appropriate for the performance of the work.

22.0 PROCESS SAFETY MANAGEMENT (PSM) (29 CFR 1910.119 & 1926.450-454)

22.1 Contractors who perform work in a facility that is under the jurisdiction of OSHA 29 CFR 1910.119, Process Safety Management, shall comply with all applicable requirements of 1910.119 in addition to the general requirements that may be specified by the scope of work.

23.0 RESPIRATORY PROTECTION (29 CFR 1910.134 & 1926.103)

23.1 Where applicable, all Contractors must follow an approved written program relating to respirator use during work activities. The Contractor's written respiratory protection program, training records and certificates, medical clearance to use respiratory protective equipment, and fit test records shall be documented and maintained by the Contractor.

24.0 RADIATION PRODUCING EQUIPMENT

24.1 Radiation Producing Equipment: Only properly trained, qualified personnel shall be allowed to use radiation producing equipment or materials at Kinder Morgan facilities. The Contractor shall maintain records of all training and qualifications.

24.2 When radiographic equipment is used, the Contractor shall ensure that the area is clear and that all personnel are at a safe distance from the radiation source. Radiation warning devices and signs containing the internationally recognized symbol for radiation must be placed around the perimeter of any area which may be affected by radiation. The contractor shall be in compliance with all State and Federal safety regulations dealing with radioactive materials. Only properly trained and qualified persons shall be allowed entrance to these restricted areas.

25.0 SCAFFOLDS AND LADDERS (29 CFR Part 1926 subpart L and 1910 Subpart D)

25.1 Scaffolds and ladders shall be installed and used in accordance with the latest requirements outlined under OSHA 29 CFR Part 1926 subpart L and 1910 Subpart D.

25.2 The contractor shall provide a competent person to oversee scaffold erection and use.

26.0 SECURITY REQUIREMENTS (FACILITY & CONTRACTOR)

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)

[redacted]

28.0 SPILL PREVENTION, CONTROL & COUNTERMEASURES PLAN (SPCC)

28.1 All contractors who meet the requirements for needing an SPCC plan such to address any applicable "oil" spills that may develop during the course of a construction project.

28.2 Spills resulting from routine Contractor activity shall be reported to Kinder Morgan immediately and clean-up in accordance with state and federal regulations. Including, but not limited to reporting release to appropriate agencies. Report all environmental incidents to a Kinder Morgan representative and the company EHS representative. Contractors and inspectors are required to investigate and document all contractor incidents within 48hrs, use form CSM-OO1 or equivalent for proper documentation. These types of spills include, but are not limited to:

28.2.1 Small quantities of hydraulic fluid, motor oil, and fuel spilled during equipment refueling operations.

28.2.2 For spills of large quantities of petroleum product, chemicals, or other hazardous materials release, see Identification of Hazardous Materials, Section 17.

29.0 TRAINING REQUIREMENTS

29.1 The Contractor is obligated to perform the requisite safety training of its personnel relative to the scope of the subject work activities. Training and documentation for the proper use and care of applicable safety equipment shall be provided by the Contractor.

29.2 Training shall be documented by the Contractor for each employee involved in the subject work activities. The documentation shall include each training topics discussed, content, attendees, dates, and the name(s) of instructors or persons presiding and date training was completed.

29.3 The Contractor shall conduct safety meetings to instruct their personnel in the recognition and avoidance of hazards in the work place.

29.4 Safety meetings shall be conducted at a frequency appropriate, in light of the safety characteristics of the assignment, but no less than once per week. Safety meetings shall focus on the quality and not the quantity of daily and weekly safety meetings to ensure all contract employees understand the subjects discussed during this meeting. Kinder Morgan Inspectors should sit in during these meetings to evaluate their value and improve communications.

30.0 VEHICLE/MOBILE EQUIPMENT POLICY (29 CFR 1926.600, 1926.601 & 1926.20)

30.1 Permission is required for vehicular entry into all Kinder Morgan facilities. Special permission above and beyond the previous requirement is needed for vehicles to enter restricted areas such as dike areas.

30.2 All persons shall be transported to the job site in a safe manner. Each passenger shall have adequate seating. Standing up in a moving vehicle is strictly prohibited. Riding in the back of a pick-up or similar truck that has not been equipped with adequate seating and riding as passenger on a forklift is also prohibited.

30.3 All posted speed limits and traffic regulating signs shall be observed. Persons shall only drive on designated roads or rights of way.

30.4 Reckless driving and horseplay are prohibited.

30.5 Only properly trained, qualified personnel shall be permitted to operate equipment or machinery. The Contractor shall keep records of training and qualifications on file. Contractors are prohibited from operating Kinder Morgan owned equipment or machinery, except under specific written authorization by Kinder Morgan management.

30.6 When operating vehicles and equipment, whether on or off-road, proper PPE and safety equipment shall be used (such as helmets for off-road vehicles). The Contractor shall be responsible for providing such PPE and safety equipment.

30.7 All cranes shall meet applicable Federal, State and local requirements.

30.8 Mobile hydraulic and boom cranes shall meet Federal, State and local requirements.

30.9 Forklifts and Forklift operators must follow all applicable OSHA 29 CFR 1917.43 and 1910.178 requirements for the safe operations of the forklift.

31.0 WATER/DOCK OPERATIONS (29 CFR 1917 & 1918)

31.1 Contractors who perform work on marine docks or who are at risk of falling into water must be protected from the fall or shall use USCG-approved, personal floatation devices.

32.0 WORK CLOTHING

32.1 Normal Work Attire: Sleeved shirts and long pants are required at all times. Sleeveless shirts, tank top-type shirts, or shirtless attire are not allowed. Where hazards exist due to moving parts on machinery or equipment, clothing shall be maintained to avoid entanglement.

32.2 Special Work Clothing: Appropriate work clothing shall be worn where exposure to fire, extreme heat or cold, corrosive chemicals, body impacts, cuts from handled materials or other specialized hazards are possible. See the facility or business unit's site specific procedures for any additional requirements.

33.0 WORKSITE SAFETY (29 CFR 1910.22)Error! Bookmark not defined.

33.1 It is the responsibility of each Contractor to inspect each work area at the beginning of each shift and periodically thereafter to ensure safe working conditions exist. Contractor must inform each of its affected employees of any concealed dangers or changes in work conditions and must comply with all applicable regulations.

33.2 The Contractor shall provide illumination bright enough for work to proceed without risking personal injury or affecting the quality of work. Where hazardous atmospheres may be present, the Contractor shall use intrinsically safe equipment (lighting, communications, and computers) where appropriate.

33.3 All tools shall be used, maintained and inspected in accordance with the latest requirements as outlined in OSHA 29 CFR 1926 Subpart I.

33.4 The Contractor shall clean their work areas following the end of each work shift. Debris shall be placed in appropriate containers and properly disposed. All tools and equipment remaining at the job site shall be properly stored.

33.5 The Contractor shall provide, on a daily basis, an adequate supply of fresh drinking water for its employees. Portable rest room facilities may be required to be provided and maintained by the Contractor.

33.6 Right-Of-Way/Road-Side Work

33.6.1 The Contractor must follow an approved written plan relating to vehicular traffic control during road side work activities. This plan will be in compliance with 29 C.F.R. 1926.201(a) and 29 C.F.R. § 1926.202. This plan will be available on site for review by a KM Representative.

33.6.2 Employees working in a public road right-of-way or otherwise exposed to vehicular traffic, shall be provided and instructed to wear warning vests marked with or made of reflective or highly visible material.

33.6.3 Barricades, cones, flashers and warning signs shall be placed at strategic locations when working on or near roads and other areas where vehicular traffic may be a hazard. Signs and flashers must meet the requirements of applicable local and state traffic authorities.

ATTACHMENT NO. 01 – CONTRACTOR EMPLOYEE SAFETY TRAINING DOCUMENT

I have received instruction from my company regarding the Kinder Morgan Contractor Safety Program requirements. I shall conduct myself in a safe manner at all times while on Kinder Morgan property and shall comply with the Kinder Morgan Contractor Safety Manual/Site-specific rules. I understand and agree to comply with all requirements of this program.

Print Name	Signature	Date

Agreement Number: 05-ER-45-064-ORG

EXHIBIT H – PARENT GUARANTY

National Response Corporation
3500 Sunrise Highway
Great River, New York 11739

Gentlemen:

To induce National Response Corporation ("NRC") to enter into that certain Agreement for Professional Emergency Environmental Response Services between you and Kinder Morgan Operating L.P. "D" dated as of June 1, 2005 (the "Agreement"), the undersigned ("Guarantor") hereby unconditionally guarantees the punctual payment when due of (i) all obligations of Kinder Morgan Operating L.P. "D" and any of its affiliates and subsidiaries executing work directive(s) under the Agreement (Kinder Morgan Operating L.P. "D" and such affiliates and subsidiaries collectively and individually being referred to herein as "Kinder Morgan") to NRC now or hereafter existing from time to time in respect of Work (as defined in the Agreement) performed pursuant to the Agreement (the "Obligations"), as limited below; (ii) interest, if any, on such Obligations; and (iii) any and all reasonable expenses incurred by NRC in enforcing its rights under this Guaranty (including reasonable attorneys' fees and disbursements, court costs, and reasonable collection charges); provided, however, such fees and expenses shall be payable by Guarantor only to the extent that NRC is successful in enforcing payment of the Obligations pursuant to this Guaranty. This Guaranty is a guaranty of payment, and not of collection.

The liability of the undersigned under this Guaranty shall be unconditional irrespective of any and all circumstances which might otherwise constitute a defense available to, or a discharge of, Kinder Morgan or a guarantor, including without limitation (i) any lack of enforceability of any Obligation, (ii) any change of the time, manner, or place of payment, or any other term of any Obligation, (iii) any exchange, release or non-perfection of any collateral securing payment of any Obligation, (iv) any law, regulation or order of any jurisdiction affecting any term of any Obligation or your rights with respect thereto, and (v) any defense to liability under this Guaranty by virtue of any insolvency, bankruptcy, disability or lack of corporate power of Kinder Morgan or Guarantor, or lack of due authorization or execution by Guarantor.

The undersigned waives promptness, diligence, and notices with respect to any Obligation, notice of acceptance of this Guaranty, notice of obligations incurred under the Agreement and any action taken with regard thereto, and waives presentment, demand for payment, protest, notice of dishonor or non-payment of the Obligations, suit, or the taking of and failing to take other action by NRC against Kinder Morgan, Guarantor or others and any requirement that you exhaust any right or take any action against Kinder Morgan.

THIS GUARANTY SHALL BE GOVERNED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS (WITHOUT REGARD TO TEXAS STATUTES OR PRINCIPLES RELATING TO CONFLICTS OF LAWS) AND IS INTENDED TO BE PERFORMED IN ACCORDANCE WITH AND TO THE EXTENT PERMITTED BY SUCH LAWS.

This is a continuing guaranty and shall remain in full force and effect until the earlier of (i) December 31, 2008; or (ii) thirty (30) days after written notice is received by you from the undersigned that this Guaranty has been revoked, but (a) any notice shall not release the undersigned from any liability as to any Obligation existing at the time of receipt of such notice, and (b) if at the time that this Guaranty would expire or terminate by its terms, there is an open Work Directive in progress pursuant to the Agreement, then this Guaranty shall be automatically extended for ninety (90) days.

The liability of the undersigned under this Guaranty with respect to the aggregate principal amount of Obligations shall not exceed the lesser of the principal amount of Obligations outstanding from time to time or **US$8,000,000.00.**

Guarantor shall have no right to assert, enforce otherwise exercise any right of subrogation to any of the rights, security interests, claims or liens which NRC has in respect of the Obligations of Kinder Morgan Operating L.P. "D"

("KMOLPD") or any of its affiliates or subsidiaries executing a work directive(s) under the Agreement ("Qualifying Subsidiary"), as the case may be, until such time as all Obligations of KMOLPD or the Qualifying Subsidiary, as applicable, to NRC have been finally discharged and the payment thereof is not subject to being reimbursed by NRC.

If any provision of this Guaranty or the application thereof to any person or circumstances shall for any reason and to any extent be invalid or unenforceable, neither the remainder of this Guaranty nor the application of such provision to other person(s) or circumstances shall be affected thereby, but shall be enforced to the extent permitted by applicable law.

This Guaranty shall inure to the benefit of NRC and shall not be assignable without the express written consent of the undersigned, and can be modified only by a written instrument signed by Guarantor and NRC.

Guarantor hereby represents and warrants to NRC that:

a) The Guarantor is a partnership organized under the laws of the State of Delaware and has full power and authority to make and deliver this Guaranty,

b) The signing and delivery by the Delegate of the General Partner of the Guarantor and performance of this Guaranty by the Guarantor have been duly authorized by all necessary company or partnership action, as applicable, and do not violate the provisions of, or constitute a default under, any presently applicable law or Guarantor's partnership agreement or any agreement presently bind on it, and

c) This Guaranty has been duly signed and delivered by the authorized representative of the Guarantor and constitutes its lawful, binding and legally enforceable obligation, subject to applicable bankruptcy, reorganization, insolvency, moratorium, and other similar laws affecting creditors' rights and general principles of equity.

This Guaranty is the entire and only agreement between Guarantor and NRC with respect to the guaranty of the Obligations of Kinder Morgan by Guarantor. All representations, warranties, agreements, or undertakings heretofore or contemporaneously made, which are not set forth herein, are superseded hereby.

GUARANTOR:

Kinder Morgan Energy Partners, L.P.

By: Kinder Morgan G.P., Inc., its General Partner

By: Kinder Morgan Management, LLC, the delegate
of the General Partner

By: _____

Name: Joseph Listengart

Title: Vice President

Date: XXX XX, 2005

Patriot Environmental Services

WORK DIRECTIVE

To : PATRIOT ENVIRONMENTAL SVCS INC

P.O. BOX 1091

LONG BEACH, CA 90801
Attention: RICHRD YUKIHIRO

Phone: 562-436-2614
Fax: 563-436-3688
Email: ryukihiro@patriotenvironmental.com

Date: September 17, 2013

Work Directive No.: 477391-15-STAT

Agreement No.: 25286

Requisition No/ Accounting Information: 270505

This Work Directive is entered pursuant to the terms of the Emergency Response Services Agreement ("Agreement") dated 01/01/2011, by and between KINDER MORGAN ENERGY PARTNERS, L.P. ("COMPANY") and PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT'S proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued and this Work Directive arising out of or related to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and all other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1.0 **Project Name and Work Location Details:** OSRO SERVICES / Barstow Terminal

2.0 **Scope of Work:** The following is a full and complete description of the Work (and goods) to be provided by CONSULTANT including, but not limited to specifications, conditions and referenced bids/proposals.

2.1 See EXHIBIT WD_A – SCOPE OF WORK

2.2 For Questions, contact ROSE, TINA at 909-873-5106

3.0 The COMPANY will not furnish any materials to the Work Site(s), unless previously approved by the Designated Representative.

4.0 CONSULTANT shall commence the Work by the 08/01/2013 and shall complete the Work on or before 07/31/2014.

5.0 CONSULTANT offers to complete the Work in accordance with the Agreement for the total Lump Sum Amount of **$9,000.00**, Nine Thousand Dollars and Zero Cents, which shall constitute full and complete payment.

6.0 The parties hereby agree to AMEND Agreement 25286 as follows (or if the Agreement has been thus amended previously, to repeat the following sections):

i) Under the Compliance with Laws section, a **new subsection** is hereby added to the Agreement which reads as follows:

CONSULTANT certifies that at the time of execution of this Agreement CONSULTANT is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement CONSULTANT cannot so certify to COMPANY, CONSULTANT shall promptly notify COMPANY as to CONSULTANT'S status.

ii) The following language is hereby added to the Termination section under the termination for default paragraphs:

-- violates any EHS law; or

iii) All other provisions of the Agreement shall continue in full force and effect.

7.0 **Retainage:** Waive 10% retainage.

8.0 CONSULTANT shall submit invoices in duplicate to:

CALNEV PIPE LINE LLC

2319 S Riverside Ave

Bloomington, CA 92316

Attn: ROSE, TINA
Phone: 909-873-5106
Fax: 909-877-9036

8.1 Invoices must clearly indicate the Agreement Number, Work Directive Number, as indicated above.

8.2 For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

9.0 CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Indemnitees at: contractor_safety@kindermorgan.com prior to commencement of any Work.

10.0 Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

11.0 For Work performed within the State of California, CONSULTANT shall certify within three working days of execution hereof that the requirements set forth in Exhibit B to this Work Directive have been satisfied. Failure by CONSULTANT to do so shall constitute a breach under Section 10 [for cause with no notice] of the Agreement.

In the **Agreement**, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware corporation. This change resulted from an internal corporate reorganization. Kinder Morgan, Inc. owns the same assets formerly owned by Kinder Morgan Kansas, Inc.

By signing below, COMPANY and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 477391-15-STAT is by reference hereby made part of Agreement No. 25286 .

This Work Directive is hereby agreed to and accepted:

CALNEV PIPE LINE LLC	PATRIOT ENVIRONMENTAL SVCS INC
Signature	Signature
MARTINEZ, MICHAEL	Richard Yukimino
Name	Name
PURCHASING SUPERVISOR	COO
Title	Title
Sept 17, 2013	9/18/13
Date	Date

Please return executed Work Directive to:

CALNEV PIPE LINE LLC
1100 Town & Country Rd
Suite 700
Orange, CA 92868
Attention: MARTINEZ, MICHAEL
Phone: 714-560-4694
Fax: 714-560-6531
Email: michael_martinez@kindermorgan.com

The following Exhibits shall be provided by COMPANY:

X	Exhibit WD_A	- Scope of Work
X	Exhibit WD_B	- Revised Release Reporting Criteria (California only)
___	Exhibit WD_C	- Work Directive Specific Schedule of Values/Rates
___	Exhibit WD_D	- Operator Qualification Form (as provided by the Designated Representative via electronic or hardcopy submission)

EXHIBIT WD_A – SCOPE OF WORK

Contractor will provide Calnev Pipe Line, LLC (Barstow Terimnal located at 34277 Daggett/Yermo Road, Barstow, California) with 24/7 Emergency Response capabilities under Section 3.3 to Appendix E of 40 DFR 112 for EPA Jurisdictional Facility's and Section Appendix E of 40CFR 112 for EPA Jurisdictional Facility's and Section 3 to Appendix C of 33CFR 154 for USCG Regulated Facility's This includes but is not limited to one thousand feet of containment boom, and a means of deploying it within one (1) hour of the discovery of a discharge.

Contractor will provide response equipment and manpower resources in accordance with the National Preparedness for Response Exercise Program (PREP) Guidelines. Specific reference for USCG regulated facilities is located on pages 3-18 and 3-19 of the August 2002 PREP Guideline. Specific reference for EPA regulated facilities is located on pages 4-9 and 4-10 of the August 2002 PREP Guideline. These requirements include, but are not limited to, an annual equipment deployment exercise in the operating environment of the Area of the Facility, a comprehensive OSRO personnel training program, and a maintenance program to ensure that the equipment is periodically inspected and maintained in good operating condition. The satisfactory completion of these PREP requirements must be documented and submitted annually to Kinder Morgan to Mr. Edward (Buzz) Fant, Director – Compliance/ Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 1001 Louisiana St, Suite 1000, Houston, TX 77002 or fante@kindermorgan.com.

EXHIBIT WD_B – REVISED RELEASE REPORTING CRITERIA

1.0 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT'S activities in the performance of the Work:

1.1 are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

1.2 understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT'S employees, agents and subcontractors' employees who will be performing at such a site.

1.3 Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT'S employees, agents and subcontractors' employees will be trained relative to COMPANY'S revised release reporting criteria.

1.4 For purposes of this Exhibit "Hazardous Material(s)" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any EHS Law. "EHS Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

CONSULTANT shall certify its compliance with this training requirement upon COMPANY request.

Acknowledged, agreed and accepted this 18 day of September, 20 13

PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT")

Richard Yukubus | COO
Officer Name and Title (please print)

Richard Yukubus
Officer Signature

KINDER MORGAN

REQUISITION

RQ#: 270505

REQUESTER: TINA ROSE

PROVIDE OSRO SERVICES AT BARSTOW TERMINAL. REFERENCE WORD DOCUMENT ASSOCIATED WITH THIS WORK DIRECTIVE

.

ISN RATING, INSURANCE AND DOT SATISFIED

.

CONTACT: RICHARD YUKIHIRO richardyukihiro@patriotenvironmental.com
(w) 562-436-2614
(f) 562-436-2688

DELIVERING LOCATION: BLOOMINGTON, CA SOUTH RGN OFC

VENDOR: 100075841
PATRIOT ENVIRONMENTAL SVCS INC

BUYER: MICHAEL MARTINEZ

APPROVAL VALUE: 9,000.00

LINE	ITEM AND LINE COMMENTS	QTY	UOM	UNIT COST	DELIVERY DATES
1	SVC-OSRO BARSTOW **Type:** S BARSTOW OSRO **Accounting:** 048743506381 - 613200 - 9400 **AFE:** 913803999001400 - 90100	1.00	LO	9,000.00	01/01/1700

<< End of Requisition >>

RQ#: 270505

PHMSA 000103417

ERA
1/1/11
KMEP

CA CHECKLIST
REQ # ✓ REC'D
EAR. ✓
ISNETWORLD: GRADE B EXEMPT
INSURANCE. ✓
BID WORK. WAIVER. NR. ✓
WD# DATE ISSUED /_/_
CMS.
NOTES.

477391-15-STAT

ISN Collect. Verify. Connect.

MICHAEL MARTINEZ *Kinder Morgan* KINDER MORGAN
| Meetings | Webcasts | My Profile | | **Log Out**

Home | My To-Do List | My Clients | My Contractors | Messages | Reports | Favorites | More...

YOU ARE HERE: Home » Find Companies » Dashboard

Help

Search Results | Patriot Environmental Services, Inc.

Company ID: 400-134107 | Richard Yukihiro, COO, (949)201-6517 | KMEP - US PCL | B

Patriot

- Dashboard Overview
- Questionnaire
- OSHA & EMR
- Insurance
- Compliance & Training
- Audits, Evaluations & Reviews
- Company Profile and Information
- Summary (Print View)

Dashboard Overview

Grade Component	Status	Points	Gaps
Contractor Job Evaluation (Does Not Negatively Impact Grade)	**Contractor Job Evaluation** is between **0** and **69.99**	0 / 10	⚠
EMR Letters	Rate is **1.05**	6.50 / 13	⚠
Insurance	Insurance Documents are **Accepted**	0 / 0	✓
Open Audit Action Items - Past Due	**Open Audit Action Items - Past Due** Grade **N/A**	0 / 0	✓
OQ Plan Approved?	**OQ Plan Approved** Grade **Not Applicable**	0 / 0	✓
RAVS Safety Program	**RAVS** score is **100**	35 / 35	✓
T-RAVS	**T-RAVS** score is **100**	5 / 5	✓
US MSQ Grading / Rating	**MSQ Score is between 80.00 and 89.99**	35.25 / 47	⚠
Total		**81.75 / 110**	

View Archived Grades: Select

Contractor Notes

ISN Customer Service Notes

Disclaimer

Time/Date	Action	Category
8:15 AM - 09/09/2013	Initiated Outbound Call	Change in Contact
11:02 AM - 09/06/2013	Responded to Inbound Call	Insurance
9:23 AM - 07/08/2013	Responded to Inbound Call	RAVS

View Additional Notes

Variance

US PCL Variance: Not Submitted

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Last Login: 09/16/2013 4:15 PM

OSRO (mm) RQ: 270505 9/11/13

KINDER MORGAN

Procurement Receipt Date: Aug 29, 13

Request for Services (RFS) WO: 477391

For assistance or guidance in completing this form, please contact your Procurement representative.

AGREEMENT INFORMATION

☐ New Agreement ☐ Amendment ☒ Work Directive for Agreement # 25286 1/1/14 ☐ Change Order for WD # -

Payment Type: ☒ Lump Sum ☐ Unit price ☐ Time & Materials ☐ Schedule of Values

REQUESTER / BILLING INFORMATION

KM Company Name:	Kinder Morgan	Requester:	Tina Rose / Rob Brown
Billing Address:	2319 S. Riverside Ave.	Req. Phone:	909-873-5106 Ext.
City, State, Zip:	Bloomington, CA 92316	Designated Representative:	
Attention:		D/R Phone:	Ext.

CONTRACTOR INFORMATION

Contractor Name:	Patriot Environmental Services	Vendor #:	1000758 41
Contact Name:	Richard ~~Robert~~ Yukihiro	Agreement / Work Directive Amt:	$9,000.00 ✓
Mailing Address:	P.O. Box 1091, Long Beach CA 90801	Secondary Cost:	
Physical Address:	1900 W Anaheim Street	Retainage:	☐ Yes: % OR ☒ No
City, State, Zip:	Long Beach, CA 90813	Agreement Start Date:	
Contact Phone:	562-436-2614	Agreement Term:	(e.g. 1 year)
Fax:	562-436-2688	Work Directive Start Date:	8/1/13 ✓
Email:	richard.yukihiro@patriotenvironmental.com	Work Directive End Date:	7/31/14

ACCOUNTING INFORMATION

Note: For Work Directive commitment, at least one line must be completed!

Company 10 /20 /30	*Accounting Unit (12) (Entity / Loc / RC)*	*Account (6)*	*TOC / Sub-Account (4)*	*Activity (AFE) (15)*	*Account Category (5) (Property Unit)*	*Choose One:* $ Amount	*Choose One:* % of Charges	*Project Mgr Name on AFE*	*Lawson Loc Code (HO2TX, SNITX)*
10	0487 4350 6381	613200	9400	91380 3999 001 400	90100	$ 9,000.00	%		
						$	%		
						$	%		
						$	%		
						$	%		

Are multiple lines required for Lawson Work Directive commitment? ☐ Yes ☒ No

LOCATION OF WORK OR SERVICES

Be Specific: (e.g. Address, location of project within KM facility, surroundings, etc.)

Barstow Terminal

9/11/13 B Patino w/ insurance & DOT satisfied

Distribution: Original and supporting documentation to: Procurement Representative
Copies: Requester, Project Manager, Project Files

DOT AND/OR OPERATOR QUALIFICATION COVERED TASK(S)

☒ Performs DOT Jurisdictional Work (Drug & Alcohol Testing) ☐ OQ Tasks Required ☐ OQ Tasks NOT Required

If OQ required, check one option: ☐ OQ Covered Task List Attached **OR** ☐ OQ set up in ISNetworld completed

SAFETY EVALUATION REQUIREMENTS

Choose One: ☒ ISNetworld Score Acceptable **OR** ☐ Manual Evaluation/Exemption on File **OR** ☐ Offsite Vendor/Consultant

SCOPE OF WORK OR SERVICES

Note: If for a Change Order, please specify reason for scope change and/or addition(s). If attachments need to be incorporated into Agreement/Amendment/WD/Change Order, please indicate and provide attachments to Procurement representative with RFS.

Requester must refer to Work Code Matrix and enter appropriate risk level here: **Med 19.9.1**

(See **Scope of Work Guidelines** and **Scope of Work Attribute Checklist** for additional guidance.)

Scope of Work or Services:

Provide OSRO response for Barstow Terminal, detailed as follows:

Contractor will provide Calnev Pipe Line, LLC (Barstow Terimnal located at 34277 Daggett/Yermo Road, Barstow, California) with 24/7 Emergency Response capabilities under Section 3.3 to Appendix E of 40 DFR 112 for EPA Jurisdictional Facility's and Section Appendix E of 40CFR 112 for EPA Jurisdictional Facility's and Section 3 to Appendix C of 33CFR 154 for USCG Regulated Facility's This includes but is not limited to one thousand feet of containment boom, and a means of deploying it within one (1) hour of the discovery of a discharge.

Contractor will provide response equipment and manpower resources in accordance with the National Preparedness for Response Exercise Program (PREP) Guidelines. Specific reference for USCG regulated facilities is located on pages 3-18 and 3-19 of the August 2002 PREP Guideline. Specific reference for EPA regulated facilities is located on pages 4-9 and 4-10 of the August 2002 PREP Guideline. These requirements include, but are not limited to, an annual equipment deployment exercise in the operating environment of the Area of the Facility, a comprehensive OSRO personnel training program, and a maintenance program to ensure that the equipment is periodically inspected and maintained in good operating condition. The satisfactory completion of these PREP requirements must be documented and submitted annually to Kinder Morgan to Mr. Edward (Buzz) Fant, Director –Compliance/ Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 1001 Louisiana St, Suite 1000
Houston, TX 77002 or fante@kindermorgan.com.

APPROVALS

Note: In addition to Requester's information/signature, appropriate approval(s) are required for Lawson Work Directive commitment(s) per org chart and EAR guidelines. If AFE No.(s) will be charged, additional approval from AFE owner is also required.

Name (typed or printed)	Signature	Employee ID	Date
Tina Rose		10993	8-29-13
Phil Vasquez		11192	9-3-13

Distribution: Original and supporting documentation to: Procurement Representative
Copies: Requester, Project Manager, Project Files

Agreement Number: 25286

WORK DIRECTIVE

To:	PATRIOT ENVIRONMENTAL SVCS INC Attention: Richrd Yukihiro P.O. Box 1091 Long Beach, CA 90801 **Phone:** 800-624-9136 **Fax:** 562-436-2686 **Email:** ryukihiro@patriotenvironmental.com	Date:	September 8, 2011
		Work Directive No.:	477391-4-STAT
		Agreement No.:	25286
		Account Coding:	10-048577356381-613200 - 9400 -191623999001400-

Work Directive Origin: 1100 Town & Country Road, Orange, CA 92868

This Work Directive is entered pursuant to the terms of the EMERGENCY RESPONSE SERVICES Agreement ("Agreement") dated January 1, 2011, by and between KINDER MORGAN ENERGY PARTNERS, L.P. ("COMPANY") and PATRIOT ENVIRONMENTAL SVCS INC ("CONTRACTOR"). By its execution hereof, Contractor agrees to perform for the KM entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work, which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If Contractor's proposal, quotation, or any other Contractor document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by Contractor which differ from or conflict with Company's terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued, as the same apply to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the Company (if the COMPANY is not the KM Entity executing this Work Directive) and other related entities as further provided for and agreed in the Agreement. Payments made to Contractor under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1. Project Name:	PROVIDE OSRO RESPONSE FOR COLTON SOUTH TERMINAL	Location:	COLTON SOUTH TERMINAL
Description of Work:	PROVIDE OSRO RESPONSE FOR COLTON SOUTH TERMINAL PER BELOW For Questions, contact Mark Sandon at 714-560-4867		

2. The COMPANY shall furnish the following materials to the work site(s):	None, unless previously approved by the KM Entity's authorized representative.
3. The Work shall be performed at the following location:	Location where work will be performed, if different from Project Location indicated above.

4. CONTRACTOR shall commence the Work by August 1, 2011, and shall complete the Work on or before July 31, 2012.

5. CONTRACTOR offers to complete the Work in accordance with the Agreement for the following consideration, which shall constitute full and complete payment therefore:

(a) ☐ the total Lump Sum Amount	Fixed Price Of
(b) ☒ the total Time & Materials Amount	Not To Exceed $9,000.00 with rates specified in the Schedule of Values (Exhibit B to the Agreement)

(c) ☐ in accordance with the Schedule of Values (Exhibit _____ to the Agreement) or

(d) ☐ For this Work Directive only, the schedule of values/rate sheet dated _____, 20XX, attached hereto as Exhibit ___, shall supersede the Schedule of Values in the Agreement. All other terms and conditions of Agreement and its prior amendments will remain unchanged and in force.

SELECT WAIVER ACCORDING TO PROJECT'S TOTAL DOLLAR VALUE

☒ Waive 10% Retainage Fee; or ☐ Do not Waive 10% Retainage Fee

6. Contractor shall submit invoices in duplicate to:	SFPP, L.P. Mark Sandon 2319 S Riverside Ave Bloomington, CA 92316 Attn.: Mark Sandon Phone: 714-560-4867 Fax: 714-560-6601 **Invoices must clearly indicate the Agreement Number, Work Directive Number, and Work Order/ Account Coding, as indicated above.** For Construction Projects, a Certificate of Final Acceptance must be completed, signed by an authorized representative, notarized, and attached to CONTRACTOR'S final invoice.

7. CONTRACTOR hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the Kinder Morgan entity named below. If the English language is a communication barrier, CONTRACTOR at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Group at: contractor_safety@kindermorgan.com prior to commencement of any Work.

8. Facsimile Signatures/Counterparts

This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

In the Agreement, if there is a reference to "Kinder Morgan, Inc.," it shall now be deemed a reference to Kinder Morgan Kansas, Inc. This is not a change of entity, but merely a change of name only.

By signing below, KM Entity and CONTRACTOR affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 477391-4-STAT is by reference hereby made part of Agreement No. 25286.

For Work performed within the state of California, the attached Exhibit B must be acknowledged and signed.

This Work Directive is hereby agreed to and accepted this September 8, 2011.

SFPP, L.P.	**PATRIOT ENVIRONMENTAL SVCS INC**
Michael Martinez 9/8/11 Signature Date	Richard Yuhlin 9/13/11 Signature Date
By: Michael Martinez Print Name	By: Richard Yuhlin Print Name
Title: Purchasing Supervisor Print Title	Title: COO Print Title

CC:	Contracts Administration, with all attachments
Please return executed Work Directive to: **ATTENTION: Michael Martinez** **SFPP, L.P.** 1100 Town And Country Road 7th Floor Orange, CA 92868	
List of Attachments:	☒ **Exhibit WD_A** - Scope of Work ☒ **Exhibit WD_B** – Revised Release Reporting Criteria (**California only**) ☐ **Exhibit WD_C** – Work Directive Specific Schedule of Values/Rates ☐ **Exhibit WD_D** – Operator Qualification Form ☐ **Exhibit WD_E** – Certificate of Final Acceptance ☐ **Exhibit WD_F1** – Conditional Waiver and Release ☐ **Exhibit WD_F2** – Unconditional Waiver and Release

EXHIBIT WD_A – SCOPE OF WORK

SCOPE OF WORK OR SERVICES to be performed or provided by CONSULTANT:

Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the Federal OPA '90 requirements for contracted oil spill removal services for the Colton South Terminal located at 2359 S. Riverside Avenue, Bloomington, CA 92316 as follows:

- Sufficient Response Resources to enable the COMPANY to meet the requirements of OPA '90 for pre-contracted Response Resources at the commencement of the Agreement including:
  - Responding with 1,000 feet of containment boom and a means to deploy it or other appropriate equipment and materials, as identified in the Tactical Response Plans presented in Volume 2, Section 8.4, within one (1) hour of notification*;
  - Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2,100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification*;
  - Documentation of equipment deployment exercises and personnel training must be submitted annually to Mr. Chuck Mathis, Manager Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 500 Dallas Street, Suite 1000, Houston, TX 77002, or charles_mathis@kindermorgan.com ;
  - Compliance by the CONSULTANT and CONSULTANT's subcontractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar applicable State laws, rules and/or standards.

* Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland or five (5) knots on water.

Regulatory References: 29 CFR 1910.120 (OSHA); 40 CFR 112 Appendix E 3.3 (U.S. EPA)

EXHIBIT WD_B – Revised Release Reporting Criteria

CONTRACTOR shall ensure that its employees, agents, and subcontractors' employees engaged in CONTRACTOR'S activities in the performance of the Work:

(i) are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

(ii) understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-COMPANY Onsite Situation"), unless the training referred to in (i) above has occurred for CONTRACTOR'S employees, agents and subcontractors' employees who will be performing at such a site.

For purposes of this Exhibit A "Hazardous Material" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any EHS Law. "EHS Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

COMPANY has determined that CONTRACTOR:

☐ Will be working in a Non-COMPANY Onsite Situation and MUST complete the training

☒ Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONTRACTOR will assure that prior to performing any Work CONTRACTOR'S employees, agents and subcontractors' employees will be trained relative to COMPANY'S revised release reporting criteria.

CONTRACTOR shall certify its compliance with this training requirement upon COMPANY request.

Acknowledged, agreed and accepted this 13 day of September 2011

("CONTRACTOR")

PATRIOT ENVIRONMENTAL SVCS INC

Richard Yukins / COO

Officer name and Title (please print)

Richard Yukins

Officer signature

H2O Environmental

Agreement Number: 11593

WORK DIRECTIVE

To:	H2O ENVIRONMENTAL, INC. Attention: Patrick Heyneman 111 West 43rd Street Garden City, ID 83714 **Phone:** 208-514-5244 **Fax:** **Email:** pheyneman@h2oenvironmental.net	Date:	March 9, 2011
		Work Directive No.:	470296-1-CONT
		Agreement No.:	11593
		Account Coding:	10-048744406380-613200 - 9400 --

Work Directive Origin: 1100 Town & Country Rd., Ste. 700, Orange CA, 92868

This Work Directive is entered pursuant to the terms of the **ENVIRONMENTAL SERVICE AGREEMENT** ("Agreement") dated November 13, 2006, by and between KINDER MORGAN OPERATING L.P. "D" ("COMPANY") and H2O ENVIRONMENTAL, INC. ("CONSULTANT"). By its execution hereof, Consultant agrees to perform for the KM entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work, which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If Consultant's proposal, quotation, or any other Consultant document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by Consultant which differ from or conflict with Company's terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued, as the same apply to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the Company (if the COMPANY is not the KM Entity executing this Work Directive) and other related entities as further provided for and agreed in the Agreement. Payments made to Consultant under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1. Project Name:	Provide OSRO Coverage	Location:	Las Vegas Terminal / Various Locations
Description of Work:	See Scope of Work For Questions, contact Tina Rose at 909-873-5106		

2. The COMPANY shall furnish the following materials to the work site(s):	None, unless previously approved by the KM Entity's authorized representative.
3. The Work shall be performed at the following location:	Location where work will be performed, if different from Project Location indicated above.

4. CONSULTANT shall commence the Work by January 1, 2011, and shall complete the Work on or before December 31, 2011.

5. CONSULTANT offers to complete the Work in accordance with the Agreement for the following consideration, which shall constitute full and complete payment therefore:

(a) ☒ the total Lump Sum Amount	Fixed Price Of **$0.00**
(b) ☐ the total Time & Materials Amount	Not To Exceed **$0.00** with rates specified in the Schedule of Values (Exhibit _____ to the Agreement)

(c) ☐ in accordance with the Schedule of Values (Exhibit _____ to the Agreement) or

(d) ☐ For this Work Directive only, the schedule of values/rate sheet dated _____, 20XX, attached hereto as Exhibit ___, shall supersede the Schedule of Values in the Agreement. All other terms and conditions of Agreement and its prior amendments will remain unchanged and in force.

SELECT WAIVER ACCORDING TO PROJECT'S TOTAL DOLLAR VALUE ☒ Waive 10% Retainage Fee; or ☐ Do not Waive 10% Retainage Fee	
6. Consultant shall submit invoices in duplicate to:	CALNEV PIPE LINE LLC Tina Rose 2319 S Riverside Ave Bloomington, CA 92316 Attn.: Tina Rose Phone: 909-873-5106 Fax: 909-877-9036 **Invoices must clearly indicate the Agreement Number, Work Directive Number, and Work Order/ Account Coding, as indicated above.** For Construction Projects, a Certificate of Final Acceptance must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

7. CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Consultant Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and Subcontractor who will be performing work on premises owned and/or operated by the Kinder Morgan entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Consultant Safety Manual accurately into the appropriate language for its employees and Subcontractor Providers. Questions concerning the Manual should be directed to the Kinder Morgan Consultant Safety Group at: Consultant_safety@kindermorgan.com prior to commencement of any Work.

8. Facsimile Signatures/Counterparts

This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

By signing this Work Directive, CONSULTANT hereby confirms that neither it nor any of its affiliates has provided during the last twelve (12) months or is currently providing services to any third party undertaking which is competitive to the Work and or the project contemplated by this Work Directive, other than has already been disclosed in writing by CONSULTANT to Company.

Unless prior written approval is obtained from Company, until this Work Directive has been completed in accordance with the Agreement CONSULTANT will not directly, or indirectly through a subsidiary or affiliate,

a) Consult advise, counsel, or otherwise assist (i) any competitor of (A) Company, (B) an affiliate of Company, or (C) any entity in which Company holds an ownership interest (A, B, and C collectively being referred to herein as "Company Entity"), or (ii) any affiliate of such competitor, directly or indirectly, with regard to (x) any current or foreseeable competition to the Work and/or the project contemplated by this Work Directive, or (y) any potential assignment for a third party which could have or is likely to have an adverse effect on any Company Entity with respect to the Work and/or project contemplated by this Work Directive; or

b) Except to the extent required to comply with applicable law, consult, advise, counsel or otherwise assist any governmental authority, or Federal or State regulatory agency, in the United States or any other country (i) on any matter which could affect the Work and/or project contemplated by this Work Directive, or (ii) in a regulatory or any other forum or proceeding, which in any manner would have, or is likely to have, a reasonably foreseeable adverse effect upon a Company Entity.

In the Agreement, if there is a reference to "Kinder Morgan, Inc.," it shall now be deemed a reference to Kinder Morgan Kansas, Inc. This is not a change of entity, but merely a change of name only.

By signing below, KM Entity and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 470296-1-CONT is by reference hereby made part of Agreement No. 11593.

For Work performed within the state of California, the attached Exhibit B must be acknowledged and signed.

This Work Directive is hereby agreed to and accepted this 9th day of March, 2011

CALNEV PIPE LINE LLC	H2O ENVIRONMENTAL, INC.
Renee Coleman 3.9.11	Patrick T. Heyn 5-24-11
Signature / Date	Signature / Date
By: Renee Coleman	By: PATRICK T. HEYNEMAN
Print Name	Print Name
Title: Associate Buyer	Title: President
Print Title	Print Title

CC: Contracts Administration, with all attachments

Please return executed Work Directive to:

ATTENTION: Renee Coleman
CALNEV PIPE LINE LLC
1100 Town And Country Road
7th Floor
Orange, CA 92868

List of Attachments:

- ☐ **Exhibit WD_A** - Scope of Work
- ☒ **Exhibit WD_B** – Revised Release Reporting Criteria (**California only**)
- ☐ ~~**Exhibit WD_C** – Work Directive Specific Schedule of Values/Rates~~
- ☐ **Exhibit WD_D** – Operator Qualification Form
- ☒ **Exhibit WD_E** – Certificate of Final Acceptance

	☒ **Exhibit WD_F1** – Conditional Waiver and Release ☐ **Exhibit WD_F2** – Unconditional Waiver and Release

EXHIBIT WD_A – SCOPE OF WORK

Provide OSRO coverage as required in KM Title 5 Regulations as detailed below:
State of Nevada
Description of Work:
Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the Federal OPA '90 requirements for contracted oil spill removal services for the Las Vegas Terminal located at 5049 N. Sloan Lane, Las Vegas, NV as follows:

- Sufficient Response Resources to enable the COMPANY to meet the requirements of OPA '90 for pre-contracted Response Resources at the commencement of the Agreement including:

- Responding with 1,000 feet of containment boom and a means to deploy it or other appropriate equipment and materials, as identified in the Tactical Response Plans presented in Volume 2, Section 8.4, within one (1) hour of notification*;

- Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2,100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification*;

- Documentation of equipment deployment exercises and personnel training must be submitted annually to Mr. Chuck Mathis, Manager Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 500 Dallas Street, Suite 1000, Houston, TX 77002, or charles_mathis@kindermorgan.com ;

- Compliance by the CONSULTANT and CONSULTANT's subcontractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar applicable State laws, rules and/or standards.

* Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland or five (5) knots on water.

Regulatory References: 29 CFR 1910.120 (OSHA); 40 CFR 112 Appendix E 3.3 (U.S. EPA).

4.0 SPILL IMPACT CONSIDERATIONS

4.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil. The Federal, state, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY

- Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species.
- Areas which consist of vegetated low banks, freshwater/saltwater marshes, swamps, scrub-shrub wetlands and impact to threatened/endangered species.

MODERATE SENSITIVITY

- Areas of moderate productivity, somewhat resistant to the effects of oiling.
- Areas which consist of mixed sand, gravel beaches, bars, gently sloping banks, and no impact to threatened/endangered species.

LOW SENSITIVITY

- Areas of low productivity, man-made structures, and/or high energy.
- Areas which consist of gravel, sand, or clay material, barren/rocky shores or banks, man-made structures, concrete/compacted earthen drainage ditches and no impact to threatened/endangered species.

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans (see CD affixed to inside front cover of Volume 1 and the CD Navigation Summary in Figure 4.2)
- Other industry and private experts

The environmental and socio-economic sensitivities in the area have been broken down into specific categories and identified in this section.

4.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

4.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 4.1.

4.3.2 Wildlife Rescue

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

4.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

4.3.2 Wildlife Rescue (Cont'd)

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
  - Use of capture and relocation.

4.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife of their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
  - Outside rehabilitation organizations
  - Local regulatory agencies
  - Other resources

4.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

4.5 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

FIGURE 4.1a

ENDANGERED/THREATENED SPECIES LISTING
Clark County, NV

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	Relict leopard Frog (Rana onca)		Candidate	Nevada Fish And Wildlife Office		
Birds	Yuma clapper rail (Rallus	U.S.A. only	Endangered	Arizona Ecological Services	Draft Revised Recovery Plan for	Draft Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Fishes	Moapa dace (Moapa coriacea)		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Rare	Final Revision 1
Fishes	Pahrump poolfish		Endangered	Nevada Fish And Wildlife Office	Pahrump Killifish Recovery Plan	Final
Fishes	Devils Hole pupfish (Cyprinodon		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Pahranagat roundtail chub (Gila		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the Aquatic	Final
Fishes	Warm Springs pupfish		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Woundfin (Plagopterus	except Gila R. drainage, AZ, NM	Endangered	Utah Ecological Services Field	Virgin River Fishes Recovery	Final Revision 2
Fishes	Virgin River Chub (Gila		Endangered	Utah Ecological Services Field	Virgin River Fishes Recovery	Final Revision 2
Fishes	Clover Valley speckled dace		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Independence Valley speckled		Endangered	Nevada Fish And Wildlife Office	Recovery Plan for the	Final
Fishes	Razorback sucker (Xyrauchen	entire	Endangered	Upper Colorado River	Razorback Sucker - Recovery	Final Revision 1
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Churchill Narrows buckwheat		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Las Vegas buckwheat		Candidate	Nevada Fish And Wildlife Office		
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Snails	Elongate mud meadows		Candidate	Nevada Fish And Wildlife Office		

FIGURE 4.1b

ENDANGERED/THREATENED SPECIES LISTING
Imperial County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Yuma clapper rail (Rallus	U.S.A. only	Endangered	Arizona Ecological Services	Draft Revised Recovery Plan for	Draft Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Desert pupfish (Cyprinodon		Endangered	Arizona Ecological Services	Desert Pupfish (Cyprinodon	Final
Fishes	Razorback sucker (Xyrauchen	entire	Endangered	Upper Colorado River	Razorback Sucker - Recovery	Final Revision 1
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Diego button-celery		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Peirson's milk-vetch (Astragalus		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Peninsular bighorn sheep (Ovis	Peninsular CA pop.	Endangered	Carlsbad Fish And Wildlife	Recovery Plan for Bighorn	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Palm Springs round-tailed		Candidate	Carlsbad Fish And Wildlife		

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1c

ENDANGERED/THREATENED SPECIES LISTING
Kern County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Birds	California condor (Gymnogyps	U.S.A. only	Endangered	Ventura Fish And Wildlife Office	California Condor Recovery	Final Revision 3
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1d

ENDANGERED/THREATENED SPECIES LISTING
Los Angeles County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	Arroyo (=arroyo southwestern)		Endangered	Ventura Fish And Wildlife Office	Arroyo Southwestern Toad	Final
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Amphibians	Mountain yellow-legged frog	southern California DPS	Endangered	Carlsbad Fish And Wildlife		
Birds	California condor (Gymnogyps	U.S.A. only	Endangered	Ventura Fish And Wildlife Office	California Condor Recovery	Final Revision 3
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	California least tern (Sterna		Endangered	Carlsbad Fish And Wildlife	Revised California Least Tern	Final Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Light-footed clapper rail (Rallus	U.S.A. only	Endangered	Carlsbad Fish And Wildlife	Light-footed Clapper Rail	Final Revision 1
Birds	San Clemente loggerhead		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Birds	San Clemente sage sparrow		Threatened	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Western snowy plover	Pacific coastal pop.	Threatened	Arcata Fish And Wildlife Office	Final Recovery Plan for the	Final
Birds	Marbled murrelet	CA, OR, WA	Threatened	Washington Fish And Wildlife	Recovery Plan for the	Final
Birds	Coastal California gnatcatcher		Threatened	Carlsbad Fish And Wildlife		
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Riverside fairy shrimp		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Crustaceans	Vernal pool fairy shrimp		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Unarmored threespine		Endangered	Ventura Fish And Wildlife Office	Unarmored Threespine	Final Revision 1
Fishes	Santa Ana sucker (Catostomus	3 CA river basins	Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Braunton's milk-vetch		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ventura Marsh Milk-vetch		Endangered	Ventura Fish And Wildlife Office		
Flowering Plants	Coastal dunes milk-vetch		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Five Plants	Final
Flowering Plants	Nevin's barberry (Berberis		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Thread-leaved brodiaea		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Catalina Island mountain-		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Fernando Valley		Candidate	Ventura Fish And Wildlife Office		
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Marcescent dudleya (Dudleya		Threatened	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Clemente Island woodland-		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lyon's pentachaeta		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Santa Cruz Island rockcress		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Clemente Island indian		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Salt marsh bird's-beak		Endangered	Carlsbad Fish And Wildlife	Salt Marsh Bird's-beak	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Clemente Island larkspur		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Clemente Island broom		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	San Clemente Island bush-		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	California Orcutt grass (Orcuttia		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Marsh Sandwort (Arenaria		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Marsh	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Spreading navarretia		Threatened	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Verity's dudleya (Dudleya		Threatened	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Slender-horned spineflower		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Gambel's watercress (Rorippa		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Marsh	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Santa Monica Mountains		Threatened	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Brand's phacelia (Phacelia		Candidate	Carlsbad Fish And Wildlife		
Insects	El Segundo blue butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the El	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	Quino checkerspot butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Quino	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Palos Verdes blue butterfly		Endangered	Carlsbad Fish And Wildlife	Palos Verdes Blue Butterfly	Final
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Santa Catalina Island Fox		Endangered	Carlsbad Fish And Wildlife		
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Pacific pocket mouse		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Pacific	Final
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	San Bernardino Merriam's		Endangered	Carlsbad Fish And Wildlife		
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for Leatherback	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S.	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for the Northwest	Final Revision 2
Reptiles	Olive ridley sea turtle	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Island night lizard (Xantusia		Threatened	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1e

ENDANGERED/THREATENED SPECIES LISTING
Riverside County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	Desert slender salamander		Endangered	Carlsbad Fish And Wildlife	Desert Slender Salamander	Final
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	Arroyo (=arroyo southwestern)		Endangered	Ventura Fish And Wildlife Office	Arroyo Southwestern Toad	Final
Amphibians	Mountain yellow-legged frog	southern California DPS	Endangered	Carlsbad Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Yuma clapper rail (Rallus	U.S.A. only	Endangered	Arizona Ecological Services	Draft Revised Recovery Plan for	Draft Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Western snowy plover	Pacific coastal pop.	Threatened	Arcata Fish And Wildlife Office	Final Recovery Plan for the	Final
Birds	Coastal California gnatcatcher		Threatened	Carlsbad Fish And Wildlife		
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Riverside fairy shrimp		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Desert pupfish (Cyprinodon		Endangered	Arizona Ecological Services	Desert Pupfish (Cyprinodon	Final
Fishes	Razorback sucker (Xyrauchen	entire	Endangered	Upper Colorado River	Razorback Sucker - Recovery	Final Revision 1
Fishes	Santa Ana sucker (Catostomus	3 CA river basins	Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Diego ambrosia (Ambrosia		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Nevin's barberry (Berberis		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Thread-leaved brodiaea		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Salt marsh bird's-beak		Endangered	Carlsbad Fish And Wildlife	Salt Marsh Bird's-beak	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Diego button-celery		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	California Orcutt grass (Orcuttia		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coachella Valley milk-vetch		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Santa Ana River woolly-star		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Parish's daisy (Erigeron parishii)		Threatened	Carlsbad Fish And Wildlife	San Bernardino Mountains	Draft
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Spreading navarretia		Threatened	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Slender-horned spineflower		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Munz's onion (Allium munzii)		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Triple-ribbed milk-vetch		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	San Jacinto Valley crownscale		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Vail Lake ceanothus		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	Quino checkerspot butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Quino	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Stephens' kangaroo rat		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Peninsular bighorn sheep (Ovis	Peninsular CA pop.	Endangered	Carlsbad Fish And Wildlife	Recovery Plan for Bighorn	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Palm Springs round-tailed		Candidate	Carlsbad Fish And Wildlife		
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	San Bernardino Merriam's		Endangered	Carlsbad Fish And Wildlife		
Reptiles	Coachella Valley fringe-toed		Threatened	Carlsbad Fish And Wildlife	Coachella Valley Fringe-toed	Final
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1f

ENDANGERED/THREATENED SPECIES LISTING
San Bernardino County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	Arroyo (=arroyo southwestern)		Endangered	Ventura Fish And Wildlife Office	Arroyo Southwestern Toad	Final
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Amphibians	Mountain yellow-legged frog	southern California DPS	Endangered	Carlsbad Fish And Wildlife		
Birds	California condor (Gymnogyps	U.S.A. only	Endangered	Ventura Fish And Wildlife Office	California Condor Recovery	Final Revision 3
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	Yuma clapper rail (Rallus	U.S.A. only	Endangered	Arizona Ecological Services	Draft Revised Recovery Plan for	Draft Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Coastal California gnatcatcher		Threatened	Carlsbad Fish And Wildlife		
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Colorado pikeminnow	except Salt and Verde R.	Endangered	Upper Colorado River	Colorado Pikeminnow	Final Revision 2
Fishes	Mohave tui chub (Gila bicolor		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for the Mohave	Final
Fishes	Unarmored threespine		Endangered	Ventura Fish And Wildlife Office	Unarmored Threespine	Final Revision 1
Fishes	Bonytail chub (Gila elegans)	entire	Endangered	Upper Colorado River	Bonytail Chub Revised	Final Revision 2
Fishes	Razorback sucker (Xyrauchen	entire	Endangered	Upper Colorado River	Razorback Sucker - Recovery	Final Revision 1
Fishes	Santa Ana sucker (Catostomus	3 CA river basins	Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Diego ambrosia (Ambrosia		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Bear Valley sandwort (Arenaria		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Lane Mountain milk-vetch		Endangered	Ventura Fish And Wildlife Office		
Flowering Plants	Nevin's barberry (Berberis		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Thread-leaved brodiaea		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Ash-grey paintbrush (Castilleja		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Southern mountain wild-		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Bernardino bluegrass (Poa		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	California taraxacum		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Salt marsh bird's-beak		Endangered	Carlsbad Fish And Wildlife	Salt Marsh Bird's-beak	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Cushenbury buckwheat		Endangered	Carlsbad Fish And Wildlife	San Bernardino Mountains	Draft
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coachella Valley milk-vetch		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Santa Ana River woolly-star		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Parish's daisy (Erigeron parishii)		Threatened	Carlsbad Fish And Wildlife	San Bernardino Mountains	Draft
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Bernardino Mountains		Endangered	Carlsbad Fish And Wildlife	San Bernardino Mountains	Draft
Flowering Plants	Pedate checker-mallow		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Pedate	Final
Flowering Plants	Slender-petaled mustard		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Pedate	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Slender-horned spineflower		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Cushenbury milk-vetch		Endangered	Carlsbad Fish And Wildlife	San Bernardino Mountains	Draft
Flowering Plants	Triple-ribbed milk-vetch		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Cushenbury oxytheca		Endangered	Carlsbad Fish And Wildlife	San Bernardino Mountains	Draft
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	Quino checkerspot butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Quino	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Stephens' kangaroo rat		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Palm Springs round-tailed		Candidate	Carlsbad Fish And Wildlife		
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	San Bernardino Merriam's		Endangered	Carlsbad Fish And Wildlife		
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.2

ACP/GRP CD
NAVIGATION INSTRUCTIONS
(Excerpt from CD affixed to inside front cover of Volume 1)

The information contained herein is provided to identify specific spill response and protection strategies for the applicable Kinder Morgan Pacific Operations Regions. Navigating through the bookmark links provided on the CD will take you to the Environmentally Sensitive Sites and the Economically Significant Sites provided in the applicable Area Contingency Plans and Geographic Response Plans.

INSTRUCTIONS FOR USE

1. From the screen on the left, click on region of interest. The different regions are identified by the red font.
2. Once the appropriate region is accessed, click on the "+" to the left of the region name to display the various areas within each region. These are identified with blue font.
3. Once the appropriate area is accessed, the links to the Environmentally Sensitive Sites and the Economically Significant Sites will be available for selection.
   - ➢ It is important to note that once each Environmentally Sensitive Site and Economically Significant Site is accessed, the user will have to scroll to the desired location.
   - ➢ Use the zoom icon to zoom into each page for easier reading.

NOTES:

1. In those areas where the statement "No ACP Information Available" is made, it indicates that there is no ACP or GRP information which is specific to the particular region or area of interest.
2. EPA REGION IX: For areas without specific ACP/GRP information, the Region IX Contingency Plan (RCP) is used as the response guidance; however, this RCP is currently in revision.
3. EPA REGION X: Region X is covered by the Northwest Area Contingency Plan; however, inland facilities are not addressed.
4. Thus, the following areas are covered by specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Linnton-Willbridge, Washington Area
   - Northern Region—Bay: Brisbane, Concord, Richmond, San Jose
   - Southern Region—Central: Colton
   - Southern Region—West: Carson, Watson, Mission Valley
5. And, the following areas do not have specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Oregon Pipelines (inland)
   - Northern Region—Central: Fresno
   - Northern Region—CalNev: Sacramento, Rocklin, Reno
   - Southern Region—East: Imperial, Phoenix, Tucson
   - Southern Region—Central: Colton, Barstow, Las Vegas

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5.0 DISPOSAL PLAN

5.1 OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Manager or their designee to manage the following:

- Coordinates waste disposal activities;
- Identifies appropriate interim storage methods and locations;
- Coordinates permitting activities needed to ensure proper disposal; and
- Documents compliance with appropriate local, State, and Federal handling of hazardous materials and/or wastes.

Material will be containerized or stored in a manner complying with applicable environmental regulations pertaining to the known or suspected materials characteristics. Upon characterization, waste, recyclable materials, or contaminated materials will be treated on-site, recycled, or transported and disposed of at an appropriate KMEP approved facility after appropriate regulatory approval.

5.2 WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Solid Wastes

A solid waste is defined as any discarded material provided that it is not specifically excluded under the regulations. These exclusions cover materials such as domestic sewage and mixtures of sewage discharged through a sewer system or industrial wastewater point source discharges.

A discarded material is any material which is abandoned (disposed of, burned or incinerated) or accumulated, stored or treated prior to being abandoned. A discarded material is also any material recycled or any material considered inherently wastelike. Recycled material is considered solid waste when used in a manner constituting disposal, placed on land or burned for energy recovery.

5.2 WASTE CLASSIFICATION (Cont'd)

Solid Wastes (Cont'd)

A solid waste may be considered a hazardous waste. A solid waste, as defined above, may be a hazardous waste if it is not excluded from regulation and is either a listed hazardous waste or exhibits the characteristics of a hazardous waste. A solid waste exhibits the characteristics of a hazardous waste if it exceeds the thresholds established in determining the following:

1) ignitability
2) corrosivity
3) reactivity
4) toxicity

A solid waste may also become a hazardous waste if it is mixed with a listed hazardous waste or, in the case of any other waste (including mixtures), when the waste exhibits any of the characteristics identified above.

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

5.3 WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

Safety Considerations

Care would be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes would wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles would be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste would be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

5.3 WASTE HANDLING (Cont'd)

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.

- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure 5.1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

5.4 WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure 5.2. The majority of these options can be used either onshore or offshore.

If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.
- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Access.
- Public contact.

5.4 WASTE STORAGE (Cont'd)

Temporary storage sites should use the best achievable technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 mils or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least three (3) meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

5.5 WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the Facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

During an oil spill incident, KMEP would consult with the federal and state On Scene Coordinator (OSC) to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. KMEP maintains a list of approved disposal sites that satisfy local, state, and federal regulations and KMEP requirements. This identification of suitable waste treatment and disposal sites would be prepared by the Environmental Manager or their designee in the form of an Incident Disposal Plan which must be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

5.5 WASTE DISPOSAL (Cont'd)

Techniques for Disposal of Recovered Oil (Cont'd)

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure 5.3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Environmental Manager or their designee is responsible for ensuring that all waste materials be disposed of at an internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

5.5 WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning

As a general rule, *in situ* burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at Company-approved disposal facilities. The Environmental Manager or their designee is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Environmental Manager or their designee prior to sending any waste to such a facility.

5.6 REGULATORY REQUIREMENT AND PERMITS

The management of oil and oily wastes must comply with the standards set forth in.:

- Code of Federal Regulations (CFR) Parts 261 and 265 as mandated by the Resource Conservation and Recovery Act (RCRA).
- California Code of Regulations (CCR) Title 22, Division 4, Chapter 30.
- CCR, Title 14, Division 1, Subdivision 4, Chapter 7, Subchapter 2, Determining Amount of Petroleum Hydrocarbons Recovered.

To expedite removal of spilled oil, refined products, and contaminated material from marine waters during an emergency response, temporary storage sites may be erected at appropriate shore locations (22 CCR 66270.1(c)(3)). The transportation of oil and contaminated material to temporary storage sites during emergency response is exempt from handling and permitting requirements (22 CCR 66263.30 and/or 66263.43). The onsite California Environmental Protection Agency, Department of Toxic Substance Control (DTSC) representative or duty officer should be contacted for approval. If a Unified Command is established, OSPR will facilitate the contact with DTSC through their liaison function.

Kinder Morgan will maintain responsibility for recovered oil and oily wastes generated during recovery operations. A temporary storage site may require an emergency permit from the San Francisco Bay Conservation & Development Commission (BCDC) or the California Coastal Commission (CCC).

5.6 REGULATORY REQUIREMENT AND PERMITS (Cont'd)

Citing of the temporary facility must be done with the concurrence of the USCG and State OSC, DTSC, the local RQQCB, and the local health, fire and emergency services. If a Unified Command is established, OSPR will facilitate the contact of the state and local agencies through their liaison function.

The San Francisco Bay Conservation and Commission and the California Coastal Commission have created the Joint CCC/BCDC Oil Spill Program to respond to oil-spill-related matters in the San Francisco Bay area and along the coast. This program acts as the single point of contact, and requests for emergency permits (including waste management) should be directed to the following Joint CCC/BCDC Oil Spill Program staff:

Joint CCC/BCDC Oil Spill Program	(415) 904-5250 (phone)
45 Fremont Street, Suite 2000	(415) 904-5400 (fax)

The Incident Commander will coordinate activities to obtain the necessary permits to ensure proper disposal or recycling of recovered oil and debris.

FIGURE 5.1

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

A. Normally require remote power sources, thus are safe around flammable fluids.
B. Should have a relief valve in the outlet line to prevent bursting hoses.
C. Air powered units tend to freeze up in sub-freezing temperatures.
D. Units with work ball valves are difficult to prime.
E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
F. Can also pump air at low pressure.
G. Transfer is batch-wise rather than continuous.
H. Waste must be in separate container for efficient transfer.
I. Transportable with its own prime mover.
J. High shear action tends to emulsify oil and water mixtures.

FIGURE 5.2

TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

FIGURE 5.3

OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

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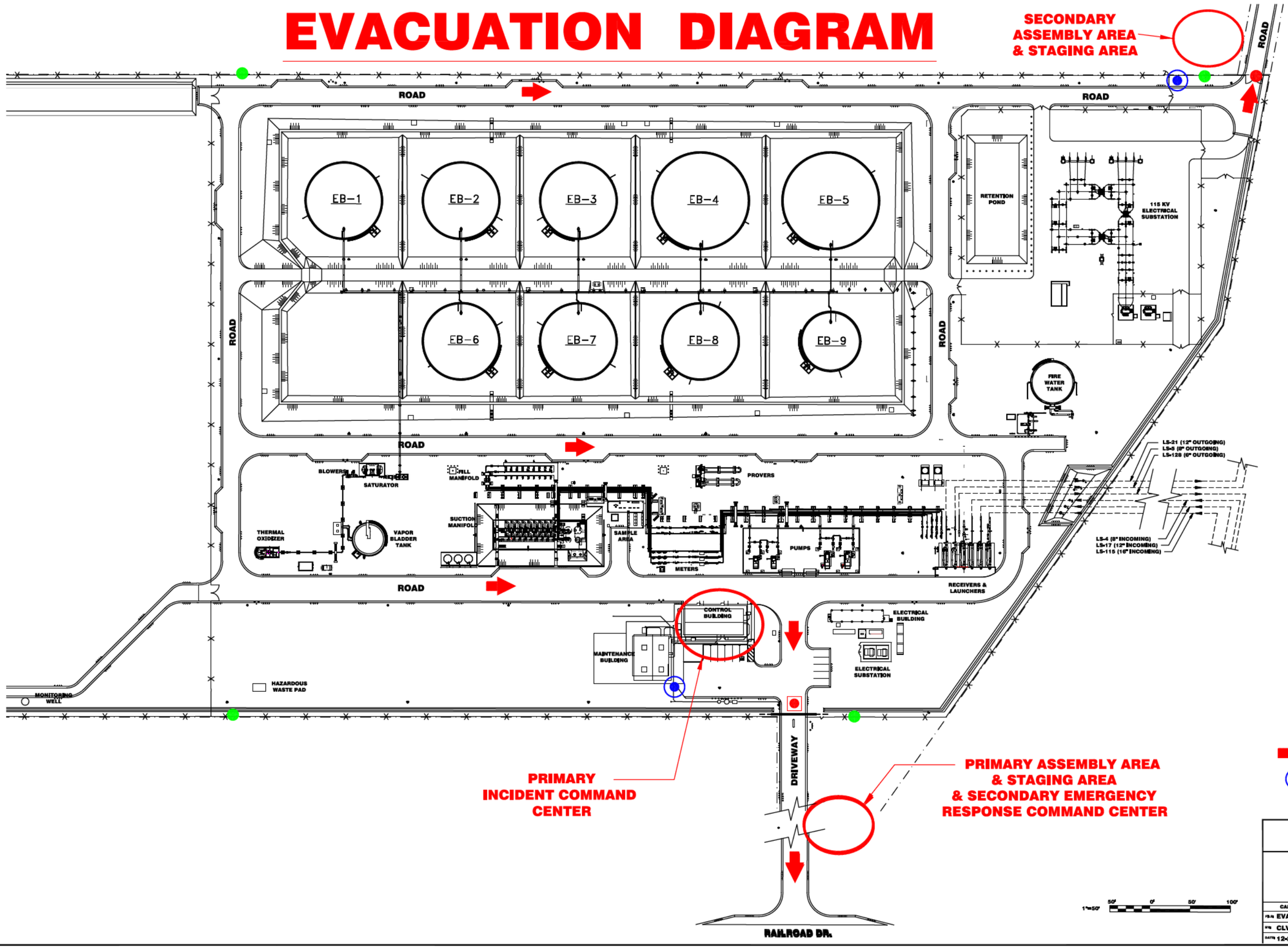
(b) (7)(F), (b) (3)

EVACUATION DIAGRAM



LEGEND:

- DOUBLE ELECTRIC GATE
- SINGLE MAN GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS
- SMOKING AREA

SFPP, L.P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
EL PASO BREAKOUT

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-EB	DESIGN SUPT	EVAC-EB
BY: CLV	MGR. SAFETY	
DATE: 12-22-08	AREA SUPR.	

(b) (7)(F), (b) (3)

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
El Paso Area Lines	
• TX/NM State line – Lordsburg 16”	128
• El Paso Station – El Paso Breakout 8”	4
• El Paso Breakout – Lordsburg 8” (Out of Service)	4/5
• El Paso – TX/NM State Line 12”	17
• TX/NM State line – Deming 12”	18
• Deming – Lordsburg 12”	19
• El Paso – TX/NM State Line 16”	127
• Diamond Junction – El Paso Breakout 16”	132
Pipeline Facilities (non-storage)	
• Diamond Junction – piping manifold only	
• Alamogordo Junction – piping manifold only	
• Afton Station – piping manifold only (OOS)	
• Deming Pump Station (booster)	

- Figures 6.1a through 6.1h on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

TX/NM STATE LINE – LORDSBURG 16" (128)		
Pipe and Operational Data		
• Section Length:	142.48 Miles	752,294 Feet
• Line Diameter:	16.00 in., O.D.	15.438 in., I.D. (Note 1)
• Line Capacity:	1,222 bbls/mile (Note 2)	
• Product types:	Conventional Gas, EPA ULSD, Turbine, JP-8, Ethanol	
• Capacity of entire line section:	(b) (7)(F), (b) (3)	
• Maximum flow rate:	7,787 bph or 186,888 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Luna, Dona Ana, Hidalgo NM	
• Location Description:	From the TX/NM state line west generally parallel to the Union Pacific Railroad and I-10 to Lordsburg Station.	
Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

EL PASO STATION –EL PASO BREAKOUT 8" (4)		
Pipe and Operational Data		
• Section Length:	16.16 Miles	85,324.8 Feet
• Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (Note 1)
• Line Capacity:	339 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	2,340 bpd or 56,160 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	El Paso, TX
• Location Description:	From El Paso Station generally northwest parallel to the Southern Pacific Railroad to the El Paso Breakout Station.

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

EL PASO BREAKOUT – LORDSBURG 8" (4/5) (Out of Service)		
Pipe and Operational Data		
Section Length:	164 Miles	752,407 Feet
Line Diameter:	8.625 in., O.D.	8.125 in., I.D. (Note 1)
Line Capacity:	339 bbls/mile (Note 2)	
Capacity of entire line section:	(b) (7)(F),	
Maximum flow rate:	0 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
County(s)/State(s) Traversed:	El Paso, TX	
Location Description:	From El Paso Breakout Station generally northwest parallel to the Southern Pacific Railroad to the TX/NM state line.	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

EL PASO – TX/NM STATE LINE 12" (17)		
Pipe and Operational Data		
• Section Length:	21.55 Miles	113,807 Feet
• Line Diameter:	12.75 in., O.D.	12.374 in., I.D. (Note 1)
• Line Capacity:	785 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,950 bph or 94,800 bpd	
Location Description		
• County(s)/State(s) Traversed:	El Paso, TX	
• Location Description:	From El Paso Breakout Station generally northwest parallel to the Southern Pacific Railroad to the TX/NM state line.	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

TX/NM STATE LINE - DEMING 12" (18)		
Pipe and Operational Data		
• Section Length:	85.99 Miles	454,027 Feet
• Line Diameter:	12.75 in., O.D.	12.374 in., I.D. (Note 1)
• Line Capacity:	785 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,950 bph or 94,800 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Luna, Dona Ana, NM	
• Location Description:	From the TX/NM state line generally parallel to the Union Pacific Railroad and I-10 west to Deming Station.	

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

DEMING – LORDSBURG 12" (19)		
Pipe and Operational Data		
• Section Length:	51.22 Miles	270,439 Feet
• Line Diameter:	12.75 in., O.D.	11.75 in., I.D. (Note 1)
• Line Capacity:	708 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,050 bph or 73,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Luna, Hidalgo, NM	
• Location Description:	From Deming Station west generally parallel to the Union Pacific Railroad and I-10 to Lordsburg Station.	

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

EL PASO – TX/NM STATE LINE 16" (127)		
Pipe and Operational Data		
• Section Length:	21.55 Miles	113,807 Feet
• Line Diameter:	16.00 in., O.D.	15.438 in., I.D. (Note 1)
• Line Capacity:	1,222 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	7,787 bph or 186,888 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	El Paso, TX	
• Location Description:	From El Paso Station generally northwest parallel to the Southern Pacific Railroad to the TX/NM state line.	

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

DIAMOND JUNCTION – EL PASO BREAKOUT 16" (132)		
Pipe and Operational Data		
Section Length:	6.08 Miles	32,155 Feet
Line Diameter:	16.00 in., O.D.	15.438 in., I.D. (Note 1)
Line Capacity:	1,222 bbls/mile (Note 2)	
Capacity of entire line section:	(b) (7)(F), (b)	
Maximum flow rate:	7,787 bph or 186,888 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
County(s)/State(s) Traversed:	El Paso, TX	
Location Description:	From Diamond Junction north to El Paso Breakout Station.	

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1h for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_001.pdf
485-D-HCA-ELPASO-TUCSON_001.pdf
485-D-HCA-ELPASO-TUCSON_002.pdf
485-D-HCA-ELPASO-TUCSON_003.pdf
485-D-HCA-ELPASO-TUCSON_004.pdf
485-D-HCA-ELPASO-TUCSON_005.pdf
485-D-HCA-ELPASO-TUCSON_006.pdf
485-D-HCA-ELPASO-TUCSON_007.pdf
485-D-HCA-ELPASO-TUCSON_008.pdf
485-D-HCA-ELPASO-TUCSON_009.pdf
485-D-HCA-ELPASO-TUCSON_010.pdf
485-D-HCA-ELPASO-TUCSON_011.pdf
485-D-HCA-ELPASO-TUCSON_012.pdf
485-D-HCA-ELPASO-TUCSON_013.pdf
485-D-HCA-ELPASO-TUCSON_014.pdf
485-D-HCA-ELPASO-TUCSON_015.pdf
485-D-HCA-ELPASO-TUCSON_016.pdf
485-D-HCA-ELPASO-TUCSON_017.pdf
485-D-HCA-ELPASO-TUCSON_018.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-ELPASO-TUCSON_001	LS-4; EL PASO STATION - EL PASO BREAKOUT 8" LS-49; WESTERN - UPRR 4" LS-17; EL PASO STATION - EL PASO BREAKOUT 12"
D-HCA-ELPASO-TUCSON_002	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-132; DIAMOND JCT - EL PASO BREAKOUT 16" LS-17/18; EL PASO BREAKOUT - DEMING 12" LS-17; EL PASO STATION - EL PASO BREAKOUT 12" LS-4; EL PASO STATION - EL PASO BREAKOUT 8" LS-86; EL PASO BREAKOUT - ALAMOGORDO JCT.4/6"
D-HCA-ELPASO-TUCSON_003	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_004	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_005	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_006	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_007	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_008	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_009	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_010	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_011	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_012	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-128/129/131; DEMING - TUCSON 16" LS-17/18; EL PASO BREAKOUT - DEMING 12" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_013	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_014	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_015	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_016	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_017	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_018	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_019	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_020	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_021	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_022	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_023	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_024	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_025	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"

GRAPHIC SCALE

10 5 0 10 20 Miles

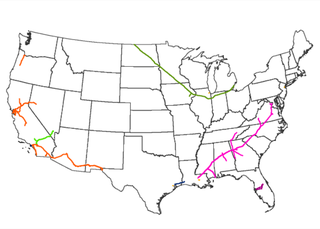
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

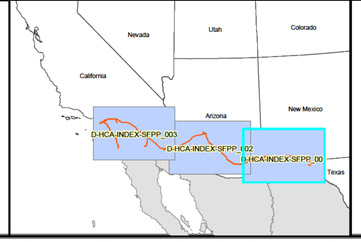
LEGEND

PIPELINES	INDEX SHEETS	INDEX SHEETS	
CalNev	CalNev	Pipeline	
CentFla	CentFla	D_HCA_ sheet	
Cochin-US	Cochin-US		
KMLT	KMLT		
WCLT	WCLT		
Cypress	Cypress		
Plantation	Plantation		
SFPP	SFPP		

VICINITY MAP



AREA MAP



MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS HIGH CONSEQUENCE AREA (HCA) INDEX MAP PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_001	

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Niland Area Lines	
• Colton – Niland 20"	111
• Niland – AZ Line 20"	112
• Niland – Imperial 6"	58
• Niland – Imperial 10"	133
• Imperial – El Centro 4"	59
Yuma Area Lines	
• CA Line – Yuma 20"	113
• Yuma – Yuma MCAS Terminal 6"	61
• Yuma – Montezuma 20"	114
Pipeline Facilities (non-storage)	
• El Centro NAF Terminal – meter manifold only	

- Figures 6.1a through 6.1h on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled "Worst Case Discharge Data" of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

COLTON – NILAND 20" (111)

Pipe and Operational Data

- Section Length: 130.43 Miles 688,670 Feet
- Line Diameter: 20.0 in., O.D. 19.312 in., I.D. (note 1)
- Line Capacity: 1,913 bbls/mile (note 2)
- Product types: CARB ULSD, Gas, JP-8, Ethanol
- Capacity of entire line section: (b) (7)(F), (b) (3)
- Maximum flow rate: 12,500 bph or 300,000 bpd

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

- County(s)/State(s) Traversed: Riverside, Imperial, CA
- Location Description: from Indio generally southeast following along the eastern edge of the Salton Sea to Niland Terminal in Niland.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

NILAND – AZ LINE 20" (112)		
Pipe and Operational Data		
• Section Length:	65.82 Miles	347,518 Feet
• Line Diameter:	20.0 in., O.D.	19.312 in., I.D. (note 1)
• Line Capacity:	1,913 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	12,000 bph or 288,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Imperial, CA	
• Location Description:	From Niland southeast to Glamis and the California-Arizona state line north of the Colorado River at Yuma. Crosses the Coachella and All-American Canal.	

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

NILAND – IMPERIAL 6" (58)		
Pipe and Operational Data		
• Section Length:	25.22 Miles	133,182 Feet
• Line Diameter:	6.625 in., O.D.	6.187 in., I.D. (note 1)
• Line Capacity:	196 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	1,600 bph or 38,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Imperial, CA	
• Location Description:	From a connection with line 133 in the Calipatria Area south to Imperial Terminal southeast of Imperial County Airport in Imperial.	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

NILAND – IMPERIAL 10" (133)		
Pipe and Operational Data		
• Section Length:	4.26 Miles	22,497 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	1,600 bph or 38,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Imperial, CA	
• Location Description:	From Niland south to a connection with line 58 in the Calipatria area.	

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

IMPERIAL – EL CENTRO 4" (59)		
Pipe and Operational Data		
● Section Length:	6.38 Miles	33,728 Feet
● Line Diameter:	4.50 in., O.D.	4.026 in., I.D. (note 1)
● Line Capacity:	83 bbls/mile (note 2)	
● Capacity of entire line section:	(b) (7) (F) (b)	
● Maximum flow rate:	650 bph or 15,600 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
● County(s)/State(s) Traversed:	Imperial, CA
● Location Description:	From Imperial Terminal west to the El Centro NAF Terminal.

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

CA LINE – YUMA 20" (113)		
Pipe and Operational Data		
• Section Length:	4.27 Miles	22,520 Feet
• Line Diameter:	20.0 in., O.D.	19.312 in., I.D. (note 1)
• Line Capacity:	1,913 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	12,000 bph or 288,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Yuma, AZ
• Location Description:	From the California – Arizona state line east across the Colorado River to Yuma Station.

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

YUMA - YUMA MCAS 6" (61)		
Pipe and Operational Data		
● Section Length:	9.10 Miles	48,033 Feet
● Line Diameter:	6.265 in., O.D.	6.187 in., I.D. (note 1)
● Line Capacity:	196 bbls/mile (note 2)	
● Capacity of entire line section:	(b) (7)(F),	
● Maximum flow rate:	800 bph or 19,200 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
● County(s)/State(s) Traversed:	Yuma, AZ
● Location Description:	From Yuma Station south to near east 24th St., west to 3rd St., then south to the Yuma MCAS Station, crossing the Gila River.

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

YUMA – MONTEZUMA 20" (114)		
Pipe and Operational Data		
● Section Length:	87.33 Miles	461,124 Feet
● Line Diameter:	20.0 in., O.D.	19.312 in., I.D. (note 1)
● Line Capacity:	1,913 bbls/mile (note 2)	
● Capacity of entire line section:	(b) (7)(F), (b)	
● Maximum flow rate:	12,000 bph or 288,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
● County(s)/State(s) Traversed:	Yuma, AZ	
● Location Description:	From Yuma east to Welton then generally northeast to Montezuma station.	

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1h for specific information on line segments.

The following Index Maps show all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_002.pdf
485-D-HCA-YUMA-PHNX_063.pdf
485-D-HCA-YUMA-PHNX_064.pdf
485-D-HCA-YUMA-PHNX_065.pdf
485-D-HCA-YUMA-PHNX_066.pdf
485-D-HCA-YUMA-PHNX_067.pdf
485-D-HCA-YUMA-PHNX_068.pdf
485-D-HCA-Index-SFPP_003.pdf
485-D-HCA-COLTON-YUMA_071.pdf
485-D-HCA-COLTON-YUMA_072.pdf
485-D-HCA-COLTON-YUMA_073.pdf
485-D-HCA-COLTON-YUMA_074.pdf
485-D-HCA-COLTON-YUMA_075.pdf
485-D-HCA-COLTON-YUMA_076.pdf
485-D-HCA-COLTON-YUMA_077.pdf
485-D-HCA-COLTON-YUMA_078.pdf
485-D-HCA-COLTON-YUMA_079.pdf
485-D-HCA-COLTON-YUMA_080.pdf
485-D-HCA-COLTON-YUMA_081.pdf
485-D-HCA-COLTON-YUMA_082.pdf
485-D-HCA-COLTON-YUMA_083.pdf
485-D-HCA-COLTON-YUMA_084.pdf
485-D-HCA-COLTON-YUMA_085.pdf
485-D-HCA-COLTON-YUMA_086.pdf
485-D-HCA-COLTON-YUMA_087.pdf
485-D-HCA-COLTON-YUMA_088.pdf
485-D-HCA-NLND-IMPRL_079.pdf
485-D-HCA-NLND-IMPRL_080.pdf
485-D-HCA-NLND-IMPRL_081.pdf
485-D-HCA-NLND-IMPRL_082.pdf
485-D-HCA-YUMA-PHNX_069.pdf
485-D-HCA-YUMA-PHNX_070.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-ELPASO-TUCSON_026	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_027	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_028	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_029	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_030	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_031	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_032	LS-54; TUCSON - DAVIS MONTHAN AFB 6" LS-117; TUCSON - PHOENIX 12" LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-PHNX-TUCSON_033	LS-54; TUCSON - DAVIS MONTHAN AFB 6" LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16" LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_034	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_035	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_036	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_037	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_038	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_039	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_040	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_041	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_042	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_043	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_044	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_045	LS-114; YUMA - PHOENIX 20" LS-117; TUCSON - PHOENIX 12" LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_053	LS-114; YUMA - PHOENIX 20" LS-117; TUCSON - PHOENIX 12" LS-52; PHOENIX - LUKE 6"
D-HCA-PHNX-LUKEAFB_054	LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_055	LS-114; YUMA - PHOENIX 20" LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_056	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_057	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_058	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_059	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_060	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_061	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_062	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_063	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_064	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_065	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_066	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_067	LS-114; YUMA - PHOENIX 20"

GRAPHIC SCALE

10 5 0 10 20 Miles

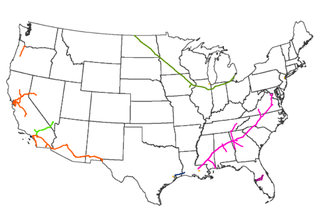
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP



AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_002	

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-YUMA-PHNX_068	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_069	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_070	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_071	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_072	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_073	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_074	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_075	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_076	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_077	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_078	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10"
D-HCA-NLND-IMPRL_079	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10" LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_080	LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_081	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-NLND-IMPRL_082	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-COLTON-YUMA_083	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_084	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_085	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_086	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_087	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_088	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_089	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_090	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_091	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_092	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_093	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_094	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_095	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_096	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_097	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_098	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_099	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_100	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_101	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_102	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-WATSON-CLTN_103	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-CLTN-MARCHAFB_104	LS-111/112/113; COLTON - YUMA 22/20" LS-51; COLTON - MARCH AFB 6"
D-HCA-WTSN-SANDIEGO_105	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_106	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_107	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_108	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_109	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_110	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_111	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_112	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_113	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10"
D-HCA-WTSN-SANDIEGO_114	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10" LS-123; MISSION VALLEY - HARBOR JCT. 10/8" LS-124; HARBOR JCT - ARCO/CHEVRON 8/10" LS-141; MISSION VALLEY - SHELL 8" LS-142; MISSION VALLEY - SHELL 8" LS-143; MISSION VALLEY - SHELL 8"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_003	

6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Phoenix Area Lines	
• Montezuma – Phoenix 20”	114
• Phoenix – Luke 6”	52
• Toltec – Phoenix 12”	117
Pipeline Facilities (Non-storage)	
Montezuma Pump Station - booster	

- Figures 6.1a through 6.1c on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Worst Case Discharge Data” of the applicable Line Segment.
- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps
- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.
- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

MONTEZUMA – PHOENIX 20" (114)	
Pipe and Operational Data	
• Section Length:	69.42 Miles 366,538 Feet
• Line Diameter:	20.0 in., O.D. 19.312 in., I.D. (note 1)
• Line Capacity:	1,913 bbls/mile (note 2)
• Product types:	Conventional Gas, CBG, AZRBOB, EPA DSL, EPA, ULSD, Turbine, JP-8, Ethanol
• Capacity of entire line section:	(b) (7)(F), (b) (3)
• Maximum flow rate:	12,500 bph or 300,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	Maricopa, AZ
• Location Description:	From Montezuma Station generally northeast paralleling the Union Pacific Railroad to Buckeye, then east to Phoenix Terminal near 51st Avenue and Van Buren. Crosses the Hassayampa River and the Agua Fria River.
Worst Case Discharge Data	
(b) (7)(F), (b) (3)	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

PHOENIX - LUKE 6" (52)		
Pipe and Operational Data		
• Section Length:	18.18 Miles	95,970 Feet
• Line Diameter:	6.625 in., O.D.	6.187 in., I.D. (note 1)
• Line Capacity:	196 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	815 bph or 19,560 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Maricopa, AZ
• Location Description:	From Phoenix Terminal west to 75th Ave, north to Thomas Road, west to Dysart Road, then north to Luke AFB. Crosses the Agua Fria River and the Roosevelt Canal.

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

TOLTEC – PHOENIX 12" (117)

Pipe and Operational Data

• Section Length:	39.8 Miles	210,141 Feet
• Line Diameter:	12.75 in., O.D.	12.25 in., I.D. (note 1)
• Line Capacity:	770 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	6,512.5 bph or 153,600 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

• County(s)/State(s) Traversed:	Maricopa, Pinal, Az
• Location Description:	From Phoenix Terminal south to Pecos Road then generally southeast to Maricopa, then parallel to the Union Pacific Railroad to Toltec.

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1c for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_002.pdf
485-D-HCA-PHNX-TUCSON_038.pdf
485-D-HCA-PHNX-TUCSON_039.pdf
485-D-HCA-PHNX-TUCSON_040.pdf
485-D-HCA-PHNX-TUCSON_041.pdf
485-D-HCA-PHNX-TUCSON_042.pdf
485-D-HCA-PHNX-TUCSON_043.pdf
485-D-HCA-PHNX-TUCSON_044.pdf
485-D-HCA-PHNX-TUCSON_045.pdf
485-D-HCA-YUMA-PHNX_053.pdf
485-D-HCA-PHNX-LUKEAFB_054.pdf
485-D-HCA-YUMA-PHNX_055.pdf
485-D-HCA-YUMA-PHNX_056.pdf
485-D-HCA-YUMA-PHNX_057.pdf
485-D-HCA-YUMA-PHNX_058.pdf
485-D-HCA-YUMA-PHNX_059.pdf
485-D-HCA-YUMA-PHNX_060.pdf
485-D-HCA-YUMA-PHNX_061.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-ELPASO-TUCSON_026	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_027	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_028	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_029	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_030	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_031	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_032	LS-54; TUCSON - DAVIS MONTHAN AFB 6" LS-117; TUCSON - PHOENIX 12" LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-PHNX-TUCSON_033	LS-54; TUCSON - DAVIS MONTHAN AFB 6" LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16" LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_034	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_035	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_036	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_037	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_038	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_039	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_040	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_041	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_042	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_043	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_044	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_045	LS-114; YUMA - PHOENIX 20" LS-117; TUCSON - PHOENIX 12" LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_053	LS-114; YUMA - PHOENIX 20" LS-117; TUCSON - PHOENIX 12" LS-52; PHOENIX - LUKE 6"
D-HCA-PHNX-LUKEAFB_054	LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_055	LS-114; YUMA - PHOENIX 20" LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_056	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_057	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_058	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_059	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_060	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_061	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_062	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_063	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_064	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_065	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_066	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_067	LS-114; YUMA - PHOENIX 20"

GRAPHIC SCALE

10 5 0 10 20 Miles

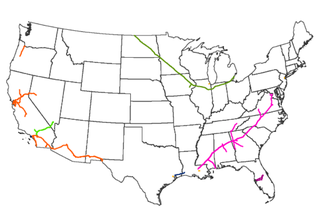
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP



AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	**485-D-HCA-INDEX-SFPP_002**	

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Tucson Area Lines	
• Tucson – Davis Monthan 6”	54
• Tucson – Toltec 12”	117
• Lordsburg – AZ/NM 12”	21
• Lordsburg – AZ/NM 16”	128
• AZ/NM – Apache 12”	22
• Apache – Tucson 12”	22
• AZ/NM – Tucson 16”	131
Pipeline Facilities (non-storage)	
Davis Monthan AFB – Delivery Facilities to Military Storage	
Road Forks Junction – Delivery Facilities to Plant Shipper	

- Figures 6.1a through 6.1k on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps

- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.

- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

TUCSON – DAVIS MONTHAN 6" (54)		
Pipe and Operational Data		
• Section Length:	6.28 Miles	33,151 Feet
• Line Diameter:	6.625 in., O.D.	6.187 in., I.D. (Note 1)
• Line Capacity:	196 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	550 bph or 13,200 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Pima, AZ
• Location Description:	From Tucson Terminal south and southeast parallel to the Southern Pacific Railroad, then North to Davis Monthan AFB.

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

TUCSON – TOLTEC 12" (117)		
Pipe and Operational Data		
• Section Length:	63.55 Miles	335,529 Feet
• Line Diameter:	12.75 in., O.D.	12.25 in., I.D. (Note 1)
• Line Capacity:	770 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	6,400 bph or 153,600 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Pima/Pinal, AZ	
• Location Description:	From Tucson to Toltec	

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

LORDSBURG – AZ/NM STATE LINE 12" (21)		
Pipe and Operational Data		
• Section Length:	25.73 Miles	135,854 Feet
• Line Diameter:	12.75 in., O.D.	12.374 in., I.D. (Note 1)
• Line Capacity:	785 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,500 bph or 84,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Hidalgo, NM
• Location Description:	From Lordsburg Station west generally parallel to I-10 at the AZ/NM state line.

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

LORDSBURG – AZ/NM STATE LINE 16" (128)		
Pipe and Operational Data		
• Section Length:	14.6 Miles	77,088 Feet
• Line Diameter:	16.00 in., O.D.	15.438 in., I.D. (Note 1)
• Line Capacity:	1,222 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	6,900 bph or 165,600 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Hidalgo, NM	
• Location Description:	From Lordsburg Station west generally parallel to I-10 in the AZ/NM state line.	

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

AZ/NM STATE LINE – APACHE 12" (22)		
Pipe and Operational Data		
• Section Length:	29.86 Miles	157,660 Feet
• Line Diameter:	12.75 in., O.D.	11.75 in., I.D. (Note 1)
• Line Capacity:	708 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,050 bph or 73,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Cochise, AZ	
• Location Description:	From AZ/NM state line to Apache Pass Scraper Station	

FIGURE 6.1j

PIPELINE SECTION INFORMATION SUMMARY

APACHE – TUCSON 12" (22)		
Pipe and Operational Data		
• Section Length:	97.36 Miles	514,060 Feet
• Line Diameter:	12.75 in., O.D.	11.75 in., I.D. (Note 1)
• Line Capacity:	708 bbls/mile (Note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,050 bph or 73,200 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Pima, Cochise, AZ	
• Location Description:	From AZ/NM state line west parallel to the Southern Pacific Railroad to Tucson Terminal	

FIGURE 6.1k

PIPELINE SECTION INFORMATION SUMMARY

AZ/NM STATE LINE – TUCSON 16" (131)

Pipe and Operational Data

• Section Length:	127.22 Miles	671,721.6 Feet
• Line Diameter:	16.00 in., O.D.	15,438 in., I.D. (Note 1)
• Line Capacity:	1,222 bbls/mile (Note 2)	
• Product types:	EPA ULSD, Conventional Gas, Turbine, JP-8, Ethanol	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	6,900 bph or 165,600 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

• County(s)/State(s) Traversed:	Pima, Cochise, AZ
• Location Description:	From AZ/NM state line west parallel to the Southern Pacific Railroad to Tucson Terminal.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1k for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-Index-SFPP_001.pdf

485-D-HCA-ELPASO-TUCSON_018.pdf

485-D-HCA-ELPASO-TUCSON_019.pdf

485-D-HCA-ELPASO-TUCSON_020.pdf

485-D-HCA-ELPASO-TUCSON_021.pdf

485-D-HCA-ELPASO-TUCSON_022.pdf

485-D-HCA-ELPASO-TUCSON_023.pdf

485-D-HCA-ELPASO-TUCSON_024.pdf

485-D-HCA-ELPASO-TUCSON_025.pdf

485-D-HCA-Index-SFPP_002.pdf

485-D-HCA-ELPASO-TUCSON_026.pdf

485-D-HCA-ELPASO-TUCSON_027.pdf

485-D-HCA-ELPASO-TUCSON_028.pdf

485-D-HCA-ELPASO-TUCSON_029.pdf

485-D-HCA-ELPASO-TUCSON_030.pdf

485-D-HCA-ELPASO-TUCSON_031.pdf

485-D-HCA-ELPASO-TUCSON_032.pdf

485-D-HCA-PHNX-TUCSON_033.pdf

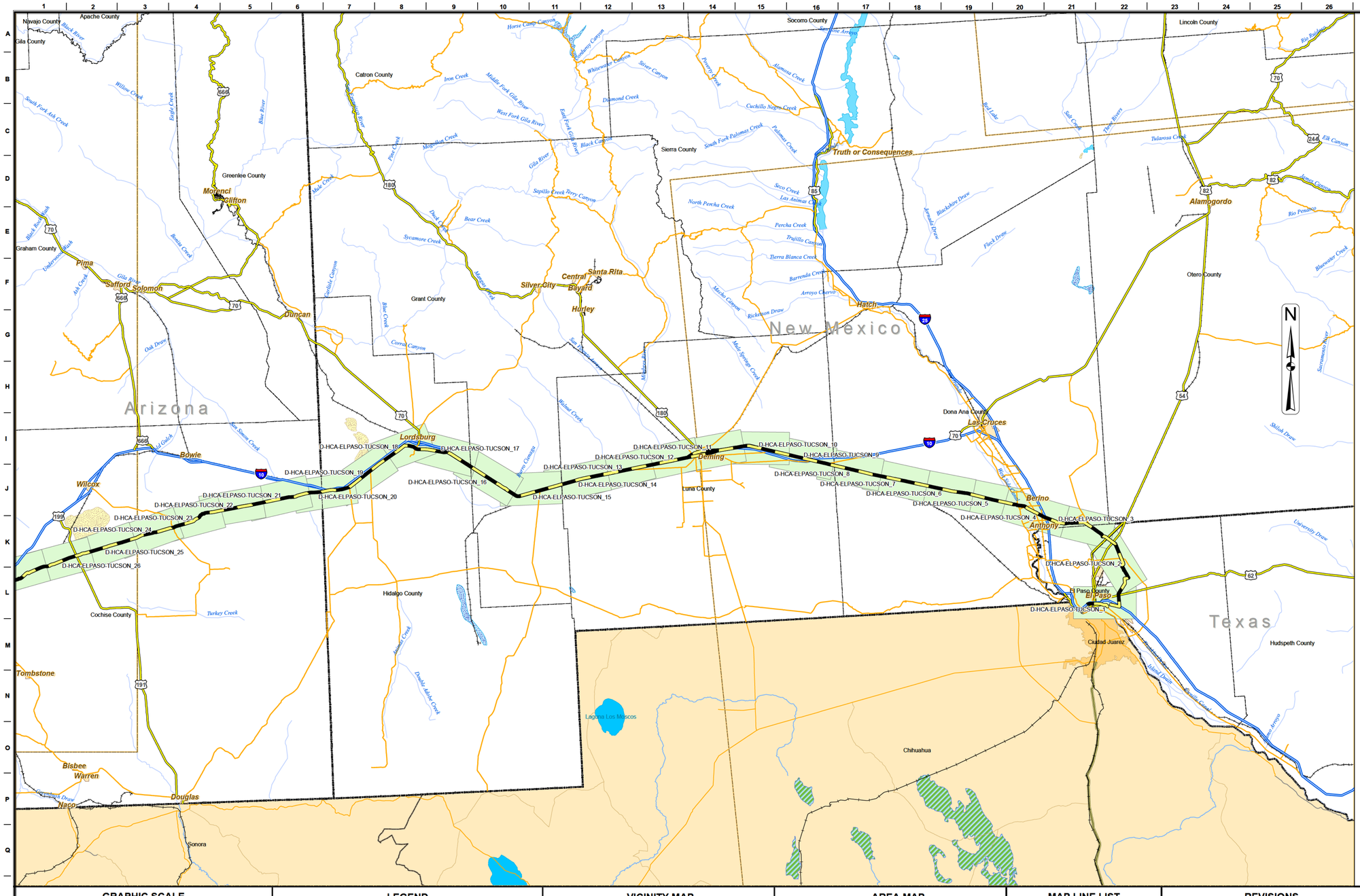
485-D-HCA-PHNX-TUCSON_034.pdf

485-D-HCA-PHNX-TUCSON_035.pdf

485-D-HCA-PHNX-TUCSON_036.pdf

485-D-HCA-PHNX-TUCSON_037.pdf

485-D-HCA-PHNX-TUCSON_038.pdf



INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-ELPASO-TUCSON_001	LS-4; EL PASO STATION - EL PASO BREAKOUT 8" LS-49; WESTERN - UPRR 4" LS-17; EL PASO STATION - EL PASO BREAKOUT 12"
D-HCA-ELPASO-TUCSON_002	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-132; DIAMOND JCT - EL PASO BREAKOUT 16" LS-17/18; EL PASO BREAKOUT - DEMING 12" LS-17; EL PASO STATION - EL PASO BREAKOUT 12" LS-4; EL PASO STATION - EL PASO BREAKOUT 8" LS-86; EL PASO BREAKOUT - ALAMOGORDO JCT.4/6"
D-HCA-ELPASO-TUCSON_003	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_004	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_005	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_006	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_007	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_008	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_009	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_010	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_011	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-17/18; EL PASO BREAKOUT - DEMING 12"
D-HCA-ELPASO-TUCSON_012	LS-127/128; EL PASO BREAKOUT - DEMING 16" LS-128/129/131; DEMING - TUCSON 16" LS-17/18; EL PASO BREAKOUT - DEMING 12" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_013	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_014	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_015	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_016	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_017	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_018	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_019	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_020	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_021	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_022	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_023	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_024	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-ELPASO-TUCSON_025	LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"

GRAPHIC SCALE

10 5 0 10 20 Miles

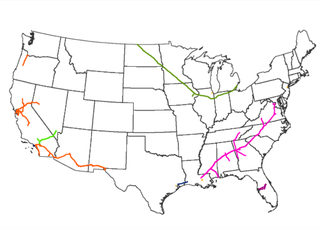
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	INDEX SHEETS	
CalNev	CalNev	Pipeline	
CentFla	CentFla	D_HCA_ sheet	
Cochin-US	Cochin-US		
KMLT	KMLT		
WCLT	WCLT		
Cypress	Cypress		
Plantation	Plantation		
SFPP	SFPP		

VICINITY MAP



AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_001	

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-ELPASO-TUCSON_026	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_027	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_028	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_029	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_030	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_031	LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16"
D-HCA-ELPASO-TUCSON_032	LS-54; TUCSON - DAVIS MONTHAN AFB 6" LS-117; TUCSON - PHOENIX 12" LS-128/129/131; DEMING - TUCSON 16" LS-19/21/22; DEMING - TUCSON 12"
D-HCA-PHNX-TUCSON_033	LS-54; TUCSON - DAVIS MONTHAN AFB 6" LS-19/21/22; DEMING - TUCSON 12" LS-128/129/131; DEMING - TUCSON 16" LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_034	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_035	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_036	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_037	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_038	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_039	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_040	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_041	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_042	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_043	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_044	LS-117; TUCSON - PHOENIX 12"
D-HCA-PHNX-TUCSON_045	LS-114; YUMA - PHOENIX 20" LS-117; TUCSON - PHOENIX 12" LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_053	LS-114; YUMA - PHOENIX 20" LS-117; TUCSON - PHOENIX 12" LS-52; PHOENIX - LUKE 6"
D-HCA-PHNX-LUKEAFB_054	LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_055	LS-114; YUMA - PHOENIX 20" LS-52; PHOENIX - LUKE 6"
D-HCA-YUMA-PHNX_056	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_057	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_058	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_059	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_060	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_061	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_062	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_063	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_064	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_065	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_066	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_067	LS-114; YUMA - PHOENIX 20"

GRAPHIC SCALE

10 5 0 10 20 Miles

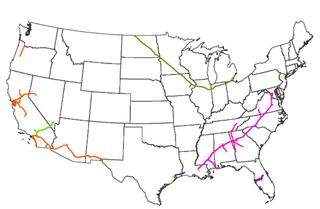
FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP



AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_002	

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION/ TERMINAL	LARGEST TANK (BBLS)	WCD (BBLS)
El Paso Station	(b) (7)(F), (b) (3)	
El Paso Yard EP-2		
El Paso Breakout EB-4		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout stations/terminals within this area have adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station/ terminal)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other sections of this Volume 2.

FIGURE 7.1a

EL PASO STATION / TANK INFORMATION

EL PASO STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
EPS-1	Relief Transmix	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	El Paso, TX			
• Location	Market Street west of Hawkins Blvd. El Paso, TX			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

(b) (7)(F), (b) (3)

FIGURE 7.1b

EL PASO YARD TANK INFORMATION

El PASO YARD				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
EP-1	Diesel	(b) (7)(F), (b) (3)		
EP-2	Diesel			

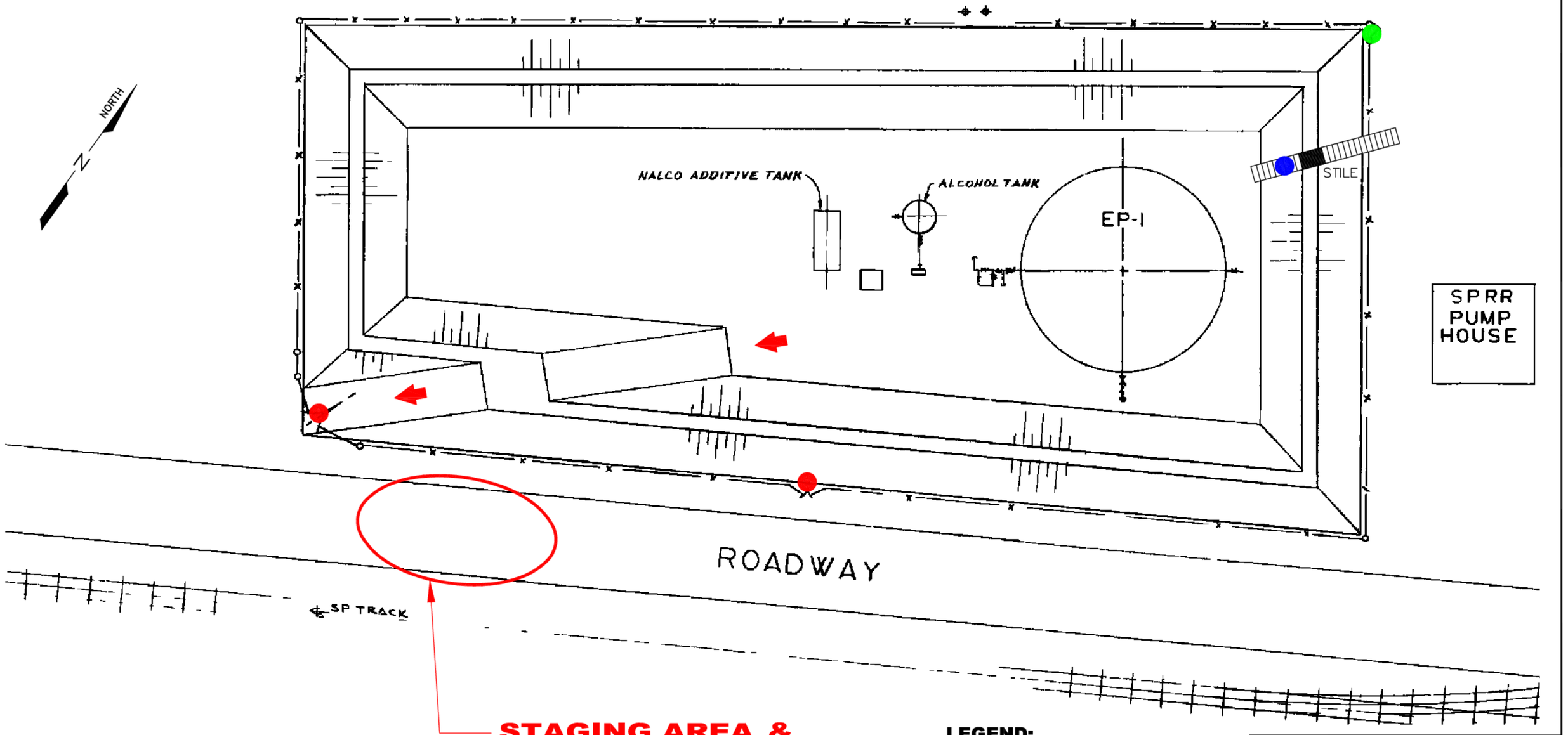
LOCATION DESCRIPTION	
• County/State	El Paso, TX
• Location	on UPRR property west of Piedras St. at Durazno Ave, El Paso, TX

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

EVACUATION PLAN



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ORANGE CALIFORNIA

EVACUATION DIAGRAM
EL PASO YARD EP-1

CADD	SCALE: AS NOTED	RECORD DRAWING NO.
FILE: EVAC-EP-1	DESIGN SUPT	EVAC-EP-1
BY: SWH	MGR. SAFETY	
DATE: 2-12-09	AREA SUPR.	

EVACUATION PLAN

STAGING AREA
EMERGENCY RESPONSE
COMMAND CENTER

NORTH

DURAZNO STREET ENTRANCE
TO EP–1 & EP–2 STATIONS
(UNDER OVERPASS)

℄ DURAZNO STREET

℄ PIEDRAS STREET

℄ PIEDRAS STREET OVERPASS

RAIL SPUR

SWITCH RACK

TOP OF FIREWALL

FIRE HYDRANT

LIGHTING POLE

EP–2
SP DIESEL
90'ø X 48' 50,000 BBL

ROOF DRAIN

SUMP
WDO

LIGHTING POLE

EDGE OF CONCRETE/FORMER ROADWAY

EDGE OF CONCRETE

CONC. PAD

EDGE OF CONCRETE/FORMER ROADWAY

EDGE OF CONCRETE

EL. 106'-3"

EDGE OF OVERPASS

℄ MAIN TRACK SPUR

LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

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ORANGE CALIFORNIA

EVACUATION DIAGRAM
EL PASO YARD EP–2

CADD	SCALE: AS NOTED	RECORD DRAWING NO.
FILE: EVAC–EP–2	DESIGN SUPT	EVAC–EP–2
BY: SWH	MGR. SAFETY	
DATE: 2–12–09	AREA SUPR.	

FIGURE 7.1c

EL PASO BREAKOUT STATION TANK INFORMATION

EL PASO BREAKOUT				
TANK #	TYPICAL PRODUCT	MAX. CAPACITY (BBLS) *	DIAMETER	HEIGHT
EB-1	Refined Products	(b) (7)(F), (b) (3)		
EB-2	Refined Products			
EB-3	Refined Products			
EB-4	Refined Products			
EB-5	Refined Products			
EB-6	Refined Products			
EB-7	Refined Products			
EB-8	Refined Products			
EB-9	Transmix			
EB-10	Contact Water			
EB-11	Contact Water			
EB-12	Contact Water			

LOCATION DESCRIPTION

- County/State: El Paso, TX
- Location: Railroad Drive east of Dyer Street.

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

Figures presented on the following pages include:

- Figure 7.2c – General Layout Diagram
- Figure 7.2d – Evacuation Diagram
- Figure 7. 2e – Fire Protection Diagram

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Niland Breakout Station	(b) (7)(F), (b) (3)	
N-7		
Yuma Station		
YU-2		
MCAS Terminal		
Y-1		
Imperial Terminal		
IP-01		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tank in the breakout station/terminal within this area has adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station/ terminal)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this area of operations are detailed in other sections of this Volume 2.

FIGURE 7.1a

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

NILAN BREAKOUT STATION/ IMPERIAL CO.				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
N-1	Gasoline	(b) (7)(F), (b) (3)		
N-2	Gasoline			
N-3	Gasoline			
N-4	Various Products			
N-5	Various Products			
N-6	Distillates			
N-7	Distillates			

LOCATION DESCRIPTION

- County/State Imperial, CA
- Location Niland Breakout Station

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

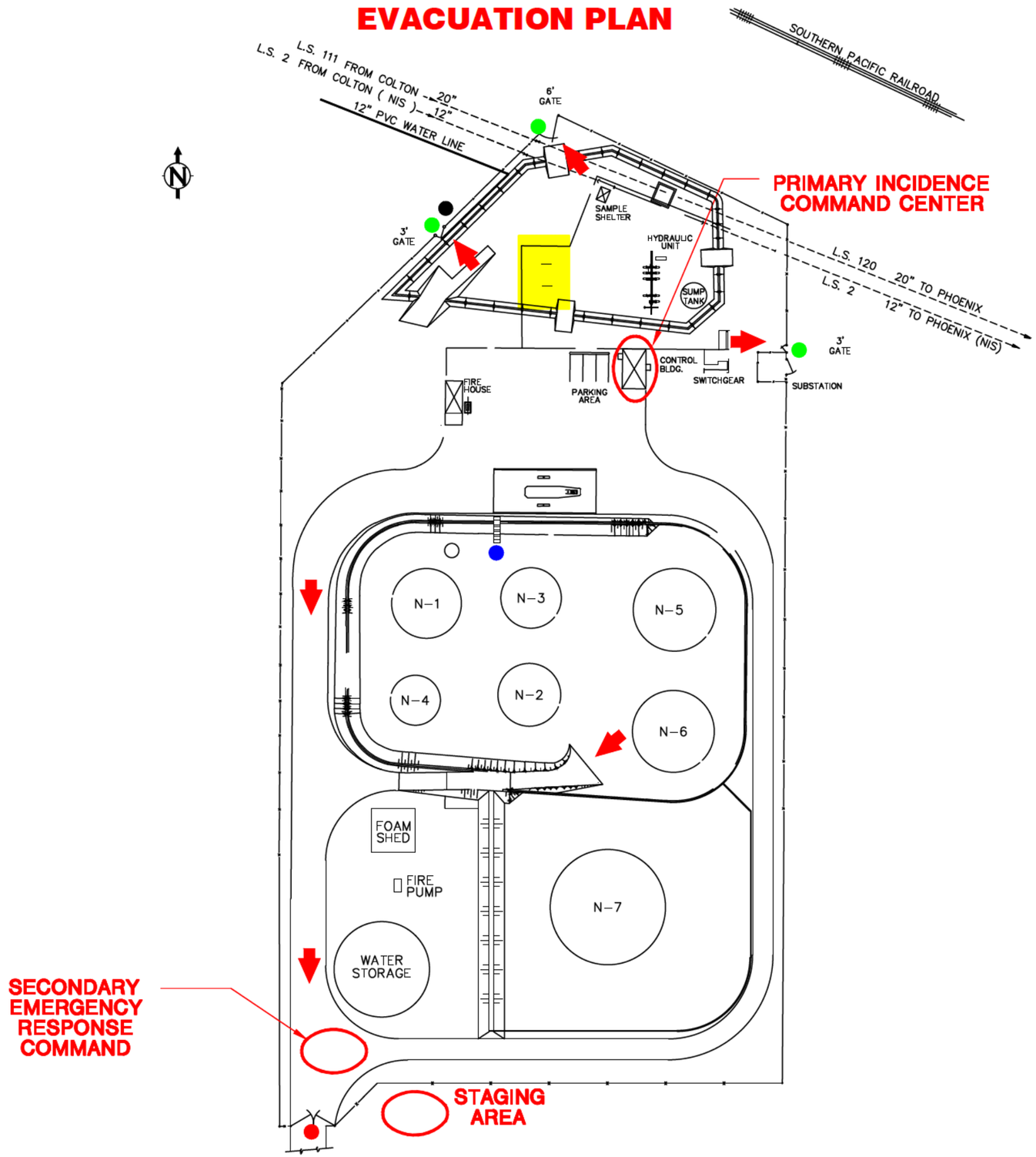
* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2a

NILAND STATION
FIRE PROTECTION DIAGRAM
EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

EVACUATION PLAN



LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS
- HEARING PROTECTION REQUIRED

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
NILAND STATION

CADD		SCALE: NONE	RECORD DRAWING NO.
FILE:	EVAC-NI	DESIGN SUPV	EVAC-NI
BY:	SJS	MGR. SAFETY	
DATE:	10-21-11	AREA SUPR.	

FIGURE 7.1b

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

YUMA STATION		
YU-2	Jet Fuel	(b) (7)(F), (b) (3)
LOCATION DESCRIPTION		
• County/State	Yuma, CA	
• Location	Yuma Station	
WORST CASE DISCHARGE		
(b) (7)(F), (b) (3)		

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

(b) (7)(F), (b) (3)

FIGURE 7.1c

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

MCAS (b) (7)(F), (b) (3)	
Y-1	Jet Fuel
Y-2	Jet Fuel

LOCATION DESCRIPTION

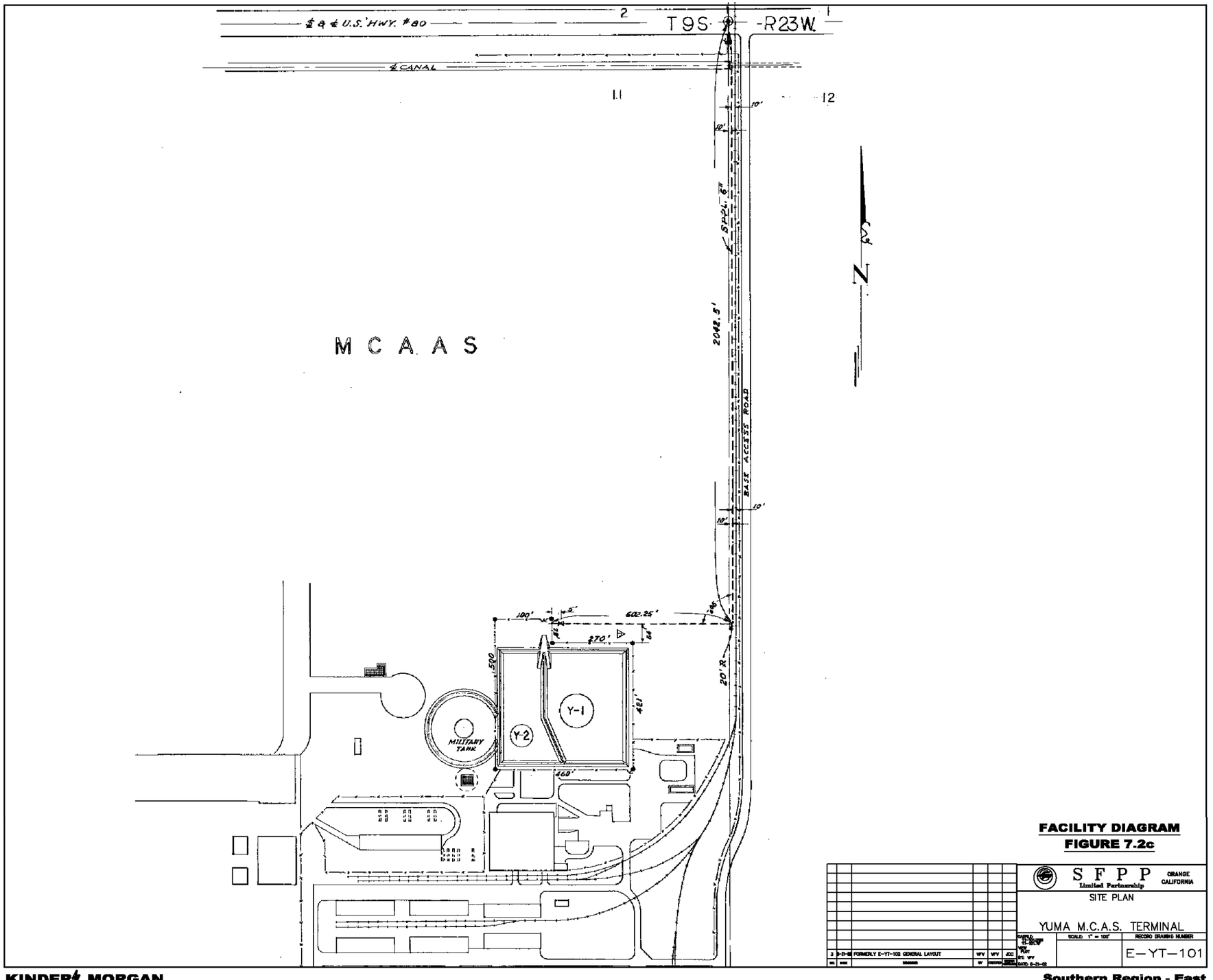
- County/State: Yuma, CA
- Location: MCAS Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

[redacted]

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.



FACILITY DIAGRAM
FIGURE 7.2c

3	9-21-02 FORMERLY E-YT-102 GENERAL LAYOUT	WV	JCC
2		WV	
1		WV	

SFPP Limited Partnership — ORANGE CALIFORNIA

SITE PLAN

YUMA M.C.A.S. TERMINAL

SCALE: 1" = 100' — RECORD DRAWING NUMBER: E-YT-101

FIGURE 7.1d

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

(NOTE: EPA-Jurisdictional Tanks not listed)

IMPERIAL TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
IP-01	JP-5	(b) (7)(F), (b) (3)		
IP-16	JP-5			
LOCATION DESCRIPTION				
• County/State	Imperial, CA			
• Location	Imperial Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

NOTE: Imperial Terminal is a multi-jurisdictional Facility (DOT and EPA). The complete Facility information for Imperial Terminal required by EPA is under development, to be inserted in Section 8 of this Volume 2.

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Niland Breakout Station	(b) (7)(F), (b) (3)	
N-7		
Yuma Station		
YU-2		
MCAS Terminal		
Y-1		
Imperial Terminal		
IP-01		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tank in the breakout station/terminal within this area has adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station/ terminal)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this area of operations are detailed in other sections of this Volume 2.

FIGURE 7.1a

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

NILAN BREAKOUT STATION/ IMPERIAL CO.				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
N-1	Gasoline	(b) (7)(F), (b) (3)		
N-2	Gasoline			
N-3	Gasoline			
N-4	Various Products			
N-5	Various Products			
N-6	Distillates			
N-7	Distillates			
LOCATION DESCRIPTION				
• County/State	Imperial, CA			
• Location	Niland Breakout Station			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2a

NILAND STATION
FIRE PROTECTION DIAGRAM
EVACUATION DIAGRAM

FIGURE 7.1b

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

YUMA STATION		
YU-2	Jet Fuel	(b) (7)(F), (b) (3)
LOCATION DESCRIPTION		
• County/State	Yuma, CA	
• Location	Yuma Station	
WORST CASE DISCHARGE		
(b) (7)(F), (b) (3)		

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

(b) (7)(F), (b) (3)

FIGURE 7.1c

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

MCAS TERMINAL

Y-1	Jet Fuel
Y-2	Jet Fuel

(b) (7)(F), (b) (3)

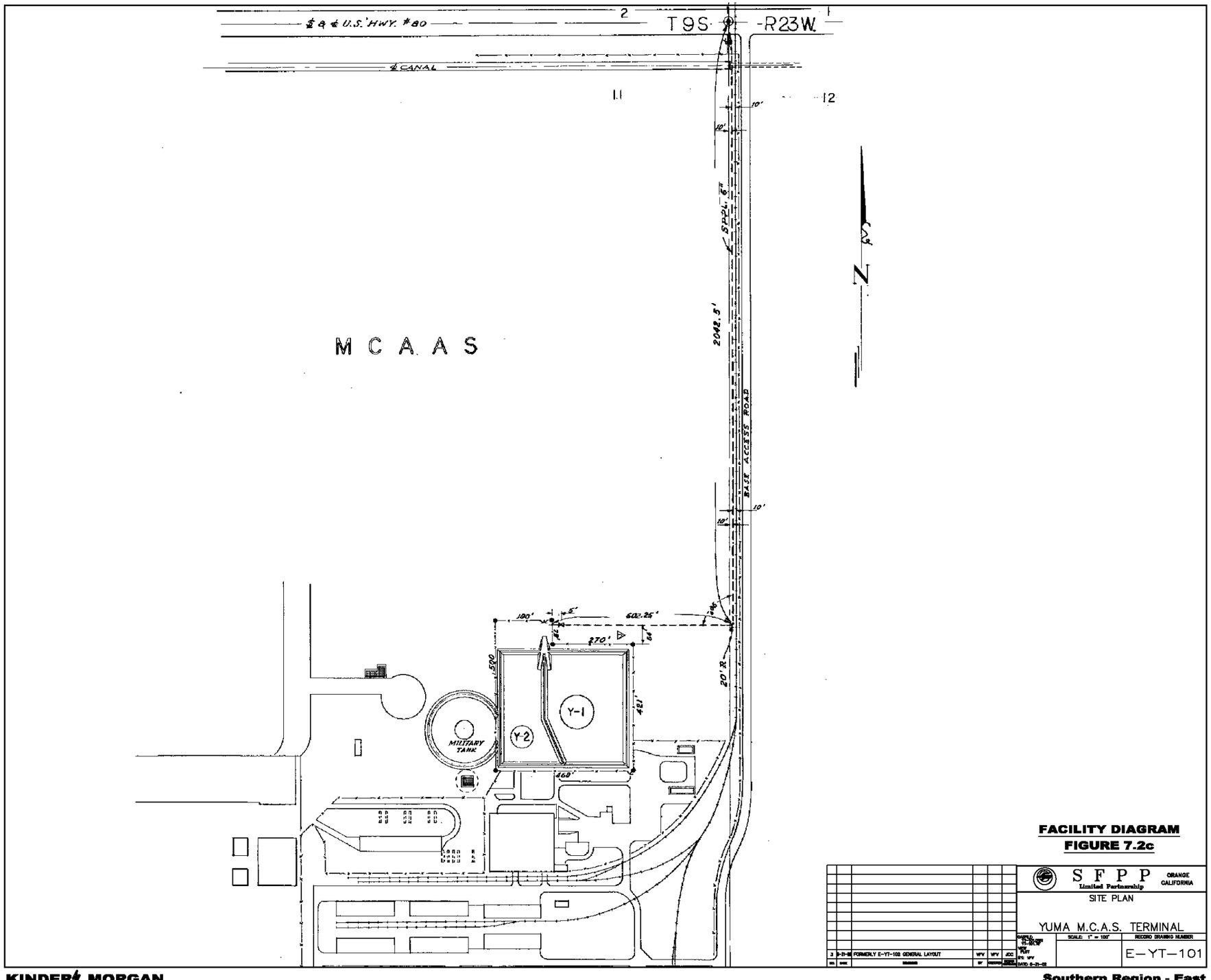
LOCATION DESCRIPTION

- County/State Yuma, CA
- Location MCAS Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.



FACILITY DIAGRAM
FIGURE 7.2c

3	9-21-16	FORMERLY E-YT-102 GENERAL LAYOUT	WV	WV	JCC

SFPP Limited Partnership — ORANGE CALIFORNIA

SITE PLAN

YUMA M.C.A.S. TERMINAL

SCALE: 1" = 120' | RECORD DRAWING NUMBER: E-YT-101

FIGURE 7.1d

BREAKOUT STATION/TERMINAL TANK INFORMATION SUMMARY

(NOTE: EPA-Jurisdictional Tanks not listed)

IMPERIAL TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
IP-01	JP-5	(b) (7)(F), (b) (3)		
IP-16	JP-5			
IP-19	Transmix			
IP-20	OOS no product			
LOCATION DESCRIPTION				
• County/State	Imperial, CA			
• Location	Imperial Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

NOTE: Imperial Terminal is a multi-jurisdictional Facility (DOT and EPA). The complete Facility information for Imperial Terminal required by EPA is under development, to be inserted in Section 8 of this Volume 2.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION/ TERMINAL	LARGEST TANK (BBLS)	WCD (BBLS)
Phoenix Terminal	(b) (7)(F), (b) (3)	

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout stations/terminals within this area have adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume.

FIGURE 7.1a

BREAKOUT STATION/TERMINAL TANK INFORMATION

(Note: EPA-Jurisdictional tanks not listed)

Phoenix Terminal				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
P-1	JP-8	(b) (7)(F), (b) (3)		
P-2	JP-8			
P-6	Transmix			
P-7	Transmix			
P-25	Transmix			
P-28	Transmix			

LOCATION DESCRIPTION

- County/State Maricopa, AZ
- Location Phoenix Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: This Facility is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this section is to provide an information summary with specific data for the breakout stations/terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous section of this Volume 2. The data is summarized as follows:

BREAKOUT STATION/ TERMINAL	LARGEST TANK (BBLS)	WCD (BBLS)
Tucson Terminal (Tank T-14)	(b) (7)(F), (b) (3)	

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout stations/terminals within this area have adequate secondary containment.

- The specific information summary for these breakout stations/terminals is provided as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station/ terminal)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other sections of this Volume 2.

FIGURE 7.1

BREAKOUT STATION/TERMINAL TANK INFORMATION
(Note: EPA-Jurisdictional Tanks not Listed)

TUCSON TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY**	**DIAMETER**	**HEIGHT**
T-02	JP-8	(b) (7)(F), (b) (3)		
T-05	JP-8			
T-14	Transmix			
T-15	JP-8			
T-21	OOS			
LOCATION DESCRIPTION				
• County/State	Pima, AZ			
• Location	Refinery Way and Alvernon Way, Tucson, AZ			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: Tucson Terminal is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for Tucson Terminal required by EPA is located in Section 8 of this volume 2.

FIGURE 7.2

FACILITY DIAGRAM

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: SFPP, L.P. Imperial Terminal
FACILITY ADDRESS: 345 W. Aten Road
El Centro, CA 92251

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 1.3)

1. Does the facility transfer *oil* over water to or from vessels ***and*** does the facility have a total *oil* storage capacity greater than or equal to 42,000 gallons?	Yes		No	✓
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes		No	✓
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.	Yes	✓	No	
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes		No	✓
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?	Yes		No	✓

1 If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

2 For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

Signature — Area Manager (Title)

Gary Koehn (Name (please type or print)) — 12-9-04 (Date)

NOTE: The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan. Response Management Associates, Inc. (RMA) provided consulting and plan development services in the preparation of this plan utilizing data provided by the owner/operator and/or the Facility. RMA assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via pipeline and is transported out of the Facility by tanker trucks and a 4" pipeline to El Centro NAS Station. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Imperial Terminal 345 W. Aten Road El Centro, CA 92251 (619) 352-0677 (619) 352-4358 (*Fax*)
NAICS Code:	493190
EPA FRP Number:	FRP09A0061
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	1957
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Imperial County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Greater than one mile
Landside Directions:	At the intersection of S. Imperial Ave. and I-8 W, start out going north on S. Imperial Ave. Proceed 1.57 miles where S. Imperial Ave. becomes N. Imperial Ave. Travel 0.01 miles and turn slightly right onto CA-86-N. Go 1.98 miles to W. Aten and turn right. Go 0.21 miles to the Facility.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Description of Operation (Cont'd):

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is [redacted]

Products Handled:

- Gasoline
- Diesel
- JP-8
- Transmix
- Ethanol
- Additives

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION – LOADING RACK

Description of Operation:

- The Facility is equipped with seven (7) loading spots which handle various refined petroleum products.
- A maximum of seven (7) tank trucks may load simultaneously.
- The loading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 90 trucks per day.

Loading Rate: 430 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

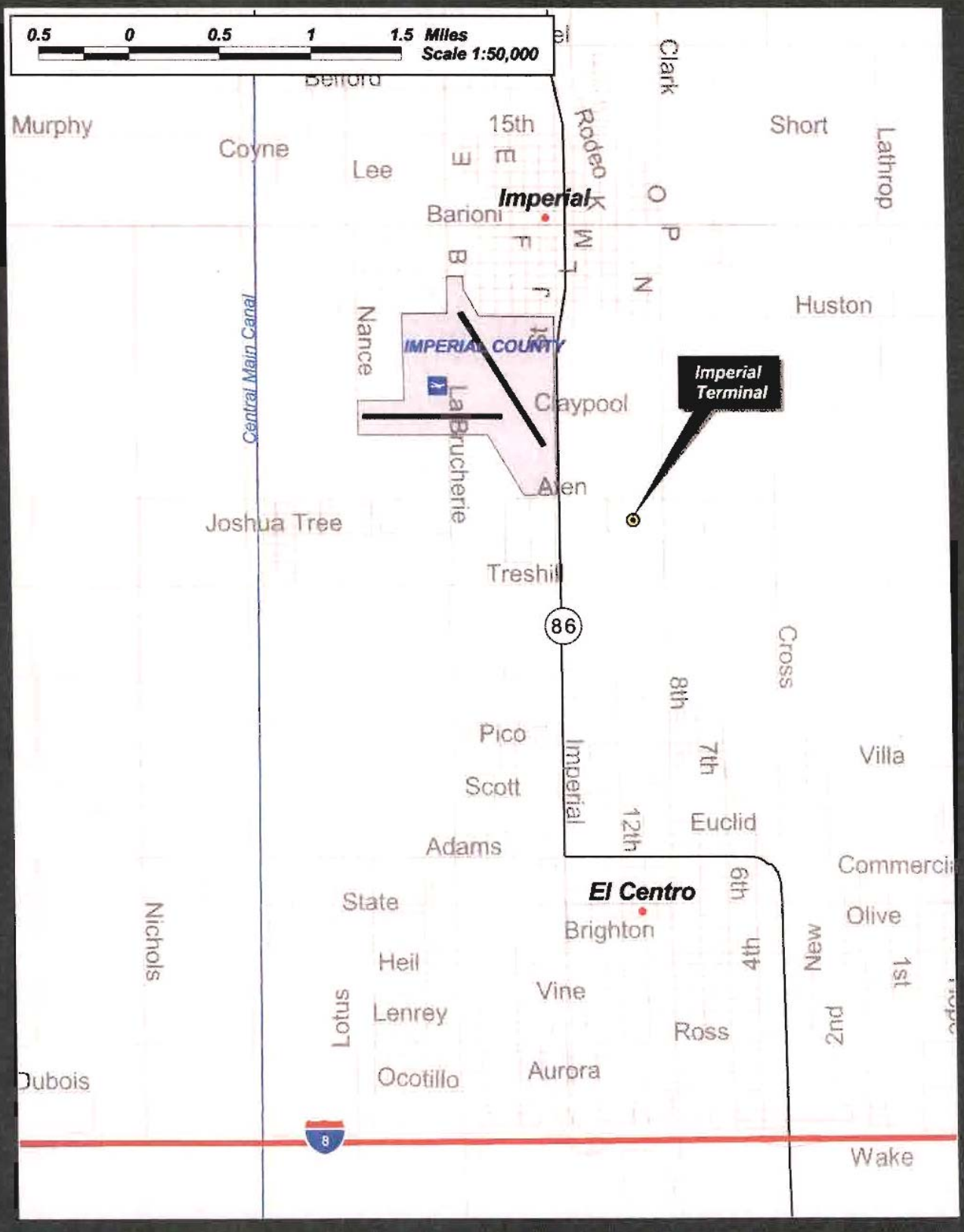
- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in 1957. Seven tanks with a maximum capacity of 6,064,884 gallons date from this initial period. Three tanks were added in 1958, increasing maximum capacity to 7,954,884 gallons. Four additional tanks were constructed in 1961-62 and maximum capacity was increased to 9,723,714 gallons. In 1964 the addition of four more tanks increased maximum capacity to 12,176,514 gallons, and another expansion occurred in 1973. The latest expansion to the Facility occurred in 1999 – 2000, with the addition of a former ST Services terminal.

Fig 8.2 - Area Map

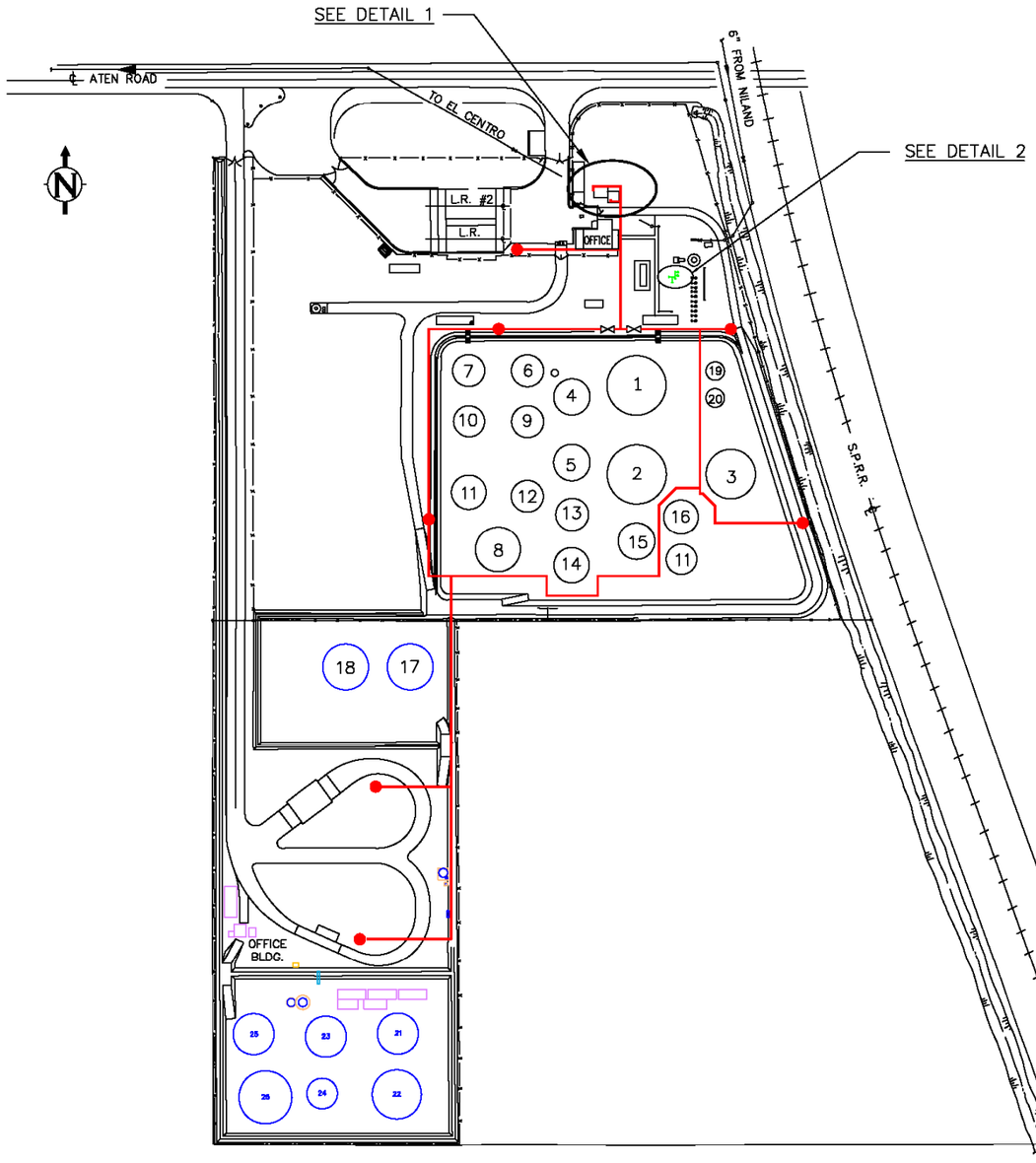
Map Prepared By
Response Management Associates
(281) 320-9796

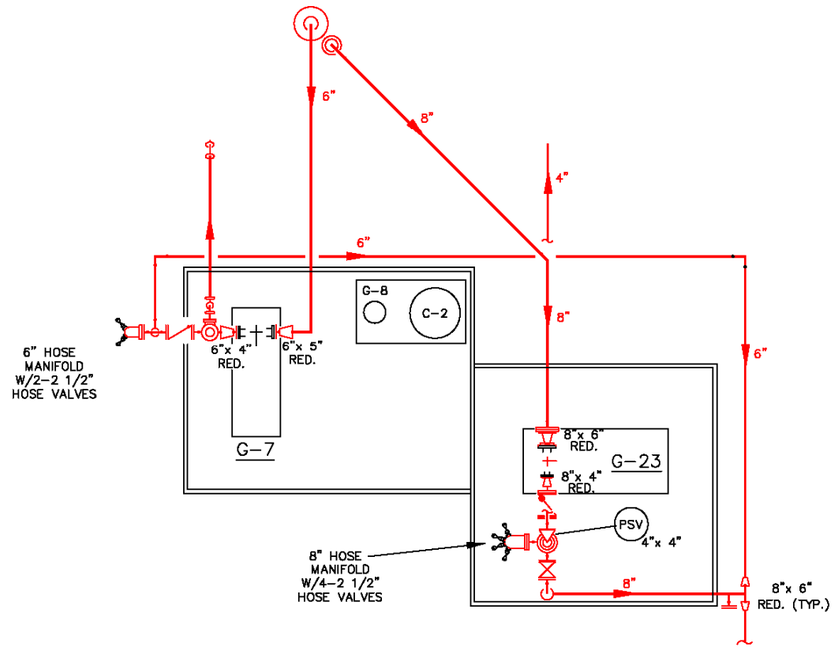


KINDER MORGAN
ICP - V2

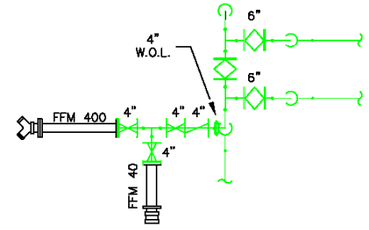
Southern Region - East
Imperial Area - Imperial Terminal
April 2004

(b) (7)(F), (b) (3)





DETAIL 1



DETAIL 2

FIRE PROTECTION DIAGRAM
FIGURE 8.4

LEGEND

- FIRE HYDRANT
- WATER HYDRANT
- FIRE WATER
- CITY WATER
- FOAM INJECTION

SFPP, L.P.
ORANGE CALIFORNIA

FIRE PROTECTION DIAGRAM
IMPERIAL TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: FPD-IP	DESIGN SUPV	FPD-IP
BY: AKC	MGR. SAFETY	
DATE: 5-27-00	AREA SUPR.	

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA		
Facility Name and Address: SFPP, L.P. Phoenix Terminal 49 N. 53rd Avenue Phoenix, AZ 85043 (Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)		
1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes:	No: X
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes:	No: X
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	Yes: X	No:
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes:	No: X
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	Yes:	No: X
[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.		
[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).		

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: D. Scott Manley

D. Scott Manley, Area Manager

Date: 12/13/2010

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. The product is received via pipeline and is transported out of the Facility by tanker trucks and via pipeline. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Phoenix Terminal 49 N. 53rd Ave. Phoenix, AZ 85043 (602) 278-8564 (602) 269-8518 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0059
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	January, 1956
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Maricopa County, AZ
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Greater than one mile
Landside Directions:	At the intersection of I-10 and N. 51st Avenue, take N. 51st Avenue heading south approximately 0.78 miles and turn right onto W. Van Buren St. Proceed 0.51 miles to N. 53rd Avenue, turn left and travel 0.30 miles to the Facility on the left.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Description of Operation (Cont'd):

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is [redacted]

Products Handled:

- Additives
- Diesel
- Ethanol
- Gasoline
- Jet Fuel
- Transmix

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with ten (10) loading racks which handle various refined petroleum products.
- A maximum of 21 tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 400 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION – RAIL CAR RACK

Description Of Operation:

There are three (3) rail car unloading spurs located at the Facility with capability to unload from 20 rail cars. One (1) spur is capable of unloading 10 rail cars and two (2) spurs are capable of unloading five (5) rail cars each.

- Ethanol is unloaded at this spot. There are no loading operations.

Unloading Rate: 1,750 gpm (*typical*)

Capacity: 30,100 gallons per rail car (*typical*)

Discharge Prevention:

- Personnel are stationed at the unloading area during unloading to monitor the operation.
- The rail car wheels are chocked and brakes set during unloading operations.
- Safe operating procedures are posted.
- Safe operating procedures are reviewed with all rack personnel.
- DOT loading/unloading procedures are followed.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

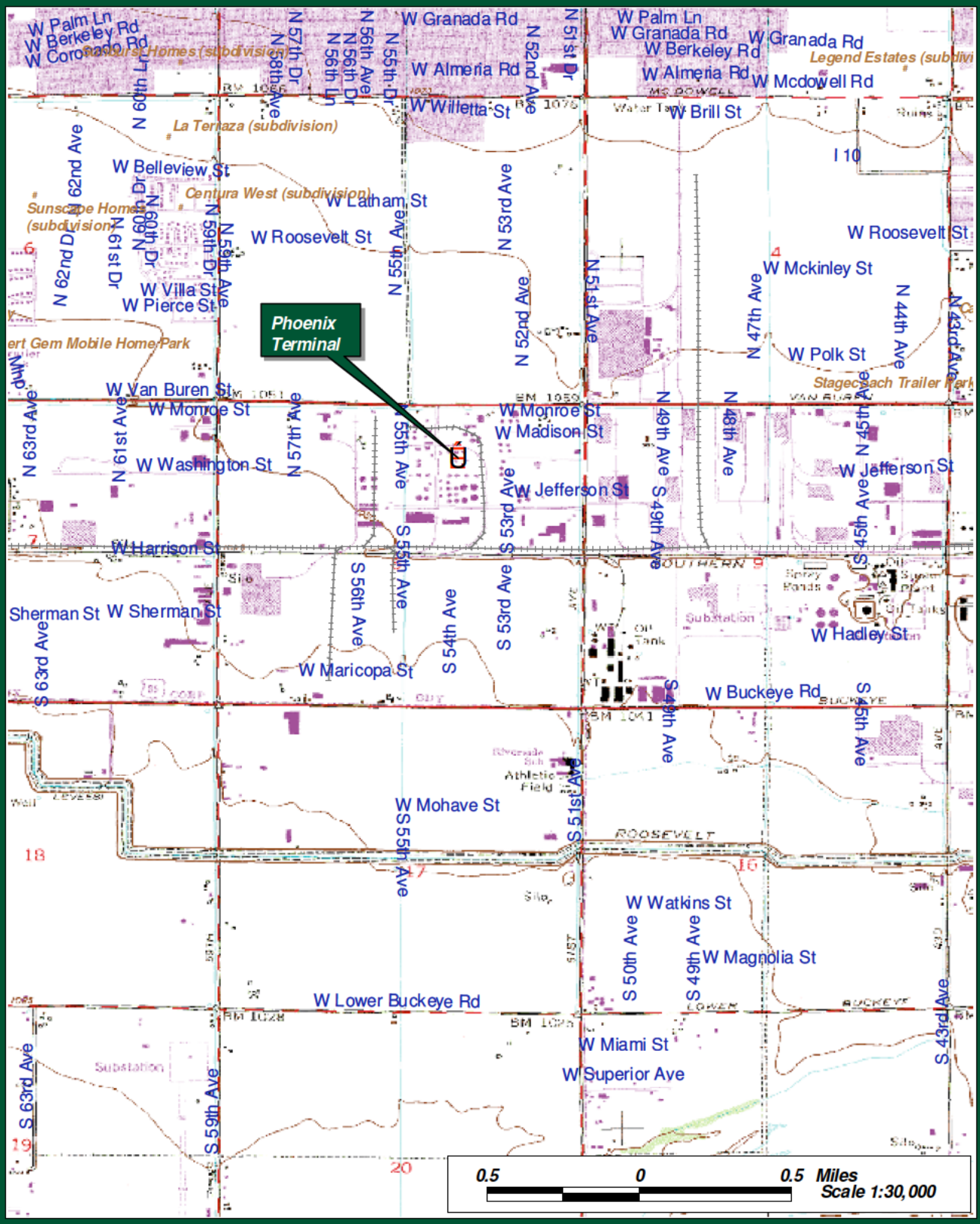
- The majority of the Facility was constructed in 1955-56 with 21 tanks containing a maximum capacity of 21,836,136 gallons. The Facility purchased five (5) tanks from Oasis Oil in 1984 and six (6) tanks from Shell in 1985-86. Tanks P-29 and P-30 were constructed in 1988-89, and an additional six (6) tanks were purchased between 1996 and 1998. Thirteen tanks were purchased from Shell Oil Company in October 2003.
- Acquired adjacent ConocoPhillips facility (11 tanks and two (2) truck racks) in December 2008.
- Acquired adjacent Chevron Terminal (17 tanks and one (1) truck rack) in October 2010.

Figures presented on the following pages include:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout
- Figure 8.4 – Fire Protection Diagrams

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates, Inc.
(281) 320-9796



(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: SFPP, L.P. Tucson Terminal
3841 Refinery Way
Tucson, AZ 85713

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: Daniel Wittenberg
Daniel Wittenberg, Area Manager

Date: 12-14-10

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via pipeline and is transported out of the Facility by tanker trucks. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Tucson Terminal 3841 E. Refinery Way Tucson, AZ 85713 (520) 748-1087 *(24 Hrs)* (520) 514-1074 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0060
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	1953
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Alternate Qualified Individual: (Alt. Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Volume 1, Section 2.0.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Pima County, AZ
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Approximately seven (7) miles
Landside Directions:	At the intersection of I-10 and S. Alvernon Way. Take S. Alvernon Way North 1.29 miles. Turn left onto E Ajo Way for 0.22 miles. Then turn right onto S Dodge Blvd and travel 0.07 miles. Turn right onto E. Refinery Way and travel 0.16 miles to the Facility.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Description of Operation (Cont'd):

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is [redacted]

Products Handled:

- Additives
- Diesel
- Ethanol
- Gasoline
- JP-8
- Transmix
- Turbine Fuel
- Contact Water

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with nine (9) loading spots and two (2) offloading spots which handle various refined petroleum products.
- A maximum of nine (9) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 174 trucks per day.

Loading Rate: 700 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slabs drain to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

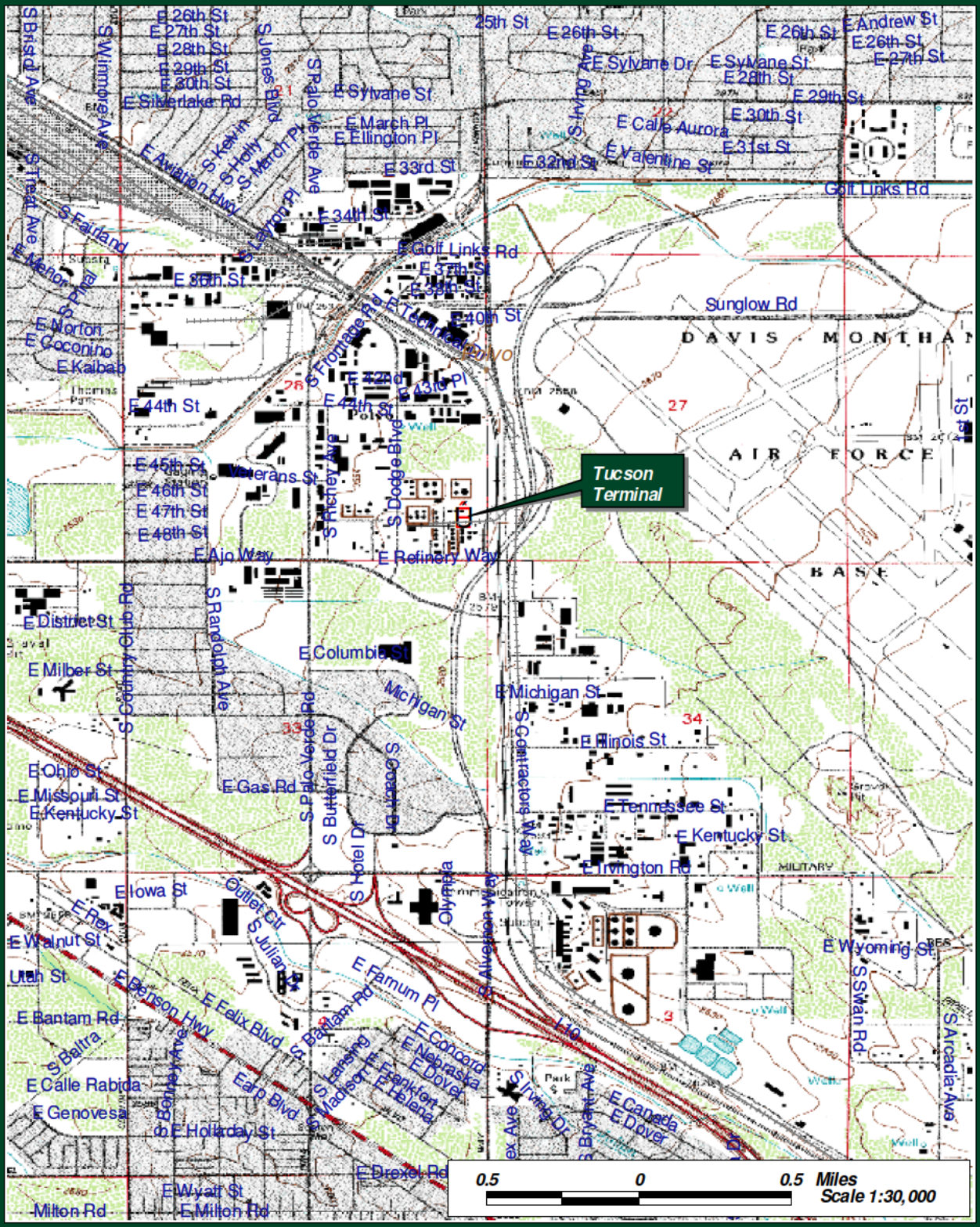
FIGURE 8.1

FACILITY INFORMATION (Cont'd)

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS
● The majority of the Facility was constructed in 1953-57. Thirteen tanks with a maximum capacity of 12,282,648 gallons date from this initial period. The Facility has expanded through the years by constructing additional tanks and by the acquisition of adjacent terminal facilities, increasing the maximum capacity to 31,500,000 gallons. ● Acquired adjacent Chevron Terminal.
Figures presented on the following pages include: ● Figure 8.2 – Area Map ● Figure 8.3 – General Layout ● Figure 8.4 – Fire Protection Diagrams

Fig 8.2 - Area Map

Map Prepared By
Response Management Associates, Inc.
(281) 320-9796



(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed on the Potential Spill Sources and Container Identification table in this Section.

Tanks:

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System:

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin, oil /water separator and evaporation tank designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the loading rack loading and unloading facilities is contained in a depressed area (with curbs). Drainage is through area drains to an oil/water separator. The product is pumped using a skimming device from the oil/water separator to the transmix tank. The water phase is drained to an evaporation tank in the North Tank Farm.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas:

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas are restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas are emptied by gravity via manually activated valves.
- Accumulated stormwater from diked areas and loading racks is routed to the evaporation tank in the North Tank Farm.

Drainage From the Undiked Areas:

Drainage from undiked areas is controlled as follows:

- With the exception of the piping identified on the Potential Spill Sources and Container Identification table (see Appendix A), aboveground piping is enclosed by secondary containment that will drain to the evaporation tank in the North Tank Farm.
- Drainage from non-operational areas flows generally to the east to the local drainage ditch between the Facility and the Southern Pacific Railroad.
- The undiked piping does not present a threat to navigable water because the piping is located in areas away from vehicular traffic and the flat, sandy topography provide a conducive condition for keeping spills from traveling very far.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Undiked Areas (Cont'd):

- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- All accumulated stormwater is drained to the evaporation tank in the North Tank Farm. The Facility does not discharge any stormwater.

- Accumulated liquids from the loading racks and tank bottoms are routed through the oil/water separator. The water phase is transferred to the evaporation tank and the oil phase is transferred to a transmix tank.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Imperial Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading racks have sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection methods.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Detection by Personnel

- Facility personnel conduct Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds. Refer to Figures 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings.

Automated Detection Systems

(b) (3), (b) (7)(F)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK FARM										
IP-01*	JP-8 (80' x 48')	(b) (7)(F), (b) (3)		IFR	1957	Leak/ Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
IP-02	Gasoline (80' x 48')			IFR	1957	Leak/ Rupture	Instantaneous	None	East	
IP-03	Diesel (67' x 40'6")			IFR	1957	Leak/ Rupture	Instantaneous	None	East	
IP-04	Diesel (48' x 48')			IFR	1957	Leak/ Rupture	Instantaneous	None	East	
IP-05	Diesel (47'9" x 48')			IFR	1957	Leak/ Rupture	Instantaneous	None	East	
IP-06	Gasoline (42'6" x 40')			IFR	1958	Leak/ Rupture	Instantaneous	None	East	
IP-07	Vapor (42'6" x 40')			IFR	1958	Leak/ Rupture	Instantaneous	None	East	
IP-08	Gasoline (61'0" x 48')			IFR	1958	Leak/ Rupture	Instantaneous	None	East	
IP-09	Gasoline (42'6" x 40')			IFR	1961	Leak/ Rupture	Instantaneous	None	East	
IP-10	Ethanol (42'6" x 40')			IFR	1961	Leak/ Rupture	Instantaneous	None	East	
IP-11	Diesel (46'6" x 40')			IFR	1962	Leak/ Rupture	Instantaneous	None	East	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK FARM (Cont'd)										
IP-12	Diesel (42'6" x 40')	(b) (7)(F), (b) (3)		IFR	1962	Leak/ Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
IP-13	Gasoline (41'3" x 49')			IFR	1964	Leak/ Rupture	Instantaneous	None	East	
IP-14	Gasoline (48'2" x 49')			IFR	1964	Leak/ Rupture	Instantaneous	None	East	
IP-15	Diesel (49'10" x 49')			IFR	1964	Leak/ Rupture	Instantaneous	None	East	
IP-16*	JP-8 (48' x 48')			IFR	1964	Leak/ Rupture	Instantaneous	None	East	
IP-19*	Transmix (21'3" x 24'1")			IFR	1957	Leak/ Rupture	Instantaneous	None	East	
IP-20*	Transmix (21'3" x 24')			IFR	1957	Leak/ Rupture	Instantaneous	None	East	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – TANK FARM (17/18)										
IP-17	Diesel (48' x 48')	(b) (7)(F), (b) (3)		IFR	1973	Leak/ Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
IP-18	Unassigned (61'6" x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	East	
	TOTAL									
BULK STORAGE CONTAINERS – SOUTH TANK FARM										
IP-21	Diesel (55' x 48')	(b) (7)(F), (b) (3)		IFR	1973	Leak/ Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
IP-22	Diesel (66' x 40')			IFR	1987	Leak/ Rupture	Instantaneous	None	East	
IP-23	Gasoline (55' x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	East	
IP-24	Gasoline (44' x 40')			IFR	1978	Leak/ Rupture	Instantaneous	None	East	
IP-25	Gasoline (55' x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	East	
IP-26	Gasoline (72' x 40')			IR	1991	Leak/ Rupture	Instantaneous	None	East	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
IP-A1	OOS	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/ Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
IP-A2	Additive			H	1991-93	Leak/ Rupture	Instantaneous	None	East	
M-2	Additive			Tote	Tote	Leak/ Rupture	Instantaneous	None	East	
IP-A4	Additive			H	1991-93	Leak/ Rupture	Instantaneous	None	East	
IP-A3	Additive			H	1991-93	Leak/ Rupture	Instantaneous	None	East	
IP-M1	Additive			VFR	1991-93	Leak/ Rupture	Instantaneous	None	East	
IP	Red Dye			Tote	Tote	Leak/ Rupture	Instantaneous	None	East	
IP-A6	Additive			H	1991-93	Leak/ Rupture	Instantaneous	None	East	
IP-A7	Additive			H	1991-93	Leak/ Rupture	Instantaneous	None	East	
IP-A8	Additive			H	1991-93	Leak/ Rupture	Instantaneous	None	East	

Note: "Third-party engineering calculations dated were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS (Cont'd)										
IP	RED DYE	(b) (7)(F), (b) (3)		Tote	Tote	Leak/ Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
IP-A10	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	East	
IP-A11	OOS ALCOHOL			VFR	Unknown	Leak/ Rupture	Instantaneous	None	East	
IP-A12	OOS ALCOHOL			VFR	Unknown	Leak/ Rupture	Instantaneous	None	East	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Secondary containment, curbing , sorbents)*
TRUCK LOADING/UNLOADING RACK							
Loading Rack 1	Additives, Refined Products	9,000	Leak/Rupture	Instantaneous	None	East	10,173 gal. Curbing, sump, OWS
Loading Rack 2	Additive, Ethanol, Refined Products	9,000	Leak/Rupture	Instantaneous	None	East	10,173 gal. Curbing, sump, OWS
Loading Rack 3	Additives, Refined Products	9,000	Leak/Rupture	Instantaneous	None	East	11,998 gal. Curbing, sump, OWS
Additive Unloading Area	Additive	9,000	Leak/Rupture	Instantaneous	None	East	307,821 gal. Curbing, sump, OWS

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure *(Equipment Failure/ Rupture/Leak/ Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
OPERATIONAL EQUIPMENT								
Fire Pump	Diesel	(b) (7)(F), (b) (3)	Fuel Tank	Leak/Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
Undiked piping between tank farm and Loading Rack 3	Products		Piping	Leak/Rupture	600 gpm	None	Overall drainage to north	
Undiked piping between Rack 3 tank farm and tanks 17 and 18	Products		Piping	Leak/Rupture	600 gpm	None	Overall drainage to north	

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
			There are no completely or partially buried tanks at this Facility.						

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity "10-Year Program".
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per Company policy, as required by age, condition, and service. (Refer to the "10-Year Program" and the storage tanks section (Section 11) of the Kinder Morgan Specification Manual).
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated (see Sample Log in Appendix B).
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.
- High level alarms are tested on a monthly basis.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

  Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

- Sample inspection and test records are provided in Appendix B.

FIGURES 8.5 AND 8.6

Note: The following Kinder Morgan forms comprise the typical tank and secondary containment Inspection Checklists for this Facility. These forms may change over time to accommodate the specific operations of the Facility.

TANK INTEGRITY REPORT

QUARTERLY

FIRST	SECOND	THIRD	FORTH

BI-ANNUAL

FIRST	SECOND

LOCATION _____

REFERENCE NUMBER	Tank Type / Product	status	maintenance required	Tank Type / Product	status	maintenance required	Tank Type / Product	status	maintenance required	Tank Type / Product	status	maintenance required	Tank Type / Product	status	maintenance required	Tank Type / Product	status	maintenance required	Tank Type / Product	status	maintenance required	Tank Type / Product	status	maintenance required
1. Shell Plates & Paint																								
2. Shell-Bottom Weld																								
3. Tank Foundation																								
4. Apron Around Tank																								
5. Grounding System																								
6. Auto Gauge Equipment																								
7. Shell Manways																								
8. Bottom Leak Detection																								
9. Stairway Handrails & Ladders																								
10. Lighting																								
11. Walkways & Platforms																								
12. Rain Gutter & Down Spout																								
13. Shell Rim Angle																								
14. Fixed Roof & Paint																								
15. Foam Hole Covers																								
16. Gauge & View Hatches																								
17. Vents																								
18. Liquid Level Control & Alarms																								
19. Wind Girders																								
20. Floating Roof & Pontoons																								
21. Roof Drain Mechanism																								
22. Roof Manways																								
23. Anti-Rota ion Pole/Bar																								
24. Vapor Recovery Pipe																								
25. Foam Injection																								

LEGEND

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

_____

_____

REPORT PREPARED BY: _____ DATE: _____

TANK SEAL INSPECTION SUMMARY

LOCATION: ______________________ INSPECTION PERFORMED BY: ______________

DATE: ______________

REFERENCE NUMBER

1. Primary Seal
2. Secondary Seal
3. Anti-Rotation Pole/Bar Seal
4. Apron Seal
5. Floating Roof Deck
6. Floating Roof Drain Sump
7. Floating Roof Legs
8. Floating Pan Compartments
9. Vapor Recovery Pipe Seal
10. Center Column Seal
11. Gauge Pipe Float Seal
12. Emergency Drain
13. Pressure/Vacuum Vent
14. Sampling Funnel Cover
15. Sampling Hatch
16. Floating Roof Pontoons
17. Auto Gauge Float Well Cover

STATUS

N = NEW

R = REPEAT

Tank Number	Tank Type	Product	Status N or R	Reference Number	DESCRIPTION	Priority A or B	Cost Estimate	Responsibility

TANK SEAL INSPECTION REPORT

QUARTERLY | FIRST | SECOND | THIRD | FORTH |

SEMI-ANNUAL | FIRST | SECOND |

LOCATION _____

REFERENCE NUMBER																				
	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level	
	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required
1 Primary Seal																				
2 Secondary Seal																				
3 Anti-Rotation Pole/Bar Seal																				
4 Apron Seal																				
5 Floating Roof Deck																				
6 Floating Roof Drain Sump																				
7 Floating Roof Legs																				
8 Floating Pan Compartments																				
9 Vapor Recovery Pipe Seal																				
10 Center Column Seal																				
11 Gauge Pipe Float Seal																				
12 Emergency Drain																				
13 Pressure/Vacuum Vent																				
14 Sampling Funnel Cover																				
15 Sampling Hatch																				
16 Floating Roof Pontoons																				
17 Auto Gauge Float Well Cover																				

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

REPORT PREPARED BY: _____ DATE: _____

TANK FARM CONTAINMENT BERMS
INSPECTION REPORT

LOCATION : _____ DATE : _____

AREA OF LOCATION : _____

TYPE OF CONTAINMENT :

Dirt and Gravel	☐	Dirt With asphalt	☐
Dirt With Tar	☐	Dirt With Chip Rock	☐
Dirt With Tar and Chip Rock	☐	Dirt With Concrete	☐
Cinder Block	☐	Other	☐

COMMENTS : _____

CONDITION OF CONTAINMENT BERMS :

Excellent	☐	Good	☐	Fair	☐	Poor	☐
Wore Down / Ruts	☐			Erosion	☐	Gaps	☐
Animal Holes	☐			Cracks	☐	Other	☐
Cave-In / Under-Mined	☐						

COMMENTS : _____

RECOMMENDATIONS : _____

INSPECTED BY : _____

ADDITIVE TANK / SYSTEM INSPECTION REPORT

LOCATION : ______________________ DATE ______________________

INSPECTOR : QUARTER

TANK NUMBER	SERVICE VACUUM BREAKER		CHECK TANK GAUGE		PUMP LEAK		PIPE/TUBE LEAKS		CONTAIN-MENT		COMMENTS
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	

TANK MAINTENANCE LOG

LOCATION: _____ INSPECTION PERFORMED BY: _____

DATE: _____

TANK NUMBER	TANK TYPE	DESCRIPTION

TANK LEAK DETECTION REPORT

QUARTERLY	SEMI-ANNUALLY	ANNUALLY

LOCATION : **DATE :**

TANK NO.	TUBE NO.	P.P.M.	BATTERY CHECK	COMMENTS

READINGS TAKEN BY : ____

INTERNAL FLOATER TANK

VAPOR REPORT

LOCATION : DATE :

TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING

INSPECTED BY : _____

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is situated in the northern portion of El Centro, CA.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

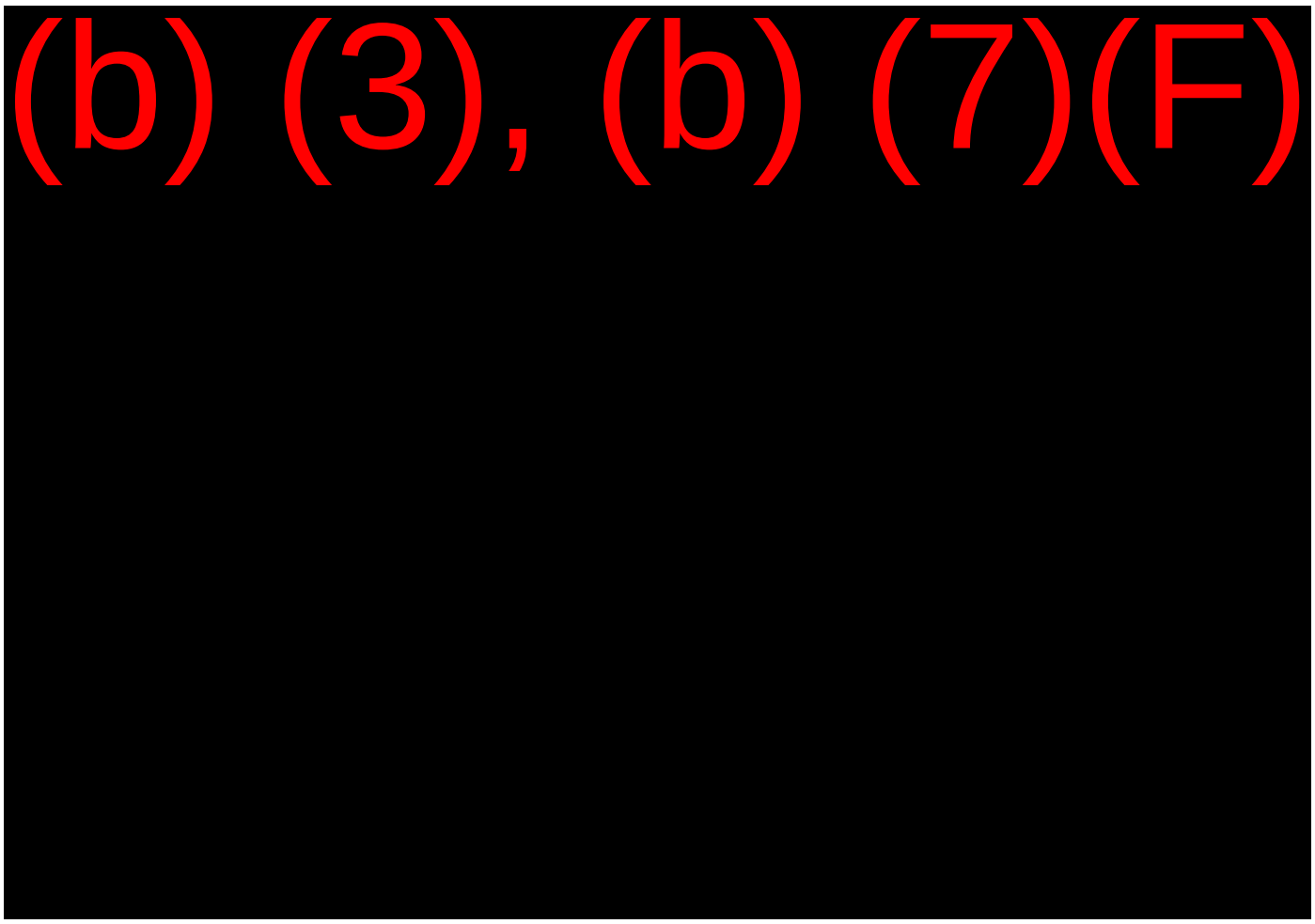
(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

[redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)



Additional detail on the medical facilities within the area of the Facility are included on the maps in Section 6.

Residential Areas

Residential areas are located to the north and south of the Facility. These areas begin within one mile (approximately) of the Facility.

Additional detail on the residential areas within the area of the Facility are included on the maps in Section 6.

Businesses

The area surrounding the Facility is sparsely populated. Review of GIS Data determined that the following businesses are within the planning distance:

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Businesses

Businesses	Distance from Facility
Imperial Valley College	0.11 miles *(approximate)*
General Machine shop	0.16 miles *(approximate)*
Truck Stop 111	0.16 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Volume 1, Figure 4.1 for threatened/endangered species.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
New River, Freshwater Emergent Wetlands	(b) (7)(F), (b) (3)
Salton Sea, Freshwater Emergent Wetland	

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.

- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance:

Lakes and Streams	Location
Central Main Canal	2.0 miles W
New River	8.0 miles N
Westside Main Canal	11.0 miles NW
Salton Sea	21.0 miles N

Additional details on the lakes, streams, and rivers within the planning distance are found on the maps in Section 6.

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Section 4, Figure 4.1 of Volume 1.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning distance:

Recreational Area	Distance from Facility
California Midwestern Fairgrounds	1.0 mile N *(approximate)*
Del Rio Country Club	13.2 miles N *(approximate)*
Southend Sportsman Club	26.0 miles N *(approximate)*

Transportation Routes (air, land, and water)

There are various public roadways which may be potentially affected by a discharge originating from the Facility. Review of GIS Data determined that the following recreational areas are within the planning distance:

Transportation Route	Distance from Facility
Southern Pacific Railroad	50 yards E *(approximate)*
Imperial County Airport	Less than 1 miles NE *(approximate)*
Highway 86	0.5 mile W *(approximate)*
Imperial County Airport	0.7 miles NW *(approximate)*
Brawley Municipal Airport	12.3 miles NW (approximate)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Utilities

No utilities were identified within the planning distance.

Other Areas of Economic Importance

Review of GIS Data determined that the following other areas of economic importance are within the planning distance:

Other Areas of Economic Importance	Distance from Facility
Wilsie Siding	2.5 miles N *(approximate)*
El Centro Naval Air FAC	5.4 miles W *(approximate)*
Tamarack Ranch	6.7 miles N *(approximate)*
Grape Siding	7.0 miles N *(approximate)*
Novley Siding	13.0 miles N *(approximate)*
Vail Ranch	21.0 miles N *(approximate)*
Hazard Headquarters	24.0 miles N*(approximate)*
Greer Ranch (historical)	30.0 miles N *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow north through the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Vulnerability to a Natural Disaster

The Tank Farm location is relatively flat, therefore, unlikely to incur damage due to shifting and sliding. The seismic stability of the area is good, having no major earthquake faults in the vicinity. The possibility of a landslide or an earthquake is moderate.

Other Factors

The actions taken to lessen hazards at the Facility petroleum tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file at the Orange, CA office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks:

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System:

The loading/unloading rack area is designed and operated as follows:

- Company personnel hook up hose connections and monitor ethanol unloading operations at the rail and truck unloading spots in Areas V and IX.
- Loading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from Racks 1, 2, 3, 4, 5, 6 and 7 are directed to the oil/water separator located in Area II. The oil phase is transferred to a transmix tank. Water is initially transferred to a Baker tank in Area II, then through two (2) carbon filter units before being discharged to the local POTW. Drainage from Racks 9 and 10 (former ConocoPhillips) is directed to an oil/water separator in Area XIII. The oil phase is transferred to a transmix tank and the water is transferred to 10,000 gallon holding tank in the Area. Drainage from Rack 11 (former Chevron) is directed to a 12,000 gallon underground water/product process tank in Area XIV.
- All transfers are in constant attendance by qualified personnel who are properly trained prior to conducting transfers.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas:

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas are restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas are emptied by gravity via manually controlled valves with the exception of Area IX (former Shell facility) where all stormwater is collected in a low area in the southwest corner of the containment area and allowed to evaporate.
- Stormwater is inspected by the operator for signs of oil or oil sheen. If none is present, and with the Area Manager's authorization, the drain valve is opened and the water is drained to the adjacent drainage ditch. Results of the inspection and drainage event are logged.
- Contaminated water is pumped to an oil/water separator. The oil phase is transferred to a transmix tank and the water phase to a Baker tank located in Area II. From this tank, the water is transferred through two carbon filter units located west of Area VI and discharged to the City of Phoenix POTW system.

Drainage From the Undiked Areas:

- The majority of the piping is contained within the diked areas except for the section noted in the Potential Spill Sources and Container Identification table in Appendix A.
- The manifold area is subject to routine inspection during operating rounds.
- (b) (7)(F), (b) (3) [redacted]

  In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Undiked Areas (Cont'd):

- The manifold area is located in areas away from vehicular traffic.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.
- Drainage of stormwater from other undiked areas (non-storage) of the Facility is not controlled due to its origination from non-spill potential areas. Oil, which may get into these areas would be cleaned up immediately and not allowed to drain off the property.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Generally, rainwater is allowed to dissipate naturally unless it has accumulated in a large enough quantity to endanger tanks and structures or inhibit operations.
- Water is visually inspected for product and discharged only if no product sheen is visible.
- The Area Manager or Lead Operator must authorize discharge from containment areas.
- Facility drainage does not flow directly into an open watercourse.
- The Facility does not have a wastewater treatment plant nor does it chemically treat water prior to discharge off site:
- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- Adequate records of drainage events are at the Facility Office.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Phoenix Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading racks have sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection methods.

Detection by Personnel

- Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.
- Monthly inspection of tank gauges and cathodic protection readings.
- Annual Secondary Containment Inspection as part of the SPCC Plan.
- Tank Inspections as part of the SPCC Plan.
- The loading rack is equipped with warning and instruction signs.
- The entire plant is adequately illuminated to provide security and safe operations at night.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Automated Detection Systems

(b) (3), (b) (7)(F)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA I (MAIN TANK FARM)										
P-06*	Transmix (80' x 39'10")	(b) (7)(F), (b) (3)		EFR	1955	Leak/ Rupture	Instantaneous	None	S	(b) (7)(F), (b) (3)
P-07*	Transmix (60' x 39'10")			EFR	1955	Leak/ Rupture	Instantaneous	None	S	
P-16	Diesel (73' x 40')			CR	1962	Leak/ Rupture	Instantaneous	None	S	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA II (MAIN TANK FARM SOUTH)										
P-02*	JP-8 (100' x 48')	(b) (7)(F), (b) (3)		EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
P-01*	JP-8 (100 X 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-03	Gasoline (100' x 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-04	Gasoline (67' x 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-05	Diesel (67' x 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-08	Gasoline (70' x 48')			EFR	1956	Leak/ Rupture	Instantaneous	None	S, W	
P-09	Ethanol (67' x 48')			IFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-10	Gasoline (60' x 40')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-11	Gasoline (42'6" x 40')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-12	Gasoline (60' x 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-13	Gasoline (60' x 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA II (MAIN TANK FARM SOUTH) (Cont'd)										
P-14	Ethanol (50' x 48')	(b) (7)(F), (b) (3)		IFR	1955	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
P-15	Turbine (42'6" x 40')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
P-18	Turbine (90' x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	S, W	
P-19	Gasoline (67' x 48')			IFR	1973	Leak/ Rupture	Instantaneous	None	S, W	
P-28*	Transmix (38' x 48')			IFR	1986	Leak/ Rupture	Instantaneous	None	N	
	TOTAL									
BULK STORAGE CONTAINERS – AREA III (P-29/P-30 TANK FARM)										
P-29	Gasoline (110' x 48')	(b) (7)(F), (b) (3)		IFR	1988	Leak/ Rupture	Instantaneous	None	W	(b) (7)(F), (b) (3)
P-30	Gasoline (110' x 48')			IFR	1988	Leak/ Rupture	Instantaneous	None	W	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA IV (COMMUNITY #1 TANK FARM)										
PC-20	Transmix (25' x 30')	(b) (7)(F), (b) (3)		CR	1959	Leak/ Rupture	Instantaneous	None	SW	(b) (7)(F), (b) (3)
P-21	Gasoline (80' x 45')			EFR	1959	Leak/ Rupture	Instantaneous	None	SW	
P-22	Gasoline (67' x 48')			EFR	1959	Leak/ Rupture	Instantaneous	None	SW	
P-23	Diesel (67' x 48')			CR	1959	Leak/ Rupture	Instantaneous	None	SW	
P-24	Gasoline (120' x 48')			EFR	1972	Leak/ Rupture	Instantaneous	None	SW	
	TOTAL									
BULK STORAGE CONTAINERS – AREA VI (COMMUNITY #2 TANK FARM NORTH)										
P-33	Unassigned (45' x 35'7")	(b) (7)(F), (b) (3)		IFR	1956	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
P-34	Diesel (45' x 35'7")			IFR	1956	Leak/ Rupture	Instantaneous	None	S, W	
P-35	Diesel (45' x 35'7")			EFR	1956	Leak/ Rupture	Instantaneous	None	S, W	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA VI (COMMUNITY #2 TANK FARM SOUTH)										
P-36	Gasoline (60' x 40')	(b) (7)(F), (b) (3)		EFR	1958	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
P-37	Gasoline (60' x 40')			EFR	1958	Leak/ Rupture	Instantaneous	None	S, W	
P-38	Gasoline (110' x 48')			IFR	1970	Leak/ Rupture	Instantaneous	None	S, W	
	TOTAL									
BULK STORAGE CONTAINERS – AREA VII										
P-39	Diesel (100' x 50')	(b) (7)(F), (b) (3)		IFR	1973	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
P-40	Turbine (100' x 50')			IFR	1973	Leak/ Rupture	Instantaneous	None	S, W	
P-41	Diesel (100' x 50')			IFR	1973	Leak/ Rupture	Instantaneous	None	S, W	
P-42	Diesel (100' x 50')			IFR	1973	Leak/ Rupture	Instantaneous	None	S, W	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA VIII										
P-43	Unassigned (50'6" x 40')	(b) (7)(F), (b) (3)		IFR	1983	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
P-44	Diesel (52'6" x 40')			IFR	1983	Leak/ Rupture	Instantaneous	None	S, W	
	TOTAL									
BULK STORAGE CONTAINERS – AREA IX (FORMER SHELL FACILITY)										
P-45	Empty (40' x 24')	(b) (7)(F), (b) (3)		IFR	1999	Leak/ Rupture	Instantaneous	None	N, W	(b) (7)(F), (b) (3)
P-46	Empty (42.5' x 40')			CR	1999	Leak/ Rupture	Instantaneous	None	N, W	
P-47	Transmix (59.5' X 40')			IFR	1999	Leak/ Rupture	Instantaneous	None	N, W	
P-48	Diesel (71.5' X 56.0')			IFR	1999	Leak/ Rupture	Instantaneous	None	N, W	
P-49	Gasoline (60' X 48')			IFR	1955	Leak/ Rupture	Instantaneous	None	N, W	
P-50	Ethanol (40' X 48')			IFR	1961	Leak/ Rupture	Instantaneous	None	N, W	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA IX (FORMER SHELL FACILITY) (Cont'd)										
P-51	Ethanol (40' X 48')	(b) (7)(F), (b) (3)		IFR	1962	Leak/ Rupture	Instantaneous	None	N, W	(b) (7)(F), (b) (3)
P-52	Ethanol (60' x 48')			IFR	1970	Leak/ Rupture	Instantaneous	None	N, W	
P-53	Gasoline (70' x 48')			IFR	1955	Leak/ Rupture	Instantaneous	None	N, W	
P-54	Gasoline (90' x 56')			IFR	1992	Leak/ Rupture	Instantaneous	None	N, W	
P-55	Gasoline (112' x 56')			IFR	1992	Leak/ Rupture	Instantaneous	None	N, W	
	TOTAL									
BULK STORAGE CONTAINERS –TRANSMIX TANK FARM										
PC-25*	Transmix (30' x 24')	(b) (7)(F), (b) (3)		EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
PC-26	Transmix (20' x 18')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
PC-27	Transmix (20' x 18')			EFR	1955	Leak/ Rupture	Instantaneous	None	S, W	
	TOTAL									

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			
*	=	DOT Jurisdictional Tank						

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons/ Barrels)*	Maximum Capacity *(Gallons/ Barrels)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons/Barrels) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA XIII (FORMER CONOCOPHILLIPS FACILITY)										
P-157	Transmix (30' x 24')	(b) (7)(F), (b) (3)		EFR	UNK	Leak/ Rupture	Instantaneous	None		(b) (7)(F), (b) (3)
P-158	Ethanol (60' X 48')			VFR	UNK	Leak/ Rupture	Instantaneous	None		
P-159	Diesel (70' x 48')			VFR	UNK	Leak/ Rupture	Instantaneous	None		
P-160	Diesel (70' x 48')			EFR	UNK	Leak/ Rupture	Instantaneous	None		
P-161	Gasoline (70' x 48')			VFR	UNK	Leak/ Rupture	Instantaneous	None		
P-162	Gasoline (81' x 48')			VFR	UNK	Leak/ Rupture	Instantaneous	None		
P-163	Gasoline (81' x 48')			VFR	UNK	Leak/ Rupture	Instantaneous	None		
PA-136	Hi Tech Additive			H	UNK	Leak/ Rupture	Instantaneous	None		
PA-137	Quick Trip Additive			H	UNK	Leak/ Rupture	Instantaneous	None		
PA-138	Lubricity Additive			H	UNK	Leak/ Rupture	Instantaneous	None		
Red Dye Tote	Red Dye			Tote	UNK	Leak/ Rupture	Instantaneous	None		
	TOTAL									

Note: "Engineering calculations were presented to Kinder Morgan by Conoco Phillips as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, Kinder Morgan has confirmed the accuracy of the mathematics only."

VFR = Vertical Fixed Roof
EFR = External Floating Roof
H = Horizontal
MV = Manual Valves
EF = Earthen Floor
CW = Concrete Walls
VT = Vacuum Trucks
= Largest EPA Jurisdictional Tank in Containment Area
* = DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons/ Barrels)*	Maximum Capacity *(Gallons/ Barrels)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons/Barrels)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – AREA XIV (FORMER CHEVRON FACILITY)										
P-165	Diesel	(b) (7)(F), (b) (3)		EFR	1955	Leak/ Rupture	Instantaneous	None		(b) (7)(F), (b) (3)
P-166	Ethanol			IFR	1955	Leak/ Rupture	Instantaneous	None		
P-167	Gasoline			EFR	1955	Leak/ Rupture	Instantaneous	None		
P-168	Gasoline			EFR	1955	Leak/ Rupture	Instantaneous	None		
P-169	Ethanol			VFR	1955	Leak/ Rupture	Instantaneous	None		
P-170	Contact Water			VFR	1959	Leak/ Rupture	Instantaneous	None	East	
P-171	Transmix			VFR	1959	Leak/ Rupture	Instantaneous	None		
P-172	Diesel			VFR	1963	Leak/ Rupture	Instantaneous	None		
P-173	Gasoline			EFR	1963	Leak/ Rupture	Instantaneous	None		
P-174	Gasoline			IFR	1989	Leak/ Rupture	Instantaneous	None		
P-175	Gasoline			EFR	1989	Leak/ Rupture	Instantaneous	None		
P-176	Gasoline			IFR	1999	Leak/ Rupture	Instantaneous	None	East	
	TOTAL									

Note: "Engineering calculations were presented to Kinder Morgan by Chevron as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, Kinder Morgan has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
H	=	Horizontal	CW	=	Concrete Walls
MV	=	Manual Valves	VT	=	Vacuum Trucks

= Largest EPA Jurisdictional Tank in Containment Area

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
PA-13	Additive	(b) (7)(F), (b) (3)		H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
PA-14	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-15	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-16	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-17	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-18	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-19	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-20	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-23	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-24	OOS			H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-25	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-26	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S, W	

Note: "Third-party engineering calculations were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks			
DB	=	Double Bottom		=	Largest EPA Jurisdictional Tank in Containment Area			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS (Cont'd)										
PA-27	Additive	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/ Rupture	Instantaneous	None	S, W	(b) (7)(F), (b) (3)
PA-28	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-29	Additive			H	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PA-30	Additive			V	Unknown	Leak/ Rupture	Instantaneous	None	S, W	
PX	UNISOL Liquid Red Dye			Tote	Tote	Leak/ Rupture	Instantaneous	None	S, W	
PX	Additive			Drum	Drum	Leak/ Rupture	Instantaneous	None	S, W	
PA-131	Additive (8' X 16')			H	1998	Leak/ Rupture	Instantaneous	None	N, W	
PA-132	Additive			CR	1956	Leak/ Rupture	Instantaneous	None	N, W	
PA-133	Additive			CR	1993	Leak/ Rupture	Instantaneous	None	N, W	
PA-139	Additive			VFR	1969	Leak/ Rupture	Instantaneous	None	East	
PA-140	Out of Service			VFR	1969	Leak/ Rupture	Instantaneous	None	East	
PA-141	Out of Service			VFR	1984	Leak/ Rupture	Instantaneous	None	East	
PA-142	Additive			VFR	1999	Leak/ Rupture	Instantaneous	None	East	
Red Dye Tote	Red Dye			Tote	Tote	Leak/ Rupture	Instantaneous	None	East	
	TOTAL									

VFR = Vertical Fixed Roof
EFR = External Floating Roof
IFR = Internal Floating Roof
H = Horizontal
MV = Manual Valves
EF = Earthen Floor
EW = Earthen Walls
CF = Concrete Floor
CW = Concrete Walls
VT = Vacuum Trucks
= Largest EPA Jurisdictional Tank in Containment Area

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck/Tank Car Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Secondary containment, curbing, sorbents)*
TRUCK OR RAIL LOADING/UNLOADING RACK						
Loading Rack 1	Refined Products	7,560	Leak/Rupture	Instantaneous	S, W	7,854 Curbed Pad, OWS
Loading Rack 2	Refined Products	7,560	Leak/Rupture	Instantaneous	S, W	7,854 Curbed Pad, OWS
Loading Rack 3	Refined Products	7,560	Leak/Rupture	Instantaneous	S, W	7,854 Curbed Pad, OWS
Loading Rack 4	Refined Products	7,560	Leak/Rupture	Instantaneous	S, W	10,098 Curbed Pad, OWS
Loading Rack 5	Refined Products	7,560	Leak/Rupture	Instantaneous	S, W	Curbed Pad, OWS
Loading Rack 6	Refined Products	7,560	Leak/Rupture	Instantaneous	N, W	Curbed Pad, OWS
Loading Rack 7	Refined Products	7,560	Leak/Rupture	Instantaneous	S, W	Curbed Pad, OWS
Loading Rack 8	Refined Products	2,400	Leak/Rupture	Instantaneous	N, W	4,800 Curbed Pad, OWS
Loading Rack 9 (Area XIII)	Refined Products	7,560	Leak/Rupture	Instantaneous	E, S	22,400 Curbing, OWS, Holding Tank
Loading Rack 10 (Area XIII)	Refined Products	7,560	Leak/Rupture	Instantaneous	E, S	22,400 Curbing, OWS, Holding Tank
Loading Rack 11 (Area XIV)	Refined Products	7,560	Leak/Rupture	Instantaneous	E, S	12,000 Curbing, Holding Tank
Ethanol Offloading North (Rail)	Ethanol	11,000	Leak/Rupture	Instantaneous	N, W	23,000 Curbed Pad, OWS
Ethanol Offloading South (Rail)	Ethanol	11,000	Leak/Rupture	Instantaneous	N, W	Curbed Pad, OWS
Area 1 Offload	Additives	7,560	Leak/Rupture	Instantaneous	S, W	Curbed Pad, OWS
Transmix Offload	Transmix	7,560	Leak/Rupture	Instantaneous	S, W	Catchment Pan
Ethanol Offloading (Truck)	Ethanol	9,000	Leak/Rupture	Instantaneous	W	Curbed Pad, OWS
Area XIII Offload	Additives, Ethanol, Refined Products	9,000	Leak/Rupture	Instantaneous	E, S	22,400 Curbing, OWS, Holding Tank
Area XVI Offload	Additives, Ethanol, Refined Products	9,000	Leak/Rupture	Instantaneous	East	12,000 Curbing, Holding Tank

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfil)*	Rate of Flow	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
OTHER POTENTIAL SPILL SOURCES							
Pipeline Manifold	Refined Products	(b) (7)(F), (b) (3)	Piping	Leak/Rupture	1,750 – 2,450 gpm	S, W	(b) (7)(F), (b) (3)
Area XIV Drum Storage	Lube Oil		Drums	Leak/Rupture	Instantaneous	East	

HAZARD IDENTIFICATION TANKS UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
Transmix (Area XIV)	Transmix	(b) (7)(F), (b) (3)		Buried Fiberglass	Unk	Leak/Overflow	Instantaneous	None	East

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity program in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.
- Liquid level alarms are tested monthly. The alarm sensor is activated manually by an operator with results noted and logged by a second operator in the Control Room.

8.2.2 FACILITY SELF-INSPECTIONS(Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

- Flange joints
- Valve glands and bodies
- Pipe supports
- Metal surfaces
- Expansion joints
- Catch pans
- Valves locks and/or seals
- Other appurtenances

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- An Area Corrosion Specialist conducts all required testing, inspection, record keeping and reporting in accordance with the KMEP Corrosion Manual.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located in western Phoenix, approximately 1 mile north of the Roosevelt Canal, which is the closest waterway.
- The canal is an irrigation ditch and is not considered a navigable waterway. There is no direct discharge to a water course.
- The Facility is connected by pipelines to other Company facilities in Los Angeles, California and El Paso, Texas.
- Petroleum products are stored in aboveground tanks at the Facility.
- Company customers lease space in these tanks for their individually owned products. This potential spill analysis is for Facility irrespective of the lessee products.
- The Facility consists of several portions including:

  Area I - Transmix Tank Farm
  Area I - Community Tank Farm
  Area II - South West Tank Farm
  Area III - South East Tank Farm
  Area IV - Community Tank Farm One
  Area VI - Community Tank Farm Two
  Area VIII - Formerly leased to Maricopa County
  Area IX - Former Shell Facility
  Area XIII - Former ConocoPhillips Facility
  Area XIV - Former Chevron Facility

- In addition, other areas of risk include:

  Terminal Manifold
  Terminal Loading Racks

The risk analysis for potential spills at the Facility incorporates the identification of hazards that have a potential to occur at the Facility. This analysis examines the major structures and systems within the Facility.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

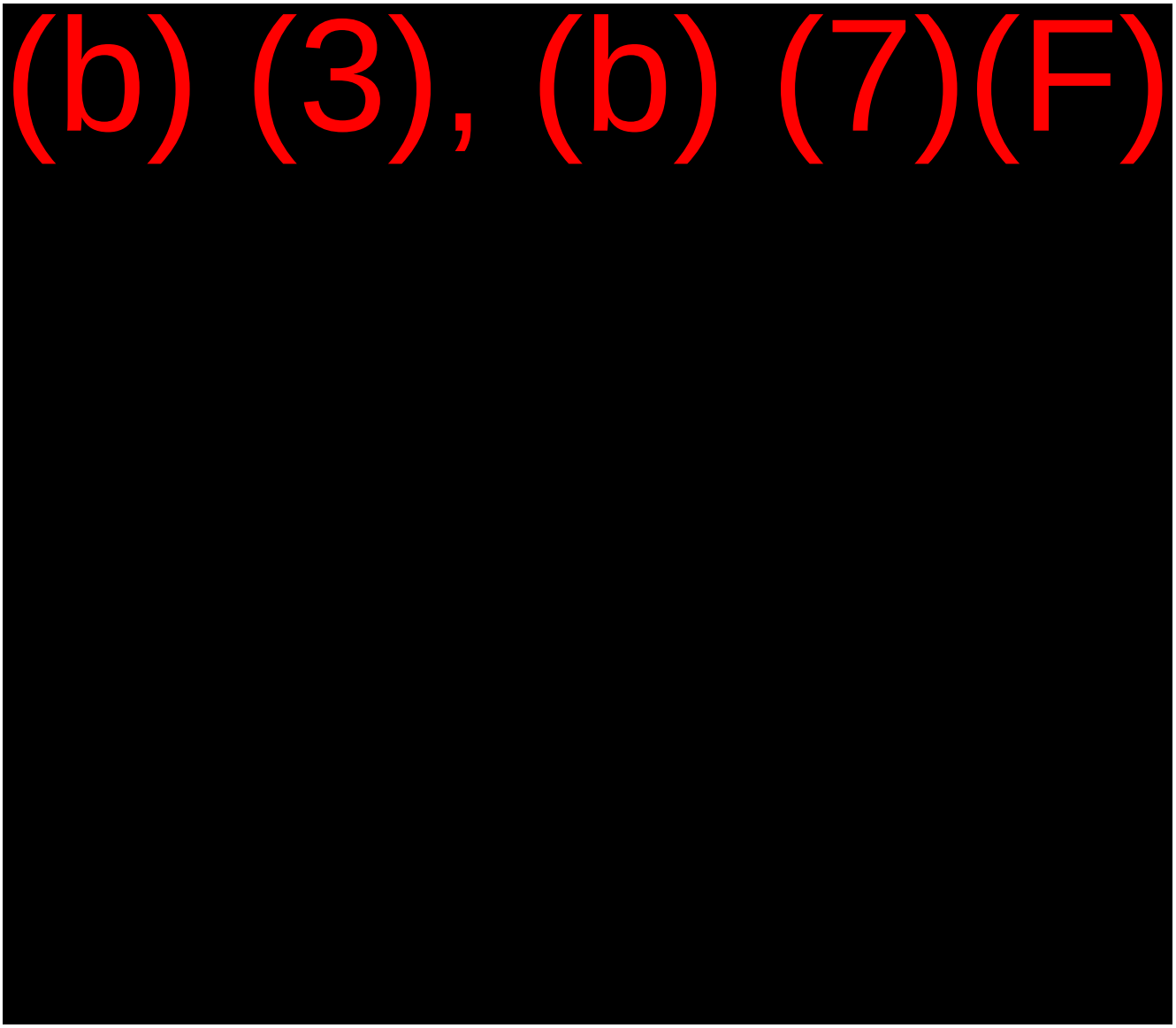
MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Drinking Water Intakes

(b) (7)(F), (b) (3) [redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)



Residential Areas

Residential areas are located in all directions from the Facility. The Facility is situated in western Phoenix. There are two (2) mobile home parks located in close proximity to the Facility.

The complete list of residential areas within the planning distance is too exhaustive to list here. A comprehensive list can be identified using internet (http://maps.google.com) or community resources.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Businesses

The complete list of businesses within the planning distance is too exhaustive to list here. A comprehensive list can be identified using internet (http://maps.google.com) or community resources. Review of GIS Data and public records determined that the following businesses are within the immediate vicinity of the Facility:

Businesses	Distance from Facility
EMJ	0.06 miles *(approximate)*
Jorgensen Steel & Aluminum	0.06 miles *(approximate)*
Caljet, Inc.	0.07 miles *(approximate)*
Allstate Rent-A-Fence, Inc.	0.16 miles *(approximate)*

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Volume 1, Figure 4.1 for threatened/endangered species.

No wetlands were identified within the planning distance.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the areas most sensitive and susceptible to pollution.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Roosevelt Canal	1.0 miles S *(approximate)*
Salt River	4.8 miles SE *(approximate)*

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Section 4, Figure 4.1 of Volume 1.

Recreational Areas

No recreational areas were identified within the planning distance.

Transportation Routes (air, land, and water)

No transportation routes were identified within the planning distance.

Utilities

Review of GIS Data determined that the following utilities are within the planning distance of the Facility:

(b) (3), (b) (7)(F)

Other Areas of Economic Importance/Government Buildings

Review of GIS Data determined that the following other areas of economic importance/government buildings are within the planning distance of the Facility:

Name	Distance from Facility
Maricopa County Jail Annex	2.5 miles SE *(approximate)*
Maricopa County Highway Dept.	2.6 miles SE *(approximate)*
Maricopa County Juvenile Detention Home	2.7 miles SE *(approximate)*
Juvenile Court Center	3.15 miles SE *(approximate)*
Arizona Highway Maintenance	4.0 miles SE *(approximate)*
Phoenix Sewage Treatment Plant	4.2 miles SE *(approximate)*

8.2.4 VULNERABILITY ANALYSIS (Cont'd)

Any evacuation efforts necessary for these areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.), State Police, and other agencies as the situation demands.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by one of the spill response contractors listed in this Plan.

Vulnerability to a Natural Disaster

The Company has historical data that defines the probability of seismic activity in the Phoenix area. The construction of the Facility has taken seismic activity into consideration; the location of Tank Farms away from slide prone areas and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Other Factors

Actions taken to lessen hazards at the Facility petroleum tank farm reduce the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table located in this Section.

Tanks:

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System:

Main Loading/Unloading Racks

The loading/unloading rack areas are designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Racks 1, 2, 3, 4, and 5 are all equipped with curbed concrete pads with central drains. Drains for all racks flow to oil/water separator systems.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Main Loading/Unloading Racks (Cont'd)

- The oil phase from the oil/water separator is sent to either a transmix tank or a gasoline tank. The water phase is temporarily stored in a contact water or Baker tank prior to being transferred off site via controlled tank truck to a processing facility.

Additive Unloading Areas

- The Loading Rack 4 additive unloading area is not equipped with curbing or drains. However, hose connections are located within secondary containment provided for the additive tanks and additive transfers are constantly attended.

Drainage From the Diked Areas:

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.

- Accumulated stormwater that presents a hazard to tanks, structures or operations conducted in the containment areas is inspected for evidence of oil or oil sheen by the Area Manager or Lead Operator. If no evidence of oil or oil sheen is present the valve is opened and the water drained in a controlled manner so as to remain on terminal property.

- Drainage from diked storage areas is restrained by manually controlled valves where available.

- Dike drain valves are locked in the closed position when not draining containment areas.

- Flapper-type drain valves are not used to drain diked areas.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Undiked Areas:

Drainage from undiked areas is controlled as follows:

- Surface drainage from undiked areas of the Facility generally flows east, northwest or west.
- The majority of the piping at the Facility, with the exception of the community loading rack manifold, is located in diked or bermed areas. (Note: An implementation schedule has been established to provide containment for this area.)
- All undiked piping is located in areas away from vehicular traffic.
- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.
- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Accumulated stormwater is inspected for evidence of oil or oil sheen in the presence of the Area Manager or Lead Operator.
- With Area Manager or Lead Operator approval manual drain valves are opened and oil or oil sheen free stormwater is discharged onsite in a controlled manner.
- When stormwater has been reduced to an acceptable level the manual valve is closed and locked in the closed position.
- Contaminated stormwater is removed via contractor vacuum truck and transported to a processing facility.
- Adequate records are kept of drainage events at the Facility office.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Tucson Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading racks have sufficient capability to handle any potential increase in transfer capacity. The loading racks operate 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection methods.

Detection by Personnel

- Facility personnel conduct Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds.
- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings.
- Annual Secondary Containment Inspections are part of the SPCC Plan.
- Tank Inspections are part of the SPCC Plan.

(b) (3), (b) (7)(F)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS - SOUTHEAST TANK FARM										
T-01	Gasoline (60' x 39'10")	(b) (7)(F), (b) (3)		EFR	1955	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
T-02*	JP-8 (50' x 47'9")			EFR	1955	Leak/ Rupture	Instantaneous	None	N	
T-03	Turbine (50' x 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	N	
T-04	Turbine (50' x 48')			EFR	1955	Leak/ Rupture	Instantaneous	None	N	
T-05*	JP-8 (50' x 48')			EFR	1956	Leak/ Rupture	Instantaneous	None	N	
	TOTAL									
BULK STORAGE CONTAINERS - NORTHWEST TANK FARM										
T-06	Gasoline (87' x 48')	(b) (7)(F), (b) (3)		EFR	1957	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
T-07	Gasoline (87' x 48')			EFR	1957	Leak/ Rupture	Instantaneous	None	N	
T-08	Gasoline (87' x 48')			EFR	1958	Leak/ Rupture	Instantaneous	None	N	
T-09	Diesel (48' x 48')			VFR	1961	Leak/ Rupture	Instantaneous	None	N	
	TOTAL									

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
* = DOT Jurisdictional Tank
= Largest EPA Jurisdictional Tank in Containment Area

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
MV = Manual Valve

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS - SOUTHWEST TANK FARM										
T-10	Diesel (45' x 35'7")	(b) (7)(F), (b) (3)		VFR	1956	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
T-11	Transmix (45' x 35'7")			EFR	1956	Leak/ Rupture	Instantaneous	None	N	
T-12	Diesel (40' x 35'10")			IFR	1953	Leak/ Rupture	Instantaneous	None	N	
T-13	Transmix (45' x 35'7")			EFR	1956	Leak/ Rupture	Instantaneous	None	N	
	TOTAL									
BULK STORAGE CONTAINERS - NORTHEAST TANK FARM										
T-14*	Transmix (60' x 40')	(b) (7)(F), (b) (3)		EFR	1958	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
T-15*	JP-8 (60' x 40'2")			IFR	1960	Leak/ Rupture	Instantaneous	None	N	
T-16	Diesel (106'7" x 40')			IFR	no data	Leak/ Rupture	Instantaneous	None	N	
T-25	Gasoline (87' x 50')			IFR	1996	Leak/ Rupture	Instantaneous	None	N	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	MV	=	Manual Valve
*	=	DOT Jurisdictional Tank			
	=	Largest EPA Jurisdictional Tank in Containment Area			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS - COMMUNITY TANK FARM										
T-17	Gasoline (80' x 45')	(b) (7)(F), (b) (3)		EFR	1959	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
T-18	Ethanol (35' x 36'6")			IFR	1965	Leak/ Rupture	Instantaneous	None	N	
T-19	Gasoline (67' x 48')			EFR	1959	Leak/ Rupture	Instantaneous	None	N	
T-20	Gasoline (67' x 48')			IFR	1978	Leak/ Rupture	Instantaneous	None	N	
T-23	Gasoline (56' x 48')			IFR	1992	Leak/ Rupture	Instantaneous	None	N	
T-26	Unleaded Reg. (110' x 48')			IFR		Leak/ Rupture	Instantaneous	None	N	
	TOTAL									
BULK STORAGE CONTAINERS - TRANSMIX TANK FARM										
TC-21*	OOS (30' x 24')	(b) (7)(F), (b) (3)		IFR	1955	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
TC-22	OOS (20' x 18')			VFR	1961	Leak/ Rupture	Instantaneous	None	N	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	MV	=	Manual Valve
*	=	DOT Jurisdictional Tank			
	=	Largest EPA Jurisdictional Tank in Containment Area			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Capacity *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS (FORMER SHELL FACILITY)										
T-27	Diesel (50' x 48')	(b) (7)(F), (b) (3)		VFR	1955	Leak/ Rupture	Instantaneous	None	NW	(b) (7)(F), (b) (3)
T-28	Gasoline (50' x 48')			IFR	1978	Leak/ Rupture	Instantaneous	None	NW	
T-29	Ethanol (50' x 48')			IFR	1967	Leak/ Rupture	Instantaneous	None	NW	
T-30	Ethanol (60' x 48')			IFR	1955	Leak/ Rupture	Instantaneous	None	NW	
T-33	Diesel (70' x 48')			IFR	1955	Leak/ Rupture	Instantaneous	None	NW	
T-34	Gasoline (100' x 48')			IFR	2000	Leak/ Rupture	Instantaneous	None	NW	
T-44	Contact Water (18' x 30')			VFR	1955	Leak/ Rupture	Instantaneous	None	NW	
	TOTAL									

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
* = DOT Jurisdictional Tank
= Largest EPA Jurisdictional Tank in Containment Area

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
MV = Manual Valve

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Capacity *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – SOUTHEAST TANK FARM (FORMER CHEVRON FACILITY)										
T-35	Gasoline (50' x 48')	(b) (7)(F), (b) (3)		IFR	1955	Leak/ Rupture	Instantaneous	None	NE	(b) (7)(F), (b) (3)
T-36	Ethanol (37' x 47' 9")			CR	1955	Leak/ Rupture	Instantaneous	None	NE	
T-37	Turbine (32' x 47' 7")			CR	1955	Leak/ Rupture	Instantaneous	None	NE	
T-38	Turbine (27' x 47' 7")			CR	1955	Leak/ Rupture	Instantaneous	None	NE	
T-39	Diesel (20' x 47' 7")			CR	1955	Leak/ Rupture	Instantaneous	None	NE	
T-40	Turbine (40' x 47' 7")			CR	1959	Leak/ Rupture	Instantaneous	None	NE	
T-41	Gasoline (40' x 47' 7")			IFR	1959	Leak/ Rupture	Instantaneous	None	NE	
T-42	Gasoline (50' x 47' 3")			IFR	1963	Leak/ Rupture	Instantaneous	None	NE	
T-43	Gasoline (50' x 48')			IFR	1969	Leak/ Rupture	Instantaneous	None	NE	
T-45	Contact Water (12' x 30')			VFR	1983	Leak/ Rupture	Instantaneous	None	NE	
	TOTAL									
COMPLETELY AND PARTIALLY BURIED TANKS										
UG/PCW	Contact Water	(b) (7)(F), (b) (3)		Horizontal	UNK	Leak/ Rupture	Instantaneous	None	NE	(b) (7)(F), (b) (3)
UG/ Transmix	Transmix			Horizontal	UNK	Leak/ Rupture	Instantaneous	None	NE	

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
* = DOT Jurisdictional Tank
= Largest EPA Jurisdictional Tank in Containment Area

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
MV = Manual Valve

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
TAA-6	Additive	(b) (7)(F), (b) (3)		H	Unknown	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
TA-4	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	N	
AIA-1	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	N	
AIA-2	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	N	
TA-3	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	N	
7557	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	N	
3211	OOS			H	Unknown	Leak/ Rupture	Instantaneous	None	N	
UPRR	OOS			H	Unknown	Leak/ Rupture	Instantaneous	None	N	
85BJ	OOS			H	Unknown	Leak/ Rupture	Instantaneous	None	N	
TSA-4	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	N	

VFR = Vertical Fixed Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
* = DOT Jurisdictional Tank
= Largest EPA Jurisdictional Tank in Containment Area

EF = Earthen Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS (Cont'd)										
Red Dye (Rack 1)	UNISOL LIQUID RED DYE	(b) (7)(F), (b) (3)		Tote	Tote	Leak/ Rupture	Instantaneous	None	N	(b) (7)(F), (b) (3)
Red Dye (Rack 4)	UNISOL LIQUID RED DYE			Tote	Tote	Leak/ Rupture	Instantaneous	None	N	
TA-550	Additive			H	1998	Leak/ Rupture	Instantaneous	None	N	
TA-560	Additive			H	1998	Leak/ Rupture	Instantaneous	None	N	
TA-570	Additive			H	1998	Leak/ Rupture	Instantaneous	None	N	
TA-580	Additive			VFR	1955	Leak/ Rupture	Instantaneous	None	N	
TA-610	OOS			VFR	UNK	Leak/ Rupture	Instantaneous	None	N	
DRA2	DRA			VFR	2006	Leak/ Rupture	Instantaneous	None	No	
TA-600	Techron Additive (31' x 30')			VFR	1983	Leak/ Rupture	Instantaneous	None	NE	
Tote (Rack #5)	Lubricity			Tote	UNK	Leak/ Rupture	Instantaneous	None	NE	
Tote (Rack #5)	Lubricity			Tote	UNK	Leak/ Rupture	Instantaneous	None	NE	
	TOTAL									

VFR = Vertical Fixed Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
* = DOT Jurisdictional Tank
= Largest EPA Jurisdictional Tank in Containment Area

EF = Earthen Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow *(gpm)*	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Secondary containment, curbing , sorbents)*
TRUCK LOADING/UNLOADING RACK							
Loading Rack 1	Refined Products	9,000	Leak/Rupture	Instantaneous	None	N	27,197 Curbing, sump
Loading Rack 2	Refined Products	9,000	Leak/Rupture	Instantaneous	None	N	12,007.7 Curbing, OWS
Loading Rack 3	Refined Products	9,000	Leak/Rupture	Instantaneous	None	N	14,885 Curbing, OWS
Loading Rack 4	Refined Products	9,000	Leak/Rupture	Instantaneous	None	N	Curbing, OWS
Loading Rack 5	Refined Products	9,000	Leak/Rupture	Instantaneous	None	NE	10,000 Curbing, Sump (UG/PCW)
OTHER SOURCES							
Return to Stock	Refined Products	2,520	Leak/Rupture	Instantaneous	None	NW/N	Curbing, OWS
Additive Offload	FS11	2,520	Leak/Rupture	Instantaneous	None	NW/N	Curbing
Military Additive	Jet Fuel Additives	2,520	Leak/Rupture	Instantaneous	None	NW/N	Curbing, OWS
Ethanol/ Additive	Additives, Ethanol	9,200	Leak/Rupture	Instantaneous	None	NW/N	None

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity program in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.
- High level alarms are tested on a monthly basis.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- An Area Corrosion Specialist conducts all required testing, inspection, record keeping and reporting in accordance with the KMEP Corrosion Manual.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices) are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics, which require consideration in the event of a discharge.

- The Facility is located in southern Arizona, approximately 4.7 miles east of the Santa Cruz River, which is the closest navigable waterway.
- The river is dry 90% of the time, but generally runs during the rainy season (July - August) and during periods of excessive rainfall.
- Petroleum products are stored in above ground tanks at the Facility.

Company customers lease space in these tanks for their individually owned products. This potential spill analysis is for Facility irrespective of the lessee products. The Facility consists of several portions including:

North Tank Farm
South Tank Farm
West Tank Farm (Community)
Tank Farm (former Shell)
Transmix Tank Farm
Southeast Tank Farm (Former Chevron)

In addition, other areas of risk include:

Terminal Manifold
Loading Racks 1 through 5
Vapor Burner and Vapor Recovery Unit

The risk analysis for potential spills at the Facility incorporates the identification of hazards that have a potential to occur at the Facility. This analysis examines the major structures and systems within the Facility.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Drinking Water Supplies (Water Intake & Wells)

(b) (7)(F), (b) (3)

[redacted]

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Drinking Water Supplies (Water Intake & Wells) (Cont'd)

Historical Well Location Data / Wells	Distance from Facility
(b) (7)(F), (b) (3)	

(b) (3), (b) (7)(F)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

(b) (3), (b) (7)(F)

Residential Areas

Residential areas are located in all directions from the Facility.

The complete list of residential areas within the planning distance is too exhaustive to list here. A comprehensive list can be identified using internet (http://maps.google.com) or community resources.

Businesses

The complete list of businesses within the planning distance is too exhaustive to list here. Review of GIS Data and public records determined that the following businesses are within the immediate vicinity of the Facility:

Businesses	Distance from Facility
Desert Crank & Engine	0.01 miles S *(approximate)*
Bishop Auto Sales	0.02 miles *(approximate)*
Travis Helwig, Inc.	0.03 miles SE *(approximate)*
Frontier Towing Service	0.12 miles SE *(approximate)*
U-Haul Co.	0.14 miles *(approximate)*
ST Services	0.16 miles N *(approximate)*
Mechanical Systems, Inc.	0.2 miles N *(approximate)*
AZ Pro Fiber Glass	0.26 miles *(approximate)*
B&C RV Service	0.26 miles N *(approximate)*
Big Sky Collision Center	0.26 miles NE *(approximate)*
Copperstate Label Company	0.26 miles *(approximate)*
Unicom Grafix, Inc.	0.26 miles NE (approximate)
Tucson Fuel Company	0.29 miles NW (approximate)
Jack Furrier's Western Tire	0.3 miles NW (approximate)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The Company is using the Regional ACP as well as the NOAA Environmental Sensitivity Study for the San Francisco Bay Region, prepared by Research Planning Institute, Inc., Columbia, South Carolina, 1986, as a reference in determining the locations of wetlands, environmentally sensitive areas, fish and wildlife, and endangered flora and fauna. Refer to Volume 2, Figure 4.1 for threatened/endangered species.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
Santa Cruz River Valley, Freshwater Emergent Wetland	(b) (7)(F), (b) (3)

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.

- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Dam Drainage Channel	0.5 miles NW *(approximate)*
Julian Wash	1.8 miles SW *(approximate)*
Santa Cruz River	4.7 miles W *(approximate)*

The Facility is located 4.7 miles east of the Santa Cruz River. The river is dry 90% of the time, but generally runs during the rainy season (July - August) and during periods of excessive rainfall.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Volume 2, Figure 4.1.

Recreational Areas

There are several recreational areas within the planning distance from the Facility. Those in the immediate vicinity include:

Recreational Area	Distance from Facility
El Con Mall	2.6 miles N *(approximate)*
Randolph Municipal Golf Course	1.8 miles N *(approximate)*
Tucson Sports Center	7.0 miles NW *(approximate)*
El Rio Golf Course	8.3 miles NW *(approximate)*
El Rio Country Club	8.3 miles NW *(approximate)*
Tucson Elec. Park (Stadium)	1.0 mile W *(approximate)*

Transportation Routes (air, land, and water)

Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
Interstate 10 (I-10)	.75 miles S *(approximate)*

Utilities

No utilities were identified within the planning distance.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Other Areas of Economic Importance

Review of GIS Data determined that the following other areas of economic importance are within the planning distance of the Facility:

Name	Distance from Facility
Sam Lena Recreation Area	0.8 miles W *(approximate)*
Juvenile Court Center	1.4 miles W *(approximate)*
Tucson Greyhound Park	3.3 miles NNW
South Branch YMCA	3.7 miles SSW
El Pueblo Branch Library	4.0 miles SSW *(approximate)*
Tucson Rodeo Grounds	4.0 miles SSW
Tucson Convention Center	4.3 miles NNW

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification Table in this Section for details on tank age.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by spill response contractors as detailed in this Plan.

Vulnerability to a Natural Disaster

The Facility is located in a semi-active earthquake zone with occasional seismic activity.

Other Factors

The actions taken to lessen hazards at the Facility petroleum tank farm reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Since the Facility was acquired by Kinder Morgan Energy Partners, the Facility has experienced no reportable spills as defined by 40 CFR 110.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Imperial Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Imperial Terminal
EPA - Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b) (3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation			
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)		
On-Shore Recovery Volume (bbls)			
Shoreline Cleanup Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack or leaking piping and would be Gasoline or JP-5.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity.

The closest waterway is the New River, which is west of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Summary of EPA Regulatory Response Requirements for a Small Discharge

*The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, **AS APPROPRIATE**, include:*

- *1,000' of containment boom **and a means of deploying it** within one (1) hour of the discovery of a spill. [Guidance: The appropriate level of response resources to address a small discharge from this Facility should arrive on-scene; including the equipment and appropriately trained manpower necessary to deploy the response resources; within one (1) hour of discovery of the discharge.]*
- *Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a Small Discharge or greater which is available at the Facility within two (2) hours of the detection of an oil discharge. [Guidance: Oil recovery devices with a minimum of 50 bbls/day recovery capacity (or greater) should be on scene and ready to commence recovery of discharged oil within two (2) hours of discovery of the discharge. The response resources that arrived to the site in the first hour (noted in the first bullet above) should be deployed and actively containing discharged oil within this two (2) hour period.]*
- *Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate. [Guidance: Storage capacity for twice the effective daily recovery rate (2 times 50 bbls/day) is 100 bbls/day which should be available at the commencement of the recovery operations, therefore within two (2) hours of discovery of the discharge.]*

Facility Response Resources/Capability

Probable Scenario

- The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.
- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack while loading Gasoline or JP-5. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Potential Offsite Impact

- The closest waterway is the New River, which is west of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Potential Offsite Impact (Cont'd)

- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

Appropriate Level of Response (in unlikely event of offsite impact)

- Under Section 3.3 to Appendix E of 40 CFR 112 – Determination and Evaluation of Required Response Resources for Facility Response Plans, it states, "The response resources shall, as appropriate, include: 3.3.1 One thousand feet of containment boom…" (59FR34112)
- "EPA recognizes that certain other elements may not be applicable in all cases. To provide flexibility for facilities with unique circumstances, certain elements are prefaced by use of the words 'shall, as appropriate' or modified by the use of the words 'or equivalent'."(59FR34074)
- **Accordingly, 1,000 ft of containment boom is not appropriate and would not be practicable for a response to a discharge from this facility. Based upon local topography, initial response will be accomplished with diking/damming, underflow dams and a minimal amount of containment and sorbent boom (approximately 50' of each). The response will be implemented utilizing local contract resources. These tactical response strategies have been pre-identified and documented. These Tactical PrePlans have been provided herein behind tab "Tactical PrePlans" located at the end of this Volume 2, Section 8.**
- The initial equipment for these response strategies will be provided by Nations Rental under an on call agreement with KMEP. An equipment list for Nations Rental is provided in volume 2, Section 3. In accordance with the two (2) hour response requirement for recovery equipment, Ancon Marine will also provide vacuum truck services under Contract 05-ER-45-060-ORG.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture

Spills of this size would likely be Gasoline or JP-8. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would likely be routed to the separator system. If a spill of this size escaped the property it could possibly enter the New River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the New River so the potential for a spill of this size reaching navigable water does exist. The area is sparsely populated so damage to ecologically sensitive habitats, recreational areas, etc. would be possible. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow north through the Facility and south down the drainage ditch east of the Facility. Ultimately the flow will reach the New River which is located west of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located east of the New River. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate boom deployment and anchoring at the waterway within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by the state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Phoenix Terminal is an EPA jurisdictional "Non-Transportation Related Onshore" Facility which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation
● **Worst Case Discharge** *100% of the largest single tank* **WCD** = (b) (7)(F), (b) (3)
● **Medium Discharge** *Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD* **MD** = 857 bbls
● **Small Discharge** *Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD* **SD** = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Phoenix Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Shoreline Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity.

The closest waterway is the Roosevelt Canal, which is south of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the canal or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Summary of EPA Regulatory Response Requirements for a Small Discharge

*The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, **AS APPROPRIATE**, include:*

- *1,000' of containment boom **and a means of deploying it** within one (1) hour of the discovery of a spill. [Guidance: The appropriate level of response resources to address a small discharge from this Facility should arrive on-scene; including the equipment and appropriately trained manpower necessary to deploy the response resources; within one (1) hour of discovery of the discharge.]*
- *Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a Small Discharge or greater which is available at the Facility within two (2) hours of the detection of an oil discharge. [Guidance: Oil recovery devices with a minimum of 50 bbls/day recovery capacity (or greater) should be on scene and ready to commence recovery of discharged oil within two (2) hours of discovery of the discharge. The response resources that arrived to the site in the first hour (noted in the first bullet above) should be deployed and actively containing discharged oil within this two (2) hour period.]*
- *Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate. [Guidance: Storage capacity for twice the effective daily recovery rate (2 times 50 bbls/day) is 100 bbls/day which should be available at the commencement of the recovery operations, therefore within two (2) hours of discovery of the discharge.]*

Facility Response Resources/Capability

Probable Scenario

- A 50 bbl discharge typically will not escape the containment of the Facility.
- If a 50 bbl discharge escaped the Facility it would likely occur as the result of an incident at or near the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Potential Offsite Impact

- The closest waterway is Roosevelt Canal, which is south of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the canal. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Appropriate Level of Response (in unlikely event of offsite impact)

- Under Section 3.3 to Appendix E of 40 CFR 112 – *Determination and Evaluation of Required Response Resources for Facility Response Plans*, it states, "The response resources shall, **as appropriate**, include: 3.3.1 One thousand feet of containment boom…" (59FR34112)

- "EPA recognizes that certain other elements may not be applicable in all cases. To provide flexibility for facilities with unique circumstances, certain elements are prefaced by use of the words **'shall, as appropriate'** or modified by the use of the words **'or equivalent'.**"(59FR34074)

- **Accordingly, 1,000 ft of containment boom is not appropriate and would not be practicable for a response to a discharge from this facility. Based upon local topography, initial re`sponse will be accomplished with diking/damming, underflow dams and a minimal amount of containment and sorbent boom (approximately 50' of each). The response will be implemented utilizing local contract resources. These tactical response strategies have been pre-identified and documented. These Tactical PrePlans have been provided herein behind tab "Tactical PrePlans" located at the end of this Volume 2, Section 8.**

- The equipment for these response strategies will be provided by Arizona Pipeline Company with which KMEP has a contract (Contract 01-CE-20-361-ORG). In accordance with the two (2) hour response requirement for recovery equipment, M.P. Environmental will also provide vacuum truck services. M.P. Environmental's equipment list is provided in Volume 2, Section 3.

- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.

- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.

- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings and FRP reviews.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Roosevelt Canal. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO/Contractor to arrive, qualified Facility personnel would evacuate the Facility, as appropriate, and initiate "immediate response actions" (Section 4 of Volume 2).

The closest waterway is Roosevelt Canal so the potential for a spill of this size reaching navigable water, although minimal, does exist. The area is sparsely populated so damage to ecologically sensitive habitats, recreational areas, etc. would be possible. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Summary of EPA Regulatory Response Requirements for a Medium Discharge

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- *Oil recovery devices with an effective daily recovery capacity equal to 50% of the Medium Discharge volume that are capable of arriving on scene within 12 hours.*
- *Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.*
- *Temporary storage capacity equal to twice the daily recovery capacity.*

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities within 12 hours.
- In the event that the spill escapes the boundaries of the Facility and impacts the river, containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) within 12 hours.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed [redacted]

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow southwest and enter Roosevelt Canal which is located south of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located north of Roosevelt Canal. The priority during larger spills is to prevent oil from reaching the waterway. Response Contractors and OSROs are under contract with the Facility to address the response requirements for the small, medium and worst case discharges. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Summary of EPA Regulatory Response Requirements for a Worst Case Discharge

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- *All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours, Tier 2 = 36 hours, Tier 3 = 60 hours).*
- *Oil recovery devices with an effective daily recovery capacity equal to the lesser of the WCD Response Planning Volume Calculation or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.*

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Summary of EPA Regulatory Response Requirements for a Worst Case Discharge (Cont'd)

- *Temporary storage capacity equal to twice the daily recovery capacity.*
- *At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.*
- *Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.*
- *Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.*
- *The above Response Planning Volume requirements, including response times, are based on Attachment E-1 of Appendix E to 40 CFR Part 112.*

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate the "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) and contract resources will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers (Tier 1 = 12 hours, Tier 2 = 36 hours, Tier 3 = 60 hours) and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of the WCD Response Planning Volume Calculation (table located in this Section) or the response caps will be secured from the OSRO(s) and other contract resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other contract resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other contract resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other contract resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other contract resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Tucson Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Tucson Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)
On-Water Recovery Volume (bbls)	
On-Shore Recovery Volume (bbls)	
Shoreline Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
	(b) (7)(F), (b) (3)		
On-Water Recovery Cpcty (bpd)			
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be Gasoline.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity.

The closest waterway is the Santa Cruz River, which is west of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Summary of EPA Regulatory Response Requirements for a Small Discharge

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, ***AS APPROPRIATE****, include:*

- *1,000' of containment boom* ***and a means of deploying it*** *within one (1) hour of the discovery of a spill. [Guidance: The appropriate level of response resources to address a small discharge from this Facility should arrive on-scene; including the equipment and appropriately trained manpower necessary to deploy the response resources; within one (1) hour of discovery of the discharge.]*
- *Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a Small Discharge or greater which is available at the Facility within two (2) hours of the detection of an oil discharge. [Guidance: Oil recovery devices with a minimum of 50 bbls/day recovery capacity (or greater) should be on scene and ready to commence recovery of discharged oil within two (2) hours of discovery of the discharge. The response resources that arrived to the site in the first hour (noted in the first bullet above) should be deployed and actively containing discharged oil within this two (2) hour period.]*
- *Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate. [Guidance: Storage capacity for twice the effective daily recovery rate (2 times 50 bbls/day) is 100 bbls/day which should be available at the commencement of the recovery operations, therefore within two (2) hours of discovery of the discharge.]*

Facility Response Resources/Capability

Probable Scenario

- A 50 bbl discharge typically will not escape the containment of the Facility.
- If a 50 bbl discharge escaped the Facility it would likely occur as the result of an incident at or near the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Potential Offsite Impact

- The closest waterway is the Santa Cruz River, which is west of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Appropriate Level of Response (in unlikely event of offsite impact)

- Under Section 3.3 to Appendix E of 40 CFR 112 – *Determination and Evaluation of Required Response Resources for Facility Response Plans*, it states, "The response resources shall, **as appropriate**, include: 3.3.1 One thousand feet of containment boom…" (59FR34112)

- "EPA recognizes that certain other elements may not be applicable in all cases. To provide flexibility for facilities with unique circumstances, certain elements are prefaced by use of the words **'shall, as appropriate'** or modified by the use of the words **'or equivalent'.**"(59FR34074)

- **Accordingly, 1,000ft of containment boom is not appropriate and would not be practicable for a response to a discharge from this facility. Based upon local topography, initial response will be accomplished with diking/damming, underflow dams and a minimal amount of containment and sorbent boom (approximately 50 feet of each). The response will be implemented utilizing local contract resources. These tactical response strategies have been pre-identified and documented. These Tactical PrePlans have been provided herein behind tab "Tactical PrePlans" located at the end of this Volume 2, Section 8.**

- The equipment for these response strategies to be utilized for the small discharge will be provided by Chemical Transportation, Inc. with which KMEP has a contract (Contract HQ-05-4162). In accordance with the two (2) hour response requirement for recovery equipment, Chemical Transportation, Inc. will also provide vacuum truck services. Chemical Transportation, Inc. equipment list is provided in Volume 2, Section 3.

- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.

- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.

- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings and FRP reviews.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture

Spills of this size would likely be Gasoline. Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before spill containment could begin. If a spill of this size escaped the property it could possibly enter the Santa Cruz River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO/Contractor to arrive, qualified Facility personnel would evacuate the Facility (as appropriate) and initiate "immediate response actions" (Section 4 of Volume 2).

The closest waterway is the Santa Cruz River so the potential for a spill of this size reaching navigable water, although minimal, does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Summary of EPA Regulatory Response Requirements for a Medium Discharge

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- *Oil recovery devices with an effective daily recovery capacity equal to 50% of the Medium Discharge volume that is capable of arriving on scene within 12 hours.*
- *Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.*
- *Temporary storage capacity equal to twice the daily recovery capacity.*

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities within 12 hours.
- In the event that the spill escapes the boundaries of the Facility and impacts the river, containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) within 12 hours.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached). Spills of this size would likely be Gasoline.

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow north and west to enter the Santa Cruz River which is located west of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located east of the Santa Cruz River. The priority during larger spills is to prevent oil from reaching the waterway. Response Contractors and OSROs are under contract with the Facility to address the response requirements for the small, medium and worst case discharges. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Summary of EPA Regulatory Response Requirements for a Worst Case Discharge

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- *All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours, Tier 2 = 36 hours, Tier 3 = 60 hours).*

- *Oil recovery devices with an effective daily recovery capacity equal to the lesser of the WCD Response Planning Volume Calculation or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.*

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Summary of EPA Regulatory Response Requirements for a Worst Case Discharge (Cont'd)

- *Temporary storage capacity equal to twice the daily recovery capacity.*
- *At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.*
- *Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.*
- *Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.*
- *The above Response Planning Volume requirements, including response times, are based on Attachment E-1 of Appendix E to 40 CFR Part 112.*

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate the "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) and contract resources will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers (Tier 1 = 12 hours, Tier 2 = 36 hours, Tier 3 = 60 hours) and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of the WCD Response Planning Volume Calculation (table located in this Section) or the response caps will be secured from the OSRO(s) and other contract resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other contract resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other contract resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other contract resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other contract resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 345 W. Aten Road
El Centro, CA 92251
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Union Pacific Railroad, if applicable.
h. Staging area for Emergency Command Center will be at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the main office. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the southern office building or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Office building.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The Company has confirmed with the Imperial Police Department that no community evacuation plan currently exists for this area. However, the Police Department does have standard guidelines that are followed in the event of an evacuation.

5. Directions to El Centro Regional Medical Center

From the Facility, start out going west on W Aten for 0.21 miles. Proceed north on CA-86 N by turning right. Travel 0.55 miles and turn left onto Airport Rd. Go 0.01 miles and turn left onto CA-86 S. Proceed 2.52 miles on CA-86 S where it becomes N Imperial Ave/C-86. Go 0.1 miles and turn left onto CA-86 S/Adams Ave. Travel 1.06 miles to CA-86/Adams Ave where it becomes CA-86 S/N 4th St. Go 1.49 miles and turn left to take the I-8 E ramp. Go 0.19 miles to merge onto I-8 E. Proceed 2.78 miles and take the CA-111 N exit towards Brawley. Travel 0.19 miles and merge onto CA-111 N. Go 0.53 miles to Ross Ave. Take a right at Ross Ave and proceed 0.17 miles to El Centro Regional Medical Center on the right.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gates located northwest of the office.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

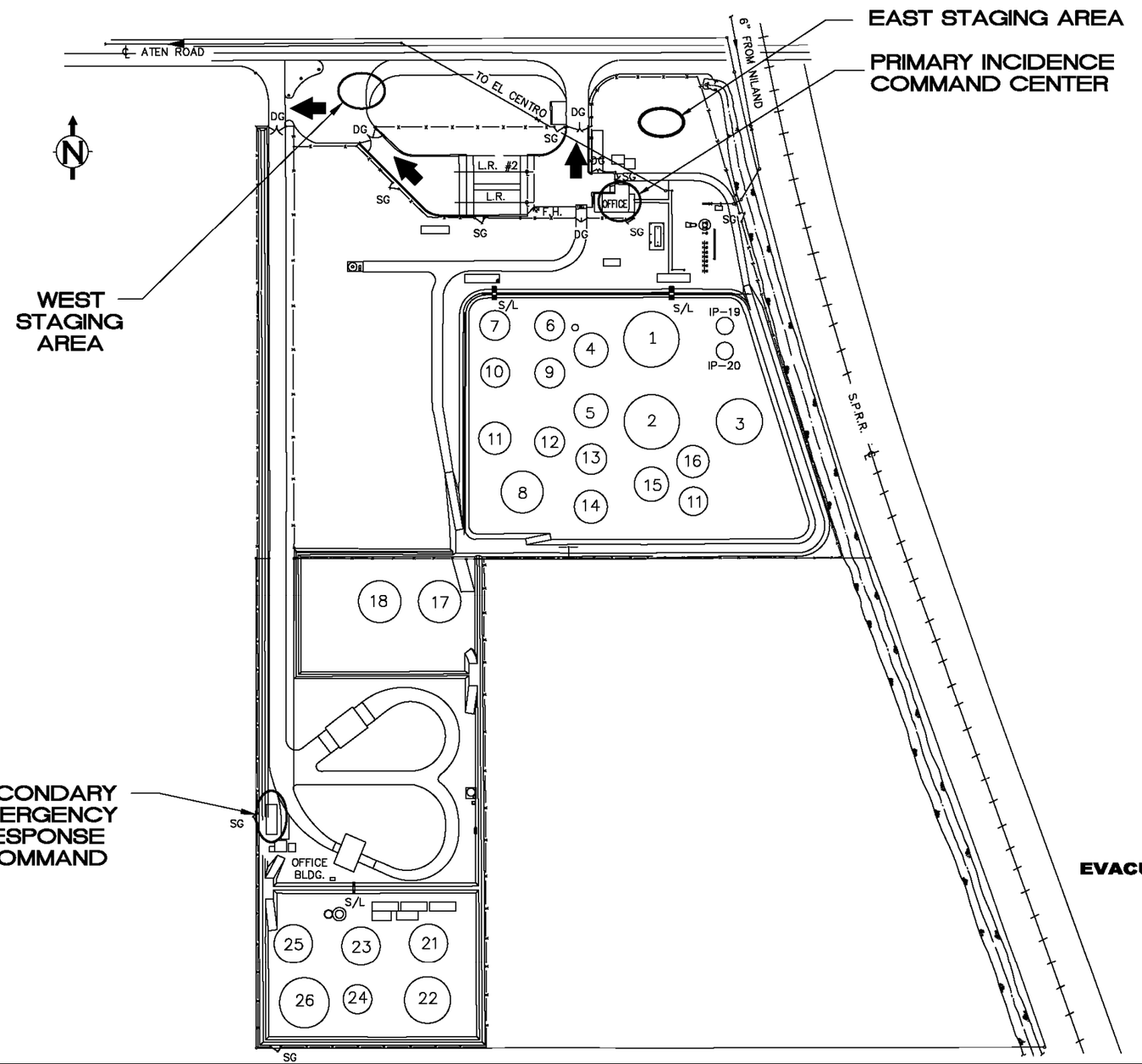
8. Prevailing Winds

The prevailing winds in the Facility area generally come from the southeast at an average speed of 5-10 mph year round.

9. Water Currents

Currents in the New River are minimal.

EVACUATION PLAN



LEGEND:

SG	SINGLE GATE
DG	DOUBLE GATE
S/L	STAIR/LADDER
➡	MAIN EXITS

EVACUATION DIAGRAM
FIGURE 8.8

SFPP, L.P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
IMPERIAL TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FLD. EVAC-IP	DESIGN SUPT	EVAC-IP
BY. VFV	MGR. SAFETY	
DATE 8-28-01	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 49 N. 53rd Ave.
Phoenix, AZ 85043
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility, a Union Pacific Railroad, if applicable.
h. Staging area for emergency command post will be at the entrance to the Facility or where designated by Fire Department.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the secondary emergency response command center or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Control Building, or the east or west staging area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

A community evacuation plan currently exists for this area.

5. Directions to Maryvale Samaritan Hospital

From the Facility exit on 53rd Avenue, start out by turning right onto 53rd Avenue going north. Proceed 0.30 miles and turn right onto W. Van Buren St. Travel approximately 0.51 miles and turn left on N. 51st Avenue. Proceed north 3.52 miles to the Maryvale Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located Southwest of the Control Building. If the situation permits, the Facility may also be accessed through the eastern access road (Monroe Avenue off of 51st Ave.).

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the southeast at speed of 5-10 mph year round.

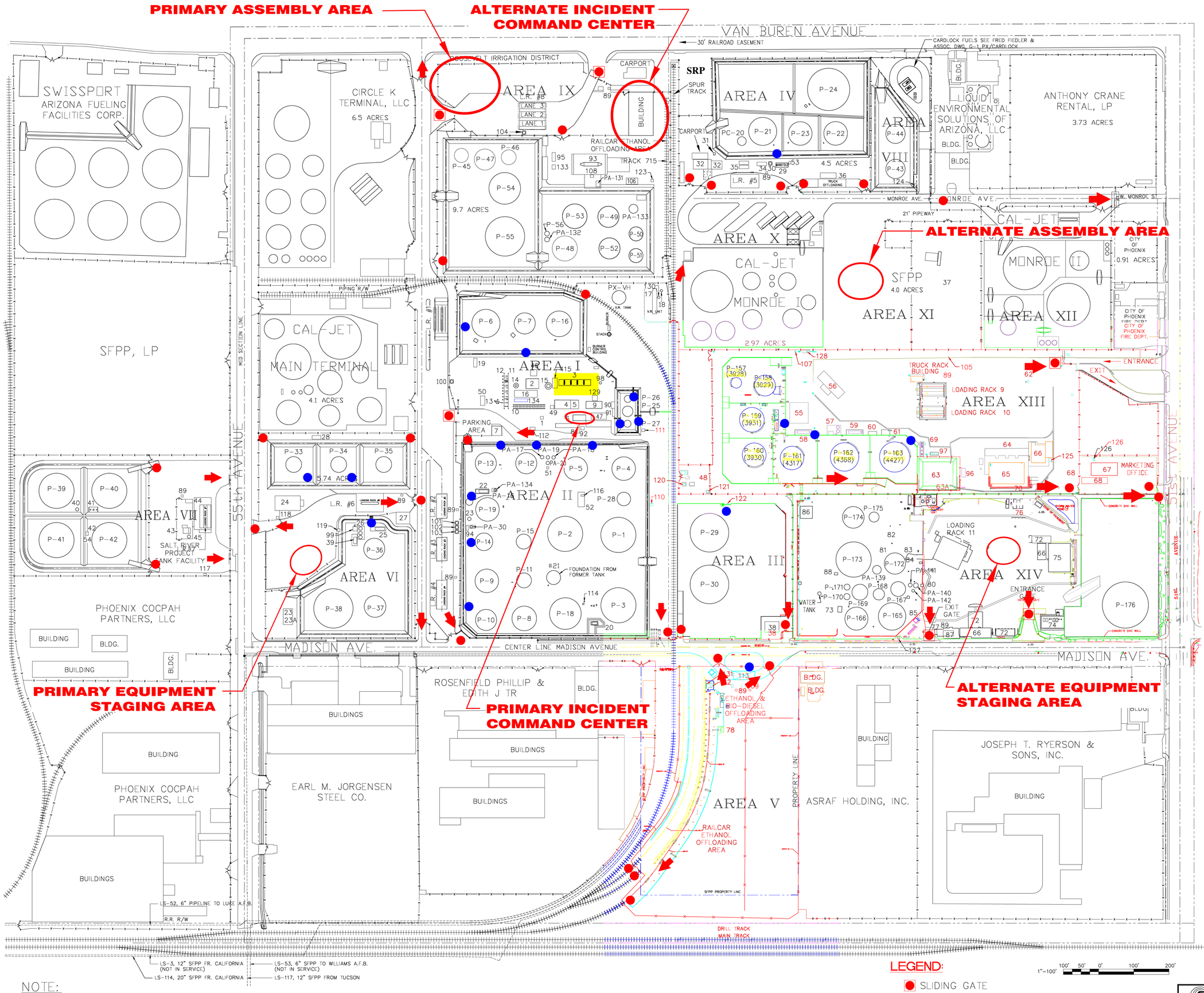
9. Water Currents

Currents in the Roosevelt Canal are minimal.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION DIAGRAM



LEGEND:

1. SAMPLE SHELTER
2. METER SHELTER
3. MAINLINE PUMP SHELTER
4. CONTROL ROOM
5. CLERK OFFICE
6. SUPERVISOR OFFICES
7. STORAGE SHELTER
8. UTILITY BUILDING
9. SWITCH GEAR
10. 20" CALIFORNIA MANIFOLD/12" TEXAS MANIFOLD
11. 8" TRANSFER MANIFOLD
12. 12" TRANSFER MANIFOLD
13. FIRE FIGHTING FOAM MANIFOLD
14. EAST LINE SUMP
15. WEST LINE SUMP
16. METER PROVER
17. EDWARDS VRU
18. EDWARDS VRU SUMP
19. QUIKTRIP ADDITIVE TANK PA-25
20. OILY WATER SEPARATOR (OWS-1)
21. WATER HOLDING TANK FROM OWS-1
22. COMMUNITY ADDITIVE TANK PA-13 (RACK 2)
23. CARBON BED FILTRATION SYSTEM
23A. POTW DISCHARGE COMPLIANCE SAMPLING POINT 2450.02
24. QUONSET HUT (STORAGE)
25. ADDITIVE TANK PA-15
26. SHELL ADDITIVE TANKS PA-26, PA-27, AND PA-28 (RACK 6)
27. TECHNICIAN OFFICES
28. (OOS) OFFLOAD AREA. NOT IN USE.
29. COMMUNITY I MANIFOLD
30. RACK 5 FOAM DELUGE TANK
31. SRP TRANSFORMER #8
32. LABORATORY
33. MAINTENANCE TRAILER
34. COMMUNITY ADDITIVE TANK PA-14 (RACK 5)
35. ADDITIVE TANKS PA-23 & PA-24
36. AREA 4 OFFLOADING
37. MAINTENANCE YARD
38. MAINTENANCE BUILDING
39. MOBIL ADDITIVE TANK PA-29
40. RACK 7 MANIFOLD SUMP
41. TURBINE FILTRATION SYSTEM
42. 16" FILL LINE MANIFOLD
43. RED DYE TOTE (RACK 7)
44. EQUIPMENT AND B.O.L. BUILDING
45. RACK 7, RACK SUMP
46. 12" FILTERS & FILTER DRAINAGE VESSELS
47. POWER CENTER (MAIN MCC)
48. MAIN UTILITY SUBSTATION
49. SCADA CONTROL BUILDING
50. DIESEL LUBRICITY SKID PA-135
51. FSII SKID
52. FUEL FILTERS AND ADDITIVE STATION (CI & STADIS 450 TOTES)
53. BLADDER SURGE TANK D-01
54. BLADDER SURGE TANK D-02
55. RACK 9/10 PRODUCT PUMP
56. AREA 13 OFFLOADING
57. RACK 9/10 VAPOR RECOVERY UNIT
58. ADDITIVE TANK PA-136
59. WATER HOLDING TANK P-164 FROM OWS-3 & RACK 9/10 RED DYE TOTE
60. ADDITIVE TANK PA-137
61. ADDITIVE TANK PA-138
62. TIS PRINTER BUILDING
63. EVAPORATION POND
63A. POTW DISCHARGE COMPLIANCE SAMPLING POINT 2450.03
64. LOADING DOCK
65. WAREHOUSE
66. OFFICE
67. LINE RIDER OFFICE
68. EMPLOYEE PARKING AREA
69. OILYWATER SEPARATOR (OWS-3)
70. STORAGE DOCK
71. RACK 11 VAPOR RECOVERY UNIT (VRU)
72. PARKING
73. STORAGE BUILDING
74. PUMP MANIFOLD AREA FOR TANK P-176
75. FLEET SHOP / MAINTENANCE BUILDING
76. STORAGE TRAILERS
77. PRINTER BUILDING
78. PRODUCT TESTING STATION
79. AQUIFER – STORM WATER COLLECTION POND
80. AREA 14 OFFLOADING
81. MAIN PUMP MANIFOLD AREA
82. FUEL FILTER PAD
83. APPROXIMATE LOCATION OF 12,000-GALLON UNDERGROUND WATER / PRODUCT PROCESS TANK
84. APPROXIMATE LOCATION OF 6,000-GALLDN UNDERGROUND TRANSMIX PROCESS TANK
85. LOADING RACK #11 FOAM TANK
86. EQUIPMENT STORAGE AREA
87. SMOKING AREA
88. DELIVERY MANIFOLD
89. PORT-A-POTTY
90. HAZARDOUS WASTE & USED OIL STORAGE
91. SATELLITE ACCUMULATION DRUMS
92. UNIVERSAL WASTE STORAGE
93. NON-HAZARDOUS WASTE STORAGE
94. OOS (OUT OF SERVICE) ADDITIVE TANK
95. WATER HOLDING TANK FROM OWS-2
96. SECONDARY WATER HOLDING TANK FOR P-164
97. AIR STRIPPER RACKS 9 & 10
98. OOS PX-TU SUMP
99. LOADING RACK #6 SUMP TANK
100. LOADING RACK #1 FOAM TANK
101. LOADING RACK #2 FOAM TANK
102. LOADING RACK #4 FOAM TANK
103. LOADING RACK #3 FOAM TANK
104. LOADING RACK #8 FOAM TANK
105. LOADING RACK #9 & #10 FOAM TANK
106. LOADING RACK #8 FIRE PUMP HOUSE
107. SRP TRANSFORMER #10
108. AREA #9 OFFLOADING
109. BIO FUEL PAGS/PADS SATELLITE ACCUMULATION DRUM
110. PA-16 ADDITIVE OFFLOADING
111. TRANSMIX OFFLOADING
112. AREA 1 OFFLOADING
113. ETHANOL OFFLOADING (TRUCK)
114. TURBINE FILTERS AND FILTER DRAINAGE VESSELS
115. 20" FILTERS & FILTER DRAINAGE VESSELS
116. LAFB FILTER DRAINAGE VESSELS
117. SRP TRANSFORMER #1
118. SRP TRANSFORMER #2
119. SRP TRANSFORMER #3
120. SRP TRANSFORMER #4
121. SRP TRANSFORMER #5
122. SRP TRANSFORMER #6
123. SRP TRANSFORMER #7
124. SRP TRANSFORMER #9
125. SRP TRANSFORMER #11
126. SRP TRANSFORMER #12
127. SRP TRANSFORMER #13
128. SFPP TRANSFORMER #1
129. SFPP TRANSFORMERS #2, #3, #4, #5 & #6
130. EDWARDS VRU SUMP
131. BIO FUEL ACCUMULATOR
132. RAIL SPUR UNDERGROUND CONTAINMENT
133. OWS-2
134. BLEND METERING SKID

NOTE:

1. TOTES STORED AT THE FOLLOWING RACKS:
   - RACK 3 (RED DYE TOTE)
   - RACK 5 (RED DYE TOTE)
   - RACK 8 (RED DYE TOTE)
   - RACK 11 (RED DYE TOTE)
2. SEE LEGEND ITEM #43, #52 AND #59 FOR OTHER TOTES.
3. SRP TRANSFORMER POC (602) 236-5479.

LEGEND:

- SLIDING GATE
- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS
- HEARING PROTECTION REQUIRED

SFPP Limited Partnership — ORANGE CALIFORNIA

EVACUATION PLAN
PHOENIX TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-PX	DESIGN SUPT	EVAC-PX-1
BY: ARM	MGR. SAFETY	
DATE: 04-29-14	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the KMEP Emergency Plan, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Company Personnel (IC) assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 3841 E. Refinery Way
Tucson, AZ 85713
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Southern Pacific RR is applicable.
h. Staging area for Emergency Command Post will be at the entrance to the Facility or where designated by Fire Department.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Administration Office. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** – Employees unable to report to primary assembly area should report to either 2nd or 3rd response command centers. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office. The staging area for the emergency command post will be at the entrance to the Facility or the Fire Department designated area.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

A community evacuation plan currently exists for this area.

5. Directions to Kino Community Hospital

From the Facility, turn right going west on E. Refinery Way for 0.16 miles to S. Dodge Blvd. Turn right onto E. Ajo Way and travel approximately 1 mile to Kino Community Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located South of the Control Building. If the situation permits, the Facility may also be accessed through the northern access road.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the Southeast, at an average speed of five to ten (5-10) mph year round.

9. Water Currents

Currents in the Santa Cruz River are only present during the rainy season (July-August).

FIGURE 8.8
EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

SECTION 8

IMPERIAL TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

PHOENIX TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

TUCSON TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

INTEGRATED CONTINGENCY PLAN

Volume 2

KINDER MORGAN
ENERGY PARTNERS, L.P.

Southern Region - East

Imperial Area
El Paso Area
Phoenix Area
Tucson Area

Prepared for:

Kinder Morgan Energy Partners, L.P.
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www.rmaworld.com

EMERGENCY RESPONSE ACTION PLAN (ERAP)

The users of this Plan carry and maintain the complete Volume 1 and Volume 2 documents and the Plan has been designed for quick reference. Accordingly, the Emergency Response Action Plan (ERAP) for this Integrated Contingency Plan is addressed by cross-reference as follows:

• Qualified Individual	Volume 1 Figure 2.3; Volume 2 § 8.1.2
• Emergency Notification Phone List	Volume 1 §§ 2.1, 2.2; Volume 2 §§ 2.1, 2.2
• Spill Response Notification Form	Volume 1 Figure 2.2
• Response Equipment List and Location	Volume 2 § 3.1 and Figure 3.2
• Response Equipment Testing and Deployment	Volume 2 §§ 3.1, 3.2, 3.3, Figure 3.4
• Facility Response Team	Volume 1 § 2.0; Volume 2 § 2.0
• Evacuation Plan	Volume 2 § 8.4
• Immediate Actions	Volume 1 § 3.4
• Facility Diagram	Volume 2 § 8.1.2, Figure 8.3

REVISION RECORD

CHANGE DATE	REMOVE PAGE NUMBER(S)	INSERT PAGE NUMBER(S)	DESCRIPTION OF CHANGE(S)
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipeline, GATX Terminals, and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	General Plan Update; Revisions to Address DOT-RSPA Review
January 2005	Pgs. iii, TOC-i, 2-2, 2-3, 2-12, 2-13, 3-5 thru 3-17; Imperial - 6-1, 6-13, Phoenix - 6-2, 8.2-7, 8.2-24; Tucson - 8.2-11	Pgs. iii, TOC-i, 2-2, 2-3, 2-12, 2-13, 3-5 thru 3-23; Imperial - 6-1, 6-13, Phoenix - 6-2, 8.2-7, 8.2-24; Tucson - 8.2-11	Facility information update and miscellaneous revisions
April 2005	Pgs. iii, 3-14, 3-16, 3-18, 4-10; Phoenix - Figures 8.2, 8.3 (cont'd), 8.2-5 thru 8.2-15, 8.2-18 thru 8.2-27, 8.3-3, 8.3-6 thru 8.3-13, 8.4-2, , Tucson - 8.1-4 thru 8.1-6, Figures 8.2, 8.3, 8.4, 8.2-1 thru 8.2-13, 8.2-16 thru 8.2-26, Figure 8.7, 8.3-1, 8.3-3, 8.3-6 thru 8.3-9, 8.3-11 thru 8.3-13, , 8.4-1, 8.4-2, Figure 8.8	Pgs. iii, 3-14, 3-16, 3-18, 4-10; Phoenix - Figures 8.2, 8.3 (cont'd), 8.2-5 thru 8.2-15, 8.2-18 thru 8.2-27, 8.3-3, 8.3-6 thru 8.3-13, 8.4-2, Tucson - 8.1-4 thru 8.1-6, Figures 8.2, 8.3, 8.4, 8.2-1 thru 8.2-13, 8.2-16 thru 8.2-26, Figure 8.7, 8.3-1, 8.3-3, 8.3-6 thru 8.3-9, 8.3-11 thru 8.3-13, , 8.4-1, 8.4-2, Figure 8.8	General Plan Update
June 2005	Pgs. iii thru v; 2-1, 2-14	Pgs. iii thru v; 2-1, 2-14	Facility information update and miscellaneous revisions; Revisions to address Notifications and OSPR review.
July 2005	Pgs. iii, 3-2	Pgs. iii, 3-2	General Plan Update
December 2005	Pgs. Foreword, Table of Contents, Section 1.0, Section 2.0, Section 3.0 & inserts, 4-10; Imperial Sec. 8.2, 8.4-4 & inserts; Phoenix Sec. 6.0, 7-1, 7-2, Fig. 8.2 – Area Map, Sec. 8.2, Sec. 8.3, 8.4-2, 8.4-4; Tucson Sec. 6.0, Sec, 7.0, Sec. 8.0, Sec. 8.1, Sec. 8.2, Sec. 8.3, Sec. 8.4 (See revision packet for specific pages.)	Pgs. Foreword, Table of Contents, Section 1.0, Section 2.0, Section 3.0 & inserts, 4-10; Imperial Sec. 8.2, 8.4-4 & inserts; Phoenix Sec. 6.0, 7-1, 7-2, Fig. 8.2 – Area Map, Sec. 8.2, Sec. 8.3, 8.4-2, 8.4-4; Tucson Sec. 6.0, Sec, 7.0, Sec. 8.0, Sec. 8.1, Sec. 8.2, Sec. 8.3, Sec. 8.4 (See revision packet for specific pages.)	General Plan Update
June 2007	Pgs. iii, 1-2, 1-4, 1-6, 2-2, 3-5, El Paso Sec. 6.0, Sec. 7.0, Phoenix 6-1, 8.1-5, Tactical Plan 3, Tucson Sec. 6.0	Pgs. iii, 1-2, 1-4, 1-6, 2-2, 3-5, El Paso Sec. 6.0, Sec. 7.0, Phoenix 6-1, 8.1-5, Tactical Plan 3, Tucson Sec. 6.0	Annual review and update of pipeline and facility information

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REVISION RECORD (Cont'd)

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November 2007	Pgs. iv thru vii, TOC-i thru TOC-iv, 1-5, 1-6, 2-1 thru 2-15, 3-6, 3-7, 3-10, 3-12, 3-14; Imperial - Section 6.0 (all), 8.1-3; 8.3-6 thru 8.3-14; Phoenix - Section 6.0 (all), 7-1, 7-2, 8.1-1, 8.2-7, 8.2-9, 8.2-10, 8.3-7; Tucson - Section 6.0 (all), 7-1, 7-2, 8.2-7, 8.2-9, 8.2-13	Pgs. iv thru vii, TOC-i thru TOC-iv, 1-5, 1-6, 2-1 thru 2-15, 3-6, 3-7, 3-10, 3-12, 3-14; Imperial - Section 6.0 (all), 8.1-3; 8.3-6 thru 8.3-14; Phoenix - Section 6.0 (all), 7-1, 7-2, 8.1-1, 8.2-7, 8.2-9, 8.2-10, 8.3-7; Tucson - Section 6.0 (all), 7-1, 7-2, 8.2-7, 8.2-9, 8.2-13	Annual Update
September 2008	Pgs. iv, 1-4 thru 1-6, 2-15, 3-6, 3-14, Phoenix Area 6-1, 6-4 thru 6-6, 7-2, Figure 8.4, 8.2-7, 8.2-13, 8.2-16, 8.2-22 thru 8.2-25, Figure 8.7, Figure 8.8, Tuscon Area 6-1, 6-5 thru 6-14, Figure 7.2 (Cont'd) (deleted), 8.1-3, 8.1-6 and facility diagrams, 8.2-1thru 8.2-3, 8.2-7 thru 8.2-13, 8.2-21 thru 24, Figure 8.3 (Cont'd) (deleted), Figure 8.7 (Cont'd)) (deleted), Figure 8.8 (Cont'd) (deleted)	Pgs. iv, 1-4 thru 1-6, 2-15, 3-6, 3-14, Phoenix Area 6-1, 6-4 thru 6-8, 7-2, Figure 7.2(a), 7-3, Figure 8.4, 8.2-7, 8.2-13, 8.2-16, 8.2-22 thru 8.2-25, Figure 8.7, Figure 8.8, Tuscon Area 6-1, 6-5 thru 6-11, 8.1-3, 8.1-6, General Layout and Fire Protection diagrams, 8.2-1thru 8.2-3, 8.2-7 thru 8.2-13, 8.2-21 thru 24	Annual review and update Imperial, Phoenix and Tucson Areas.
December 2008	Pgs. iv, vi, vii, 1-1, 2-2, 3-2, 3-8, 3-9, El Paso Area 6-1 thru 6-13 and pipeline map following, 7-6, Phoenix Area Figure 7.2 and 7.2(a), 8.1-4 thru 8.1-6, Figure 8.3, Figure 8.3 (Cont'd)(General Layout Diagrams), 8.1-10 and Fire Protection Diagram, 8.2-1, 8.2-4, 8.2-13 thru 8.2-19 (retain Tank/Secondary Containment Inspection Checklists), 8.2-20 thru 8.2-26 (retain Drainage Diagram), 8.4-3 and both Evacuation Diagrams	Pgs. iv, vi, vii, 1-1, 2-2, 3-2, 3-8, 3-9, El Paso Area 6-1 thru 6-14 and HCA Index, 7-6, Phoenix Area General Layout Diagram (following pg. 7-4), 8.1-4 thru 8.1-6, General Layout Diagram, and Fire Protection Diagrams (2), 8.2-1, 8.2-4, 8.2-13 thru 8.2-20, 8.2-21 thru 8.2-27, 8.4-3 and Evacuation Diagram	Annual review and update El Paso Area. Acquisition of ConocoPhillips Phoenix facility.

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January 2010	Pgs. v thru vii, TOC-I, 1-1, 1-6, 2-13 through 2-15, 3-1, 3-5 through 3-11 (retain Nations Rental Resource List), 3-12 through 3-13 and CTI Work Directive (retain CTI contract and information), 3-14 and 3-15 (retain M.P. Environmental Equipment List), 3-16 through 3-19 and Ancon Marine Work Directive (2 pages) (retain Ancon Marine contract), 3-20 (retain Universal Environmental information), El Paso Area 6-1, 6-2, 6-4, 6-5, 6-7, 6-8, 6-10 through 6-15, 7-1, 7-6, Phoenix Area Phoenix Tactical Plan #2, Tucson Area 6-1, 6-4 through 6-9, 8.1-4, 8.1-5, 8.2-1, 8.2-2, 8.2-5, 8.2-7 through 8.2-16 (retain inspection checklists), 8.2-17 through 8.2-24 (retain Figure 8.7 Facility Drainage Diagram).	Pgs. v thru viii, TOC-I, 1-1, 1-6, 2-13 through 2-15, 3-1, 3-5 through 3-12 (Nations Rental Resource List follows), 3-13 and 3-14 (CTI contract and information follows), 3-15 and 3-16 (M.P. Environmental Equipment List follows), 3-17 through 3-20 (Ancon Marine contract follows), 3-21 (Universal Environmental information follows), El Paso Area 6-1, 6-2, 6-4, 6-5, 6-7, 6-8, 6-10 through 6-15, 7-1, El Paso Yard Evacuation Diagrams, 7-6, Phoenix Area Phoenix Tactical Plan #2, Tucson Area 6-1, 6-4 through 6-9, 8.1-4, 8.1-5, 8.2-1, 8.2-2, 8.2-5, 8.2-7 through 8.2-16 (inspection checklists follow), 8.2-17 through 8.2-24 (Figure 8.7 Facility Drainage Diagram follows).	Annual review. Update facility, pipeline, contractor and contact information.
February 2010	Page v, 1-1, El Paso Area 6-1 and 6-3	Page v, 1-1, El Paso Area 6-1, 6-3(a) and 6-3(b)	Correct LS-4 pipeline information.
July 2010	Pages v, TOC-i, 2-16 and Open End and On-Call Contractor List	Page v, TOC-i	PHMSA Advisory Review. Contact information updates.
November 2010	Pages v, TOC-iv, 1-6, 2-13, 2-14; Phoenix Area 8.1-1, 8.1-4 through 8.1-6, Facility Diagrams, 8.2-1, 8.2-4, 8.2-15 through 8.2-37 (retain Figure 8.7 Drainage Diagram), 8.3-1, 8.3-3, 8.3-10 through 8.3-14, 8.4-3 and Evacuation Diagram.	Pages v, TOC-iv, 1-6, 2-13; Phoenix Area 8.1-1, 8.1-4 through 8.1-6, Facility Diagrams, 8.2-1, 8.2-4, 8.2-15 through 8.2-28, 8.3-1, 8.3-3, 8.3-10 through 8.3-14, 8.4-3 and Evacuation Diagram.	New facility acquisition, increased EPA WCD volume.
December 2010	Pages v, Tucson Area 7-2 and 7-3, 8.1-1, 8.1-4 through 8.1-6 (retain Area Map, discard facility diagrams), 8.2-1, 8.2-4, 8.2-7, 8.2-10 through 8.2-24 (retain Drainage Diagram), 8.4-3 (Evacuation Diagram)	Pages v, Tucson Area 7-2 and 7-3, General Layout Diagram, 8.1-1, 8.1-4 through 8.1-6, General Layout and Fire Protection Diagrams, 8.2-1, 8.2-4, 8.2-7, 8.2-10 through 8.2-24 (Drainage Diagram follows), 8.4-3, Evacuation Diagram.	New facility acquisition, new Area Manager/QI, tank T-09 reclassification.
October 2011	Pages v, 2-13, 3-11, 3-14, CTI Work Directive and Contract pages (Retain Equipment List), 3-16, 3-20, Ancon Contract, Imperial Area 8.1-3, Tucson Area 7-2, 8.2-9	Pages v, 2-13, 3-11, 3-14, CTI Work Directive, 3-16, MP Environmental Response Letter, 3-20, Patriot Work Directive, Imperial Area 8.1-3, Tucson Area 7-2, 8.2-9	Update OSRO/ Response Contractor information and tank information. Correct Terminal phone numbers.
November 2011	Pages v, Imperial Area 7-3	Pages v, Imperial Area 7-3 and Niland diagrams	Update facility diagrams.

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REVISION RECORD (Cont'd)

CHANGE DATE	REMOVE PAGE NUMBER(S)	INSERT PAGE NUMBER(S)	DESCRIPTION OF CHANGE(S)
January 2012	Pgs. vi thru viii; El Paso Area 6-15 and HCA Index; Imperial Area 6-11, HCA Indices; Phoenix Area 6-8 and HCA Index; Tucson Area 6-10 and HCA Index	Pgs. vi thru ix; El Paso Area 6-15 and485-D-HCA-INDEX-SFPP_001; Imperial Area 6-11, 485-D-HCA-INDEX-SFPP_002 and 485-D-HCA-INDEX-SFPP_003; Phoenix Area 6-8 and 485-D-HCA-INDEX-SFPP_002; Tucson Area 6-10, 485-D-HCA-INDEX-SFPP_001 and 485-D-HCA-INDEX-SFPP_002	Update HCA drawing indexes and information.
April 2013	Title Page, vi, vii, ix, Section 1, 2-13, 2-14, 3-2, El Paso Area Section 6; Imperial Area Section 6; Phoenix Area Section 6; Tucson Area Section 6	Title Page, vi, vii, ix, Section 1, 2-13, 2-14, 3-2, El Paso Area Section 6; Imperial Area Section 6; Phoenix Area Section 6; Tucson Area Section 6	Update company information, external contact information, pipeline information, and worst case discharge information.
May 2014	Section 3 Chemical Transportation INC. Work directive.	Section 3 Chemical Transportation INC work directive.	Update the OSRO work directive per regulation.

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   14 15-18 19 20, 21	Orange Facilities 1100 Town & Country Road Orange, CA 92868 Crisis Relocation Center Mission Valley Orange Control Center (4) Orange Remediation Groups (Environmental Specialist) Orange Engineering (2)	C	C	C	C	C
6	Manager, Codes & Standards, Pacific Region 2319 S. Riverside Avenue Bloomington, CA 92316	C	C	C	C	C
7	Operations Manager 49 North 53rd Avenue Phoenix, AZ 85043	C	C	C	C	C
9 23 24, 25 36-38 42 54	Area Manager (Phoenix Area) 49 N. 53rd Avenue Phoenix, AZ 85043 Control Room Vehicle Copy (2) Vehicle Copy – Pipeline Maintenance (3) Vehicle Copy – Corrosion Vehicle Copy – Line Rider	A			A	
11, 33-35	Area Manager (El Paso Area) (4) 11621 Railroad Drive El Paso, TX 79934	A		A		

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10 30 31, 32, 39, 40 43	Area Manager (Tucson Area) 3841 E. Refinery Way Tucson, AZ 85713 Control Room Vehicle Copy (2) Vehicle Copy – Pipeline Maintenance (2) Vehicle Copy - Corrosion	A				A

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C = 3.0" Binder

1.0 INTRODUCTION AND PLAN CONTENT

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

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1001 Louisiana Street, Suite 1000
Houston, Texas 77002
(713) 369-9454

Qualified Individual:	Phil Vasquez Director Operations 909 873-5123 *(Office)* (b) (6) *(Mobile)* vasquezp@kindermorgan.com
Alternate Qualified Individual:	Scott Manley Operations Manager 602 272-8141 *(Office)* (b) (6) *(Mobile)* manleys@kindermorgan.com
Area Manager – El Paso	James Palacios 915 822-7004 Office (b) (6) Mobile james_palacios@kindermorgan.com
Area Manager – Imperial	Gary Koehn 760 312-9598 Office (b) (6) Mobile koehng@kindermorgan.com
Area Manager – Phoenix	Troy Eiffert 602 278-8565 Office (b) (6) Mobile eiffertt@kindermorgan.com
Area Manager – Tucson	Dan Wittenberg 520 514-1065 Ext. 101 Office (b) (6) Mobile dan_wittenberg@kindermorgan.com

1.2 OPERATING ASSETS COVERED BY THIS PLAN

The following tables provide a general information summary for the pipeline sections, pipeline facilities, breakout stations and terminals in each of the Areas in this Region. Specific detail can be located in the following sections for the applicable area.

- Section 6 - Area Pipeline Sections (for DOT jurisdiction)
- Section 7 - Area Breakout Stations (for DOT jurisdiction)
- Section 8 - Area Terminals (for EPA)

EL PASO AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
EL PASO AREA LINES		
Diamond Junction – El Paso Breakout	132	El Paso, TX
El Paso Station – El Paso Breakout 8”	4	El Paso, TX
El Paso Breakout - NM Line 8” (Out of Service)	4	El Paso, TX
El Paso - NM Line 12”	17	El Paso, TX
Chevron - UPRR 4”	49	El Paso, TX
Alamogordo - Holloman 6”	86	El Paso, TX
TX Line - Lordsburg 8” (Out of Service)	5	Hidalgo, Luna, Dona Ana, NM
TX Line - Deming 12”	18	Luna, Dona Ana, NM
Deming - Lordsburg 12”	19	Luna, Hidalgo, NM
El Paso - Lordsburg 16”	127/128	El Paso, TX; Hidalgo, Luna, Dona Ana, NM
PIPELINE FACILITIES (Non-Storage)		
Diamond Junction - Piping Manifold Only		
Alamogordo Junction - Piping Manifold Only		
Afton Station - Piping Manifold Only (OOS)		
Deming Pump Station - Booster		

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

EL PASO AREA	
BREAKOUT STATIONS	**COUNTY / STATE**
El Paso Breakout Station	El Paso, TX
El Paso Pump Station	El Paso, TX
El Paso Yard	El Paso, TX
TERMINALS	**COUNTY / STATE**
None	---

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

IMPERIAL AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
NILAND AREA LINES		
Indio Block - Niland 20"	111	Riverside, Imperial, CA
Niland - AZ Line 20"	112	Imperial, CA
Niland - Imperial 6"	58	Imperial, CA
Niland - Imperial 10"	133	Imperial, CA
Imperial - El Centro 4"	59	Imperial, CA
YUMA AREA LINES		
CA Line - Yuma 20"	113	Yuma, AZ
Yuma - MCAS Terminal 6"	61	Yuma, AZ
Yuma - Montezuma 20"	114	Yuma, AZ
PIPELINE FACILITIES (Non-Storage)		
El Centro NAF Terminal - Meter Manifold Only		
BREAKOUT STATIONS		**COUNTY / STATE**
Niland Breakout Station		Imperial, CA
Yuma Breakout Station		Yuma, AZ
Yuma MCAS Terminal		Yuma, AZ
TERMINALS		**COUNTY / STATE**
Imperial Terminal		Imperial, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

PHOENIX AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
PHOENIX AREA LINES		
Montezuma - Phoenix 20"	114	Maricopa, AZ
Phoenix - Luke 6"	52	Maricopa, AZ
Bon - Phoenix 8" (Out of Service)	7	Maricopa, Pinal, AZ
Toltec - Bon 8" (Out of Service)	7	Pinal, AZ
Bon - Phoenix 12"	117	Maricopa, Pinal, AZ
Toltec - Bon 12"	117	Pinal, AZ
PIPELINE FACILITIES (Non-Storage)		
Montezuma Pump Station - Booster		
BREAKOUT STATIONS		**COUNTY / STATE**
None		---
TERMINALS		**COUNTY / STATE**
Phoenix Terminal		Maricopa, AZ

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

TUCSON AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
TUCSON AREA LINES		
Tucson - Davis Monthan 6"	54	Pima, AZ
Tucson - Toltec 12"	117	Pima/Pinal, AZ
Lordsburg – AZ/NM Line 12"	21	Hidalgo, NM
Lordsburg – AZ/NM 16"	128	Hidalgo, NM
AZ/NM Line - Tucson 12"	22	Pima/Cochise, AZ
AZ/NM – Tucson 16"	131	Cochise, AZ
PIPELINE FACILITIES (Non-Storage)		
Davis Monthan AFB – Delivery Facilities to Military Storage		
Road Forks Junction – Delivery Facilities to Plant Shipper		
BREAKOUT STATIONS		**COUNTY / STATE**
None		
TERMINALS		**COUNTY / STATE**
Tucson Terminal		Pima, AZ

1.3 SUBSTANTIAL HARM

It is Kinder Morgan Energy Partners, L.P. (KMEP)'s goal to respond as quickly as possible to all uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the overbreadth of the definitions provided in each of the applicable regulations, KMEP is compelled to consider all of the facility's breakout stations, and active line sections listed above in this Section, as capable of a release potentially causing "significant and substantial harm". A summary of the worst case discharge scenarios for these facilities is provided as follows:

SOUTHERN REGION - EAST WORST CASE DISCHARGE DOT JURISDICTION

Discharge Scenario	Planning Volume
(b) (7)(F), (b) (3)	

* DOT Worst Case Discharge volumes are based on 50% of the tank maximum storage capacity and for pipelines based on an annual Integrity Management Program study, as follows:

Release volume prior to line shutdown and valve closures (Initial Loss):

- Full flow release due to rupture. This is computed at the maximum pumping rate the line segment.
- Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of fifteen (15) minutes in the event of a full flow rupture, which would cause an instant alarm.
- Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

Line drainage following pump shutdown (Stabilization Loss) is computed the maximum potential line drainage between adjacent isolation or check valves, and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line. The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

SOUTHERN REGION - EAST WORST CASE DISCHARGE EPA JURISDICTION	
Discharge Scenario	**Planning Volume**
Small Discharge	
• Imperial Terminal	50 Bbls
• Phoenix Terminal	50 Bbls
• Tucson Terminal	50 Bbls
Medium Discharge	
• Imperial Terminal	857 Bbls
• Phoenix Terminal	857 Bbls
• Tucson Terminal	857 Bbls
Worst Case Discharge	
(b) (7)(F), (b) (3)	

Note: EPA Worst Case Discharge is based on the maximum storage capacity of the largest tank at each terminal.

These Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three-tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. Sections 6, 7, and 8 of this Plan demonstrate a series of calculations and planning volume determinations based on guidance provided by all applicable regulations. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios detailed in the table above.

1.4 FORMAT AND SCOPE OF PLAN

This Volume 2 of the Integrated Contingency Plan is intended to guide emergency response activities throughout KMEPs Pacific Operation Southern Region - East. This Region (see Figure 1.1) is divided into four (4) areas each of which have their respective Volume 2. These areas are as follows:

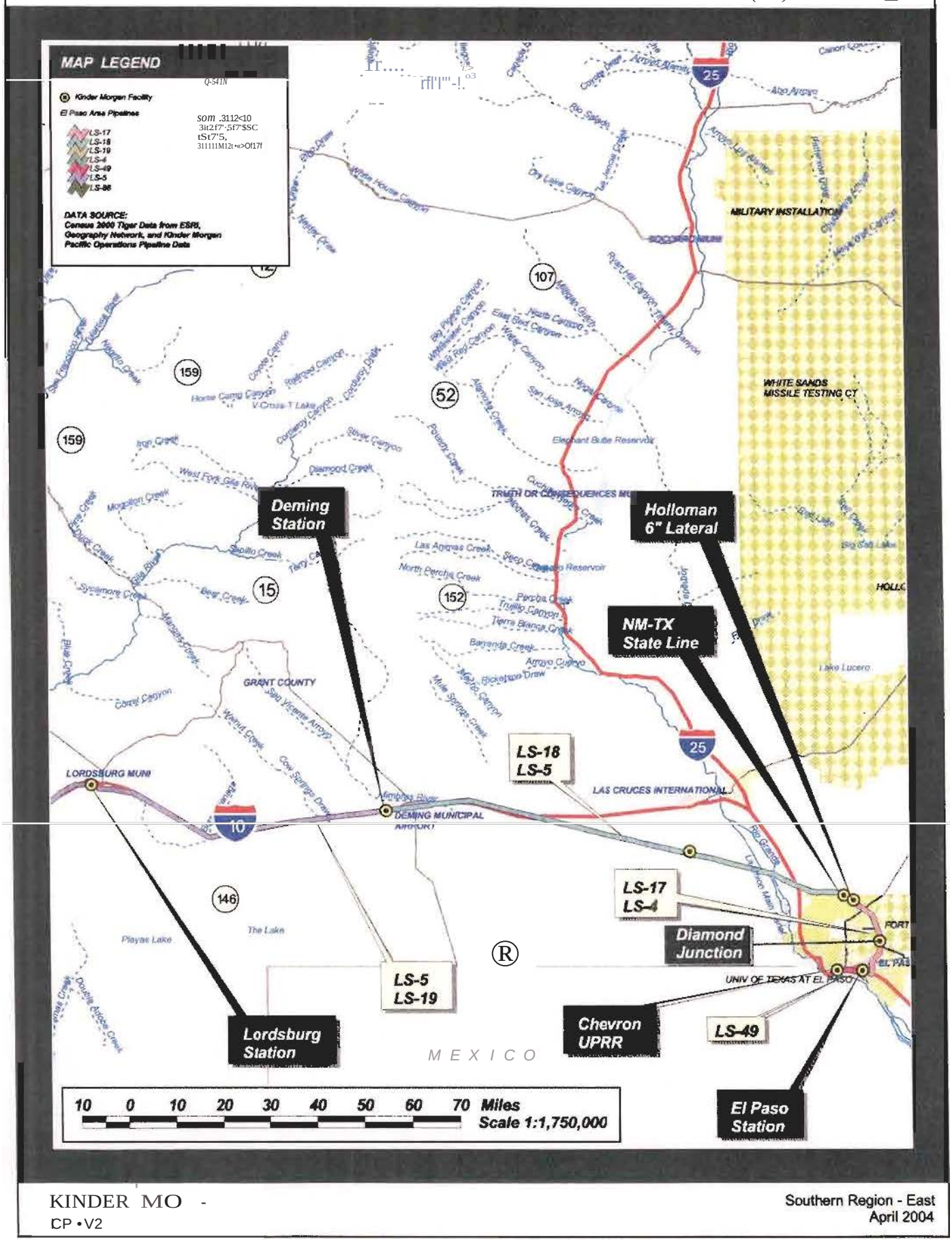
- El Paso Area
- Imperial Area
- Phoenix Area
- Tucson Area

Each of the Volume 2 plans in this area reflects identical Sections 1 through 5. Section 6 of each plan details the Pipeline Sections in the respective area, Section 7 of each plan details the Breakout Stations/Terminals (DOT) in the respective area, and Sections 8 of each plan details the Terminals (multi-jurisdictional) in the respective area. The Area covered by this particular plan is identified on the front cover of this plan and on the footer of each page and on the maps provided in Figure 1.1.

Volume 1 of the Integrated Contingency Plan provides guidance which is consistent across the Pacific Operations. The two (2) documents are intended to work together as one seamless Integrated Contingency Plan for the various facilities/operations and agency jurisdictions in Pacific Operations.

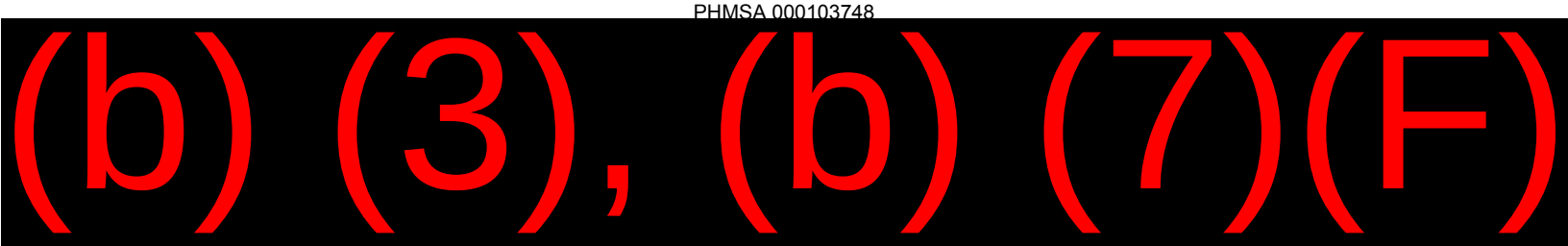
A Fig 11 - El Paso Area Map

Map Prepared By
Response Management Associates
(281)320-9796



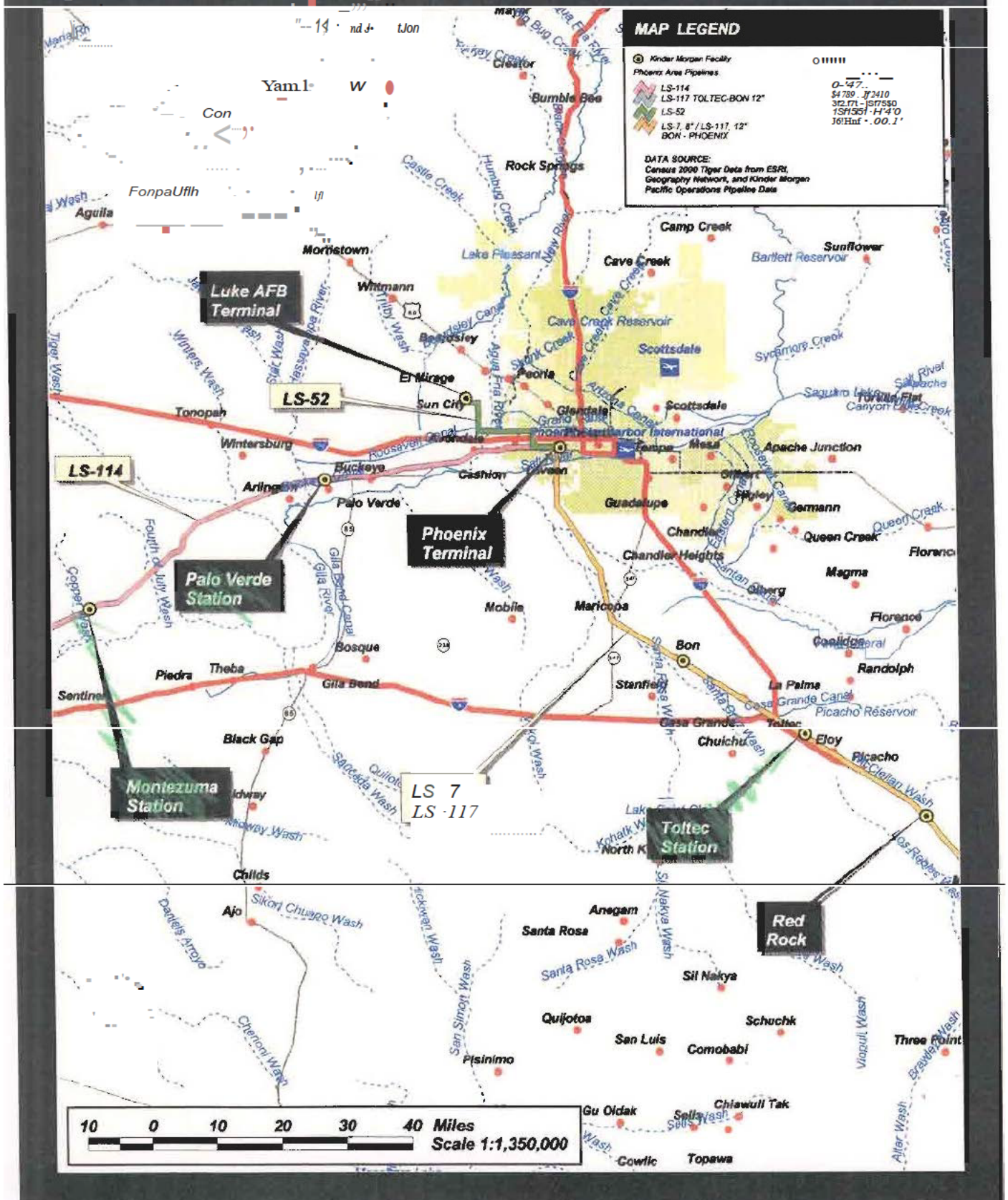
KINDER MO -
CP • V2

Southern Region - East
April 2004


(b) (3), (b) (7)(F)

A Fig 1.1 - Phoenix Area Map

Map Prepared By
Response Management Associates
(281) 320-9796



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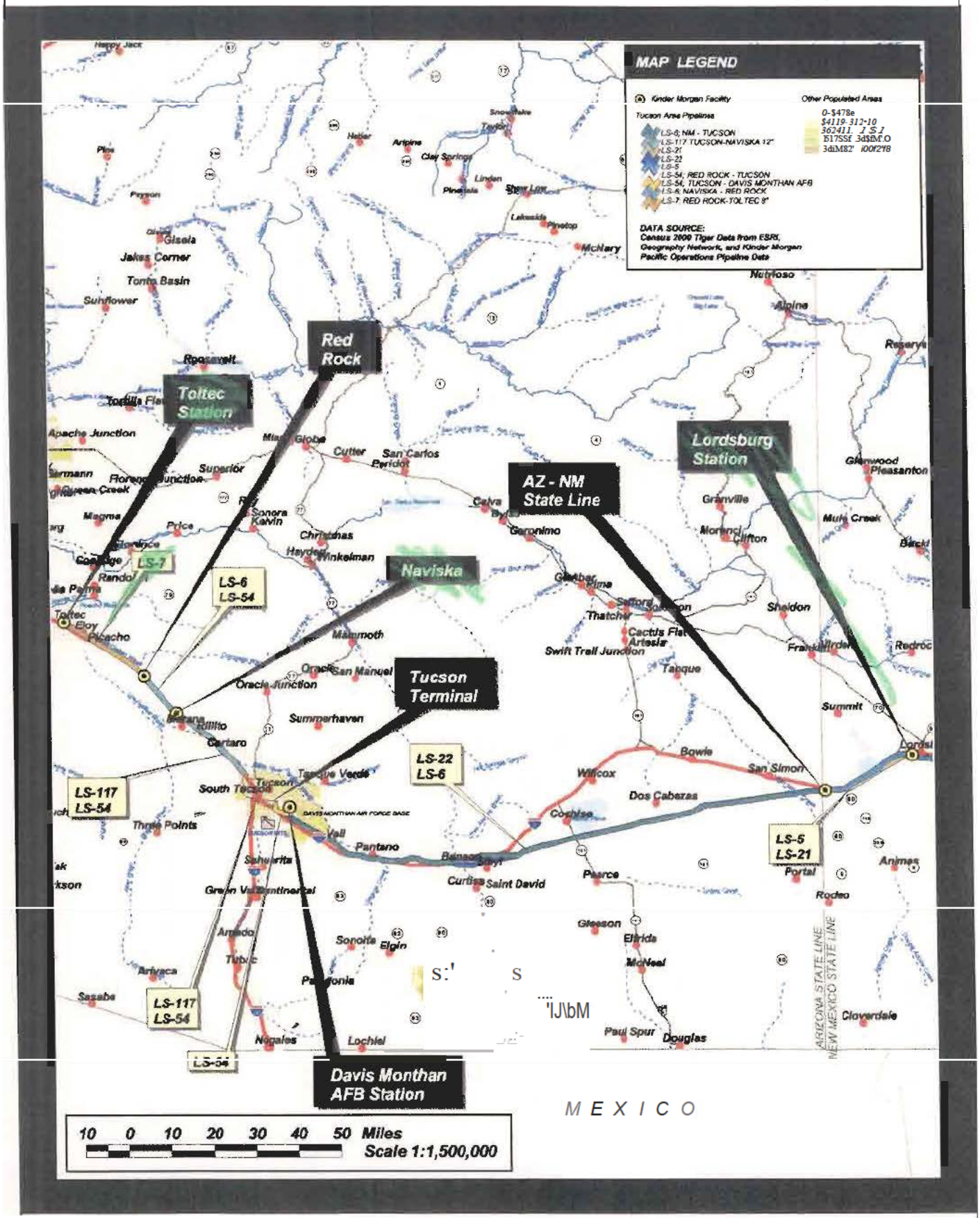
ICP - V2 /

Southern Region - East
December 2005

,A Fig 1.1 ·Tucson Area Map

Response Man Map Prepared By agement Associates (281) 320.9796



2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific reference to all internal notifications is detailed in **Volume 1** Section 2.1 which provides the following:

- KM Employee or Agent Notification Process - California Only (Figure 2.1a)
- Operator Notification Process - Non-California (Figure 2.1b)
- Company Employee Other Than Operator Notification Process - Non-California (Figure 2.1c)
- Controller - Orange, CA Notification Process - California Only (Figure 2.1d-1)
- Controller - Orange, CA Notification Process - Non-California (Figure 2.1d-2)
- Controller - Houston, TX Notification Process (Figure 2.1e)
- Managers Internal Notification Process (Figure 2.1f)
- Initial Reporting Details Form (Figure 2.2)
- Northern Region Internal Notifications References (Figure 2.3a)
- Southern Region Internal Notifications References (Figure 2.3b)
- Crisis Support Team Internal Notifications References (Figure 2.3c)

2.2 EXTERNAL NOTIFICATIONS

Specific reference to all **"Regulatory Required"** external notifications is detailed in Volume 1, Figure 2.1 and Figure 2.4. **With the exception of notification to 911 and/or local fire/police agencies which are handled by local area operations, the Environmental, Health and Safety (EHS) and/or Compliance, Codes and Standards is responsible for making all regulatory required external notifications in all states other than in California. In California and locations monitoring or controlling, pipeline sections in California, refer to Volume 1, Section 2.2 and Figure 2.4.**

The locally required notifications and additional external notification references which are detailed in the following Volume 2, Figure 2.1 provide for assistance/advisory notifications. Specific notifications for contacting OSROs are found in Volume 2, Figure, 2.1, "_____ Terminal Response Contractors".

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FIRE DEPARTMENTS		
Arizona		
Arizona Fire Protection	Yuma, AZ	(928) 344-2063
City of Phoenix Fire Operations	Phoenix, AZ	(602) 594-0513 (Alarm Supervisor) (602) 262-6735 (Special Operations)
City of Tucson Fire Department	Tucson, AZ	(520) 791-4511
Rural Metro Fire Department	Tucson, AZ	(520) 219-9608
Bisbee Fire Department (Metro F.D. & OEM)	Bisbee, AZ	(520) 432-4110
Maricopa Fire District	Maricopa, AZ	(520) 568-3161
California		
Imperial County Fire Department	Imperial, CA	(760) 353-5222
Highgrove Volunteer Fire Department	Riverside, CA	(951) 784-9117
New Mexico		
Silver City Fire Dept.	Silver City, NM	(505) 538-2591
Deming City Fire Dept.	Deming, NM	(505) 546-8848
Las Cruces Fire Dept.	Las Cruces, NM	(505) 528-3473
Lordsburg Fire Dept.	Lordsburg, NM	(505) 542-9261
Texas		
El Paso Fire Dept.	El Paso, TX	(915) 771-1000

SOUTHERN REGION-EAST

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FEDERAL		
U.S. Coast Guard (Recommended Courtesy Call - As Applicable)		
U.S. Coast Guard – Sector Los Angeles/Long Beach (*San Bernardino County*)	San Pedro, CA	(310) 372-2000 (800) 221-8724* Emergencies
U.S. Coast Guard - Sector San Diego (*San Diego and Imperial Counties and Arizona*)	San Diego, CA	(619) 683-6495
U.S. Environmental Protection Agency (EPA)		
U.S. Environmental Protection Agency (EPA) Region IX	San Francisco, CA	(415) 947-4400
U.S. Environmental Protection Agency (EPA) Region VI	Dallas, TX	(214) 665-6444 (800) 887-6063 (in region)
U.S. Fish and Wildlife Service		
US Fish and Wildlife Service (USFWS) *(California/Nevada)*	Sacramento, CA	(916) 414-6464
US Fish and Wildlife Service (USFWS) *(Arizona/New Mexico/Texas)*	Albuquerque, NM	(505) 248-6669

* 24-hour number

SOUTHERN REGION-EAST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
ARIZONA		
State Emergency Response System		
Arizona Emergency Response Commission	Phoenix, AZ	(602) 244-0504* (800) 411-2336
To report releases: Arizona Department of Environmental Quality - Emergency Response Unit	Phoenix, AZ	(602) 771-2330* (800) 234-5677 (602) 390-7894 (Emergency)
Water Quality Control Board		
Water Quality Control Board	Tucson, AZ	(520) 628-6733 (888) 271-9302
Air Pollution Control District		
Air Pollution Control District - Southern Region	Tucson, AZ	(520) 628-6733
Environmental Health Dept.		
Maricopa County Environmental Health Services Dept.	Phoenix, AZ	(602) 506-6464
OSHA		
Arizona Occupational Safety & Health	Phoenix, AZ	(602) 542-5795
Law Enforcement		
Arizona Highway Patrol	Phoenix, AZ Tucson, AZ	(602) 223-2000 (520) 746-4500
Local Water Supply System		
City of Phoenix Neighborhood Services	Phoenix, AZ	(602) 262-7844
City of Phoenix Water	Phoenix, AZ	(602) 262-6251
City of Tucson Water	Tucson, AZ	(520) 791-2689

SOUTHERN REGION-EAST

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
ARIZONA		
Weather Report		
National Weather Service	Tucson, AZ	(520) 670-6526 (520) 881-3333 (recorded info)
National Weather Service	Phoenix, AZ	(602) 265-5550 (recorded info) (602) 275-0073
Radio/Television		
KYRM - Radio	Yuma, AZ	(928) 341-0919
KCFY - Radio	Yuma, AZ	(928) 341-9730
K-HOT- Radio	Phoenix AZ	(602) 308-7900
KOOL - Radio	Phoenix, AZ	(602) 260-9494
KQTL - Radio	Tucson, AZ	(520) 628-1200
KZLZ - Radio	Tucson, AZ	(520) 325-3054
FOX - TV	Phoenix, AZ	(602) 257-1234
NBC - TV	Phoenix, AZ	(602) 257-1212
FOX - TV	Tucson, AZ	(520) 770-1123
NBC - TV	Tucson, AZ	(520) 792-2270
KYMA - TV	Yuma, AZ	(928) 782-1111

SOUTHERN REGION-EAST

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
ARIZONA		
Hospitals/Ambulances Service		
Maryvale Hospital	Phoenix, AZ	(623) 848-5000
St. Joseph Hospital	Phoenix, AZ	(602) 406-3000
Casa Grande Regional Medical Center	Casa Grande, AZ	(520) 381-6300
Northern Cochise Community Hospital	Willcox, AZ	(520) 384-3541
Kino Community Hospital	Tucson, AZ	(520) 294-4471
Northwest Medical Center	Tucson, AZ	(520) 742-9000
Rural-Metro Ambulance	Tucson, AZ	(520) 544-4800
Yuma Regional Medical Center	Yuma, AZ	(928) 344-2000
Sun Care Air Ambulance	Yuma, AZ	(928) 726-4715
Rural Metro Ambulance	Yuma, AZ	(928) 782-4757
Paramedics Unlimited	Phoenix, AZ	(602) 253-0549
American Ambulance	Phoenix, AZ	(602) 255-0131
Arizona Lifeline Aeromedical	Tucson, AZ	(520) 623-8158

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Office of Spill Prevention and Response (OSPR)		
California Department of Fish and Game Office of Spill Prevention and Response (OSPR)	Sacramento, CA	(888) 334-2258 (916) 445-9338
LEPC		
Local Emergency Planning Committee (LEPC) Region VI-*Imperial, San Bernardino and Riverside Counties*	San Diego, CA	(619) 533-4300
California Department of Transportation (DOT)		
California Department of Transportation/Caltrans	Sacramento, CA	(916) 653-3442
Regional Water Quality Control Board		
Regional Water Quality Control Board (Region 7)	Palm Desert, CA	(760) 346-7491
Air Pollution Control District		
Imperial County Air Pollution Control District	El Centro, CA	(760) 482-4606
Mojave Desert Air Quality Management District	Victorville, CA	(760) 245-1661
South Coast Air Quality Management District	Diamond Bar, CA	(909) 396-2000
California Department of Conservation		
California Department of Conservation Division of Oil and Gas- District 1	Cypress, CA	(714) 816-6847
State Lands Commission		
California State Lands Commission So. California Branch	Long Beach, CA	(562) 499-6312
Cal/OSHA		
Cal/OSHA San Diego Area San Bernardino/Riverside County	 San Diego, CA San Bernardino, CA	 (619) 767-2280 (909) 383-4321
Native American Heritage Commission		
Native American Heritage Commission	Sacramento, CA	(916) 653-4082
Office of Historic Preservation Dept. Parks and Recreation		
Office of Historic Preservation Dept. Parks and Recreation	Sacramento, CA	(916) 653-6624
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)		
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)	Sacramento, CA	(916) 653-4529 (24-Hour recorder)
Dig Alert		
USA Underground Service Alert	Corona, CA	(800) 422-4133

SOUTHERN REGION-EAST

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Law Enforcements		
State Police (Highway Patrol)	Imperial, CA	(760) 352-4113
State Police (Highway Patrol)	Riverside, CA	(909) 637-8000
State Police (Highway Patrol)	San Bernardino, CA	(909) 383-4247
Local Water Supply System		
El Centro Water Department	El Centro, CA	(760) 337-4510
City of Rialto - Colton Terminal	Rialto, CA	(909) 877-2752 (909) 820-2608*
Pauma Valley Community Svc	Pauma Valley, CA	(760) 742-1909
Weather Report		
Weather Report National Weather Service-Recorded- *Imperial, Riverside and San Bernardino Counties*	San Diego, CA	(619) 289-1212
Radio/ Television		
KMXX - Radio	El Centro, CA	(760) 352-2277
KWST - Radio	El Centro, CA	(760) 352-2277
KKSC - Radio	Brawley, CA	(760) 344-1300
KFRG - Radio	Colton, CA	(909) 431-3764
KOOL - Radio	Colton, CA	(909) 824-5005
KAEH - Radio	Beaumont, CA	(909) 769-9734
KNBC – TV	Riverside, CA	(909) 788-2221
KESE - TV	El Centro, CA	(760) 353-9990

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-EAST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
CALIFORNIA		
Radio/ Television (Cont'd)		
KDFX - TV	Palm Desert, CA	(760) 779-1507
UPN 13 - TV	Palm Desert, CA	(760) 779-9984
Hospitals/Ambulance Service		
El Centro Regional Medical Center	El Centro, CA	(760) 339-7100
Pioneers Memorial Hospital	Brawley, CA	(760) 351-3333
Riverside Community Hospital	Riverside, CA	(909) 788-3000
American Medical Response	Riverside, CA	(909) 784-5555
San Gorgonio Memorial Hospital	Banning, CA	(909) 845-1121
Desert Regional Medical Center	Palm Springs, CA	(760) 323-6511
John F. Kennedy Memorial Hospital	Indio, CA	(760) 347-6191
Premier Medical Transport	Colton, CA	(909) 433-3939
Schaefer Air Ambulance Service	El Centro, CA	(760) 353-3380
West Shore Ambulance	Thermal, CA	(760) 395-6800

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-EAST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
NEW MEXICO		
Oil Conservation Division		
New Mexico Oil Conservation Division	Artesia, NM	(505) 748-1283
OSHA		
Occupational Safety & Health Admin Region 6	Dallas, TX	(214) 767-4731
Law Enforcement		
New Mexico State Police	Santa Fe, NM	(505) 827-9126
Local Water Supply System		
Fort Seldon Water Co.	Las Cruces, NM	(505) 647-8898
Arenas Valley Water Division Association	Silver City, NM	(505) 538-3782
Weather Report		
National Weather Service	Santa Teresa, NM	(505) 589-4088
Radio/Television		
KNUW - Radio	Silver City, NM	(505) 534-8701
KWNM - Radio	Arenas Valley, NM	(505) 534-1055
KDEM - Radio	Deming, NM	(505) 546-9011
KZPI - Radio	Deming, NM	(505) 546-3866
KHQT - Radio	Las Cruces, NM	(505) 525-9298
KMBN - Radio	Las Cruces, NM	(505) 521-8053
KOAT - TV	Arenas Valley, NM	(505) 388-1021
KZIA - TV	Las Cruces, NM	(505) 526-4848
KRWG - TV	Las Cruces, NM	(505) 646-2222

SOUTHERN REGION-EAST

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
NEW MEXICO		
Hospitals/Ambulances Service		
Alliance Hospital	Silver City, NM	(505) 388-5255
Members Memorial Hospital	Deming, NM	(505) 546-2761
Memorial Medical Center	Las Cruces, NM	(505) 522-8641
American Medical Response	Mesilla, NM	(505) 524-0222
Silver Wings Air Ambulance	Silver City, NM	(505) 538-3555
Lake Roberts Ambulance	Silver City, NM	
Hidalgo County Ambulance	Lordsburg, NM	(505) 542-8000

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-EAST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
TEXAS		
OSHA		
Occupational Safety & Health Admin Region 6	Dallas, TX	(214) 767-4731
Law Enforcement		
El Paso Sheriff's Office	El Paso, TX	(915) 546-2280
Local Water Supply System		
El Paso Water Utilities	El Paso, TX	(915) 594-5500
Weather Report		
National Weather Service	El Paso, TX	(915) 533-7744
Radio/Television		
KELP - Radio	El Paso, TX	(915) 779-0016
KVIV - Radio	El Paso, TX	(915) 565-2999
KKWB - TV	El Paso, TX	(915) 532-6565
KFOX - TV	El Paso, TX	(915) 833-8585
Hospitals/Ambulances		
Med Air Flight Ambulance	El Paso, TX	(915) 772-9292
Sierra Providence Eastside Hospital	El Paso, TX	(915) 832-2000

SOUTHERN REGION-EAST

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Patriot Environmental Services	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Long Beach, CA San Bernardino, CA San Diego, CA Santa Clarita, CA Ventura, CA	(800) 624-9136*
National Response Corporation	Environmental Clean-Up Skimmers, Boom, Vac-trucks	San Diego, CA	(800) 337-7455*
Marine Spill Response Corporation	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Long Beach, CA	(800) 645-7745* (562) 432-1415*
SPILL MANAGEMENT TEAM SUPPORT			
Witt O'Brien's *	Personnel, Comms and Management Equipment	Slidell, LA Houston, TX Brea, CA Seattle, WA	(985) 781-0804* (281) 320-9796

* 24-hour number

SOUTHERN REGION-EAST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Cleanup Contractors			
M.P. Environmental Services	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Phoenix AZ	(602) 278-6233*
Chemical Transportation, Inc.	Environmental Clean-Up, Skimmers, Boom, Vac-Trucks	Phoenix, AZ	(888) 444-7077*
Chemical Transportation, Inc.	Environmental Clean-Up, Skimmers, Boom, Vac-Trucks	Tucson, AZ	(800) 634-4828 (520) 682-4101 (888) 444-7077* (After Hour) (520) 444-1049* (520) 624-2348* (Emergency)
Universal Environmental	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Benicia, CA	(707) 747-6699*
Heavy Equipment – Vacuum Trucks – Tank Trucks			
Nations Rental	Heavy Equipment	Imperial, CA	(760) 427-3340
Philip Services, Corp.	Vac-Trucks	Benicia, CA	(800) 800-7472* (707) 748-3040
Environmental Response, Inc.	Heavy Equipment	Tempe, AZ	(480) 967-2802*
Monte Collins Rentals	Backhoe	Los Alamitos, CA	(562) 430-3715
Russell Backhoe Rental	Backhoe	Irvine, CA	(714) 559-1006
Jimco Backhoe Rental	Backhoe & Heavy Equipment Rental	Rialto, CA	(909) 875-2160
San Diego Equipment Rental	Backhoe & Heavy Equipment Rental	Grantville, CA	(619) 583-9211
Paul J. Hubs Constr. Co	Rock Rip Rap, Heavy Equipment	Rialto, CA	(909) 877-2726
Consultants			
Witt O'Brien's	SMT Support/Consultants	Slidell, LA Houston, TX	(985) 781-0804* (281) 320-9796

* 24-hour number

SOUTHERN REGION-EAST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES			
COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Heavy Equipment – Vacuum Trucks – Tank Trucks (Cont'd)			
Ryerson Concrete, Inc	Heavy Equipment, Sand & Rock, Water Trucks	El Centro, CA	(760) 352-4341
E. L. Yeager Contractors	Heavy Equipment, Asphalt Paving Material	Riverside, CA	(951) 684-5360
United Rentals	Back Hoe, Track Hoe, Loaders	Glendale, AZ	(623) 931-0740
Holloman Corp.	Back Hoe, Track Hoe, Loaders	Tempe, AZ	(480) 966-3900 (480) 966-3930 Fax
Pipeline Contractors			
Arizona Pipeline Co.	Pipeline Contractor Heavy Equipment Vac-Trucks	Phoenix, AZ	(602) 269-8401 (909) 208-3925*
Arizona Pipeline Co.	Pipeline Contractor Heavy Equipment Vac-Trucks	Tucson, AZ	(520) 887-9790
Doty Brothers Equipment Company	Pipeline Contractor Heavy Equipment Vac-Trucks	Norwalk, CA	(310) 864-6566
Southwest Contractors	Pipeline Contractor Heavy Equipment Vac-Trucks	Bakersfield, CA	(661) 588-0484
Southwest Contractors	Pipeline Contractor Heavy Equipment Vac-Trucks	Orange, CA	(714) 279-2784
ARB, Inc.	Pipeline Contractor Heavy Equipment Vac-Trucks	Bakersfield, CA	(661) 589-5070
Hood Corporation	Pipeline Contractor Heavy Equipment Vac-Trucks	Whittier, CA	(562) 523-9532 (310) 945-1411
Wildlife/Rescue			
Oiled Wildlife Care Network	Wildlife Rescue & Rehab.	Davis, CA	(877) 823-6926* (530) 752-4167
International Bird Rescue Center	Wildlife Rescue & Rehab.	San Pedro, CA	(314) 514-2573
X-Ray			
Canyon States Inspection	X-Ray Services	Tucson, AZ Chandler, AZ	(520) 745-3672 (480) 783-7100

* 24-hour number

SOUTHERN REGION-EAST

3.0 RESPONSE RESOURCES

The following sections outline the various response equipment/resources available from the Facility, other KMEP facilities, and other outside resources.

3.1 AREA RESPONSE EQUIPMENT

This Area of the KMEP operations maintains response equipment readily available for spill response as detailed on the "Facility Response Equipment" lists provided in Figure 3.1 and the "Pipeline Repair Equipment" lists provided in Figure 3.2. The equipment is stored at locations in the Area as detailed on the equipment lists.

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. The equipment will be exercised as semi-annually (Facility equipment) or annually (pipeline equipment) as required (PREP Guidelines). A sample form for documenting these Equipment Deployment Exercises is provided in Figure 3.4.

KMEP has contracts in place with Oil Spill Removal Organizations and other clean-up and response contractors that are capable of responding to all discharges within the Area and supplementing Area KMEP resources.

The Qualified Individual has the authority to activate these and other KMEP resources or that of private contractors and other experts and consultants as the situation demands.

3.2 OTHER COMPANY RESOURCES

Neighboring KMEP Areas have response resources similar to those provided in this Area (Figures 3.1 and 3.2). These resources as well as additional KMEP spill response equipment and manpower resources may be available to supplement the response operation.

3.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation. *KMEP will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.*

Response resources will be secured from a KMEP approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Volume provides a quick reference to the OSROs and additional clean-up and response contract organizations. A detailed list of the "Pacific Region Open End and On-Call Contractors" is provided in Figure 2.2. Specific reference to their response capability (UCSG OSRO classification) is provided in Figure 3.3.

These OSRO's have adequate equipment and personnel resources available within the Area to respond to the applicable regulatory planning volumes in the required time frames.

3.3 CONTRACT RESOURCES (Cont'd)

OSROs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. KMEP personnel will oversee and coordinate with the OSRO to ensure their actions conform with overall incident objectives and established incident action plans.

OSROs also have extensive experience in using the Area Contingency Plans (ACPs) as a resource when responding to an incident that has affected a navigable waterway. The KMEP Incident Commander, Planning Officer and Operations Officer will employ the OSRO's experience to integrate applicable local ACPs into the overall incident action plans.

3.4 AREA CONTINGENCY PLANS (ACP)

Area Committees comprised of Federal, state and local agencies develop ACPs. Response efforts performed within a certain "area" should reference the ACPs for that specific area. ACPs include clean-up strategies and information on environmentally sensitive areas within a particular region. Some of the ACPs include maps, shoreline characteristics and booming strategies for specific areas while other ACPs offer priority lists of environmentally sensitive areas.

ACPs generally contain the following information:

- Physical features
- Seasonal concerns
- Resources of primary concern
- Containment, and cleanup strategies, including recommended techniques
- Equipment considerations
- Incident Command System Roles and Responsibilities (NIMS)

To identify specific spill response and protection strategies for the applicable region/area, ACP and Geographic Response Plan information can be found at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/pacific_icp.html Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-KMEP plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1 (inside front cover) or in a separate folder in electronic copies and is referenced in Figure 4.2.

To assess adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

3.5 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/mutual aid resources will be utilized when available and/or necessary.

3.6 EXPERTS AND CONSULTANTS

KMEP maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

3.7 VOLUNTEERS

Volunteers will not be utilized by KMEP for the response operations. All volunteers will be referred to the state or Federal On-Scene Coordinator (EPA).

3.8 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/ diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between KMEP and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

3.8.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with KMEP emergencies. The notification procedures and telephone contacts documented in Section 2 of this Volume 1 and Volume 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and State emergency telephone numbers for the Orange Control Center and emergency response personnel (Section 2 of Volume 1).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Figure 2.1).

3.8 COMMUNICATIONS (Cont'd)

3.8.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing KMEP communications network. This network will utilize existing radios, telephones, beepers, fax machines, and computers and will be maintained by KMEP personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other KMEP and contract resources as the situation demands.

Each KMEP responder has, at a minimum, a cellular telephone. All KMEP response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the KMEP spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and kept in designated KMEP response trailers. In addition, KMEP also utilizes radio sets provided by contract resources. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain KMEP personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

Telephone (Satellite) – Satellite telephones allow for communications regardless of location or coverage by other systems. A limited number of emergency satellite telephones are maintained by KMCP personnel in each location for emergency response purposes. Additional satellite telephones would be available as needed in the event of a prolonged response operation.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited. Most response team members carry a pager.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and KMEP personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE 3.1

Facility Response Equipment
(Reserved)

Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3

FIGURE 3.2

PIPELINE REPAIR EQUIPMENT

(This equipment is primarily for pipeline repair not terminal response.)

Qty.	Description	Comments
PHOENIX TERMINAL		
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
4	Boom, 6" x 8'	
10	Boom, 3" x 4'	
300	Pads, A-100 Sorbent	
Cleanup Materials		
2	Brush, Scrub	
1 Roll	Leak Rubber	
2	Shovel, Round, Fiberglass Handle	
2	Sponge, Large	
3	Tarp, Canvas, Fire Ret. 16' x 20'	
1	Trash Bags, 33 gal., Box	
Equipment, Gas Powered		
1	Air Compressor, 5 HP Dual Tank	
Lot	Attachments, Compressed Air Hose	
1	Generator, Generac C-5000	
1	Hose, Compressed Air, ½" x 100'	
1	Hose, Compressed Air, 3/8" x 50'	
1	Water Pump, Wisconsin	
Equipment, Miscellaneous		
1	Ladder, 20' Fiberglass Ext.	
1	Vacuum Pump, Nordren	
Equipment, Ventilation		
1	Blower, Explosion Proof	
1	Duct Carrier	
1	Duct Hose, 8"	
1	Saddle Vent	
Fire Equipment		
1	Burn Dressing, Waterjel, Case	
2	Fire Blanket, MSA	
1	Fire Blanket, Waterjel	
8	Fire Extinguisher, 20 lb. ABC	

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2 (Cont'd)

PIPELINE REPAIR EQUIPMENT
(This equipment is primarily for pipeline repair not terminal response.)

Qty.	Description	Comments
PHOENIX TERMINAL (Cont'd)		
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT (Cont'd)		
Information		
2	Binder, MSDS Sheets	
0	Binder, SAM Manual	
1	Book, Emergency Medical Procedure	
2	Book, Emergency Response Guide	
0	Book, MSDS Pocket Dictionary	
0	Clasps, Banker, Box	
1	Clips, Large Binder, Box	
1	Easel, Quartet Flip Chart	
4	Forms, Emergency Manual Packets	
1	Markers, Flip Chart, Box	
2	Paper, Flip Chart, Pad	
1	Work Board, 2' x 2' Public Information	
1	Work Board, 2' x 3' Staging Area	
0	Work Board, 3' x 3' ICS, metal	
Lighting		
1	Light bulb, Halogen	
2	Light Cart, Dayton Portable	
PPE		
0	Calibration Kit, Model 251, MSA	
2	Eyewash, Port. Metal 5 gal.	
1	First Aid Kit (Group Size)	
1	Gloves, Latex Vinyl, Box	
4	Gloves, Lg. Rubber, Box	
1	Goggles/Glasses, MSA, Case	
0	Mask, Dust, Box	
3 Bxs.	Overall, Disposable, Case	
0	Oxygen Analyzer Probe, MSA	
10	Respirator, 3M	
3	Rubber Boots, Knee High, pair	
1	Suit Case, Emergency	
1	Vests, ICS Orange, Box	

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2 (Cont'd)

PIPELINE REPAIR EQUIPMENT
(This equipment is primarily for pipeline repair not terminal response.)

Qty.	Description	Comments
PHOENIX TERMINAL (Cont'd)		
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT (Cont'd)		
Site Definition		
1	Caution Tape, 4" Yellow, Box	
4	Caution Tape, 4" Yellow, Roll	
Lot	Caution Tape, Red	
Lot	Caution Tape, Yellow	
8	Cones, 3' Orange	
Lot	Lath, Wooden, for Signs	
1	Rope, ½" x 100', Nylon, Spool	
Lot	Signs, Plastic Warning, Various	
2	Wind Sock, Yellow	
Supplies		
2	Bottled Water, 5 gal. plastic	

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2 (Cont'd)

PIPELINE REPAIR EQUIPMENT
(This equipment is primarily for pipeline repair not terminal response.)

Qty.	Description	Comments
EL PASO MAINTENANCE		
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
100	Pads, A-100 Sorbent	
Cleanup Materials		
4	5 Gal. Metal Buckets	
5	Tarp, Canvas, Fire Ret. 20' x 20'	
Equip., Gas Powered		
1	Air Compressor, 5 HP Dual Tank	
1	Hose, Compressed Air, 3/8" x 50'	
1	Water Pump, Wisconsin	
Equip., Misc.		
2	10" Plumbers Plug	
2	12" Plumbers Plug	
2	12" Weld Plus Ends	
2	¾" Conduit	
2	4" Plumbers Plug	
2	6" Plumbers Plug	
2	8" Plumbers Plug	
2	8" Weld Plus Ends	
2	Beveling Machine 4", 6", 8", 12"	
1	Canvas Umbrella, 8' Dia.	
1	Extension Cord, 50'	
1	Ladder, 10' Fiberglass Ext.	
1	Pipe Cutter 4" to 6"	
1	Pipe Cutter 8" to 12"	
Equip., Ventilation		
1	Blower, Explosion Proof	
1	Duct Carrier	
1	Duct Hose, 8"	
1	Saddle Vent	
Fire Equipment		
2	Fire Blanket, MSA	
Information		
1	Clasps, Banker, Box	
1	Clip Boards	
1	Clips, Large Binder, Box	
1	Emergency Response Guides	

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2 (Cont'd)

PIPELINE REPAIR EQUIPMENT
(This equipment is primarily for pipeline repair not terminal response.)

Qty.	Description	Comments
EL PASO MAINTENANCE (Cont'd)		
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT (Cont'd)		
Lighting		
2	Light Cart, Dayton Portable	
PPE		
2	Eyewash, Port. Metal 5 gal.	
8	Overall, Disposable, Case	
1	Overnight Bag, Lead Pipeliner	
1	Suit Case, Emergency	
1	Vests, ICS Orange, Box	
Site Definition		
6	Caution Tape, 4" Yellow, Roll	
2	Caution Tape, Red	
4	Caution Tape, Yellow	
10	Cones, 3' Orange	
12	Lath, Wooden, for Signs	
2	Marking Paint, Yellow, Can	
12	Plastic Barricades	
10	Strobe Light, Barricades	
1	Wind Sock, Yellow	
Supplies		
1	Bottled Water, 5 gal. plastic	
2	Extra Hardhats	
5	Visitor Hardhats	
Tow Vehicle		
1	Break Controller	
1	Breaks	
1	Lights/Wiring	
5	Tires	
Trailer		
1	Lights/Wiring	
1	Mechanical	
1	Paint	
5	Tires	
4	Wheel Bearings	

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.3

AMPD INFORMATION - KMEP Imperial Terminal

- **AMPD response provider**

OSRO//Clean-up Contractor	Contract Expiration Date
Nations Rental (760) 427-3340	On Call Agreement
Patriot Environmental	Refer to Work Directive

Earth moving equipment to be utilized for a small discharge will be provided by Nations Rental with which KMEP has established a working relationship and has a 24/7 on call agreement.

Nations Rental Equipment list is addressed on the following pages:

- **Equipment Address (*1-hour response time):**
  345 W. Aten Road,
  Imperial, CA 92251

  Boom: 1,000'

- **Equipment Address (*2-hour response time):**
  3464 Pickett Street
  San Diego, CA 91761

  Skimmer: Skim Pack

  Vacuum Trucks: 1 ea. 2,940 Gals. Capacity

  Temporary Storage: 2,940 Gals. Total

****Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

San Diego Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Patriot Environmental	25286	Rivers/Canals	X				No
		Inland	X				

NATIONS RENTAL

RESPONSE RESOURCE LIST

IMPERIAL TERMINAL

RENTAL QUOTATION SHEET

SALES REP NAME:	DATE:	ACCOUNT #:
Freddy Corella 760 427 3340	01/26/04	
CUSTOMER NAME:	**MAILING ADDRESS:**	**JOB SITE ADDRESS:**
Kinder Morgan Attn: Mr Cables		
PHONE NUMBER:	**FAX NUMBER:**	**JOB SITE PHONE NUMBER:**
	281 320 9700	

QUANTITY	EQUIPMENT DESCRIPTION	DAY	WEEK	MONTH
	Double Drum Roller Vibratory DD24			
	Double Drum Roller Vibratory DD90			
	Sheepsfoot Ride-On Vibratory 8-12ton 84"			
	Forklift from 6K lbs to 36k lbs			
	Reach Forklift from 5k lbs to 10k lbs			
	Reversible Plate Compactor			
	Sheepsfoot Walk Behind 24" or 33" Drums			
	Motor Grader 12' Blade			
	Skiploader JD 210 or Case 570			
	Backhoe JD 310 or Case 580			
	Water Truck 2000gl			
	Water Truck 4000gl			
	200LC Excavator			
	Wheel Loaders 3yd			
	Pressure Washers Cold 2.5/3K psi			
	Pressure Washer Hot 2k psi			
	Generators 20kw to 400kw			
TOTAL	TOTAL			

RENTAL RATES DO NOT INCLUDE DAMAGE WAIVER, ENVIRONMENTAL FEES, DELIVERY/PICK UP FEES, FUEL, CLEANING FEES (If Applicable) OR SALES TAX.

FIGURE 3.3 (Cont'd)

AMPD INFORMATION - KMEP Tucson Terminal

- **AMPD response provider**

OSRO/Clean-up Contractor

Chemical Transportation, Inc.
11105 N. Casa Grande Hwy
Rillito, AZ 85654
(800) 634-4828
(520) 682-4101
(Equipment deployment personnel are located at equipment site.)

Contract Expiration Date

Refer to Work Directive

- **Equipment Address (*1-hour response time):**

Chemical Transportation, Inc., 11105 N. Casa Grande Hwy, Rillito, AZ 85654

Boom: 1,000 ft.

- **Equipment Address (*2-hour response time):**

Chemical Transportation, Inc., 11105 N. Casa Grande Hwy, Rillito, AZ 85654

Skimmer: Drum Skimmer

Vacuum Trucks: 2 ea 5,000 gal. capacity

Temporary Storage: 10,000 gals total

****Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Response Resources for Average/Small Discharges

Clean-Up Contractor	Contract Number
Chemical Transportation, Inc.	11557

CHEMICAL TRANSPORTATION, INC.

RESPONSE RESOURCE LIST

TUCSON TERMINAL

De-rating for Tier 1 - 12 hr Response for Chemical Transportation, Inc.:

- Frac Tanks - Six (6) 20,000 gallon Frac Tanks are immediately available plus an additional two (2) Frac Tanks (as needed) every four (4) hours.

- Skimming Capacity will be provided by Vacuum Trucks. Eight (8) 5,000 gallon vacuum trucks totaling 40,000 gallons are immediately available. Assuming a two (2) hour round trip for each vacuum truck, a gross skimming volume of 480,000 gallons is available

$$(8 \text{ trucks x } 5{,}000 \text{ gallon/truck x } 24 \text{ hr} \div \frac{1}{2hr(trip)} =$$

480,000 gallons = 11,428 bbls (gross))

- De-rating $\Rightarrow$ 11,428 bbls/day x 20% = 2,285 bbls/day

WORK DIRECTIVE

To: CHEMICAL TRANSPORTATION, INC.
400 INGLEWOOD DRIVE
SUITE E
EL PASO , TX 79927
Attention: JEFF CLARK

Phone: 915-860-1161
Fax: 915-860-1401
Email: jeff.clark@ct-environmental.com

Date: April 29, 2013
Work Directive No.: 4794913-2-STAT

Agreement No.: **55168**

Requisition No/ Accounting Information: 259686

This Work Directive is entered pursuant to the terms of the Engineering/Procurement/Project Management Agreement ("Agreement") dated 08/01/2012 , by and between KINDER MORGAN ENERGY PARTNERS, L.P. ("COMPANY") and CHEMICAL TRANSPORTATION, INC. ("SERVICE PROVIDER"). By its execution hereof, SERVICE PROVIDER agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If SERVICE PROVIDER'S proposal, quotation, or any other SERVICE PROVIDER document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by SERVICE PROVIDER which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued and this Work Directive arising out of or related to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and all other related entities as further provided for and agreed in the Agreement. Payments made to SERVICE PROVIDER under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1.0 **Project Name and Work Location Details:** PROVIDE OSRO SERVICES / EL PASO BREAKOUT STATION, EL PASO, TX

2.0 **Scope of Work:** The following is a full and complete description of the Work (and goods) to be provided by SERVICE PROVIDER including, but not limited to specifications, conditions and referenced bids/proposals.

Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the Federal OPA '90 requirements for contracted oil spill removal services for the El Paso Breakout Station located at 11621 Railroad Drive, El Paso, Texas as follows:

- Sufficient Response Resources to enable the COMPANY to meet the requirements of OPA '90 for pre-contracted Response Resources at the commencement of the Agreement including:
    - Responding with 1,000 feet of containment boom and a means to deploy it or other appropriate equipment and materials, as identified in the Tactical Response Plans presented in Volume 2, Section 8.4, within one (1) hour of notification*;
    - Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2,100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification*;

- Documentation of equipment deployment exercises and personnel training must be submitted annually to Mr. Chuck Mathis, Manager Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 500 Dallas Street, Suite 1000, Houston, TX 77002, or charles_mathis@kindermorgan.com ;

- Compliance by the CONSULTANT and CONSULTANT's subcontractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar applicable State laws, rules and/or standards.

* Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland or five (5) knots on water.

Regulatory References: 29 CFR 1910.120 (OSHA); 40 CFR 112 Appendix E 3.3 (U.S. EPA)

For Questions, contact PALACIOS, JAMES at 915-822-7004

3.0 The COMPANY will not furnish any materials to the Work Site(s), unless previously approved by the Designated Representative.

4.0 SERVICE PROVIDER shall commence the Work by the 05/01/2013 and shall complete the Work on or before 04/30/2014.

5.0 SERVICE PROVIDER offers to complete the Work in accordance with the Agreement for the total Lump Sum Amount of **$23,700.00**, Twenty Three Thousand Seven Hundred Dollars and Zero Cents, which shall constitute full and complete payment.

6.0 The parties hereby agree to AMEND Agreement 55168 as follows (or if the Agreement has been thus amended previously, to repeat the following sections):

i) Under the Compliance with Laws section, a **new subsection** is hereby added to the Agreement which reads as follows:

SERVICE PROVIDER certifies that at the time of execution of this Agreement SERVICE PROVIDER is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement SERVICE PROVIDER cannot so certify to COMPANY, SERVICE PROVIDER shall promptly notify COMPANY as to SERVICE PROVIDER'S status.

ii) The following language is hereby added to the Termination section under the termination for default paragraphs:

-- violates any EHS law; or

iii) All other provisions of the Agreement shall continue in full force and effect.

7.0 **Retainage:** Waive 10% retainage.

8.0 SERVICE PROVIDER shall submit invoices in duplicate to:

SFPP, L.P.

11621 Railroad Dr

El Paso, TX 79934

Attn: PALACIOS, JAMES

Phone: 915-822-7004
Fax: 915-778-1111

8.1 Invoices must clearly indicate the Agreement Number, Work Directive Number, as indicated above.

8.2 For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized representative, notarized, and attached to SERVICE PROVIDER'S final invoice.

9.0 SERVICE PROVIDER hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, SERVICE PROVIDER at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Indemnitees at: contractor_safety@kindermorgan.com prior to commencement of any Work.

10.0 Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

11.0 By signing this Work Directive, SERVICE PROVIDER hereby confirms that neither it nor any of its affiliates has provided during the last twelve (12) months or is currently providing services to any third party undertaking which is competitive to the Work and or the project contemplated by this Work Directive, other than has already been disclosed in writing SERVICE PROVIDER to COMPANY. Unless prior written approval is obtained from COMPANY, until this Work Directive has been completed in accordance with the Agreement, SERVICE PROVIDER will not directly, or indirectly through a subsidiary or affiliate,

11.1 Consult advise, counsel, or otherwise assist (i) any competitor of (A) COMPANY, (B) an affiliate of COMPANY; or (C) any entity in which COMPANY holds an ownership interest (A, B, and C collectively being referred to herein as "Company Entity"), or (ii) any affiliate of such competitor, directly or indirectly, with regard to (x) any current or foreseeable competition to the Work and/or the project contemplated by this Work Directive, or (y) any potential assignment for a third party which could have or is likely to have an adverse effect on any Company Entity with respect to the Work and/or project contemplated by this Work Directive; or

11.2 Except to the extent required to comply with applicable law, consult, advise, counsel or otherwise assist any governmental authority, or Federal or State regulatory agency, in the United States or any other country (i) on any matter which could affect the Work and/or project contemplated by this Work Directive, or (ii) in a regulatory or any other forum or proceeding, which in any manner would have, or is likely to have, a reasonably foreseeable adverse effect upon a Company Entity.

In the **Agreement**, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware corporation. This change resulted from an internal corporate reorganization. Kinder Morgan, Inc. owns the same assets formerly owned by Kinder Morgan Kansas, Inc.

By signing below, COMPANY and SERVICE PROVIDER affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 4794913-2-STAT is by reference hereby made part of Agreement No. 55168

This Work Directive is hereby agreed to and accepted:

SFPP, L.P. By: Kinder Morgan Operating L.P. "D", its General Partner By: Kinder Morgan G.P., Inc., its General Partner By: Kinder Morgan Management, LLC, the Delegate of the General Partner	CHEMICAL TRANSPORTATION, INC.
Michael Martinez Signature	B B H Signature
MARTINEZ, MICHAEL Name	Brian Bennett Name
AUTHORIZED SIGNATORY Title	President Title
April 29, 2013 Date	4/29/2013 Date

Please return executed Work Directive to:

SFPP, L.P.
1100 Town & Country Rd
Suite 700
Orange, CA 92868
Attention: MARTINEZ, MICHAEL
Phone: 714-560-4694
Fax: 714-560-6531
Email: michael_martinez@kindermorgan.com

EXHIBIT WD_A – SCOPE OF WORK

Provide OSRO response for Tucson Terminal as detailed on next page:

SCOPE OF WORK OR SERVICES, continued

Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the Federal OPA '90 requirements for contracted oil spill removal services for the Tucson Terminal located at 3841 E. Refinery Way, Tucson, Arizona as follows:

- Sufficient Response Resources to enable the COMPANY to meet the requirements of OPA '90 for pre-contracted Response Resources at the commencement of the Agreement including:
    - Responding with 1,000 feet of containment boom and a means to deploy it or other appropriate equipment and materials, as identified in the Tactical Response Plans presented in Volume 2, Section 8.4, within one (1) hour of notification*;
    - Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2,100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification*;
    - Documentation of equipment deployment exercises and personnel training must be submitted annually to Mr. Chuck Mathis, Manager Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 500 Dallas Street, Suite 1000, Houston, TX 77002, or charles_mathis@kindermorgan.com ;
    - Compliance by the CONSULTANT and CONSULTANT's subcontractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar applicable State laws, rules and/or standards.

    * Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland or five (5) knots on water.

Regulatory References: 29 CFR 1910.120 (OSHA); 40 CFR 112 Appendix E 3.3 (U.S. EPA)

Phoenix Az
Tucson - Rillito, Az
El Paso, Tx

Equipment in trailers

Water Response Trailer
1000 watt generator
Extension cords
Air Compressor
Air lines
(3) 3500-gallon containment pools
Gas diaphragm pump
1" air diaphragm pump
2" air diaphragm pump
(2) 3" trash pumps
Hoses fittings and connections for all (2) 3" trash pumps
Work lights
Fuel cans
Misc. hand tools
Absorbent pads
Absorbent powder
Vermiculight
PPE up to a modified level C
Waders
Empty drums
Zodiac boat
40 hp outboard motor short shaft
Life vest
Confined space equipment
Wire welder
'1000' of Fast River containment boo Shovels, picks, squeegees etc.
300' absorbent boom
Fire extinguisher
Emergency shower/eye wash
Picks, shovels etc.
Ladders
(1) drum oil/light h Ropes
3500 psi pressure washer
Poly sheeting
Drum liners
Ropes
Water jugs
Coolers
Tarps
(2) winches for boom deployment and safety lines
Battery jumper box
Degreasers

Support Trailer
1000 watt generator
extension cords
Air compressor
Airlines
Grade D breathing air compressor
Air lines
(2) SCBAs and spare bottles
4500 psi steam cleaner
3500-psi pressure washer

1" chemical diaphragm trash pump
Chem Hose
Hose
Work Lights
Fuel Cans
PPE up to a modified level B
Empty drums
Cleaning lance
Confined space equipment
first aid kits
Emergency shower
Fire Extinguisher
Hand tools
oxygen/ acet cutting torch
Ladders
(1) 3500-gallon containment pool
Poly sheeting
Drum liners
Degreaser

Water jugs
Copus fan
Tarps
Absorbent pads
absorbent powder

Additional Equipment
Cell Phones for all personnel
(1) sat phone
(3) GPS units
(3) Digital cameras

Phoenix Shop II

Equipment	Serial Number	Value
(1) Tree saw with Extension Rod		$ 25.00
(1) Portable room swamp coolers		$ 2,500.00
(3) Pressure Washers 3000 PSI Gas		$ 6,000.00
(1) Electric pressure washer 1000 PSI		$ 1,000.00
(1) Pallet Jack		$ 700.00
(5) Sets of Sockets		$ 500.00
(2) Panel Sheetrock Carts		$ 1,000.00
(1) Portable Ban Saw		$ 250.00
(4) 48 in. Alum-Pipe V Wrenches		$ 400.00
(3) 24 in. Alum Pipe Wrenches		$ 150.00
(6) Pipe cutters var/sizes		$ 600.00
(1) Multivision gas meter		$ 1,200.00
(6) GFI connectors		$ 150.00
(1) Engine hoist		$ 200.00
(2) Floor flood lights w/ stands		$ 100.00
(2) Electric drills		$ 100.00
(4) Negative air machines		$ 8,000.00
(10) Saw zaws		$ 200.00
(1) Skill saw / jig		$ 50.00
(15) 50 ft extension cords		$ 150.00
(2) Victor / welding cutting torches		$ 1,000.00
(1) Knack box 4 ft tool box		$ 500.00
(2) 55 gallon wet dry vacs		$ 1,000.00
(1) Honda 5250 watt generator		$ 700.00
(6) 14 in. alum pipe wrenches		$ 150.00
(10) Safety Cones 2 ft		$ 50.00
(2) 25ft fire hoses w/nozzles		$ 50.00
(4) 5lbs fire ext.		$ 60.00
(1) 20 gal portable eye wash station		$ 300.00
(4) 50 ft garden hoses		$ 50.00
(8) shovels		$ 50.00
(2) 6 ft A frame ladders		$ 100.00
(2) 10ft A frame ladders		$ 200.00
(2) 4 ft A frame ladders		$ 100.00
(4) Large scrappers		$ 100.00
(3) Hepa vacs 10 lbs		$ 1,500.00
(1) 20 ft extension ladder		$ 200.00
(4) 50 ft links pressure washer hose		$ 400.00
20' Haulmark Trailer		$ 5,500.00
	Sum:	$ 35,285.00

PHOENIX SHOP

Equipment	Serial Number	Value
Dyna Pak Air Plsma Cutting System	H122471842019	$ 500.00
Coleman Powermate Maxa 3000	85720300	$ 500.00
Tecumsen Post hole Digger	39516	$ 200.00
Speedaire Compresor	980826YA	$ 200.00
Aemco Blast Cleaning Machine	42170	$ 700.00
Wacker	1381	$ 200.00
Gorman Pump	674768	$ 500.00
Genie 6 gallon Vacuum		$ 50.00
Rigid 6 Gallon Vacuum	03121C0189	$ 50.00
Shop Vac 20 gallon Vcuum		$ 50.00
Rigid 16 Gallon Wet/Dry		$ 15.00
Itace Pump	89440	$ 1,500.00
Ex-cell pressure washer (Not Working)	11924920	N/A
1 pec System (2) each		$ 2,000.00
Honda Trash pump		$ 300.00
Wisconsin Robin Pump	800418	$ 300.00
Teel Pump	960430Y8	$ 200.00
Salalift	0057	$ 500.00
42 Scott Air Bottles		$ 4,200.00
12 Scott Air Pak Harnesses		$ 6,000.00
5 Scott air Pak Rigs / 3 MSA Air pak rigs		$ 2,500.00
7 survivair escape bottles w/ Harnesses		$ 3,500.00
3 Scott Escape Bottles		$ 300.00
6 Survivair Masks		$ 300.00
24 Scott Masks		N/A
Shop cool port evap. Cooler	E03007881	$ 150.00
Submersible Pump	505375	$ 100.00
Milwawkee Deep cut band saw	678C498121093	$ 250.00
Milwawkee Deep cut band saw	769F402450830	$ 250.00
Toro weed blower	51549	$ 50.00
trim ilze weed eater	ME0231117	$ 50.00
louieville 6ft ladder		$ 50.00
Dayton Blower	6K7190	$ 450.00
Vacu-Max		$ 750.00
North Star Pressure washer		$ 2,000.00
Hotsy Pressure washer	H040Z-18276	$ 2,000.00
Werner 10ft, 12ft, and 20ft ladder		$ 800.00
(2) wilden mz, (1) wilden m8 pumps		$ 2,000.00
Sandpiper pump	320946	
Drill Press		$ 100.00
Bench Grinder		$ 50.00
Miller Welder		$ 2,500.00
Miller Feed		$ 1,200.00
Big Plasma Cutter-Used from Biogen 100 amp		$ 2,500.00
Little Plasm Cutter-used from Biogen 30 amp		$ 1,200.00
Cut off saw-used form Biogen		$ 250.00
Drum Crusher		$ 13,500.00
Ventilator		$ 1,300.00
Confined Space Recovery Witch		$ 1,800.00
Confined Space Tri Pod		$ 1,000.00
Air Ventilator		$ 1,500.00
Oxy Acetylene Torches - 2		$ 800.00
Gas Cut Off saw - 2		$ 1,500.00
Ingerosl rand 175		$ 5,000.00
Big Air Compressor 285		$ 3,000.00
Small Gas Compressor		$ 250.00
Tri-Pod with Winch		$ 2,000.00
20' Houlmark Trailer (Brian)		$ 5,500.00
	Sum:	$ 78,415.00

Industrial Cleaning Service

Inventory Replacement Cost

Equipment	Quantity	Equipment Value	Total
Breathing Air Compressor	2	$3,120.00 each	
Breathing Air Compressor Hose	2	$65.00 each	
Breathing Air Filter Boxes	2	$700.00 each	
Breathing Air Hose Lines (50 Foot)	4	$275.00 each	
Full Body Harness	4	$30.00 each	
Jet Fans	2	$3,000.00 each Plus Freight	
Lanyard with Deceleration Device	4	$35.00 each	
Small Pipe Cutter	1	$700.00	
Large Pipe Cutter	1	$1,500	
Pump 1/3 Horse Power	1	$100.00	
Scorpion Fall Arrest System	2	$98.00 each	
Scott Air Packs	2	$1,950.00 each	
Water Jug	1	$15.00 each	
Four Gas Air Monitor	1	$1,450.00	
Small Swamp Cooler	1	$200.00	
Cordless Drill	1	$235.00	
Two Way Radios	8	$37.50 each	
Portable Halogen Lights	1	$30.00	
20 foot Haulmark Trailer	1	$5,500.00	
8 foot Pace Trailer	1	$3,850.00	
	Sum:	$13,565.00	

Water Blasting Equipment

In Stock	Equipment	Current Value (each item)	Total Estimated Value
1	NLB Water Blaster		
2	WOMA Water Blasters		
2	WOMA Foot Pedals		
5	WOMA Hand Guns		
	Misc. spare parts for WOMA		
2	P-26 Plungers and Packings		
1	P-30 Plungers and Packings		
1	P-35 Plungers and Packings		
1	P-45 Plungers and Packings		
4	Lances (Various sizes)		
2	Body Armor		
2	Toe Guards		
1	NLB Hand Gun		
1	NLB Foot Pedal		
1	NLB Spinner Nozzle		
	Misc. spare parts for NLB		
2	Gun hose 50'		
2	Gun hose 100'		

MOTOROLA TEMPE AZ

Equipment	Serial Number	Value
1 Standard pressure washer (landa, gasoline, with wand and hose)		$ 2,000.00
1 gasoline can (5 gallon)		$ 20.00
1 electric pressure washer (with hose and snake attachment		$ 1,000.00
3 wet/dry vacs, (one out of service at the moment)		$ 100.00
1 Hepa vac		$ 300.00
2 Submersibles		$ 300.00
2 Sawzalls (1 Dewalt, 1 Porter cable)		$ 150.00
2 tool sets plus misc. hand tools		$ 300.00
1 cordless drill (dewalt, with 2 batteries and charger)		$ 150.00
3 extention cords (2 100', 1 10')		$ 50.00
1 portable electric fan		$ 10.00
1 decon pad swamp cooler		$ 2,500.00
1 pump sprayer		$ 10.00
1 porable canopy		$ 50.00
1 lockout/tagout box with 4 locks (with keys) and 4 lockes (missing keys)		N/A
1 mop bucket		N/A
1 electric Golf cart		$ 2,000.00
1 lantern style flashlight		$ 10.00
l2 Scott SCBA's (0 spare bottles, 2 lrge masks)		$ 2,400.00
2 MSA line air packs (2 medium masks 1 large)		$ 1,000.00
2 air hoses, 1 marginal regulator		$ 200.00
	Sum:	$ 12,550.00

MOTOROLA CHANDLER A2

Equipment	Serial Number	Value
1 Small Fan (Hampton Bay)		N/A
1 Hepa Vac. (Nilfisk/Damaged & Contaminated)		N/A
1 Extension cord (50 feet)		$ 25.00
1 Dewalt Sawzaw (No Case/Contaminated		$ 25.00
1 Black & Decker Drill (No Case)		$ 50.00
1 Hammer (huskey)		$ 10.00
1 Huskey open end wrench set (missing 5/8", 3/4",16/16")		$ 50.00
3 Ridger Alum pipe wrench set (2 angled, 1 straght head)		$ 200.00
2 Bandsaw Blades (milwakee)		$ 50.00
1 Ridged Alum. Pipe wrench 18" angled head		$ 100.00
1 3" pry bar		$ 50.00
1 caulking gun (Arrow)		N/A
1 Stanley Phillips screw driver		N/A
1 tool box (black w/red drawers, plastic)		$ 50.00
1st Drawer - Bit Driver(missing 12 of 24 bits), Pillips 1x3", Standard 2.4,3.0 - 3 16x3		$ 20.00
2nd Drawer - Open end wrenches (5/8", 9/16, 1/2, 9/16, 3/8", 10mm,11,12,15mm), Hex key wrenchs 3/16", 1/16, 1/8, 5/32".		$ 100.00
3rd Drawer - Sockets 5/32, 3/16, 7/32, 1/4, 11/32, 3/8, 7/16, 1/2, 7/16, 1/2, 9/16, 5/8", 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 mm, 1ea 3/8" disc, 1ea AD 1/4" x 3/8", 1ea 1/4" x 4" ext, 1ea 3/8 x 3 ext 1ea 3/8" U.S., 1ea 3/8" rathet, 1ea S.P. 5/8", 1ea S.P. 13/16 socket.		$ 100.00
4th Drawer - 1pr 6" long hose pliers, 9" Torredo level, 1 12' Tape Meaure.		$ 35.00
	Sum:	$ 865.00

Equipment	Rate	Unit	Equipment	Rate	Unit	Equipment	Rate	Unit
Water Response Trailer			Support Trailer			Drum Liners		
1000 Watt Generator			1000 Watt Generator			Ropes		
Extension Cords			Extension Cords			Water Jugs		
Air Compressor			Air Compressor			Coolers		
Air Lines			Airlines			Tarps		
(3) 3500-Gallon Containment Pools			Grade D Breathing Air Compressor			(2) Winches for Boom Deployment		
Gas Diaphragm Pump			Air Lines			& Safety Lines		
1" Air Diaphragm Pump			(2) SCBAs & Spare Bottles			Battery Jumper Box		
2" Air Diaphragm Pump			4500 PSI Steam Cleaner			Degreasers		
(2) 3" Trash Pumps			3500 PSI Pressure Washer					
Hoses Fittings & Connections for all			1" Chemical Diaphragm Trash Pump					
(2) 3" Trash Pumps			Chem Hose					
Work Lights			Air Hose			Kynar Lined Tanker (5,000 gl)		
Fuel Cans			Work Lights			Steel Vacuum Tanker (5,000 gl)		
Misc. Hand Tools			Fuel Cans			Roll-off Equipment		
Absorbent Pads			PPE up to a Modified Level B			End Dumps		
Absorbent Powder			Empty UN Steel Drums			Box Vans/Flatbeds		
Vermiculight			Cleaning Lance			Pumper Truck (3,500 gl)		
PPE up to a Modified Level C			Confined Space Equipment			Straight Truck (10 ton)		
Waders			First Aid Kits					
Empty UN Steel Drums			Emergency Shower					
Zodiac Boat 40hp Outboard Motor			Fire Extinguisher					
Short Shaft			Hand Tools					
Life Vest			Oxygen/Acet Cutting Torch					
Confined Space Equipment			Ladders					
Wire Welder			(1) 3500-Gallon Containment Pool					
1000' of Fast River Containment Boom			Poly Sheeting					
300' Absorbent Boom			Drum Liners					
Fire Extinguisher			Degreaser					
Emergency Shower/Eye Wash			Water Jugs					
Pick, Shovels Ect.			Copus Fan					
Ladders								
3500 PSI Pressure Washer								
Poly Sheeting								
Drum Oil/Water Skimmer								

PHMSA 000103794

FIGURE 3.3 (Cont'd)

AMPD INFORMATION - KMEP Phoenix Terminal

- **AMPD response provider**

  OSRO/Clean-up Contractor

  Arizona Pipeline Company
  17372 Lilac
  Hesperia, CA 92345
  (760) 244-8212
  (Equipment deployment personnel are located at equipment site.)
  24-hour Emergency Contact: John Nichols (909) 208-3925

- **Equipment Address (*1-hour response time):**
  Arizona Pipeline Company - 17372 Lilac, Hesperia, CA 92345

- **Equipment Address (*2-hour response time):**
  M.P. Environmental Services - 3045 S. 51st St., Phoenix, AZ 85043

  Boom: 1,500' of 8" 100' of 6"

  Skimmer: 3 ea. Skim-pak

  Vacuum Trucks: 5 ea 6,000 gal. vacuum trucks
  6 ea 5,500 gal. vacuum trucks

  Temporary Storage: 63,000 gals

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Response Resources for Average/Small Discharges

Clean-Up Contractor	Contract Number
Arizona Pipeline Company	
M.P. Environmental Services	

Note: Response resources for medium and worst case discharges are detailed in the Open End and On-Call Contracts references provided in this Volume 2, Figure 2.2.

M.P. ENVIRONMENTAL SERVICES
RESPONSE LETTER and
RESPONSE RESOURCE LIST

PHOENIX TERMINAL

MP ENVIRONMENTAL SERVICES, INC.

3045 South 51st Avenue, Phoenix, AZ 85043 • 602-278-6233 • 800-833-7602 • 602-278-2884 Fax • www.mpenviro.com

October 18, 2011

Attn. Troy Eiffert
Kinder Morgan
49 North 53rd Avenue
Phoenix, AZ 85043

Re: Emergency Response, Availability and Response Time

Kinder Morgan Emergency Response

MP Environmental Services, Inc. (MPE) is pleased to provide Kinder Morgan (KM) with the following resources and response times following an emergency at the above listed terminal.

MPE will have personnel on KM site within 2 hours of an initial call out by KM. If needed a minimum of 5 personnel could respond. In addition to personnel the following equipment/containers can be provided, within reason, in the same 2 hours:

Vacuum Tankers
Super Vacs
Roll-off Containers
End Dumps
Excavators
Backhoes
Pressure Washers
Air Compressors
Light Plants
Booms/Absorbents

Thank you for your continued patronage.

Craig Miller
Project Manager

MP Environmental Services, Inc.
Equipment List

Phoenix, AZ / Yolo, CA
Rex Calderwood / Ed Morrison

Vacuum Trucks
(5) 6,000 gallon SS
(6) 5,500 gallon SS
(2) 5,000 gallon Iron
(2) 3,000 gallon 10 wheelers
(1) Super Sucker

Roll-Off Trucks
(6) Rocket Launchers
(5) Truck Trailers

Roll-Off Bins
(200) 40 yards
(300) 20 yards
(5) Vacuum Bins

Vans & Flats
(3) 48ft flat beds
(6) 48ft dry vans

Trucks
(13) 10 Wheelers

End-Dumps
(5) End-Dumps

Miscellaneous
Backhoes
Bobcat
Fork lifts
ER Trailer
Air compressor
Light tower
1,000ft 6in absorbent boom (AZ only)
500ft 4in absorbent boom (AZ only)

Bakersfield, CA
Don Adams

Vacuum Trucks
(10) 5,500 gallon SS
(8) 6,000 gallon SS
(7) 5,500 gallon Iron
(3) 3,000 gallon 10 wheelers
(2) Super Suckers

Roll-Off Trucks
(12) Rocket Launchers
(6) Truck Trailers

Roll-off Bins
(300) 40 yards
(350) 20 yards
(12) Vacuum Bins

Vans & Flats
(10) 48 ft flats beds
(6) 50 ft drop decks
(96) 48 ft dry van

Trucks
(35) 10 Wheelers

End-Dumps
(25) End-Dumps

Miscellaneous
Backhoes
Bobcats
Excavators
Loaders
Forklifts
Air Compressors
Light Towers
ER Trailers
2,000ft 6in absorbent boom
1,000ft 4in absorbent boom

(Information furnished by Rex Calderwood as of January, 2005)

FIGURE 3.2

OIL SPILL REMOVAL ORGANIZATIONS (Cont'd)

USCG OSRO Classifications

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

FIGURE 3.4

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Terminal/Response Zone: _____

3. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

4. Deployment location(s):
   _____
   _____
   _____
   _____
   _____
   _____

5. Time started: _____
   Time completed: _____

6. Equipment deployed was:
   - ❑ Facility - owned
   - ❑ Oil spill removal organization - owned if so, which OSRO? _____
   - ❑ Both

7. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:
   _____
   _____
   _____
   _____

8. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):
   _____
   _____
   _____
   _____

9. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's small/average most probable spill?
   _____
   _____

   Was the equipment deployed in its intended operating environment?
   _____
   _____

FIGURE 3.4 (Cont'd)

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

10. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

    Was the equipment deployed in its intended operating environment?

11. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

    If so, describe the program: _____

    Date of last equipment inspection: _____

12. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

13. Was all deployed equipment operational? If not, why not?

14. Attach a description of lessons learned, procedures and schedule for implementation, and persons responsible for follow up of corrective measures.

_____ _____
Certifying/Evaluator Signature Date

Retain this form and other documentation related to this exercise for a minimum of 5 years.

California Facilities/Response Zones: Submit this form and supporting documentation to Charlena Hayes at crhayes@ospr.dfg.ca.gov or FAX (916) 324-9786.

FIGURE 3.5

PATRIOT ENVIRONMENTAL WORK DIRECTIVE

WORK DIRECTIVE

To PATRIOT ENVIRONMENTAL SVCS INC

P.O. BOX 1091

LONG BEACH, CA 90801
Attention: RICHRD YUKIHIRO

Phone: 562-436-2614
Fax: 563-436-3688
Email: ryukihiro@patriotenvironmental.com

Date: September 17, 2013

Work Directive No.: 477391-13-STAT

Agreement No.: 25286

Requisition No/ Accounting Information: 270507

This Work Directive is entered pursuant to the terms of the Emergency Response Services Agreement ("Agreement") dated 01/01/2011 , by and between KINDER MORGAN ENERGY PARTNERS, L.P. ("COMPANY") and PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT'S proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued and this Work Directive arising out of or related to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and all other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1.0 **Project Name and Work Location Details:** OSRO Services / Imperial terminal

2.0 **Scope of Work:** The following is a full and complete description of the Work (and goods) to be provided by CONSULTANT including, but not limited to specifications, conditions and referenced bids/proposals.

2.1 See EXHIBIT WD_A – SCOPE OF WORK

2.2 For Questions, contact ROSE, TINA at 909-873-5106

3.0 The COMPANY will not furnish any materials to the Work Site(s), unless previously approved by the Designated Representative.

4.0 CONSULTANT shall commence the Work by the 08/01/2013 and shall complete the Work on or before 07/31/2014.

5.0 CONSULTANT offers to complete the Work in accordance with the Agreement for the total Lump Sum Amount of $9,000.00 Nine Thousand Dollars and Zero Cents, which shall constitute full and complete payment.

6.0 The parties hereby agree to AMEND Agreement 25286 as follows (or if the Agreement has been thus amended previously, to repeat the following sections):

i) Under the Compliance with Laws section, a **new subsection** is hereby added to the Agreement which reads as follows:

CONSULTANT certifies that at the time of execution of this Agreement CONSULTANT is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement CONSULTANT cannot so certify to COMPANY, CONSULTANT shall promptly notify COMPANY as to CONSULTANT'S status.

ii) The following language is hereby added to the Termination section under the termination for default paragraphs:

-- violates any EHS law; or

iii) All other provisions of the Agreement shall continue in full force and effect.

7.0 **Retainage:** Waive 10% retainage.

8.0 CONSULTANT shall submit invoices in duplicate to:

SFPP, L.P.

2319 S Riverside Ave

Bloomington, CA 92316

Attn: ROSE, TINA
Phone: 909-873-5106
Fax: 909-877-9036

8.1 Invoices must clearly indicate the Agreement Number, Work Directive Number, as indicated above.

8.2 For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

9.0 CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Indemnitees at: contractor_safety@kindermorgan.com prior to commencement of any Work.

10.0 Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

11.0 For Work performed within the State of California, CONSULTANT shall certify within three working days of execution hereof that the requirements set forth in Exhibit B to this Work Directive have been satisfied. Failure by CONSULTANT to do so shall constitute a breach under Section 10 [for cause with no notice] of the Agreement.

In the **Agreement**, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware corporation. This change resulted from an internal corporate reorganization. Kinder Morgan, Inc. owns the same assets formerly owned by Kinder Morgan Kansas, Inc.

By signing below, COMPANY and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 477391-13-STAT is by reference hereby made part of Agreement No. 25286

This Work Directive is hereby agreed to and accepted:

SFPP, L.P. By: Kinder Morgan Operating L.P. "D", its General Partner By: Kinder Morgan G.P., Inc., its General Partner By: Kinder Morgan Management, LLC, the Delegate of the General Partner	PATRIOT ENVIRONMENTAL SVCS INC
Michael Martinez Signature	Richard Yurkiewicz Signature
MARTINEZ, MICHAEL Name	Richard Yurkiewicz Name
AUTHORIZED SIGNATORY Title	COO Title
Sept 17, 2013 Date	9/18/13 Date

Please return executed Work Directive to:

SFPP, L.P.
1100 Town & Country Rd
Suite 700
Orange, CA 92868
Attention: MARTINEZ, MICHAEL
Phone: 714-560-4694
Fax: 714-560-6531
Email: michael_martinez@kindermorgan.com

The following Exhibits shall be provided by COMPANY:

X	Exhibit WD_A	- Scope of Work
X	Exhibit WD_B	- Revised Release Reporting Criteria (California only)
___	Exhibit WD_C	- Work Directive Specific Schedule of Values/Rates
___	Exhibit WD_D	- Operator Qualification Form (as provided by the Designated Representative via electronic or hardcopy submission)

EXHIBIT WD_A – SCOPE OF WORK

Contractor will provide Imperial Terminal located at 345 W. Aten Road, Imperial California with 24/7 Emergency Response capabilities under Section 3.3 to Appendix E of 40 DFR 112 for EPA Jurisdictional Facility's and Section Appendix E of 40CFR 112 for EPA Jurisdictional Facility's and Section 3 to Appendix C of 33CFR 154 for USCG Regulated Facility's This includes but is not limited to one thousand feet of containment boom, and a means of deploying it within one (1) hour of the discovery of a discharge.

Contractor will provide response equipment and manpower resources in accordance with the National Preparedness for Response Exercise Program (PREP) Guidelines. Specific reference for USCG regulated facilities is located on pages 3-18 and 3-19 of the August 2002 PREP Guideline. Specific reference for EPA regulated facilities is located on pages 4-9 and 4-10 of the August 2002 PREP Guideline. These requirements include, but are not limited to, an annual equipment deployment exercise in the operating environment of the Area of the Facility, a comprehensive OSRO personnel training program, and a maintenance program to ensure that the equipment is periodically inspected and maintained in good operating condition. The satisfactory completion of these PREP requirements must be documented and submitted annually to Kinder Morgan to Mr. Edward (Buzz) Fant, Director-Compliance/Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 1001 Louisiana St, Suite 1000
Houston, TX 77002, or fante@kindermorgan.com.

EXHIBIT WD_B – REVISED RELEASE REPORTING CRITERIA

1.0 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT'S activities in the performance of the Work:

1.1 are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

1.2 understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT'S employees, agents and subcontractors' employees who will be performing at such a site.

1.3 Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT'S employees, agents and subcontractors' employees will be trained relative to COMPANY'S revised release reporting criteria.

1.4 For purposes of this Exhibit "Hazardous Material(s)" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any EHS Law. "EHS Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

CONSULTANT shall certify its compliance with this training requirement upon COMPANY request.

Acknowledged, agreed and accepted this 18 day of September, 2013

PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT")

Richard Yukilino | COO
Officer Name and Title (please print)

Richard Yukilino
Officer Signature

FIGURE 3.5a
ADDITIONAL RESPONSE RESOURCES

Universal Environmental, Inc.
Equipment List

November 14, 2005

Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Attn: Mr. Ed Cables

RE: Emergency Response Information

Dear Mr. Cables:

Universal Environmental, Inc. (UE) effective response area (1-2 hours) would be approximately 50 miles from Benicia. This would encompass Stockton to the East, Rancho Cordova to the North East, Contra Costa and Alameda, and Solano County.

Additional coverage's would be Stanislaus, San Joaquin, Sacramento, Marin, Sonoma, Napa and Lake Counties.

UE's Nevada office covers Sierra, Modoc, Nevada, Placer, Lasson, Plumas, and Modoc Butte Counties.

UE will travel as far as needed depending on the size of the project.

UE provides support to MSRC for spills involving navigable waterways. UE is a STAR contractor to MSRC. In areas MSRC does not operate UE would provide boom support as well as shoreline cleanup. On land based spills UE would provide any required resources including, soil removal, transportation and disposal services, etc…

UE's Benicia office is a shoreline, small rivers, creeks, ponds and streams OSRO. UE is not a Coast Guard certified OSRO.

UE Benicia utilizes MSRC as our OSRO per contract and MSRC has contracted UE Benicia as an OSRO for shoreline support, boat crews, vacuum trucks, etc… UE can rent boom from MSRC who has approximately 10,000' of boom.

UE Benicia has twelve Certificates of Owners Financial Responsibility (COFR) certificates from the California Department of Fish and Game for marine over-water transfer of petroleum. This is the largest certified vacuum truck fleet in California, almost 50% of all certified vacuum trucks.

If you have any questions or need any further information please feel free to contact me at (707) 747-6699.

Sincerely,

Sandra Stanford
Business Development

UNIVERSAL SAFETY
INVENTORY

MAY I 2003 ENDING MAY 31 2003

K348 AE2

IN	OUT		PART NO.	DISCRIPTION	SIZE	ON HAND	
				HAND PROTECTION			
252			1220D	LEATHER GLOVES	REG	252	0
159			37-155	NITRILE GLOVES	10	159	0
			SS104L	SILVERSHIELD		0	0
4500			TRILITE	TRILITE GLOVES	X	4500	0
660			6212R	PVC GLOVES	REG	660	0
16			N-54	ACID GLOVES		16	
48			9500LD	KNIT GLOVES		48	
			BES7005X	N-DEX GLOVES	XL	0	
				PROTECTIVE CLOTHING			
1			LS428	WHITE TYVEK WITH HOOD	L	1	
133			LS428	WHITE TYVEK WITH HOOD	XL	133	0
682			LS428	WHITE TYVEK WITH HOOD	XX	682	0
133			LS428	WHITE TYVEK WITH HOOD	XXX	133	0
299			LS428	WHITE TYVEK WITH HOOD	XXXX	299	0
295			LS428	WHITE TYVEK WITH HOOD	XXXXX	295	0
			KP5428	POLY TYVEK	L	0	
148			KP5428	POLY TYVEK	XL	148	0
47			KP5428	POLY TYVEK	XX	47	0
68			KP5428	POLY TYVEK	XXX	68	0
16		X	KP5428	POLY TYVEK	XXXX	16	0
5		X	M3881	GREEN GUARDIAN	L	5	0
15			M3881	GREEN GUARDIAN	X	15	0
10			M3881	GREEN GUARDIAN	XX	10	0
5		X	M3881	GREEN GUARDIAN	XXX	5	0
4		X	M3881	GREEN GUARDIAN	XXXX	4	0
116			R2002	RAINGEAR	L	116	0
306			R2002	RAINGEAR	X	306	0
225			R2002	RAINGEAR	XX	225	0
184			R2002	RAINGEAR	XXX	184	0
413			R2002	RAINGEAR	XXXX	413	0
239			R2002	RAINGEAR	XXXXX	239	0
			S77434	SARANEX WITH HOOD,BOOTS	X	0	0
29			S77434	SARANEX WITH HOOD,BOOTS	XX	29	0
11			S77434	SARANEX WITH HOOD,BOOTS	XXX	11	0
12			S77434	SARANEX WITH HOOD,BOOTS	XXXX	12	
8			TY74326	TYCHEM SUIT LEVEL B	X	8	0
			TY74326	TYCHEM SUIT LEVEL B	XX	0	0
			TY74326	TYCHEM SUIT LEVEL B	XXX	0	0
3			MAR1000(	LEVEL A CHEM SUIT	XX	3	0

	X	EP1743	EMERGENCY PONCHO	REG	0	0

EYEWEAR

144		TK110	SAFETY GLASSES	REG	144	0
24		GL2225	GOGGLES	REG	24	0
100		F181640	FACESHIELDS	REG	100	0
13	X	B102C	FACE BRACKETS	REG	13	0

HEAD PROTECTION

	X	M475361	HARDHATS MSA ORANGE		0	0
8		M475358	HARDHATS MSA WHITE		8	0

HEARING PROTECTION

2400		M1100	EAR PLUGS DISPOSABLE		2400	0

FOOTWEAR

1	X	ME86606	PVC BOOTS	5	1	
5	X	ME86606	PVC BOOTS	6	5	0
5	X	ME86606	PVC BOOTS	7	5	0
	X	ME86606	PVC BOOTS	8	0	0
3	X	ME86606	PVC BOOTS	9	3	0
3	X	ME86606	PVC BOOTS	10	3	0
3	X	ME86606	PVC BOOTS	11	3	0
4	X	ME86606	PVC BOOTS	12	4	0
4	X	ME86606	PVC BOOTS	13	4	0
	X	Y2513L	LAYTEX BOOTS	LG	0	0
	X	WT6017H	WT TYVEK BOOTS	LG	0	0

RESPIRATORY PROTECTION

21		N76008A	FULL FACE RESP NORTH		21	0
28		N77003M	HALF FACE RESP NORTH		28	0
33		N77003L	HALF FACE RESP NORTH		33	0
	X	SUL96845	SIGMA EGRESS SUVIVAIR		0	0
	X	SCPK	EGRESS SCOTT		0	0
2		BAR	BREATHING REGULATORS		2	0
4	ORDEI	BAH50	BREATHING AIR HOSE	50	4	0
3		BAH150	BREATHING AIR HOSE	100	3	0

2		SCBAS	SCOTT SCBA	2A	2	0
1	X	SV41244	SURVIVAIR	2.2	1	0
4		SCBTL	SCOTT BTL	2A	4	0
166		7580P100	HEPA CARTRIDGES	REG	166	0
	X	N75003	OV/CH CARTRIDGES	REG	0	0
169		N75001	OV CARTRIDGES	REG	169	0
19	X	N7587P10	AMMONIA CARTRIDGES	REG	19	0
72		75SCP100	DEFENDER CARTRIDGES		72	0
19	X	75852P10	MERCURY CARTRIDGES		19	0
80		8210	DUST MASK		80	0
21		7853P100	OV/AG CARTRIDGES		21	

MISC MATERIALS

216		NA398	DUCT TAPE		216	0
4		RA5010	RAGS COLORED		4	0
	X	RGLF	RAGS LINT FREE		0	0
95		PB5G	BUCKETS POLY	5G	95	0
100	X	BC15	BUNGIE CORDS	15"	100	0
22		P620C	POLY SHEETING	6MIL	22	0
5		P1020C	POLY SHEETING	10MIL	5	0
1000		ADS4	FLEX HOSE 31.5FT	4X100	1000	0
475	X	ADS6	FLEX HOSE	6X100	475	0
120		ADS8	FLEX HOSE	8X20	120	0
700		D63863B8	DRUMLINERS	6MIL	700	0
	X	R38T6	TRUCK ROPE	600	0	0
192		AC27866	UTILITY KNIVES		192	0
156		D3596072	D35 LINERS		156	0
117	X	R2299066	R22 LINERS		117	0
220		FD50	QUICKSORB	50LB	220	0
300		E100	ABSORBANT PADS	100	300	0
100		E510	ABSORBANT BOOM	5X40	100	0
200		E810	ABSORBANT BOOM	8X40	200	0
	X	MSGW	GEAR WIPES	200	0	0
26		BT2000C	CAUTION TAPE	2000'	26	0
	X	BT2001D	DANGER TAPE	2000'	0	0
	X	2V556	LANTERN 6V	6V	0	0
	X	2V423	BATTERY 6V	6V	0	0
	X	2V554	FLASHLIGHT	2D	0	0
	X	2V821	BATTRIES D	2	0	0
		2V533	BATTRIES AAA	AAA	0	0
	X	2V422	BATTRIES AA	AA	0	0
	X	2V822	BATTRIES C	C	0	0
	X	VERM30	VERMICULITE	30LB	0	0
	X	7102	KNEE PADS	REG	0	0
	X	TUBUT	UTILITY TUB		0	0
	X	BO5	GASKET	2"	0	0
	X	BO7	GASKET	3"	0	0
	X	BO8	GASKET	4"	0	0
	X	BO10	GASKET	6"	0	0
	X	B1.5	GASKET	11/2"	0	0

X	HF93	HAZWASTE LABELS		0	0
X	HF32	NON-HAZ WASTE		0	0
X	HF5	NON-FLAM GAS		0	0
X	HF6	FLAMMABLE LIQ		0	0
X	HF8	CORROSIVE		0	0
X	HF12	POISON		0	0
X	HF90	CLASS 9		0	0
X	HF24	EMPTY		0	0
X	HF31	THIS SIDE UP		0	0
X	HF9	OXIDIZER		0	0
	2BD-1033	PH PAPER		0	
	1A-31795	MITYLITE EXP PROOF	2A	0	
	TPCLR LG	TIP CLEANERS	LONG	0	
	1YDSAK	SUPER SACKS	1YD	0	

DRUMS

X	CPIA2	DRUMS OPEN TOP	55	0	0
X	CP1A1	DRUMS CLOSED TOP	55	0	0
X	CP1A1Y1	DRUM CLOSED TOP POLY	55	0	0
X	CPY1.5	DRUM CLOSED TOP POLY	15	0	0
X	DOTBUC	BUCKET DOT	5	0	0
X	CP1H2	DRUM OPEN TOP POLY	30	0	0
X	OT30M	DRUM OPEN TOP METAL	30	0	0
X	EP2	PALLET BOXES	1YD	0	0
X	CP1H1	DRUM OPEN TOP POLY	55	0	0
X	OTP14	DRUM OPEN TOP POLY	14	0	0
X	OVPKPL	DRUM OVER PK POLY	85	0	0
X	OVPKMT	DRUM OVER PK METAL	85	0	0
X	DRFIB4	FIBER DRUMS	4'	0	0
X	CAR5	CARBOYS	5	0	0
X	CT 30M	DRUMS CLOSED TOP METAL	30	0	0
	CT30P	DRUMS CLOSED TOP POLY	30	0	

EQUIPMENT

X	BIND	CHAIN BINDERS		0	0
X	MCWC	WATER COOLER	5G	0	0
X	MSCH	TRUCK CHAINS	20'	0	0
X	CHLDR	CHAIN LADDER		0	0
X	PALPUL	PALLET PULLER		0	0
X	DAE1	4 GAS METER		0	
X	GX201	GASTEC		0	0
X	RAEPLUS	RAE METER LEL/PID		0	0
X	HAZCAT	HAZCAT KIT		0	0
X	OVPID	OVM/PID METER		0	0
X	DR2	DRAIGER		0	0
X	4YF98	EYE WASH GRAVITY		0	0
X	HBFB	HYDROBLAST FOOT PEDAL		0	0

X	5T454	FOOT GUARDS		0	0
X	HBGN	HYDROBLAST GUN		0	0
X	HTROH	ROTO HAMMER		0	0
X	HTIG	IMPACT GUN		0	0
X	CTOF1	CUTOFF SAW		0	0
X	EC100	EXTENSION CORD		0	0
X	GFI	GROUND FAULT		0	
X	TPR	RED TARPS	18'	0	0
X	TPBL	BLUE TARPS	16'	0	0
X	TPBRN	BROWN TARP	22'	0	0
X	TPBLK	BLACK TARPS	35'	0	0
X	TPNIT	KNIT TARPS	20YD	0	0
X	TPNIT40	KNIT TARPS	40YD	0	0
X	HTFSL	FLAT SHOVEL LONG		0	0
X	HTRLS	ROUND SHOVELS LONG		0	0
X	HTPK	RAILROAD PICK		0	0
X	HTBRS	BROOM STIFF		0	0
X	HTFS	FLAT SCRAPER LONG		0	0
X	AE542AW	LANYARD	6'	0	0
X	AE550AW	LANYARD DBL	6'	0	0
X	AEDRING	D STRAPS	3'	0	0
X	DB3270XL	FULL HARNESS	XL	0	0
X	136D-50	LIFELINE	50'	0	0
X	TRIP	TRI-POD		0	0
X	6AC26	SAWZALL		0	0
X	2Z051	SKILL SAW WORM		0	0
X	DDP31	DOUBLE DIAPH PUMP	3"	0	0
X	DDP33	DOUBLE DIAPH PUMP	3"	0	0
X	DDP34	DOUBLE DIAPH PUMP	3"	0	0
X	DDP35	DOUBLE DIAPH PUMP	3"	0	0
X	DDP36	DOUBLE DIAPH PUMP	3"	0	0
	DDP37	DOUBLE DIAPH PUMP	3"	0	
X	DDP38	DOUBLE DIAPH PUMP	3"	0	
X	DDP21	DOUBLE DIAPH PUMP	2"	0	0
X	DDP22	DOUBLE DIAPH PUMP	2"	0	0
X	DDPLY22	DOUBLE DIAPH PUMP POLY	2"	0	0
X	LTZPI	LUTZ PUMP	1"	0	0
X	HPD	DISPOSABLE PUMP HAND	1"	0	0
X	4P903	SUB PUMP	3/4"	0	0
X	WHEB	WHEELBARROWS		0	0
X	2P592	PRESSURE WASHER GUN		0	0
X	STGLT	STRING LIGHT	100FT	0	0
X	HTHOE	GARDEN HOE		0	0
X	HTSQEE	SQUEEGE	36"	0	0
X	SHPVC	SHOP VAC		0	0
X	HDSPR	SPRAYERS		0	0
X	HILROL	HILLMAN ROLLERS	8000#	0	0
X	SLGG	SLUDGE JUDGE		0	0
X	4LT58	WEEDEATER		0	0
X	SAWCH	CHAINSAW		0	0
X	CONBOM	CONTAINMENT BOOM	8"	0	0
X	CONBOM	CONTAINMENT BOOM	4X50	0	0

X	SP1418	SEWER PLUGS	14X18	0	0
X	SP8X12	SEWER PLUGS	8X12	0	0
X	CP20	COPPUS BLOWER	20"	0	0
X	RF16	COPPUS BLOWER	16"	0	0
X	RKMETAL	RAKES METAL		0	0
X	3012YSW	TRUCK STRAPS	4X30	0	0

HOSES

X	HSGH	GARDEN HOSE	3/4X50	0	0
X	HSAH	AIR HOSE CHICAGO	3/4X50	0	0
X	HBLAS	HYDRO BLAST HOSE	1/2X50	0	0
X	FH11/2	FIRE HOSE	11/2X50	0	0
X	FH21/2	FIRE HOSE	21/2X50	0	0
X	HST2	TANKER HOSE	2X20	0	0
	HST3	TANKER HOSE	3X20	33	0
X	HST4	TANKER HOSE	4X20	0	0
X	HST6	TANKER HOSE	6X10	0	0
X	HST6F	TANKER HOSE KANAFLEX	6X20	0	0
X	PWH	PRESSURE WASHER HOSE	1/2X50	0	0
X	HSC250	TANKER HOSE CERTIFIED	2X50	0	0
X	HSC250FL	TANKER HOSE CERT FLANGED	2X50	0	
X	HSC225FL	TANKER HOSE CERT FLANGED	2X25	0	
	FLSTL610	STEEL FLEX	6X10	0	

FITTINGS

X	20A	MALE CAMXFPT	2	0	0
X	20F	MALE CAMXMPT	2	0	0
X	20DP	DUST PLUG	2	0	0
X	20D	FMCAMXFPT	2	0	0
X	20B	FMCAMXMPT	2	0	0
X	20DC	DUST CAP	2	0	0
X	20C	FMCAMXHOSE	2	0	0
X	20E	MALECAMXHOSE	2	0	0
X	30A	MALECAMXFPT	3	0	0
X	30F	MALECAMXMPT	3	0	0
X	30DP	DUST PLUG	3	0	0
X	30D	FMCAMXFPT	3	0	0
X	30B	FMCAMXMPT	3	0	0
X	30DC	DUST CAP	3	0	0
X	30C	FMCAMXHOSE	3	0	0
X	30E	MALE CAMXHOSE	3	0	0
X	40A	MALE CAMXMPT	4	0	0
X	40F	MALECAMXMPT	4	0	0
X	40DP	DUST PLUG	4	0	0
X	40D	FMCAMXFPT	4	0	0
X	40B	FMCAMXMPT	4	0	0
X	40DC	DUST CAP	4	0	0
X	40C	FMCAMXHOSE	4	0	0
X	40E	MALECAMXHOSE	4	0	0

X	60A	MALECAMXMPT	6	0	0
X	60F	MALECAMXMPT	6	0	0
X	60DP	DUST PLUG	6	0	0
X	60D	FMCAMXFPT	6	0	0
X	60B	FMCAMXMPT	6	0	0
X	60DC	DUST CAP	6	0	0
X	60C	FMCAMXHOSE	6	0	0
X	60E	MALECAMXHOSE	6	0	0
X	20AAB	DBL MALE CAMLOCK	2	0	0
X	20DDA	DBL FMCAMLOCK	2	0	0
X	30AAB	DBL MALE CAMLOCK	3	0	0
X	30DDB	DBL FMCAMLOCK	3	0	0
X	40AAAL	DBL MALE CAMLOCK	4	0	0
X	40DDAL	DBL FMCAMLOCK	4	0	0
X	60AAAL	DBL MALECAMLOCK	6	0	0
X	3020DAB	REDUCER BRASS	3X2	0	0
X	4030DAB	REDUCER BRASS	4X3	0	0
X	6040DAB	REDUCER BRASS	6X4	0	0
X	HA2515F	ADAPT 21/2FF X 11/2 MFT		0	0
X	FM1515F	ADAPT 11/2FF X 11/2MPT		0	0
X	FM15F15T	ADAPT 11/2FPTXMFT		0	0
X	HA2576	ADAPT 21/2FFTX3/4GHT		0	0
X	AL620	ALUMINUM PIPE	6X20	0	0
X	AL610	ALUMINUM PIPE	6X10	0	0
X	AL690	90 DEG ELBOW	6	0	0
X	BL220-6	45DEG ELBOW	6	0	0
X	AL6T	TEE ALUMINUM	6	0	0
X	HR610	HARD RUBBER HOSE	6	0	0
X	BL300-86	REDUCERS	8X6	0	0
X	BL6FM	FEMALE ENDS RINGLOCK	6	0	0
X	BL6M	MALE ENDS RING LOCK	6	0	0
	CL6	CLAMPS 6"	6"	0	

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VEHICLE INFORMATION

UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
1101					
1102	TRACTOR	1XP9D29X4CP151120	9B80964	CA	82 PTRB
1103	TRACTOR	1FUPYSYBOEP239838	9B15101	CA	84 FRHT
1104	60BBL	1XP9D29X9CD152748	6X37847	CA	82 PTRB
1105	60BBL	1XP9D29X4BD200302	6H19209	CA	81 PTRB
1106	TRACTOR	1XP9D29X7DP157592	9B80963	CA	83 PTRB
1107	TRACTOR	1XP9D29X2DP157595	9B80967	CA	83 PTRB
1109	ROLL-OFF	2HSFBADR4JCO15654	4Y30653	CA	88 INTER
1110	ROLL-OFF	1XP9D29X5CP151126	5E95042	CA	82 PTRB
1111	TRACTOR	1HTD2137XBGB19569	3F19578	CA	81 INTL
1112	60BBL	1HSRDWGR9GHB13499	5M23830	CA	86 INTER
1114	TRANSFER	1XPCL29X2KD274181	CP36916	CA	89 PTRB
1114A	TRAILER	1H3UO2328K1000807	4BC8991	CA	89FRUE
1115	ROLL-OFF	1M2K116C2FM001399	5C95152	CA	85 MACK
1116	60BBL	1XP9D28X3CD200455	6S19725	CA	82 PTRB
1117	ROLL-OFF	1FUYDCYB2LH359668	6M33844	CA	90 FRHT
1118	ROLL-OFF	1FUYDCYB4LH359669	9B91253	CA	90 FRHT
1119	60BBL	1XP9D29XOHN207007	5X85578	CA	87 PTRB
1120	TRACTOR	1XP9D29XOHN207010	7P15041	CA	87 PTRB
1121	TRACTOR	1XP9D29X8HN207014	7P15042	CA	87 PTRB
1122	TRACTOR	1XP9D29X3HN207020	7P15043	CA	87 PTRB
1123	70BBL	2HSFBWER3GCA13949	6X37846	CA	86 INTER
1124	TRACTOR	1XPCDR9X1LN291510	SP42890	CA	90 PTRB
1125	TRACTOR	1XPCDR9X7LN291513	SP42891	CA	90 PTRB
1126	60BBL	1XPFDE9X4LD301121	5X85579	CA	90 PTRB
1128	TRACTOR	1XPCDR9X2RD340258	SP53947	CA	94 PTRB
1129	36BBL	1FDXD8OU8FVA11310	CP66215	CA	85 FORD
1130	70BBL	1FUPTCYB9JP335255	18192A	NV	88 FRHT
1131					
1132	TRACTOR	T49FK9V627180	18193A	NV	79 GMC
1133	TRACTOR	1FUEYBYB4EP225965	17992A	NV	84 FRGT
1134	TRACTOR	1XPCDR8X6TN368521	17993A	NV	96 PTRB
1135	TRACTOR	1XPCDR8X3TN368525	17994A	NV	96 PTRB
1136	TRACTOR	1XPCDR8X7SN377937	17995A	NV	95 PTRB
1137	TRACTOR	1XPCDR8X9SN377938	17996A	NV	95 PTRB
1138	TRACTOR	1XPCDR8X6TN368518	SP53806	CA	96 PTRB
1139	TRACTOR	1XPCDR8X3TN368511	SP88859	CA	96 PTRB

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VEHICLE INFORMATION

UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
1140	TRACTOR	1XPCDR8X6TN384714	SP64489	CA	96 PTRB

1141	TRACTOR	1XPCD68X3TN403515	SP64488	CA	96 PTRB
1142	TRACTOR	1XPCD68X5TN403516	18545A	NV	96 PTRB
1143	TRACTOR	1XPCD68X7TN403517	SP53824	CA	96 PTRB
1144	TRACTOR	1XPCDR8X7TN402319	SP53825	CA	96 PTRB
1145	TRACTOR	1X PFD89X 1ND313969	9B80973	CA	92PETE
1146	TRACTOR	4VG7DAJH3WN750296	UP20027	CA	98VOLVO
1147	TRACTOR	4VG7DEPG3WN745136	UP20028	CA	98VOLVO
1148	TRACTOR	4VG7DEPGOXN764261	UP32705	CA	98VOLVO
1149	TRACTOR	4VVNDIUG3YN778738	UP62281	CA	99VOLVO
1177	ROLL OFF	1FUEYSYB8EP243742	CP62282	CA	84FRIEGHT
1178	ROLL OFF	700527	7H27419	CA	80 PTRB
1179	ROLL OFF	3QPFPMT032174	5T55361	CA	79 WHT
1180	ROLL OFF	1XPBD98X4RN362205	18544A	NV	94 PTRB
1180A	ROLL OFF TRL	1A9230332N0074392	4AY1592	CA	92 ACE
2201	120 PONY	1T9TE3824L1068994	4CW6539	CA	90 THSON
2202	120 BRL TANKER	1P9TCC207F1021042	4BK3798	CA	85 PETRO
2203					
2204					
2205	120 BRL TANKER	CA81PVS125	4BC9113	CA	81 PACIC
2206	120 BRL TANK PONY	1P9TAAZ04010Z1001	4BC9573	CA	82 PETRO
2207	120 BRL TANKER	1T9TE3827F1068640	4DU3097	CA	85 THSON
2208	120 BRL TANKER	1T9TE3820F1068673	4AB3686	CA	85 THSON
2209	120 BRL TANKER	1P9TCA202K2021156	4BC 9038	CA	89 PETRO
2210	130 BRL TANKER	2001	4AY1731	CA	81 THOM
2211	120 BRL TANK PONY	1585	4AY1732	CA	75 THOM
2212	120 BRL TANKER	T764670106	4AY1593	CA	81 THOM
2214	130 BRL TANK HYD	1OBHV6213EF007204	4BK3721	CA	84 BRENN
2215	130 BRL TANK HYD	10BHV6217EF007173	1WK4135	CA	84 BRENN
2217	120 BRL VACUUM	1T9TE3829F1068641	4BC9141	CA	85 THOM
2218	120BRL VACUUM	2P9S1528941005025	4EG7588	CA	04PRESVAC
2219	120BRL VACUUM	2P9S152804005026	4EG7589	CA	04PRESVAC
3301	SGL ROLL OFF	1B910862440128FRG	4BK3709	CA	87 BOBK
3302	SGL ROLL OFF	1B9K1302XLB128318	4BC9271	CA	90 GALB
3303	DBL ROLL OFF	1A9232018S0074195	4BH4277	CA	95 ACE
3304	DBL ROLL OFF	1A9229151L0074490	4BF4373	CA	90 AMCA
3305	SGL ROLL OFF	811772	4BK3543	CA	82 GALBR
3306	SGL ROLL OFF	811773	4BK3544	CA	82 GALBR
3307	DBL ROLL OFF	13N140203G1540058	4DM7030	CA	86 FONTA
3308	DBL ROLL OFF	1A9235966Y0074799	4AY1594	CA	00 ACE
3309	DBL ROLL OFF	1A9235975Y007499	4AY1595	CA	00 ACE

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VEHICLE INFORMATION

UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
3310	DBL ROLL OFF	1A9229919M0074191	4DE2132	CA	91 ACE
3311	DBL ROLL OFF	1A9226960J0074988	4DE2133	CA	88 ACE

3312					
3313					
3314					
3315					
4401	GUZZLER	4V2JCBJE9LR804912	4T74408	CA	90 WHG
4402	GUZZLER	4GDV9C4W2KV801640	5M42957	CA	89 WHG
4403	GUZZLER	1GDT9CW2GV501208	5U71113	CA	86 GMC
4404	GUZZLER	1FDZW9OL6JVA33993	5M23829	CA	88 FORD
4405	GUZZLER TRL	PM4800070987	4AY1596	CA	TRL MT
4406	GUZZLER TRL	PM4800070285	4AY1597	CA	TRL MT
4407	GUZZLER TRL	482200010255	4AY1636	CA	85 GUZZ
4408	FORD GUZZLER	1FDZW90T9SVA20818	17997A	NV	95 FORD
4409	FORD GUZZLER	1FDZW90T7SVA20820	18721A	NV	95 FORD
4410	GUZZLER	4GDV9C4W8KV801108	7T17518	CA	88GMC
4411					
4412					
4413					
4414					
4438					
5501	COZAD	CC82046	4AB4947	CA	82 COZAD
5502	40' BOX VAN	35999	1UH3293	CA	74 TIMP
5503	40'BOX VAN	35994	1UH7551	CA	74 TIMP
5504	40' FLTBED	1GRDM9029GM023846	4DM7041	CA	86 GDAN
5505	27' TILT	1ZCE30B20HPZP13523	4BK3514	CA	87 ZEMAN
5506	VAN OR FLAT BED	16VPX1820N1H29534	1GX3413	CA	92 BTEX
5507	ER BOOM TRL				
5508	ER TRL	1WC200R24P2021071			93 WELLS
5509	45' DROP DECK	1UYFS2486FA332707	4BC9234	CA	85 UTIL
5510	45' DROP DECK	1D9BG4821T1208529	4DM7039	CA	96 DOONA
5511	45' VAN LIFT GATE	1PTG1JAH2P9010167	4AY1598	CA	93 TRLM
5512	WELLS CARGO TRL	1WC200J23X4035608	35340T	NV	99 WLS
5514	VAN OR FLAT BED	B09150	1WF6798	CA	78 GDAN
5515	WELLS CARGO TRL	1WC200J27X4037488	4FH3799	CA	99 WELLS
5516	48' BOX VAN	1H2V04821PE022211	4CM4846	CA	93 FRUEH
5517	48' BOX VAN	1H4V04822KJ024444	4BC9283	CA	89 FRUEH

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VEHICLE INFORMATION

UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
5518	48' BOX VAN	1H4V04822KJ024427	4BC9282	CA	89 FRUEH
5519	48' BOX VAN	1H2V04822LB001122	4BC9297	CA	89FRUEH
5520	48' BOX VAN	1H2V04822LB000701	4BW6893	CA	89FRUEH
5521	KSCO POLY TK TRL	1K9AK1217UB025036	94862L	NV	97KSCO
5522	CARGO SPORT TRL	4FPFB1011XG029103	SBH080	MI	PACE
6601	FUEL TRUCK*F250	1FTEF25Y5RLA25776	4V50360	CA	94 FORD
6602	PICK UP*3500	1GTGC34K9JE536324	5B75345	CA	88 GMC
6603	PICK UP*F-150	1FTDF15N2SLA11884	5F82952	CA	95 FORD
6604	PICK UP	1FDKF37LOHKB00183	4T74481	CA	87 FORD

6605	PICK UP	2FTHF25H1LCB40633	4T39421	CA	90FORD
6606	PICK UP*F250 S/D	1FTNX21L5YEC47566	6E90889	CA	00 FORD
6607	PICK UP	1GBJC34MOGJ175691	2X01559	CA	86 CHEV
6608	PICK UP*F250 S/D	1FTNX21L3YEC47565	6F40715	CA	00 FORD
6609	PICK UP	2FTHF25G7MCA29013	4M96925	CA	91 FORD
6610	PICK UP	1FTHF2519HPA27473	2X61862	CA	87 FORD
6611	sold	JT4RN55ROH7021284	5M42956	CA	87 TOYO
6612	PICK UP*F-150	1FTEF15N2KPA99431	3W31218	CA	89 FORD
6614	PICK UP	2FTJW35H8LCA61791	4A28520	CA	90 FORD
6615	PICK UP*F150	2FTEF15YXSCA44382	7P15170	CA	95 FORD
6616	PICK UP	CCL339V118162	4T10334	CA	79 CHEV
6617	PICK UP			CA	
6618	PICK UP	1FTFF25Y6JPA23729	5C95153	CA	88 FORD
6619	sold	1GCGC24M9EJ180143	2K66449	CA	84 CHEV
6620	PICK UP*F-250	1FTEF25Y7TLA04399	5E56507	CA	96 FORD
6621	PICK UP*F-250	1FTEF25NXTLA05231	5F12127	CA	96 FORD
6622	PICK UP*F-350	2FDKF3710FCA72966	3W79127	CA	85 FORD
6623					
6624					
6625	PICK UP*F-350	2FTJW35G2PCB17009	6S19561	CA	93 FORD
6626	PICK UP*F-250	1FTEF25HOTLB38803	5H57764	CA	96 FORD
6627	PICK UP*F150	1FTDF15Y5NLA93348	5K61150	CA	92 FORD
6628					
6629	STAKE F-F350	2FDLF47G2NCA65188	4M52058	CA	92 FORD
6630					
6631					
6632	PICK UP*F150	2FTEF15NXPCA69876	5M83169	CA	93 FORD
6633	PICK UP*F150	1FTDX1763VKC44699	5M58002	CA	97 FORD
6634	PICK UP*F150	1FTEX18L4VKC24115	5M58003	CA	97 FORD
6635	PICK UP*F150	1FTDX1768VKA45132	5T60286	CA	97 FORD

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VEHICLE INFORMATION

UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
6636	PICK UP	1FTDF1725VKD21346	5P16741	CA	97 FORD
6637	PICK UP*F-250	1FTRF27L1WKA20076	5R17889	CA	98 FORD
6638	PICK UP*F-250	1FTRF27L1WNA65100	5R55656	CA	98 FORD
6639	CREWCAB S/DF250	1FTNW20L3XEA34859	5U09818	CA	99 FORD
6640	CREWCAB S/DF250	1FTNW20LXXEA34860	6S19562	CA	99 FORD
6641	PICK UP*F150	1FTZF1720XKA21352	5X49535	CA	99 FORD
6642	MINI VAN	2FMZA5149WBE35816	4CMM997	CA	98 FORD
6643	DUAL F-350 S/D	1FTWW32S2XEC76041	5X63180	CA	99 FORD
6644	SUV EXPEDITION	1FMRU1861XLA84859	4EBC393	CA	99 FORD
6645	PICK UP*F150	1FTZF1728XKA77197	5Y19135	CA	99 FORD
6646	CREWCAB S/DF250	1FTNW20LXXEC97284	5Y19132	CA	99 FORD

6647	CREWCAB S/DF250	1FTNW20L1XEC97285	937MTY	NV	99 FORD
6648	CREWCAB S/DF250	1FTNW20L5YEA48876	6D18137	CA	99 FORD
6649	PICK UP*F150	1FTZX17Z24WKB86543	5X03686	CA	99 FORD
6650	4X4 F-150	1FTRX18W4XKB00313	770JZR	NV	99 FORD
6651	EXTENDED F-150	1FTRX18W8XKB78111	751JZR	NV	99 FORD
6652	PICK-UP*F150	1FIRF17L4XKB70386	6B37779	CA	99 FORD
6653	EXTENDED F-150	1FTRX17WXXKB05338	6B55996	CA	99 FORD
6654	EXTENDED F-150	1FTRX17W6XKC17005	6C04593	CA	99 FORD
6655	PICK UP	1FTNW2162YEB06909	797KNH	NV	00 FORD
6657	PICK UP*F250 S/D	1FTNX21L9YEE04421	6J37801	CA	01FORD
6656					
6658	CREWCAB S/DF250	1FTNW20L91EB71005	6M68559	CA	01FORD
6659	4X4 F-150	1FTRW08L31KA77164	6N82875	CA	01FORD
6660	CREWCAB S/DF250	1FTNW20L01EB71006	6S00601	CA	01FORD
6661	CREWCAB S/DF250	1FTNW20L52EC50981	6W81576	CA	02FORD
6662	SERVICE F350	2FDKF37MOJCA65597	3P82775	CA	90FORD
6663	4X4 F-150	1FTRW08L13KC30580	7C73479	CA	03FORD
6664	PICKUP*F150	2FTRF17244CA81196	7M09812	CA	04FORD
6665	CREWCAB S/DF250	1FTNW20L84ED83866	7P74200	CA	04FORD
6666					
6667	PICK UP-F150	2FTRF17244CA46853	7N87903	CA	04FORD
6668	PICK UP-F150	2FTRF17244CA69534	7R24837	CA	04FORD
6669	4 X 4 F-150	1FTPW14504KC57503	7M63397	CA	04FORD
6670	EXTENDED F-150	1FTRX17L22NB82864	6Z25156	CA	02FORD
6671	PICK UP -F150	FTRF12W25KB99741+C3	7v27717	CA	05FORD
6672	SERVICE F350	2FDHF37M1NCA85082	4P42923	CA	02FORD
6673	dodge	1B7MF3369XJ649463	7U44564	CA	99DODGE

11/14/2005	UNIVERSAL ENVIR0NMENTAL FLEET MAINTENANCE

VEHICLE INFORMATION

UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
6880	LIFT GATE / GEAR	VG6M111B2HB027488	4v73265	CA	87 MACK
6881	LIFT GATE / GEAR	J8DB4B1H3K7004436	3Z51458	CA	89 GMC
6882	LIFT GATE / GEAR	1GDL7H1J5MJ522245	5G66896	CA	91 GMC
6883	LIFT GATE / GEAR	1HTSDZ4N4LH293238	5E67756	CA	90 INTL
6884	LIFT GATE / GEAR	1FDLF47FOREA44086	6F92547	CA	94 FORD
6885	LIFT GATE / GEAR	1FDLF47FXREA44080	5M83162	CA	95 FORD
6886	LIFT GATE / GEAR	2FDKF37G5SCA12406	7A23567	CA	95 FORD
6887	GEAR TRUCK	1FDWF37SXXEB80226	5X23751	CA	99 FORD
6888	LIFT GATE / GEAR	1FDXF80C9SVA72452	17998A	NV	95 FORD
6889	GEAR TRUCK	1FDWF36S7XEB80072	7J27837	CA	99 FORD
6890	GEAR TRUCK	1FDWF36S8XED80081	6UO8446	CA	99 FORD

7701	FORK LIFT / MISC	CH4801137961166		N/A	CLARK
7702	HYD PRES	SR 9401017	MD JM 40	N/A	MARATHON
7703	FORKLIFT	C68583		N/A	DEKA ELE
7704	FORK LIFT / MISC	FG14P11/ G87016		N/A	YALE
7705	FORK LIFT / MISC	CY80119644265		N/A	66 CLARK
7706	FORK LIFT / MISC	Y408394		N/A	85 YALE
7707	FORK LIFT		N/A	N/A	MARK
7708	FORKLIFT	D177B09089R			HYSTER
7709	FORKLIFT	42-6FGU25**66682			TOYOTA
7708					
7709					
7710					
7711					
7712					

11/14/2005	UNIVERSAL ENVIRONMENTAL FLEET MAINTENANCE

VEHICLE INFORMATION

UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
3	SALES CARS	S O L D 1/00		CA	94 TAURUS
5	SALES CARS				
10	SALES CARS	1FALP52U7VG242665	3WAB179	CA	97 TAURUS
12	SALES CARS	2G1WL52M8T9205969	3SHB768	CA	96 CHEV
20	SALES CARS	1FALP52UOVG254754	3WAB175	CA	97 TAURUS
21	SALES CARS	1FAFP53SOVA314256	4HGR134	CA	99 TAURUS
22	SALES CARS	1FAFP53UXXG178183	768JZR	NV	TAURUS
23	SALES CARS	1FAFP53S4XA222695	769JZR	NV	TAURUS
24	SALES CARS	1FAFP53U6XG202401	4FWX631	CA	99 TAURUS
25	SALES CARS	1FAFP55S1YG282302	4NFS378	CA	00TAURUS
26	SALES CARS	1FAFP55S5YG291357	4NHV354	CA	00TAURUS
27	SALES CARS	1FAFP55U82G146144	4TXB928	CA	02TAURUS
28	SALES CARS	1FAFP55U72G167356	4UKD698	CA	02TAURUS
29	SALES CARS	1FAFP55U82A153095	4TNP829	CA	02TAURUS
30	SALES CARS	1FMDU35P1VZB28254	3WXB216	CA	97 EXPLOR
31	SALES CARS	1FAFP55S84G200687	5MLY664	CA	04TAURUS
32	SALES CARS	1G2WR5210YF264951			01 G PRIX
7715					

8850	END DUMP	1C9BB35B9JM110130	4BF3860	CA	88 CLEM
8851	END DUMP	1C9BB34B5GM110149	4BK3859	CA	86 CLEM
8852	END DUMP	FHV781001	4BC9468	CA	80 HOBB
8853	END DUMP	1C9BB35BFM110055	4BC9241	CA	85 CLEM
8854	END DUMP	1C9BB38B4SM110372	4BC9204	CA	95 CLEM
8855	END DUMP	1C9BB38B2RM110414	4BC9203	CA	94 CLEM
8856	END DUMP	1C9BB34B96M110147	4BH5938	CA	90 CLEM
8857					
8858	COMPRESSOR	A1P230004			95 ATLAS
8859	D/TRUCK	1FDNF70H8CVA38825	5T60287	CA	82 FORD
8860	EXCAVA	6280378			CASE
8861	COMPRESSOR	18674A			SULLIVAN
8862	COMPRESS	3511165			
8863	HORSE	32305	4CX4784	CA	74 MILEY
8864	CHIPPER				
8865	GARBAGE	1CYCAC280FT033889	5C03315	CA	85 CR/CA
8866	BOBCAT	5026-M-21-751			
8867	CRANE	39491			P / H
8868	B/HOE	X9158193X			780 CASE
8869	GRADER				

UNIVERSAL ENVIRONMENTAL FLEET MAINTENANCE

VEHICLE INFORMATION

UNIT#	UNIT TYPE	VEHICLE VIN OR ID#	LICENCE	STATE	YR/MAKE
8870	JOB TRL	1M9CT3025JV295010	1BT5500	CA	MDLR
8871					
8872	V ROLLER				
8873	B/HOE	T0310DA790570	N/A	N/A	JOHNDEER
8875	GARBAGE TRUCK	4V2HCFMD2KN503994	7P15066	CA	9WHTEGMC
9900	WATER TRAILER	1B9TS1223RR360004	SE460780	CA	SPCON
9901	HYD BLAST	18423	SE516663	CA	NLB
9902	SEW JET	F80BVFC5544	4R68746	CA	79 FORD
9903	WINCH	3000106	SE390483	CA	SPMBL
9904	PRES WASHER	SE311465	SE317785	CA	
9905	PRES WASHER	CA633170	SE384681	CA	SPCNS
9906	SEWER JET	1GBL7DB7BV120727	4W00193	CA	81 CHEV
9907	H/B		N/A	N/A	NLB
9908	SEWER TRUCK	TPL3573606374			77 GMC
9909	TRENCHER				
9910	BLASTER	8913301	SE516665	CA	NLB
9911	VACTOR	N80KVHB1567	5Y61121	CA	80 FORD
9912	SEWER JETTER	4V2JCBME5PR818808	CP69732	CA	92 WHITE
9914	SEWER JETTER	1FDXR70V6BVJ15023	6K16668	CA	81 FORD
9915	SEWER JET TRL	WMTR-83152	SE511665	CA	84 SRECO
9916	SEWER JETTER	1GDP7H2J9MJ505143	CP41202	CA	91 GMC
9917	200GL SPRAYER	15370	SE389391	CA	MITCH
9918	CHIPPER	1W9F61012SS200301	SE444351	CA	WOODC
9919	CAMERA TRUCK	1FDXE47F6XHB36884	CP69730	CA	99 FORD
9920	MOTOR HOME	1GBKP37W5F3330244	1NFF354	CA	85 ELDOR

9921	SEWER JETTER	1FDYR82A1LVA38840	CP66075	CA	90FORD
9922					
9923					
9924					
9925					
9926					
9927					
9928					
9929	CAMERA TRUCK	1FDKE37M4PHB98643	CP66076	CA	93 FORD
9930	STREET SWEEPER	JBDM7A1NXL3202472	5Y75225	CA	90 GMC
9975	MANLIFT		1000 LBS	15E	MARKLIFT

UNIVERSAL ENVIRONMENTAL FLEET MAINTENANCE					
		VEHICLE INFORMATION			
UNIT #	UNIT TYPE	VEHICLE VIN OR ID #	LICENSE	STATE	YR / MAKE
		VEHICLE INFORMATION			
H202	ROW BOAT	HUL01500J697	CF 5958 PJ	CA	96 VALCO
H201	ROW BOAT	GEN3841JC898	CF 5959 PJ	CA	98 GIII
N/A	MOTORCYCLE		14U1277	CA	HARLEY
H203	RUNABOUT	BULJ35002D292	CF 4670 NC	CA	TRACKER
50	BOAT TRAILER	4TM11BE14PB001244	4BF4619	CA	TRACK
51	MUSTANG	1FALP42D2SF189627		CA	95 FORD
52	CHEVY PICK UP	20KPJ5731	6W43029	CA	52 CHVY
79	JEEP CJ5	J9M83AC100161	1JIW359	CA	79JEEP
55	BRONCO	U15HLBG7105	066-MUR	NV	79FORD
87	JEEP WRANGLER	2BCCV8140HB537655	4SMD097	CA	87AMER
OR001	QUAD RUNNER	JY42VYA03JC004341	U10E90	CA	88 YAMA
h204	ROW BOAT	ACBD3180A505	CF2898KX		051436LT

4.0 SPILL IMPACT CONSIDERATIONS

4.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil. The Federal, state, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY
• Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species. • Areas which consist of vegetated low banks, freshwater/saltwater marshes, swamps, scrub-shrub wetlands and impact to threatened/endangered species.

MODERATE SENSITIVITY
• Areas of moderate productivity, somewhat resistant to the effects of oiling. • Areas which consist of mixed sand, gravel beaches, bars, gently sloping banks, and no impact to threatened/endangered species.

LOW SENSITIVITY
• Areas of low productivity, man-made structures, and/or high energy. • Areas which consist of gravel, sand, or clay material, barren/rocky shores or banks, man-made structures, concrete/compacted earthen drainage ditches and no impact to threatened/endangered species.

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

To assess adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans (see CD affixed to inside front cover of Volume 1 and the CD Navigation Summary in Figure 4.2)
- Other industry and private experts

The environmental and socio-economic sensitivities in the area have been broken down into specific categories and identified in this section.

4.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

4.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 4.1.

4.3.2 Wildlife Rescue

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

4.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

4.3.2 Wildlife Rescue (Cont'd)

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
  - Use of capture and relocation.

4.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife on their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
  - Outside rehabilitation organizations
  - Local regulatory agencies
  - Other resources

4.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

4.5 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

FIGURE 4.1

ENDANGERED SPECIES LISTING

The following a is list of endangered and threatened species with known or possible occurrence in the States of Arizona, California, New Mexico and Texas by county, (listed alphabetically by Scientific Name).

ANIMALS	
Common Name	**Scientific Name**
Cochise County	
Plover, Mountain	Charadrius Montanus
Rattlesnake, New Mexican Ridge-Nosed	Crotalus Willardi Obscurus
Pupfish, Desert	Cyprinodon Macularius
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Falcon, Northern Aplomado	Falco Femoralis Septentrionalis
Ocelot	Felis Pardalis
Jaguarundi	Felis Yagouaroundi Tolteca
Chub, Yaqui	Gila Purpurea
Pygmy-Owl, Cactus Ferruginous	Glaucidiumbrasilianum Cactorum
Eagle, Bald	Haliaeetus Leucocephalus
Catfish, Yaqui	Ictalurus Pricei
Bat, Lesser (=Sanborn's) Long-Nosed	Leptonycteris Sanborni
Shiner, Beautiful	Notropis Formosus
Jaguar	Panthera Onca
Frog, Chiricahua Leopard	Rana Chiricahuensis
Owl, Mexican Spotted	Strix Occidentalis Lucida
Dona Ana County	
Falcon, Northern Aplomado	Falco Femoralis Septentrionalis
Eagle, Bald	Haliaeetus Leucocephalus
Ferret, Black-Footed	Mustela Nigripes
Owl, Mexican Spotted	Strix Occidentalis Lucida
El Paso County	
Falcon, Northern Aplomado	Falco Femoralis Septentrionalis
Grant County	
Minnow, Loach	Dionda Diablo
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Falcon, Northern Aplomado	Falco Femoralis Septentrionalis
Chub, Chihuahua	Gila Nigrescens
Eagle, Bald	Haliaeetus Leucocephalus
Spikedace	Meda Fulgida
Ferret, Black-Footed	Mustela Nigripes
Shiner, Beautiful	Notropis Formosus
Frog, Chiricahua Leopard	Rana Chiricahuensis
Owl, Mexican Spotted	Strix Occidentalis Lucida
Hildalgo County	
Plover, Mountain	Charadrius Montanus
Rattlesnake, New Mexican Ridge-Nosed	Crotalus Willardi Obscurus
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Falcon, Northern Aplomado	Falco Femoralis Septentrionalis
Eagle, Bald	Haliaeetus Leucocephalus

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

ANIMALS (Cont'd)	
Common Name	**Scientific Name**
Hildalgo County (Cont'd)	
Bat, Mexican Long-Nosed	Leptonycteris Nivalis
Bat, Lesser (=Sanborn's) Long-Nosed	Leptonycteris Sanborni
Spikedace	Meda Fulgida
Ferret, Black-Footed	Mustela Nigripes
Jaguar	Panthera Onca
Frog, Chiricahua Leopard	Rana Chiricahuensis
Owl, Mexican Spotted	Strix Occidentalis Lucida
Imperial County	
Plover, Mountain	Charadrius Montanus
Pupfish, Desert	Cyprinodon Macularius
Chub, Bonytail	Gila Elegans
Tortoise, Desert	Agasizii Gopherus
Eagle, Bald	Haliaeetus Leucocephalus
Pelican, Brown	Pelicanus Occidentalis
Rail, Yuma Clapper	Rallus Longirostris Yumanensis
Luna County	
Plover, Mountain	Charadrius Montanus
Falcon, Northern Aplomado	Falco Femoralis Septentrionalis
Eagle, Bald	Haliaeetus Leucocephalus
Ferret, Black-Footed	Mustela Nigripes
Shiner, Beautiful	Notropis Formosus
Frog, Chiricahua Leopard	Rana Chiricahuensis
Maricopa County	
Pronghorn, Sonoran	Antilocapra Americana Sonoriensis
Pupfish, Desert	Cyprinodon Macularius
Pygmy-Owl, Cactus Ferruginous	Glaucidiumbrasilianum Cactorum
Eagle, Bald	Haliaeetus Leucocephalus
Bat, Lesser (=Sanborn's) Long-Nosed	Leptonycteris Sanborni
Rail, Yuma Clapper	Rallus Longirostris Yumanensis
Owl, Mexican Spotted	Strix Occidentalis Lucida
Pima County	
Pronghorn, Sonoran	Antilocapra Americana Sonoriensis
Plover, Mountain	Charadrius Montanus
Bobwhite, Masked	Colinus Virginianus Ridgwayi
Pupfish, Desert	Cyprinodon Macularius
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Pygmy-Owl, Cactus Ferruginous	Glaucidiumbrasilianum Cactorum
Eagle, Bald	Haliaeetus Leucocephalus
Bat, Lesser (=Sanborn's) Long-Nosed	Leptonycteris Sanborni
Jaguar	Panthera Onca
Frog, Chiricahua Leopard	Rana Chiricahuensis
Owl, Mexican Spotted	Strix Occidentalis Lucida

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

ANIMALS (Cont'd)	
Common Name	**Scientific Name**
Pinal County	
Pupfish, Desert	Cyprinodon Macularius
Minnow, Loach	Dionda Diablo
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Pygmy-Owl, Cactus Ferruginous	Glaucidiumbrasilianum Cactorum
Eagle, Bald	Haliaeetus Leucocephalus
Bat, Lesser (=Sanborn's) Long-Nosed	Leptonycteris Sanborni
Spikedace	Meda Fulgida
Jaguar	Panthera Onca
Rail, Yuma Clapper	Rallus Longirostris Yumanensis
Riverside County	
Salamander, Desert Slender	Batrachoseps Aridus
Shrimp, Vernal Pool Fairy	Branchinecta Lynchi
Tortoise, Desert	Agasizii Gopherus
Plover, Mountain	Charadrius Montanus
Pupfish, Desert	Cyprinodon Macularius
Kangaroo Rat, San Bernardino	Dipodomys Merriami Parvus
Kangaroo Rat, Stephens'	Dipodomys Stephensi
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Butterfly, Quino Checkerspot	Euphydryas Editha Quino
Chub, Bonytail	Gila Elegans
Eagle, Bald	Haliaeetus Leucocephalus
Sheep, Peninsular Bighorn	Ovis Canadensis
Pelican, Brown	Pelicanus Occidentalis
Gnatcatcher, Coastal California	Polioptila Californica Californica
Rail, Yuma Clapper	Rallus Longirostris Yumanensis
Frog, Mountain Yellow-Legged	Rana Muscosa
Fly, Delhi Sands Flower-Loving	Rhaphiomidas Terminatus Abdominalis
Shrimp, Riverside Fairy	Streptocephalus Woottoni
Lizard, Coachella Valley Fringe-Toed	Uma Inornata
San Bernardino County	
Plover, Mountain	Charadrius Montanus
Pupfish, Desert	Cyprinodon Macularius
Tortoise, Desert	Agasizii Gopherus
Kangaroo Rat, San Bernardino	Dipodomys Merriami Parvus
Kangaroo Rat, Stephens'	Dipodomys Stephensi
Flycatcher, Southwestern Willow	Empiodonax Traillii Extimus
Chub, Mohave Tui	Gila Bicolor Mohavensis
Chub, Bonytail	Gila Elegans
Eagle, Bald	Haliaeetus Leucocephalus
Gnatcatcher, Coastal California	Polioptila Californica Californica
Rail, Yuma Clapper	Rallus Longirostris Yumanensis
Frog, Mountain Yellow-Legged	Rana Muscosa
Fly, Delhi Sands Flower-Loving	Rhaphiomidas Terminatus Abdominalis
Yuma County	
Pronghorn, Sonoran	Antilocapra Americana Sonoriensis
Plover, Mountain	Charadrius Montanus
Eagle, Bald	Haliaeetus Leucocephalus
Bat, Lesser (=Sanborn's) Long-Nosed	Leptonycteris Sanborni
Pelican, Brown	Pelicanus Occidentalis
Rail, Yuma Clapper	Rallus Longirostris Yumanensis

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

PLANTS	
Common Name	**Scientific Name**
Cochise County	
Cactus, Cochise Pincushion	Coryphantha Robbinsorum (=Cochiseia R.,Escobaria R
Ladies'-Tresses, Canelo Hills	Spiranthes Delitescens
Dona Ana County	
Cactus, Sneed Pincushion	Coryphantha Sneedii Var. Sneedii
El Paso County	
Cactus, Sneed Pincushion	Coryphantha Sneedii Var. Sneedii
Grant County	
None	
Hildalgo County	
None	
Imperial County	
Milk-Vetch, Pierson's	Astragalus Magdalenae Var. Piersonii
Luna County	
None	
Maricopa County	
Agave, Arizona	Agave Arizonica
Cactus, Arizona Hedgehog	Echinocereus Triglochidiatus Var. Arizonicus
Cliffrose, Arizona	Purshia (=Cowania) Subintegra
Pima County	
Blue-Star, Kearney's	Amsonia Kearneyana
Cactus, Pima Pineapple	Coryphantha Scheeri Var. Robustispina
Cactus, Nichol's Turk's Head	Echinocactus Horizonthalonius Var. Nicholii
Pinal County	
Cactus, Nichol's Turk's Head	Echinocactus Horizonthalonius Var. Nicholii
Cactus, Arizona Hedgehog	Echinocereus Triglochidiatus Var. Arizonicus
Riverside County	
Onion, Munz's	Allium Munzii
Ambrosia, San Diego	Ambrosia Pumila
Milk-Vetch, Coachella Valley	Astragalus Lentiginosus Var. Coachellae
Milk-Vetch, Triple-Ribbed	Astragalus Tricarinatus
Crownscale, San Jacinto Valley	Atriplex Coronata Var Notatior
Barberry, Nevin's	Berberis Nevinii
Brodiaea, Thread-Leaved	Brodiaea Filifolia
Ceanothus, Vail Lake	Ceanothus Ophi0chilus
Mint, Otay Mesa	Dicerandra Cornutissima
Spineflower, Slender-Horned	Dodecahema (=Centrostegia) Leptoceras
Daisy, Parish's	Erigeron Parishii
Button-Celery, San Diego	Eryngium Aristulatum Var. Parishii
Navarretia, Spreading	Navarretia Fossalis
Grass, California Orcutt	Orcuttia Californica

FIGURE 4.1

ENDANGERED SPECIES LISTING (Cont'd)

PLANTS (Cont'd)	
Common Name	**Scientific Name**
San Bernardino County	
Sandwort, Bear Valley	Arenaria Ursina
Milk-Vetch, Cushenbury	Astragalus Albens
Milk-Vetch, Lane Mountain	Astragalus Jaegerianus
Milk-Vetch, Triple-Ribbed	Astragalus Tricarinatus
Brodiaea, Thread-Leaved	Brodiaea Filifolia
Paintbrush, Ash-Grey Indian	Castilleja Cinerea
Spineflower, Slender-Horned	Dodecahema (=Centrostegia) Leptoceras
Daisy, Parish's	Erigeron Parishii
Buckwheat, Southern Mountain Wild	Eriogonum Kennedyi Var. Austromontanum
Buckwheat, Cushenbury	Eriogonum Ovalifolium Var. Vineum
Bladderpod, San Bernardino Mountains	Lesquerella Kingii Ssp. Bernardina
Oxytheca, Cushenbury	Oxytheca Parishii Var. Goodmaniana
Bluegrass, San Bernardino	Poa Atropurpurea
Checker-Mallow, Pedate	Sidalcea Pedata
Mustard, Slender-Petaled	Thelypodium Stenopetalum
Bluecurls, Hidden lake	Trichostema Austromontanum Ssp. Compactum
Yuma County	
None	

FIGURE 4.2

ACP/GRP CD
NAVIGATION INSTRUCTIONS
(Excerpt from CD affixed to inside front cover of Volume 1)

KINDER MORGAN

The information contained herein is provided to identify specific spill response and protection strategies for the applicable Kinder Morgan Pacific Operations Regions. Navigating through the bookmark links provided on the CD will take you to the Environmentally Sensitive Sites and the Economically Significant Sites provided in the applicable Area Contingency Plans and Geographic Response Plans.

INSTRUCTIONS FOR USE

1. From the screen on the left, click on region of interest. The different regions are identified by the red font.
2. Once the appropriate region is accessed, click on the "+" to the left of the region name to display the various areas within each region. These are identified with blue font.
3. Once the appropriate area is accessed, the links to the Environmentally Sensitive Sites and the Economically Significant Sites will be available for selection.
   - ➢ It is important to note that once each Environmentally Sensitive Site and Economically Significant Site is accessed, the user will have to scroll to the desired location.
   - ➢ Use the zoom icon to zoom into each page for easier reading.

NOTES:

1. In those areas where the statement "No ACP Information Available" is made, it indicates that there is no ACP or GRP information which is specific to the particular region or area of interest.
2. EPA REGION IX: For areas without specific ACP/GRP information, the Region IX Contingency Plan (RCP) is used as the response guidance; however, this RCP is currently in revision.
3. EPA REGION X: Region X is covered by the Northwest Area Contingency Plan; however, inland facilities are not addressed.
4. Thus, the following areas are covered by specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Linnton-Willbridge, Washington Area
   - Northern Region—Bay: Brisbane, Concord, Richmond, San Jose
   - Southern Region—Central: Mission Valley-Orange
   - Southern Region—West: Carson, Watson
5. And, the following areas do not have specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Oregon Pipelines (inland)
   - Northern Region—Central: Fresno
   - Northern Region—CalNev: Sacramento, Rocklin, Reno
   - Southern Region—East: Imperial, Phoenix, Tucson
   - Southern Region—Central: Colton, Barstow, Las Vegas

Developed by:
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5.0 DISPOSAL PLAN

5.1 OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by Federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Manager or their designee to:

- Coordinate waste disposal activities;
- Identify appropriate interim storage methods and locations;
- Coordinate permitting activities needed to ensure proper disposal; and
- Document compliance with appropriate local, state, and Federal handling of hazardous materials and/or wastes.

Material will be containerized or stored in a manner complying with applicable environmental regulations pertaining to the known or suspected materials characteristics. Upon characterization, waste, recyclable materials, or contaminated materials will be treated on-site, recycled, or transported and disposed of at an appropriate KMEP approved facility after appropriate regulatory approval.

5.2 WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Solid Wastes

A solid waste is defined as any discarded material provided that it is not specifically excluded under the regulations. These exclusions cover materials such as domestic sewage and mixtures of sewage discharged through a sewer system or industrial wastewater point source discharges.

A discarded material is any material which is abandoned (disposed of, burned or incinerated) or accumulated, stored or treated prior to being abandoned. A discarded material is also any material recycled or any material considered inherently wastelike. Recycled material is considered solid waste when used in a manner constituting disposal, placed on land or burned for energy recovery.

5.2 WASTE CLASSIFICATION (Cont'd)

Solid Wastes (Cont'd)

A solid waste may be considered a hazardous waste. A solid waste, as defined above, may be a hazardous waste if it is not excluded from regulation and is either a listed hazardous waste or exhibits the characteristics of a hazardous waste. A solid waste exhibits the characteristics of a hazardous waste if it exceeds the thresholds established in determining the following:

1) ignitability
2) corrosivity
3) reactivity
4) toxicity

A solid waste may also become a hazardous waste if it is mixed with a listed hazardous waste or, in the case of any other waste (including mixtures), when the waste exhibits any of the characteristics identified above.

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

5.3 WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

Safety Considerations

Care would be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes would wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles would be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste would be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

5.3 WASTE HANDLING (Cont'd)

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.

- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure 5.1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

5.4 WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure 5.2. The majority of these options can be used either onshore or offshore.

If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.
- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Access.
- Public contact.

5.4 WASTE STORAGE (Cont'd)

Temporary storage sites should use the best achievable technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 mils or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least 3 meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

5.5 WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the Facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

During an oil spill incident, KMEP would consult with the Federal and state On Scene Coordinator (OSC) to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. KMEP maintains a list of approved disposal sites that satisfy local, state, and federal regulations and company requirements. This identification of suitable waste treatment and disposal sites would be prepared by the Environmental Manager or their designee in the form of an Incident Disposal Plan which must be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

5.5 WASTE DISPOSAL (Cont'd)

Techniques for Disposal of Recovered Oil (Cont'd)

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure 5.3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Environmental Manager or their designee is responsible for ensuring that all waste materials be disposed of at an internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

5.5 WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning

As a general rule, *in situ* burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at Company-approved disposal facilities. The Environmental Manager or their designee is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Environmental Manager or their designee prior to sending any waste to such a facility.

FIGURE 5.1

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

A. Normally require remote power sources, thus are safe around flammable fluids.
B. Should have a relief valve in the outlet line to prevent bursting hoses.
C. Air powered units tend to freeze up in sub-freezing temperatures.
D. Units with work ball valves are difficult to prime.
E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
F. Can also pump air at low pressure.
G. Transfer is batch-wise rather than continuous.
H. Waste must be in separate container for efficient transfer.
I. Transportable with its own prime mover.
J. High shear action tends to emulsify oil and water mixtures.

FIGURE 5.2

TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

FIGURE 5.3

OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

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6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Harbor Terminal - Carson Lines:	
• Harbor to Carson Terminal 12”	GX-120
• Harbor to Sanford and I Street 8” (Out of Service)	GX-180
Other Carson Area Lines:	
• Arco to Carson Terminal 10”/12”	GX-32
• Arco to Carson Terminal 14” (Out of Service)	GX-64A
• Arco to Carson Terminal 12”/14”	GX-64B
• Chemoil to Carson Terminal 10”/12” (Out of Service)	GX-200
• Chemoil to Carson Terminal 12”/14”	GX-205
• Phillips 66 to Carson Terminal 24”	GX-124
• Phillips 66 to Carson Terminal 4”	GX-104
• Mobil to Carson Terminal 8”/10”	GX-190

Figures 6.1a through 6.1j on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Worst Case Discharge Data” of the applicable Line Segment.

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- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps
- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.
- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

HARBOR TERMINAL - CARSON TERMINAL 12" (GX120)		
Pipe and Operational Data		
Section Length:	4.67 Miles	24,682 Feet
Line Diameter:	12.75 in., O.D.	12.0 in., I.D. (note 1)
Line Capacity:	739 bbls/mile (note 2)	
Product types:	CARB ULSD, Gas, Ethanol	
Capacity of entire line section:	(b) (7)(F),	
Maximum flow rate:	10,500 bph or 252,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
County(s)/State(s) Traversed:	Los Angeles, CA
Location Description:	From Harbor Terminal north to E St, east to Avalon Blvd, then generally northeast to Carson Terminal at Lomita Blvd and Alameda St.

Worst Case Discharge Data

(b) (7)(F), (b) (3) [redacted]

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

HARBOR TERMINAL – SANFORD AND I STREET 8" (GX180) (OUT OF SERVICE)		
Pipe and Operational Data		
• Section Length:	4.64 Miles	24,499 Feet
• Line Diameter:	8.625 in., O.D.	7.625 in., I.D. (note 1)
• Line Capacity:	298 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	3,000 bph or 72,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Los Angeles, CA	
• Location Description:	From Harbor Terminal north to E St. then east to Avalon Blvd., then generally northeast to a manifold at Sanford and I streets.	

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

ARCO - CARSON TERMINAL 10"/12" (GX32)		
Pipe and Operational Data		
• Section Length:	0.03 Miles	130 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Section Length:	0.01 Miles	68 Feet
• Line Diameter:	12.75 in., O.D.	12.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile in 10 in. size (note 2) 770 bbls/mile in. 12 in. size (note 2)	
• Capacity of entire line section:	(b) (7)	
• Maximum flow rate:	3,500 bph or 84,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Los Angeles, CA
• Location Description:	From Carson Terminal across Sepulveda Blvd to the Arco Facility.

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

ARCO - CARSON TERMINAL 14"/16"(GX64A)	
Pipe and Operational Data	
• Section Length:	0.76 Miles 4,022 Feet
• Line Diameter:	16.0 in., O.D. 15.5 in., I.D. (note 1)
• Section Length:	0.10 Miles 537 Feet
• Line Capacity:	1,232 bbls/mile in 16 in., I.D. (note 2)
• Capacity of entire line section:	(b) (7)(F),
• Maximum flow rate:	9,000 bph or 216,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	Los Angeles, CA
• Location Description:	From Carson Terminal across Sepulveda Blvd to the Arco Facility.

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

ARCO - CARSON TERMINAL 12"/14" (GX64B)		
Pipe and Operational Data		
• Section Length:	0.02 Miles	117 Feet
• Line Diameter:	12.75 in., O.D.	12.00 in., I.D. (note 1)
• Section Length:	0.55 Miles	2,921 Feet
• Line Diameter:	14.0 in., O.D.	13.25 in., I.D. (note 1)
• Line Capacity:	739 bbls/mile in 12 in. size (note 2) 900 bbls/mile in. 14 in. size (note 2)	
• Capacity of entire line section:	(b) (7)	
• Maximum flow rate:	5,500 bph or 132,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Los Angeles, CA	
• Location Description:	From Carson Terminal across Sepulveda Blvd to the Arco Facility.	

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

CHEMOIL - CARSON TERMINAL 10"/12" (GX200) (OUT OF SERVICE)		
Pipe and Operational Data		
• Section Length:	0.10 Miles	550 Feet
• Line Diameter:	10.75 in., O.D.	10.25 in., I.D. (note 1)
• Section Length:	0.18 Miles	953 Feet
• Line Diameter:	12.75 in., O.D.	12.25 in., I.D. (note 1)
• Line Capacity:	539 bbls/mile in 10 in. size (note 2) 770 bbls/mile in. 12 in. size (note 2)	
• Capacity of entire line section:	(b) (7)	
• Maximum flow rate:	900 bph or 21,600 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Los Angeles, CA	
• Location Description:	From Carson Terminal east along Sepulveda Blvd to the Chemoil Facility.	

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

CHEMOIL - CARSON TERMINAL 12"/14" (GX205)		
Pipe and Operational Data		
• Section Length:	0.41 Miles	2,170 Feet
• Line Diameter:	12.75 in., O.D.	12.25 in., I.D. (note 1)
• Section Length:	0.10 Miles	530 Feet
• Line Diameter:	14.0 in., O.D.	13.5 in., I.D. (note 1)
• Line Capacity:	770 bbls/mile in 12 in. size (note 2) 935 bbls/mile in. 14 in. size (note 2)	
• Capacity of entire line section:	(b) (7)	
• Maximum flow rate:	3,500 bph or 84,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Los Angeles, CA	
• Location Description:	From Carson Terminal east along Sepulveda Blvd to the Chemoil Facility.	

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

PHILLIPS 66 - CARSON TERMINAL 24" (GX124)	
Pipe and Operational Data	
• Section Length:	0.35 Miles 1,853 Feet
• Line Diameter:	24.0 in., O.D. 23.5 in., I.D. (note 1)
• Line Capacity:	2,832 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7)
• Maximum flow rate:	15,000 bph or 360,000 bpd

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Los Angeles, CA
• Location Description:	From Carson Terminal across Lomita Blvd to the Tosco Facility.

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

PHILLIPS 66 - CARSON TERMINAL 4" (GX104)	
Pipe and Operational Data	
• Section Length:	0.32 Miles 1,675 Feet
• Line Diameter:	4.50 in., O.D. 4.00 in., I.D. (note 1)
• Line Capacity:	82 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7)
• Maximum flow rate:	500 bph or 12,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	Los Angeles, CA
• Location Description:	From Carson Terminal across Lomita to the Tosco Facility.

FIGURE 6.1j

PIPELINE SECTION INFORMATION SUMMARY

MOBIL - CARSON TERMINAL 8"/10" (GX190)		
Pipe and Operational Data		
• Section Length:	6.66 Miles	35,175 Feet
• Line Diameter:	10.75 in., O.D.	10.136 in., I.D. (note 1)
• Section Length:	1.60 Miles	8,473 Feet
• Line Diameter:	8.625 in., O.D.	8.071 in., I.D. (note 1)
• Line Capacity:	527 bbls/mile in 10 in. size (note 2) 334 bbls/mile in. 8 in. size (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	2,100 bph or 50,400 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Los Angeles, CA	
• Location Description:	From Mobil, near 190th and Crenshaw, east to about Main St, south to 223rd, east to near Lucerne St, south to Lomita, then east to Carson Terminal at Lomita and Alameda Blvd.	

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1j for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

D_HCA_INDEX_KMLT_001.pdf

494-D-HCA-LIQ-TERM-CA_005.pdf

494-D-HCA-LIQ-TERM-CA_006.pdf

6.0 AREA PIPELINE SECTIONS

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Mission Valley Area Lines	
• Highway 52 – Mission Valley 10”	122
• Mission Valley – Harbor Junction 10”	123
• Harbor Junction – Chevron/Arco 8”/10”	124
• Mission Valley Terminal – San Diego Terminal 8”	141/142/143
Facilities (Non-Storage)	
• Miramar Junction – Piping Manifold Only	
• Harbor Compound – Piping Manifold Only*	
• Harbor Junction – Piping Manifold Only	

* A small (approximately 10,000 gallon) relief tank is located at Harbor Compound.

Figures 6.1a through 6.1d on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled “Operational and Worst Case Discharge Data” of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps
- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.
- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

HIGHWAY 52 - MISSION VALLEY 10" (122)		
Pipe and Operational Data		
• Section Length:	6.52 Miles	34,450 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	7,000 bph or 168,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Diego, CA	
• Location Description:	From connection with Line 126 north of the Highway 52 crossing to Mission Valley Terminal at Friars Road and I-15.	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

MISSION VALLEY – HARBOR JUNCTION 10" (123)		
Pipe and Operational Data		
• Section Length:	7.64 Miles	40,339 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Product types:	CARB ULSD, Gas, Ethanol	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	4,500 bph or 108,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Diego, CA	
• Location Description:	From Mission Valley Terminal, I-15 and Friars Road, south across San Diego River to connection with Line #124 Bay Front Street near Coronado Bridge, adjacent to San Diego Bay.	
Worst Case Discharge Data		
(b) (7)(F), (b) (3)		

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

HARBOR JUNCTION - ARCO/CHEVRON 8"/10" (124)		
Pipe and Operational Data		
• Section Length:	0.64 Miles	3,401 Feet
• Line Diameter:	8.625 in., O.D.	8.249 in., I.D. (note 1)
• Line Capacity:	349 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7) (F) (b)	
• Maximum flow rate:	4,500 bph or 108,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	San Diego, CA	
• Location Description:	From connection to Line 123, Bay Front Street near Coronado Bridge, southeast to Bay Front Street near Sicard Street, ARCO and Chevron Terminals.	

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

MISSION VALLEY TERMINAL - SAN DIEGO TERMINAL 8" (141/142/143)	
Pipe and Operational Data	
• Section Length:	0.25 Miles 1320 Feet
• Line Diameter:	8" (note 1)
• Line Capacity:	33 bbls/mile (note 2)
• Capacity of entire line section:	(b) (7)(F),
• Maximum flow rate:	4,500 bph or 108,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
• Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
• County(s)/State(s) Traversed:	San Diego, CA
• Location Description:	From Mission Valley Terminal to San Diego Terminal (formerly Shell).

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1d for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-INDEX-SFPP_003.pdf
485-D-HCA-WTSN-SAN DIEGO_105.pdf
485-D-HCA-WTSN-SAN DIEGO_106.pdf
485-D-HCA-WTSN-SAN DIEGO_107.pdf
485-D-HCA-WTSN-SAN DIEGO_108.pdf
485-D-HCA-WTSN-SAN DIEGO_109.pdf
485-D-HCA-WTSN-SAN DIEGO_110.pdf
485-D-HCA-WTSN-SAN DIEGO_111.pdf
485-D-HCA-WTSN-SAN DIEGO_112.pdf
485-D-HCA-WTSN-SAN DIEGO_113.pdf
485-D-HCA-WTSN-SAN DIEGO_114.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-YUMA-PHNX_068	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_069	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_070	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_071	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_072	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_073	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_074	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_075	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_076	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_077	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_078	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10"
D-HCA-NLND-IMPRL_079	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10" LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_080	LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_081	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-NLND-IMPRL_082	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-COLTON-YUMA_083	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_084	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_085	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_086	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_087	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_088	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_089	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_090	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_091	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_092	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_093	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_094	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_095	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_096	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_097	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_098	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_099	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_100	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_101	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_102	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-WATSON-CLTN_103	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-CLTN-MARCHAFB_104	LS-111/112/113; COLTON - YUMA 22/20" LS-51; COLTON - MARCH AFB 6"
D-HCA-WTSN-SANDIEGO_105	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_106	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_107	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_108	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_109	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_110	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_111	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_112	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_113	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10"
D-HCA-WTSN-SANDIEGO_114	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10" LS-123; MISSION VALLEY - HARBOR JCT. 10/8" LS-124; HARBOR JCT - ARCO/CHEVRON 8/10" LS-141; MISSION VALLEY - SHELL 8" LS-142; MISSION VALLEY - SHELL 8" LS-143; MISSION VALLEY - SHELL 8"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_003	

6.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the pipeline sections covered in this Area of Operation. The data is summarized as follows:

PIPELINE SECTION	LINE NO.
Watson Incoming Lines:	
• Dominguez Channel - Watson 10"	110
• Sepulveda Junction - Watson 16"	109
Watson Outgoing Lines:	
• Watson - Norwalk 16"	10
• Watson - Norwalk 16"	120
• Norwalk - Orange 16"	125
• Orange - Highway 5216"	126
• Watson - Norwalk 24"	105
Other Watson Area Lines:	
• Norwalk - Industry 24"	108
• Norwalk - Industry 16"	1
Pipeline Facilities (Non-Storage):	
• Sepulveda Junction - piping manifold only	
• Hynes Junction - piping manifold only	
• Norwalk - piping manifold only	
• Industry Pump Station (booster)	

Figures 6.1a through 6.1i on the following pages provide specific details on each pipeline segment within this Area of Operation. The Worst Case Discharge (WCD) for this Area is provided under the section entitled "Worst Case Discharge Data" of the applicable Line Segment.

- The specific information summary for these pipeline sections is provided as follows:
  - Pipeline Section Information Summary (one per section)
  - Pipeline High Consequence Area Maps
- Breakout stations or Terminaling operations associated with this Area of Operation are detailed in subsequent Sections in this Volume.
- Northern and southern pipeline schematic diagrams are provided in Volume 1, Figure 1.2 and 1.3.

FIGURE 6.1a

PIPELINE SECTION INFORMATION SUMMARY

DOMINGUEZ CHANNEL - WATSON 10" (110)		
Pipe and Operational Data		
• Section Length:	2.82 Miles	14,890 Feet
• Line Diameter:	10.75 in., O.D.	10.312 in., I.D. (note 1)
• Line Capacity:	545 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	8,083.3 bph or 194,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Los Angeles, CA	
• Location Description:	From Watson Station generally southeast to Dominguez west of Alameda, then parallel along Alameda south to Sepulveda Junction south of Sepulveda Blvd (parallels line 109).	

FIGURE 6.1b

PIPELINE SECTION INFORMATION SUMMARY

SEPULVEDA JUNCTION -WATSON 16" (109)		
Pipe and Operational Data		
• Section Length:	3.90 Miles	20,614 Feet
• Line Diameter:	16.0 in., O.D.	15.5 in., I.D. (note 1)
• Line Capacity:	1,232 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	10,000 bph or 240,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Los Angeles, CA
• Location Description:	From Watson Station generally southeast to Dominguez west of Alameda, then parallel along Alameda south to Sepulveda Junction south of Sepulveda Blvd.

FIGURE 6.1c

PIPELINE SECTION INFORMATION SUMMARY

WATSON - NORWALK 16" (10)		
Pipe and Operational Data		
• Section Length:	12.17 Miles	64,258 Feet
• Line Diameter:	16.0 in., O.D.	15.5 in., I.D. (note 1)
• Line Capacity:	1,232 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	7,000 bph or 168,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Los Angeles, CA
• Location Description:	From Watson north parallel to Alameda to the vicinity of Compton Creek, then generally east crossing Compton Creek and the Los Angeles and San Gabriel Rivers to Norwalk Blvd, then north to Norwalk Junction.

FIGURE 6.1d

PIPELINE SECTION INFORMATION SUMMARY

WATSON - NORWALK 16" (120)		
Pipe and Operational Data		
• Section Length:	14.61 Miles	77,131 Feet
• Line Diameter:	16.0 in., O.D.	15.376 in., I.D. (note 1)
• Line Capacity:	1,213 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	8,000 bph or 192,000 bpd	

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description	
• County(s)/State(s) Traversed:	Los Angeles, CA
• Location Description:	From Watson generally north to Compton Creek then east crossing the Los Angeles River to Garfield, north to Alondra, then generally east across the San Gabriel River to Norwalk Junction.

FIGURE 6.1e

PIPELINE SECTION INFORMATION SUMMARY

WATSON - NORWALK 24" (105)	
Pipe and Operational Data	
● Section Length:	12.82 Miles 67,690 Feet
● Line Diameter:	24.0 in., O.D. 23.0 in., I.D. (note 1)
● Line Capacity:	2,713 bbls/mile (note 2)
● Capacity of entire line section:	(b) (7)(F),
● Maximum flow rate:	15,000 bph or 360,000 bpd
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.	
● Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.	
Location Description	
● County(s)/State(s) Traversed:	Los Angeles, CA
● Location Description:	From Watson generally east across Compton Creek and the Los Angeles River, then generally east and north across the San Gabriel River to Norwalk Junction.

FIGURE 6.1f

PIPELINE SECTION INFORMATION SUMMARY

NORWALK - INDUSTRY 24" (108)

Pipe and Operational Data

- Section Length: 20.74 Miles 109,747 Feet
- Line Diameter: 24.0 in., O.D. 23.25 in., I.D. (note 1)
- Line Capacity: 2,773 bbls/mile (note 2)
- Product types: CARB ULSD, Gas, Ethanol
- Capacity of entire line section: (b) (7)(F),
- Maximum flow rate: 15,000 bph or 360,000 bpd

Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.

Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.

Location Description

- County(s)/State(s) Traversed: Los Angeles, CA
- Location Description: From Norwalk Junction generally northeast through Whittier, across Colima Road to the vicinity of Nogales and Valley, then east to Industry Station.

Worst Case Discharge Data

(b) (7)(F), (b) (3)

[redacted]

FIGURE 6.1g

PIPELINE SECTION INFORMATION SUMMARY

NORWALK - INDUSTRY 16" (1)		
Pipe and Operational Data		
● Section Length:	20.64 Miles	108,970 Feet
● Line Diameter:	16.0 in., O.D.	15.5 in., I.D. (note 1)
● Line Capacity:	1,232 bbls/mile (note 2)	
● Capacity of entire line section:	(b) (7)(F), (b)	
● Maximum flow rate:	8,000 bph or 192,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
● County(s)/State(s) Traversed:	Los Angeles, CA	
● Location Description:	From Norwalk Junction generally east along Leffingwell Blvd. and La Habra Blvd to La Habra then north to the vicinity of Nogales and Valley in Industry, then east to Industry Station.	

FIGURE 6.1h

PIPELINE SECTION INFORMATION SUMMARY

NORWALK – ORANGE 16" (125)		
Pipe and Operational Data		
• Section Length:	14.79 Miles	78,072 Feet
• Line Diameter:	16.0 in., O.D.	15.438 in., I.D. (note 1)
• Line Capacity:	1,222 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F),	
• Maximum flow rate:	7,000 bph or 168,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Los Angeles, Orange, CA	
• Location Description:	From Norwalk Junction, Norwalk, CA, generally southeast to Orange Terminal, Orange, CA, crosses Coyote Creek and the Santa Ana River.	

FIGURE 6.1i

PIPELINE SECTION INFORMATION SUMMARY

ORANGE – HIGHWAY 52 16" (126)		
Pipe and Operational Data		
• Section Length:	96.79 Miles	511,030 Feet
• Line Diameter:	16.0 in., O.D.	15.376 in., I.D. (note 1)
• Line Capacity:	1,213 bbls/mile (note 2)	
• Capacity of entire line section:	(b) (7)(F), (b)	
• Maximum flow rate:	7,000 bph or 168,000 bpd	
Note 1: The indicated inside diameter, used to calculate the line capacity, is based on the predominant wall thickness.		
Note 2: The line capacity is based on the indicated inside diameter. The reduced capacity that may result from some sections of line having thicker wall is ignored.		
Location Description		
• County(s)/State(s) Traversed:	Orange, San Diego, CA	
• Location Description:	From Orange Terminal, Orange, CA, generally southeast to connection with Line 122 north of Hwy 52 (east of I-805), crosses Santiago Creek, San Juan Creek, Santa Margarita River and San Dieguito River.	

FIGURE 6.2

HCA INDEX

Refer to Figure 6.1a through Figure 6.1i for specific information on line segments.

The following Index Map shows all the corresponding Line Segments for Figure 6.1.

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-INDEX-SFPP_003.pdf

485-D-HCA-WATSON-CLTN_099.pdf

485-D-HCA-WATSON-CLTN_100.pdf

485-D-HCA-WATSON-CLTN_101.pdf

485-D-HCA-WATSON-CLTN_102.pdf

485-D-HCA-WATSON-CLTN_103.pdf

485-D-HCA-WTSN-SANDIEGO_105.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-YUMA-PHNX_068	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_069	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_070	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_071	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_072	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_073	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_074	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_075	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_076	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_077	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_078	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10"
D-HCA-NLND-IMPRL_079	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10" LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_080	LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_081	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-NLND-IMPRL_082	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-COLTON-YUMA_083	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_084	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_085	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_086	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_087	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_088	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_089	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_090	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_091	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_092	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_093	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_094	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_095	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_096	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_097	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_098	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_099	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_100	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_101	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_102	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-WATSON-CLTN_103	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT. - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-86; (LEASED TO PARAMOUNT) CARSON - GX 145 10"
D-HCA-CLTN-MARCHAFB_104	LS-111/112/113; COLTON - YUMA 22/20" LS-51; COLTON - MARCH AFB 6"
D-HCA-WTSN-SANDIEGO_105	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_106	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_107	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_108	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_109	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_110	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_111	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_112	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_113	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10"
D-HCA-WTSN-SANDIEGO_114	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10" LS-123; MISSION VALLEY - HARBOR JCT. 10/8" LS-124; HARBOR JCT - ARCO/CHEVRON 8/10" LS-141; MISSION VALLEY - SHELL 8" LS-142; MISSION VALLEY - SHELL 8" LS-143; MISSION VALLEY - SHELL 8"

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP

MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

Date: 03/28/2012	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2012	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Sept, 2011	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_003	

7.0 BREAKOUT STATIONS / TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations and/or terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATIONS / TERMINALS	LARGEST TANK (BBLS)	WCD (BBLS)
Carson Terminal (Tank 178016)	(b) (7)(F), (b) (3)	
LA Harbor Terminal (Tank 131736)		

- The largest Worst Case Discharge (WCD) for the terminal breakout tanks within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout stations within this area have adequate secondary containment.

- The specific information summary for these breakout terminals are provided as follows:

  - Breakout Station / Terminals Tank Information Summary (one per station)
  - Facility Diagrams

- Pipeline sections or terminaling operations associated with this area of operation are detailed in other Sections of this Volume.

FIGURE 7.1a

CARSON AREA
BREAKOUT STATION / TERMINAL TANK INFORMATION SUMMARY
(Note: EPA - Jurisdictional Tanks Not Listed)

CARSON TERMINAL				
TANK #	TYPICAL PRODUCT	MAX. CAPACITY (BBLS) *	DIAMETER	HEIGHT
80001	ULP 92	(b) (7)(F), (b) (3)		
80002	Alkylate			
80003	RFG 87			
80004	Raffinate			
80005	Jet			
80006	Diesel			
80007	Diesel			
80008	RFG 87			
80012	RFG 87			
178013	Crude			
178014	Crude			
178015	Crude			
178016	Oil			
80017	Diesel			
178018	Empty			
80019	Crude			
80022	RFG 92			
80023	Crude			
150050	Alkylate			
150051	RFG 87			
150052	Jet			
150053	Diesel			
150054	Alkylate			
150055	ULP 92			
100060	Diesel			
760	Empty			
100061	Diesel			
150062	ULR 87			
100063	Diesel			
100064	Diesel			
80065	ULR 87			
23570	Transmix			
60066	Jet			
60067	Jet			
60068	Jet			
80069	Jet			
80071	Jet			
80072	Jet			
80073	Blend Stock/Refined Products			
80074	Blend Stock/Refined Products			

FIGURE 7.1a (Cont'd)

CARSON AREA
BREAKOUT STATION / TERMINAL TANK INFORMATION SUMMARY

CARSON TERMINAL (Cont'd)				
TANK #	TYPICAL PRODUCT	MAX. CAPACITY (BBLS) *	DIAMETER	HEIGHT
80075	Blend Stock/Refined Products	(b) (7)(F), (b) (3)		
80076	Blend Stock/Refined Products			
80077	Blend Stock/Refined Products			
80078	Blend Stock/Refined Products			
80079	Blend Stock/Refined Products			
80080	Blend Stock/Refined Products			
80081	Blend Stock/Refined Products			
80082	Blend Stock/Refined Products			
80083	Blend Stock/Refined Products			
80084	Blend Stock/Refined Products			
80085	Blend Stock/Refined Products			
80086	Blend Stock/Refined Products			
80087	Blend Stock/Refined Products			
80088	Blend Stock/Refined Products			
80089	Blend Stock/Refined Products			
80090	Blend Stock/Refined Products			
30091	Transmix			

LOCATION DESCRIPTION	
• County/State	Los Angeles/CA
• Location	Carson Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

NOTE: This Facility is a multi jurisdiction Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

FIGURE 7.2a

CARSON TERMINAL
FACILITY DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 7.1b

CARSON AREA
BREAKOUT STATION / TERMINAL TANK INFORMATION SUMMARY
(Note: EPA - Jurisdictional Tanks Not Listed)

LA HARBOR TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
1723	Water	(b) (7)(F), (b) (3)		
30731	Av Gas			
55733	Empty			
55734	Fuel Oil			
10735	Transmix			
131736	Jet			
67737	Transmix			
67738	JP-8			
42739	Empty			
42740	Jet			
42741	Av Gas			
5742	Av Gas Transmix			

LOCATION DESCRIPTION	
• County/State	Los Angeles/CA
• Location	LA Harbor Terminal

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

NOTE: LA Harbor Terminal is a multi jurisdiction Facility (DOT and EPA). The complete Facility information for LA Harbor Terminal required by EPA is located in Section 8 of this Volume.

(b) (7)(F), (b) (3)

7.0 BREAKOUT STATIONS / TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations and/or terminals that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Miramar Station	(b) (7)(F), (b) (3)	
Mission Valley Terminal		

- The largest Worst Case Discharge (WCD) for the breakout stations/terminals within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout station and terminals within this area have adequate secondary containment.

- Specific information summaries for this breakout station and the terminals are provided in this Section as follows:

  - Breakout Station/Terminal Tank Information Summary (one per station)
  - Facility Diagram

- Pipeline sections or terminaling operations associated with this Area of Operation are detailed in other Sections of this Volume.

7.0 BREAKOUT STATIONS / TERMINALS

FIGURE 7.1a

MISSION VALLEY AREA
BREAKOUT TERMINAL TANK INFORMATION SUMMARY

MIRAMAR BREAKOUT STATION				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
MS-1	JP-5	(b) (7)(F), (b) (3)		
MS-2	JP-5			
MS-3	JP-5			
MS-4	JP-5			
LOCATION DESCRIPTION				
• County/State	San Diego/CA			
• Location	At the Miramar MCAS north of Highway 52 and east of I-805.			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

7.0 BREAKOUT STATIONS / TERMINALS

FIGURE 7.2a

MIRAMAR STATION
FIRE PROTECTION DIAGRAM
EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

EVACUATION PLAN

PLANT NORTH
N

STREET/DRIVEWAY

PARKING

PRIMARY EVACUATION AREA & SECONDARY EMERGENCY RESPONSE COMMAND CENTER

DRIVE PATH

MS–4

MS–3

MS–2

MS–1

DRIVE PATH

ADDITIVE TANK

15KV METERING SWITCHGEAR

STORAGE BUILDING

PLC BUILDING

ELECTRICAL POWERHOUSE

OFFICE WITH BATHROOM

SERVICE TRANSFORMER

FILTER AREA

INBOUND METER PROVER

MANIFOLD PIT

PUMP AREA

SAMPLE SHED

PRIMARY EMERGENCY RESPONSE COMMAND CENTER

SECONDARY EVACUATION AREA

LEGEND:

- DOUBLE GATE
- SLIDING GATE
- MAIN EXITS
- STAIR/LADDER

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
MIRAMAR STATION

CADD	SCALE: AS NOTED	RECORD DRAWING NO.
FILE: EVAC–MS	DESIGN SUPT	EVAC–MS
BY: SWH	MGR. SAFETY	
DATE: 10–26–09	AREA SUPR.	

7.0 BREAKOUT STATIONS / TERMINALS

FIGURE 7.1b

MISSION VALLEY AREA
BREAKOUT TERMINAL TANK INFORMATION SUMMARY
(Note: EPA-Jurisdictional Tanks Not Listed)

MISSION VALLEY TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
Mission Valley Terminal:				
MV-02	Transmix	(b) (7)(F), (b) (3) [redacted]		
LOCATION DESCRIPTION				
• County/State	San Diego, CA			
• Location	Mission Valley Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3) [redacted]				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

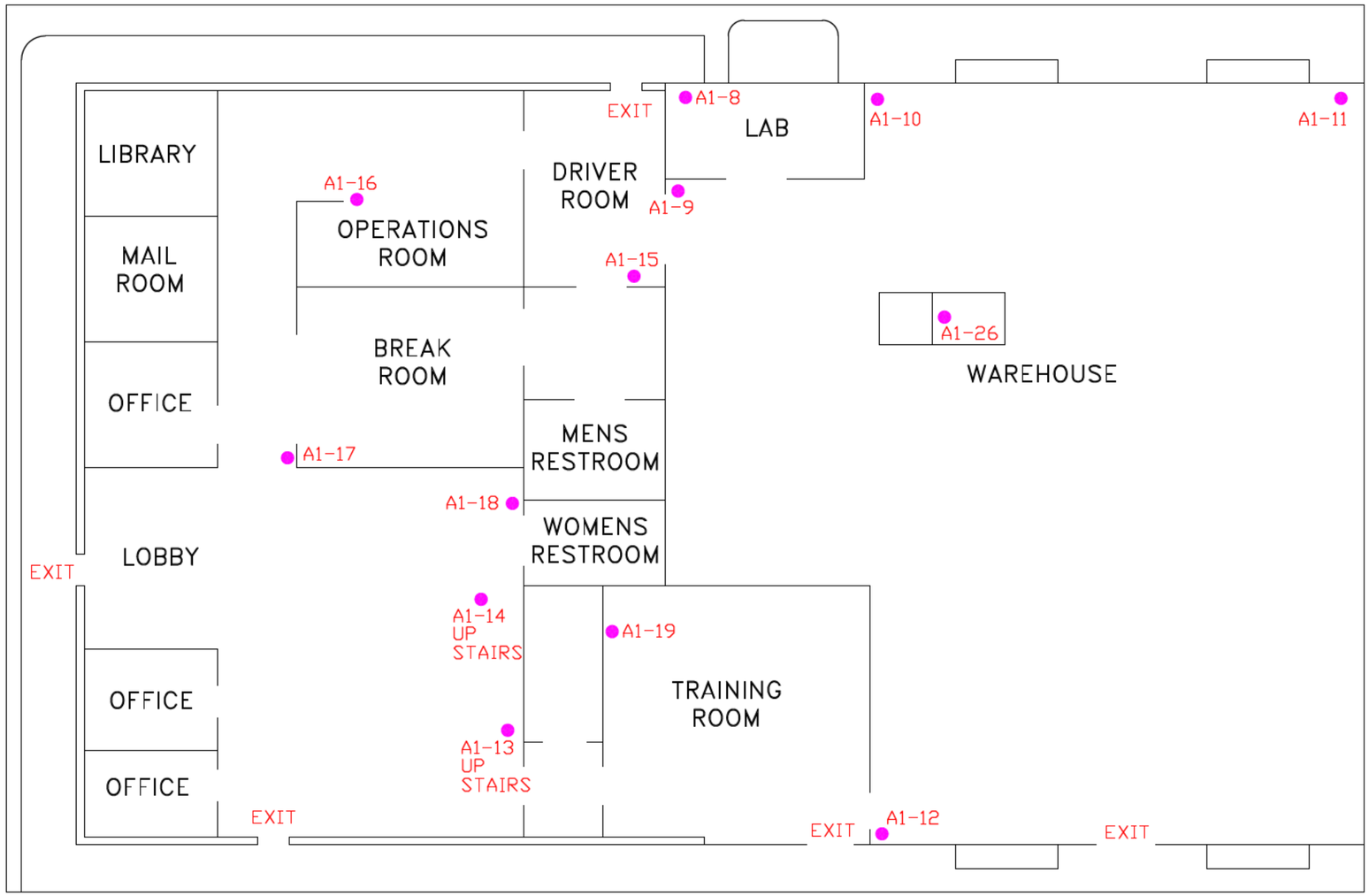
Note: This Facility is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

7.0 BREAKOUT STATIONS / TERMINALS

FIGURE 7.2a

MISSION VALLEY TERMINAL
FIRE PROTECTION DIAGRAM

(b) (7)(F), (b) (3)



LEGEND:

● FIRE EXTINGUISHER

NOTE:
1. SEE DWG EVAC-MV-01 FOR SITE PLAN.

KINDER MORGAN
CALNEV PIPELINE INC, LLC — ENERGY PARTNERS, L.P.

FIRE PROTECTION DIAGRAM
AREA 1 OFFICE / WAREHOUSE
MISSION VALLEY TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: FPD-MV-02	DESIGN SUPT	FPD-MV-02
BY: SJS	MGR. SAFETY	
DATE: 05-14-10	AREA SUPR.	

7.0 BREAKOUT STATIONS/TERMINALS

7.1 SCOPE

The scope of this Section is to provide an information summary with specific data for the breakout stations that have storage (breakout tanks) connected to the pipeline sections described in the previous Section of this Volume. The data is summarized as follows:

BREAKOUT STATION	LARGEST TANK (BBLS)	WCD (BBLS)
Watson Station	(b) (7)(F), (b) (3)	
Orange Terminal		

- The largest Worst Case Discharge (WCD) for the breakout stations within this Area of Operation has been determined to be as follows:

(b) (7)(F), (b) (3)

  - The tanks in the breakout station within this area have adequate secondary containment.

- The specific information summary for these breakout stations is provided as follows:

  - Breakout Station Tank Information Summary (one per station)
  - Facility Diagrams

- Pipeline sections or terminaling operations associated with this area of operation are detailed in other Sections of this Volume.

FIGURE 7.1a

WATSON AREA
BREAKOUT STATION TANK INFORMATION SUMMARY

WATSON STATION				
TANK #	TYPICAL PRODUCT	MAX. CAPACITY (BBLS) *	DIAMETER	HEIGHT
W-1	Refined Products	(b) (7)(F), (b) (3)		
W-2	Refined Products			
W-3	Transmix			
W-4	Transmix			
W-5	Refined Products			
W-6	Refined Products			
W-7	Refined Products			
W-8	Refined Products			
W-9	Refined Products			
W-10	Refined Products			
W-11	Refined Products			
W-12	Refined Products			
W-13	Refined Products			
W-14	Refined Products			
W-15	Refined Products			
W-16	Turbine			
W-17	Turbine			
W-18	Turbine			

LOCATION DESCRIPTION

- County/State: Los Angeles/CA
- Location: Intersection of Delamo Blvd. and Wilmington Ave., Wilmington.

WORST CASE DISCHARGE

(b) (7)(F), (b) (3)

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

FIGURE 7.2a

WATSON STATION
FIRE PROTECTION DIAGRAM
EVACUATION DIAGRAM

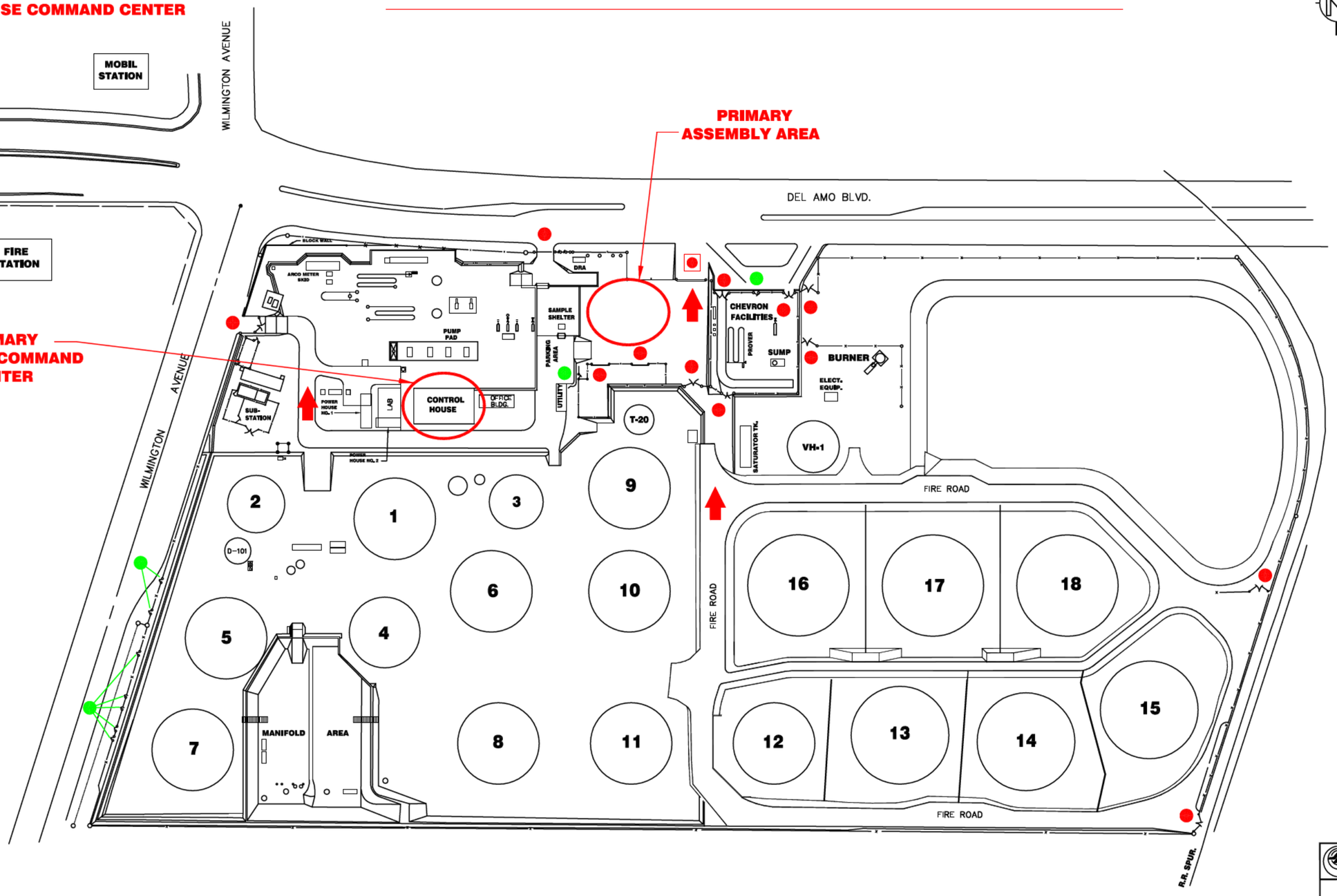
(b) (7)(F), (b) (3)

EVACUATION DIAGRAM

STAGING AREA & SECONDARY EMERGENCY RESPONSE COMMAND CENTER

PRIMARY ASSEMBLY AREA

PRIMARY INCIDENT COMMAND CENTER



LEGEND:

- ELECTRIC GATE
- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS

S F P P, L. P.
LOS ANGELES CALIFORNIA

EVACUATION DIAGRAM
WATSON STATION

CADD	SCALE: NONE	RECORD DRAWING NO.
DRN: EVAC-WA	DESIGN SUPT	EVAC-WA
BY: VFV	MGR. SAFETY	
DATE: 11-6-06	AREA SUPR.	

FIGURE 7.1b

WATSON AREA
BREAKOUT STATION TANK INFORMATION SUMMARY

ORANGE TERMINAL				
TANK #	**TYPICAL PRODUCT**	**MAX. CAPACITY (BBLS) ***	**DIAMETER**	**HEIGHT**
OR-9	Transmix	(b) (7)(F), (b) (3)		
LOCATION DESCRIPTION				
• County/State	Orange, CA			
• Location	Orange Terminal			
WORST CASE DISCHARGE				
(b) (7)(F), (b) (3)				

* The maximum capacity is calculated using the indicated diameter and height of the tank. The actual maximum storage capacity to overflow would typically be less than this calculated number.

Note: This Facility is a multi jurisdictional Facility (DOT and EPA). The complete Facility information for the Facility required by the EPA is located in Section 8 of this Volume.

FIGURE 7.2b

ORANGE TERMINAL
FIRE PROTECTION DIAGRAM

(b) (7)(F), (b) (3)

8.10 ADDITIONAL FACILITY DIAGRAMS

The following additional facility diagrams are provided for regulatory reference.

Drawing No.	Description	Notes
D-HT-00-003	General Layout	
HT-00-300A	Transposition Diagram Sheet 1 of 4	
D-HT-00-300AA	Piping and Instrumentation Diagram TK-67738, 30731 & 30732	
D-HT-00-300AB	Piping and Instrumentation Diagram TK-2717 & 5716	
D-HT-00-300AC	Piping and Instrumentation Diagram TK-1723, 2722 & 2718	
D-HT-00-300AD	Piping and Instrumentation Diagram Pumps 32, 34 & Slop Pump	
D-HT-00-300AE	Piping and Instrumentation Diagram Harbor ISO-Octane Pump 1, Transfer Pump 2 & Jet Sump Pump 2	
D-HT-00-300AF	Piping and Instrumentation Diagram Jet Filter (OOS)	
D-HT-00-300AG	Piping and Instrumentation Diagram Jet Truck - Loading Rack #1	
D-HT-00-300AH	Piping and Instrumentation Diagram Jet Truck - Loading Rack #2 (OOS)	
D-HT-00-300AJ	Piping and Instrumentation Diagram Vapor Recovery Center Dock	
D-HT-00-300-AK	Piping and Instrumentation Diagram Vapor Recovery Berth 118	
D-HT-00-300AP	Piping and Instrumentation Diagram Oil - Water Separator & Tank Containment Drains	
D-HT-00-300B	Piping and Instrumentation Diagram Dock Manifold/Berth 118	
HT-00-300B	Transposition Diagram Sheet 2 of 4	
D-HT-00-300C	Piping and Instrumentation Diagram Dock Manifold	
HT-00-300C	Transposition Diagram Sheet 3 of 4	
D-HT-00-300D	Piping and Instrumentation Diagram Dock Manifold/Center Dock Berth	
HT-00-300D	Transposition Diagram Sheet 4 of 4	
D-HT-00-300E	Piping and Instrumentation Diagram Dock Manifold/P-10 ISO-Octane	
D-HT-00-300F	Piping and Instrumentation Diagram Dock Manifold	
D-HT-00-300G	Piping and Instrumentation Diagram Dock Manifold/Berth 119	
D-HT-00-300H	Piping and Instrumentation Diagram Berth 120	

8.10 ADDITIONAL FACILITY DIAGRAMS (Cont'd)

Drawing No.	Description	Notes
D-HT-00-300J	Piping and Instrumentation Diagram Manifold (Conduit Boundry)	
D-HT-00-300K	Piping and Instrumentation Diagram Manifold (Conduit Boundry)	
D-HT-00-300L	Piping and Instrumentation Diagram Manifold (Conduit Boundry)	
D-HT-00-300M	Piping and Instrumentation Diagram Manifold (Conduit Boundry)	
D-HT-00-300N	Piping and Instrumentation Diagram Manifold (Conduit Boundry)	
D-HT-00-300P	Piping and Instrumentation Diagram Manifold (Conduit Boundry)	
D-HT-00-300R	Piping and Instrumentation Diagram ISO-Octane Off-Loading Pump	
D-HT-00-300S	Piping and Instrumentation Diagram DRA Pump	
D-HT-00-300U	Piping and Instrumentation Diagram Pumps 3 & 4	
D-HT-00-300V	Piping and Instrumentation Diagram Pumps 5, 6 & 7	
D-HT-00-300W	Piping and Instrumentation Diagram Pumps 8 & 9	
D-HT-00-300X	Piping and Instrumentation Diagram TK-131736, 42739 & 42740	
D-HT-00-300Y	Piping and Instrumentation Diagram TK-42741, 67737 & 55733	
D-HT-00-300Z	Piping and Instrumentation Diagram TK-55734, 17035 & 5742	
95-234-P-101	Waterfront Piping Plan	
95-234-P-102	Waterfront Piping Plan	
95-234-P-103	Waterfront Piping Plan	
LA Harbor Terminal Tactical Plan 1	West Basin	
LA Harbor Terminal Tactical Plan 2	West Basin	

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

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(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.11 SPECIFIC LOGISTICAL RESOURCES

8.11.1 First Aid and Medical Services

First Aid
First Aid supplies are maintained in the Facility offices. KMEP field emergency responders have received First Aid and CPR training and will provide first response within the limits of their training. After first aid treatment, the injury will be evaluated for reference to, or transport to, medical professionals.

Urgent Care
Non-emergency medical care can be obtained through Urgent Care facilities. Transport to these facilities is usually provided through use of personal or company vehicles. Possible resources for this service include, but are not limited to, the following.

24 Hour-Emergency Room Service
St. Mary's Medical Center
1050 Linden
Long Beach, CA 90813
(562) 491-9000

7:00 am - 12:00 am (Monday - Friday)
Long Beach Medical Center
1250 Pacific Avenue
Long Beach, CA 90813
(562) 437-0831
(562) 624-2725 Fax

Emergency Medical Care
Emergency medical care will be secured from medical professionals. Possible resources for this service include but are not limited to, these listed above plus the following:

DIAL 911 - REQUEST ASSISTANCE FROM PARAMEDICS

San Pedro Peninsula Hospital
1300 W. 7th Street
San Pedro, CA 90732
(310) 832-3311

Long Beach Memorial Medical Center
2801 Atlantic Avenue
Long Beach, CA 90806
(562) 933-3000

Additional telephone references are provided in Figure 2.2 of this volume.

8.11 SPECIFIC LOGISTICAL RESOURCES (Cont'd)

8.11.2 Fire Services

Support from fire fighting professionals will be secured as needed. The services will be activated either by a call through 911 or directly to the nearest fire fighting resource. Possible resources for this service include but are not limited to, the following:

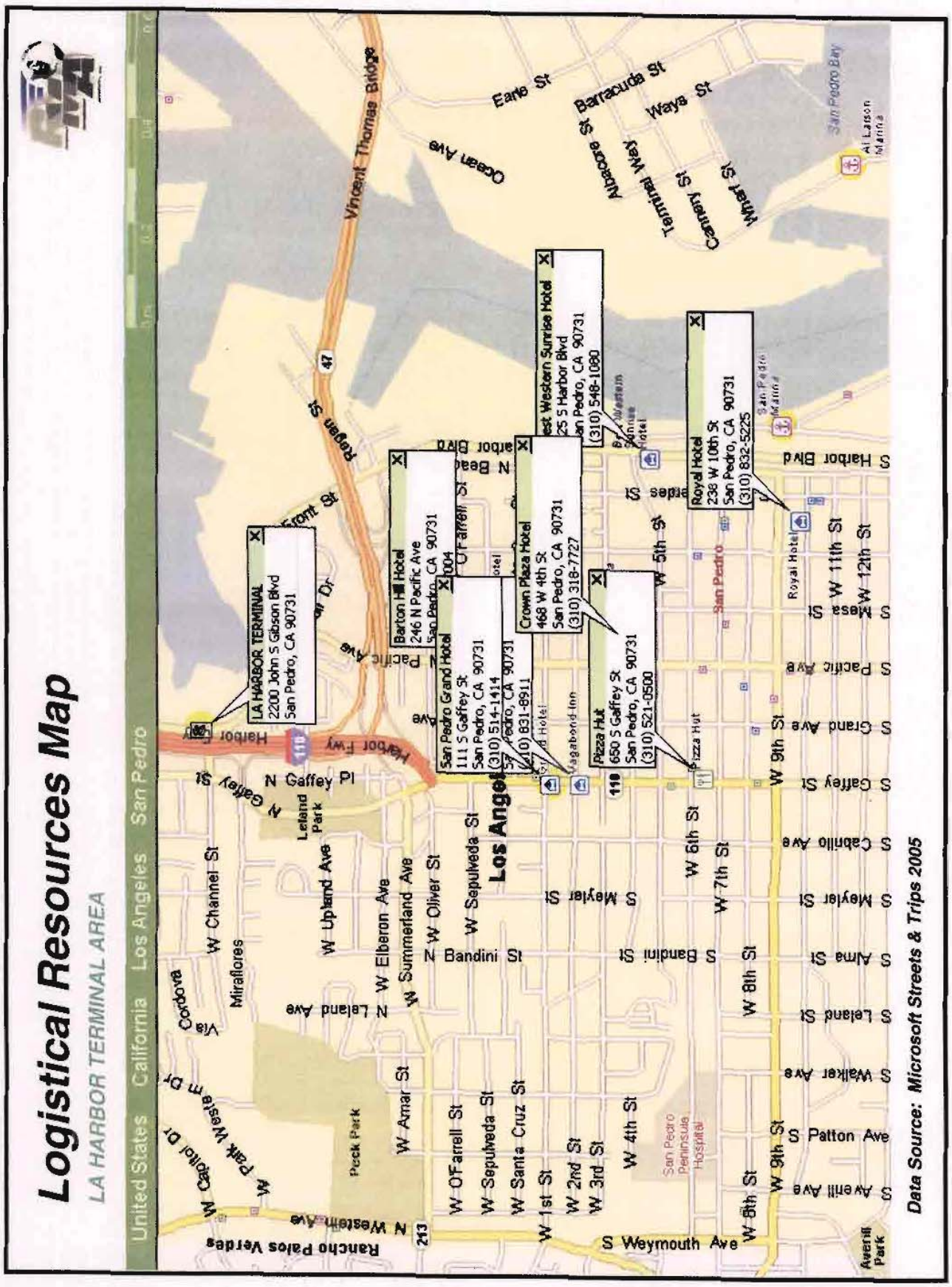
Long Beach Fire Dept
925 Harbor Plaza
Long Beach, CA
(562) 570-2500

LA County Fire Dept
4020 Candlewood Street
Lakewood, CA
(562) 634-1266

Carson Fire Dept
701 E. Carson Street, #B24
Carson, CA
(310) 830-9596

8.11.3 Lodging Services

Lodging will be secured for responders as appropriate. The following Figure provides an overview of the lodging services in the immediate vicinity of the Terminal. KM may select these or other Lodging Services as appropriate.



Kinder Morgan
ICP V-2

Southern Region – West
Carson Area-Los Angeles Harbor Terminal
July 2005

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: Kinder Morgan Liquids Terminals, LLC Carson Terminal
2000 E. Sepulveda Blvd.
Carson, CA 90810

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1.	Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes:	No: X
2.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	Yes:	No: X
3.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	Yes: X	No:
4.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	Yes:	No: X
5.	Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	Yes: X	No:

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: _____ Date: 30 - June 2010

Tom Hosler, Area Manager

8.1.2 INTRODUCTION

This Facility is a bulk liquid storage and distribution point for various refined petroleum products, ethanol and crude oil. The Facility has the capability to ship and receive products by tank truck and/or pipeline. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 through 8.5 provides Facility General Layout and Fire Protection Diagrams.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Carson Terminal 2000 E. Sepulveda Blvd. Carson, CA 90810 (310) 834-2730 (*24 Hrs.)* (310) 518-7700 (*Fax*)
NAICS Code:	493190
EPA FRP Number:	FRP0900184
OSPR Plan CNTRL Number:	P2-07-0175B
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	February 1923
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Agent for Service:	CSC - Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Los Angeles County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than 0.25 mile
Landside Directions:	From the intersection of I-710 and West Willow/47, take 47 west for approximately 0.74 miles when 47 turns south and East Sepulveda continues on west. Travel on East Sepulveda approximately 0.66 miles to the Facility on the left.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operations:

- This Facility is a bulk distribution facility for refined petroleum products, ethanol and crude oil located on a 100 acre parcel in Carson, CA.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Products Handled:

- Alkylate
- Crude Oil
- Cutter Stock
- Diesel
- Gasoline
- Gasoline Additives
- Gas Oil
- Jet Fuel
- Naphtha
- Transmix

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - TRUCK RACK

Description of Operation:

- The Facility is equipped with ten (10) loading lanes and one (1) unloading lane which handle various refined petroleum products.
- A maximum of ten (10) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of 210 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to a sump and is pumped to an oily water treatment system.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

FIGURE 8.1

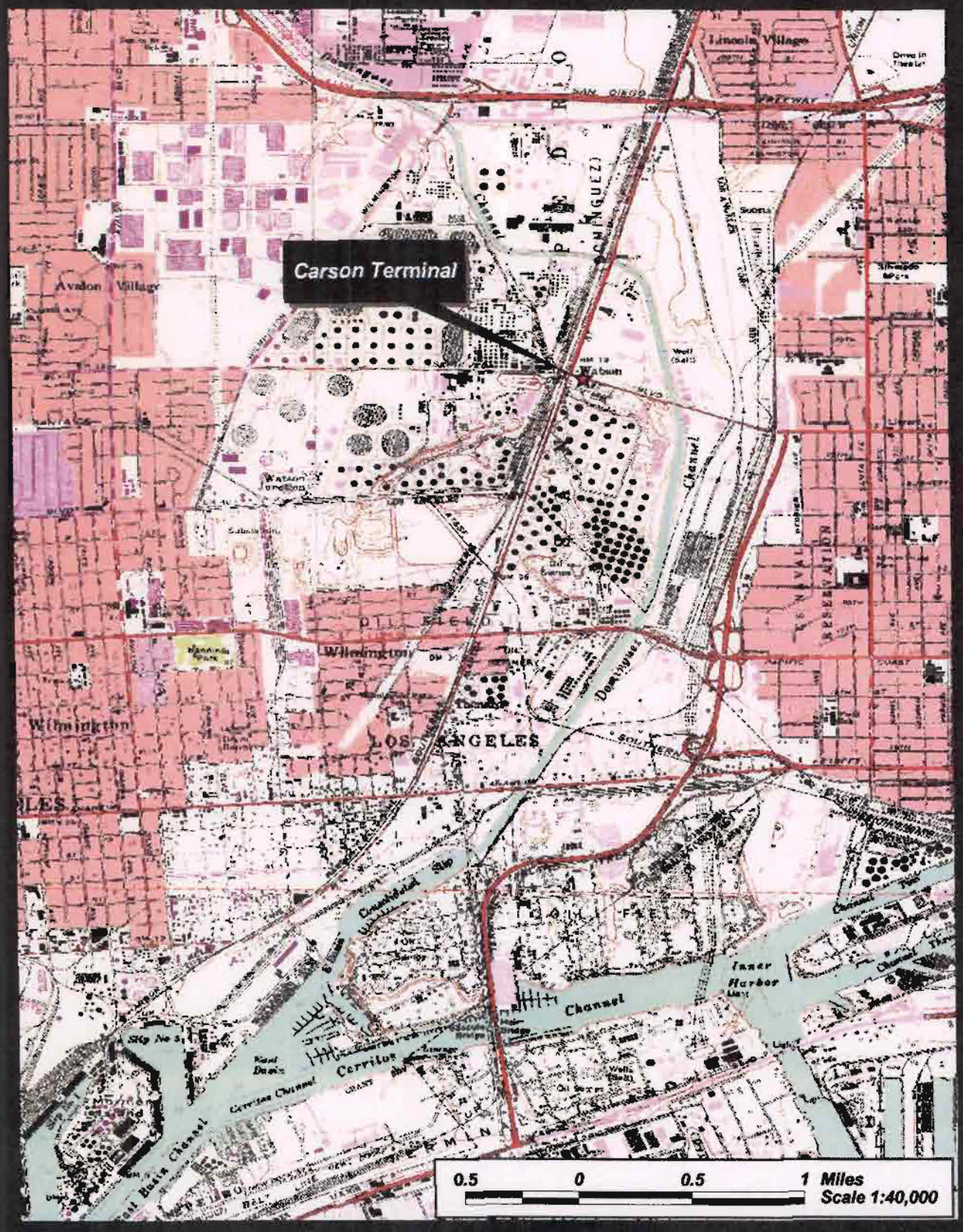
FACILITY INFORMATION (Cont'd)

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS
• The Facility was built in 1923. Substantial expansions to the Facility occurred in 1933 when eight (8) tanks were added, 1980 when seven tanks were added, 1991-2 when a total of 11 tanks were added and in 1993-4 when 10 tanks were added. Four (4) new tanks were added in 2006 – 2008 and 13 older tanks removed. Six (6) new tanks constructed in 2010. Seven (7) new tanks constructed in 2011/2012. One (1) new tank constructed 2013.
Figures presented on the following pages include: • Figure 8.2 – Area Map • Figure 8.3 – General Layout (07-2013) • Figure 8.4 – Fire Protection Diagram – Foam System (07-2013) • Figure 8.5 – Fire Protection Diagram – Water System (07-2013)

Fig 8.2 - Area Map

General Topographical Overview

Map Prepared By
Response Management Associates
(281) 320-9796



(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 FACILITY EXECUTABILITY STATEMENT

FACILITY EXECUTABILITY STATEMENT

I certify to the best of my knowledge and belief, under penalty of perjury under the laws of the state of California, that the information contained in this contingency plan is true and correct and that the plan is both feasible and executable.

_____
Signature

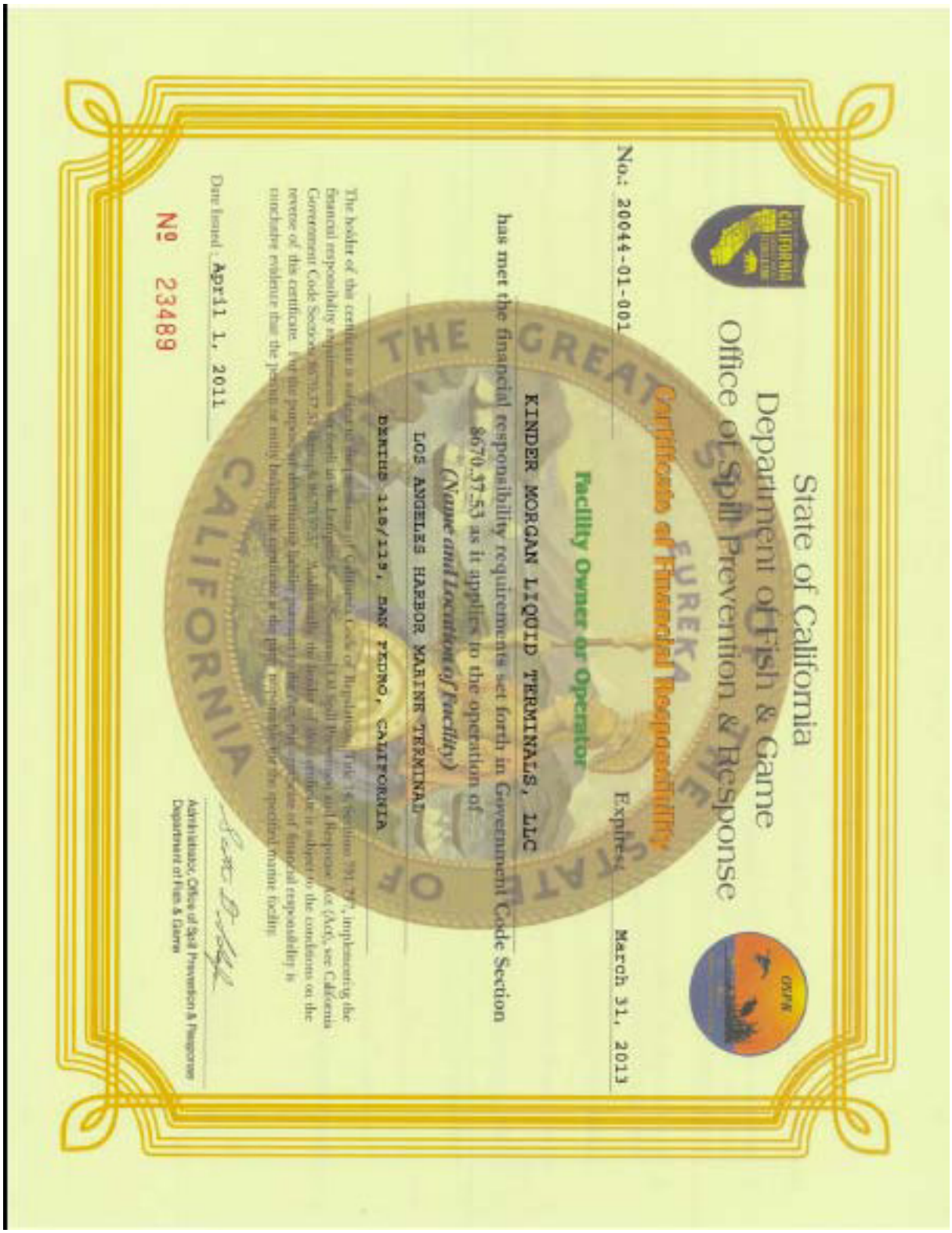
Michael T. Tilton
Name

Area Manager
Title

_____
Date

8.1.2 CERTIFICATE OF FINANCIAL RESPONSIBILITY

Note to Reviewer: Renewal packet was submitted to OSPR on March 06, 2013 a copy of the packet is included on this CD.



8.1.3 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: Kinder Morgan Liquids Terminals, LLC Los Angeles Harbor Terminal
2200 John S. Gibson Blvd.
San Pedro, CA 90731

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes: X**	**No:**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: _____ Date: _____

Michael T. Tilton, Area Manager

8.1.4 INTRODUCTION

This Facility is a bulk storage and distribution facility for crude oil land refined petroleum products. Products are received via vessel and pipeline and distributed via tank truck, vessel and pipeline. The following Figure 8.1 provides Facility specific information and Figure 8.2 provides an Area Map for the Facility.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)
- Risk and Hazard Analysis (Section 8.5)
- Offsite Consequence Analysis (Section 8.6)
- Risk Reduction Incentive Program (Section 8.7)
- Drug and Alcohol Policies (Section 8.8)
- Vessel Loading Procedures (Section 8.9)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Los Angeles Harbor Terminal 2200 John S. Gibson Blvd. San Pedro, CA 90731 (310) 831-6566
NAICS Code:	493190
EPA FRP Number:	FRP09A0189
USCG FRP Number:	To be assigned
OSPR Plan CNTRL Number:	P2-07-0175B
COFR Certificate Number:	20044-01-001
Dun & Bradstreet Number:	079741799
Date of Initial Storage:	1923
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-9454 (Office) (713) 495-2713 (Fax) Send correspondence to: Chuck Mathis Manager – Emergency Response Programs 1001 Louisiana Street, Suite 1000 Houston, TX 77002 (713) 369-8530 *(Office)* (713) 369-9215 *(Fax)* charles_mathis@kindermorgan.com *(email)*
Qualified Individual (Emergency Coordinator):	Mike Tilton Area Manager 2200 John S. Gibson Blvd. San Pedro, CA 90731 (310) 547-9655 (Office) (310) 833-5809 (Fax) michael_tilton@kindermorgan.com *(email)*
Alt. Qualified Individual (Emergency Coordinator):	Johnny Thomasson Operations Manager 2000 E. Sepulveda Blvd. Carson, CA 90810 (310) 518-7777 (Office) (310) 549-5708 (Fax) Johnny_thomasson@kindermorgan.com *(email)*

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION (Cont'd)	
Agent for Service:	CSC - Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.
FACILITY LOCATION	
County:	Los Angeles County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Adjacent
Landside Directions:	From San Pedro take 110 North approximately 0.6 miles to John S. Gibson Road exit. Take John S. Gibson Road approximately 0.22 miles northeast to Wilmington San Pedro Road. Turn right on Wilmington San Pedro Road to Facility.
Waterside Directions:	Facility can be accessed from San Pedro Bay via Main Basin Channel turning westerly at the turning basis just north of the Vincent Thomas Bridge to the Southwest Slip.
Seasonal Weather Conditions:	
Air Temperature:	Ranges from 30° to 95°F
Water Temperature:	Ranges from 52° to 54°F
Winds:	Generally southwest at 15 to 25 mph in afternoons from April to September; calm in other months except during storms.
Rain:	Generally 18 to 20 inches per year during October to May.
Marine Tide/Current:	The tidal range is generally from 0 feet to +5 feet MLLW, with the extremes being -2.5 feet and +7.5 feet. Currents in the Santa Fe Channel are generally about 0.5 feet knot at flood and EBB, with the maximums somewhat above this.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL

Description of Operations:

- This Facility is a bulk distribution facility for refined petroleum products and crude oil located on a 12.4 acre parcel at Berths 118-119 on the west side of Main San Pedro Channel in Los Angeles Harbor.

(b) (7)(F), (b) (3)

[redacted]

- The Facility normally operates 24 hours a day 7 days a week.

Products Handled:

- Gasoline
- Diesel
- Jet Fuel
- Transmix
- Alkylate
- Crude Oil
- Naphtha
- Fuel Oil
- Gas Oil
- ISO Octane

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility Office.

Pipeline Leak or Rupture:

- All buried pipes under jurisdiction of the California State Fire Marshal are cathodically protected. New installations within the Terminal boundaries are routed above ground whenever practical. New installations which must be routed underground are coated and wrapped for additional corrosion protection. All subsurface pipelines currently in use are either cathodically protected or coated.

- A pumping report is kept during transfer operations. Volumes pumped and received are reconciled every two hours. If any large discrepancies are observed, the operation is shut down until the discrepancies can be resolved.

- Pipeline flow rates and pressures are monitored during transfer operations.

- High pressure shutdown trips are provided on the outlet of all pumps to ensure lines are not overpressured.

- If any damage or corrosion is found on the transfer systems, Kinder Morgan investigates the problem, initiates repairs, and performs any additional inspections deemed appropriate.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Pipeline Leak or Rupture (Cont'd):

- Pipe supports allow for expansion and contraction. Many of the pipe supports are designed to minimize abrasion of the pipeline. Frequent inspections should minimize the spill potential from the pipelines that do not have supports with an abrasion control design.
- Above ground lines, valves, and fittings within Terminals are inspected daily by Terminal Operators.
- In areas with vehicular traffic, the aboveground piping is protected with barriers. Additionally, drivers are warned either verbally or by signage in areas with aboveground piping.
- Pipelines, when not in service for an extended period of time, are capped or blank-flanged and marked as out of service.

Pipeline Transfer Communications:

- The Terminal sites are in communication via telephone. Prior to transfer between Terminals, the Terminal Operators communicate to verify the operation. Communications between KMEP and outside parties are conducted via telephone. The outside operators are in radio communication with the Terminal Operator.
- (b) (7)(F), (b) (3) [redacted]

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with one (1) loading / two (2) unloading spots which handle various refined petroleum products.
- A maximum of three (3) tank trucks may load simultaneously.
- The loading/unloading operations are conducted 24 hours a day 7 days a week.
- The Facility handles an average of five (5) trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - LOADING RACK (Cont'd)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by Facility Operators.
- Safe operating procedures are posted.

PHYSICAL DESCRIPTION – MARINE OPERATIONS

General Operation:

Although there are 32 pipelines at the Facility, only 12 of the pipelines to the dock are actively used. Due to logistical and operational constraints, only three (3) of the 12 pipelines are operated simultaneously:

- No. 32 Twelve-inch jet fuel pipeline
- No. 33 Twelve-inch diesel pipeline
- Sixteen-inch oil product fuel pipeline

Dock Detail:

- **Length:** 800 feet
- **Construction:** Los Angeles Harbor Berths 118, 119, and 120 are built on wood pilings with a curbed wood deck. Transfer manifolds are located over curbed concrete decks.
- **Transfer Rate:** 2,000 – 7,000 bph (maximum loading)
2,000 – 10,000 bph (maximum unloading)
- **Transfer Hoses:** Supplied by the Facility.
- **Draft:** Normal draft is 35 feet.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION – MARINE OPERATIONS (Cont'd)

Vessel Detail:

- **Type:** Vessel/Barge
- **Size:** The Facility uses three (3) berths capable of handling a vessel approximately 1,000 feet in length with a 150 foot beam and a 35 foot draft as well as a 525 foot tanker and a 250 foot barge or three (3) 250 foot barges.
- **Dead Weight** 90,000 DWT
- **Tow Quantity (Barge):** One (1)
- **Capacity:** 150,000 bbls *(maximum)*
- **Simultaneous Operations**: One (1) 1,000 foot vessel or one (1) 250 foot barge can be accommodated at a time. Typical operations are pumping to/from one vessel/barge at a time.

Vessel and Barge Operations:

Spills from loading/unloading vessels and barges are prevented in the following manner:

- An inspection is performed on all vessel piping and fittings before attaching to the vessel.
- A pumping report is kept during loading/unloading. Volumes shipped and received are reconciled hourly. If any large discrepancies are observed, the operation is shut down until the discrepancies can be resolved.
- Loading/unloading is continually monitored by one person on the dock, one or more persons on the vessel, and one person monitoring shoreside tankage.
- Loading/unloading hoses are visually inspected for damage before each use. Hoses are pressure tested when placed in service and annually thereafter.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION – MARINE OPERATIONS (Cont'd)

Vessel and Barge Operations (Cont'd):

The following inspections are performed at the Facility:

- An annual hydro-test is conducted on the internal piping from each dock header to the onshore block valve at the manifold containment area.
- An annual test/re-set of the emergency shutdown motor that is operated on the onshore block valves is conducted.
- Each shift performs a dock inspection for any irregularities and an inspection of the pumps for leaking seals.

Vessel and Barge Communications:

- A Terminal Operator is on duty on the berth whenever a transfer operation is being conducted. The duties of this Operator are to monitor the transfer from the berth, visually inspect the loading arm and/or hose, and maintain radio communications with the Terminal Operator and vessel.
- Portable radios are the primary means of communications between the Terminal personnel. Telephones are also available for notification of an emergency situation. Telephones are located in the Terminal Offices, and on the docks. Pagers are also used for notification of Company management and off-duty personnel.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- In 1931 two (2) tanks constructed.
- In 1935 four (4) tanks constructed.
- In 1949 three (3) tanks constructed.
- In 1959 seven (7) tanks constructed.

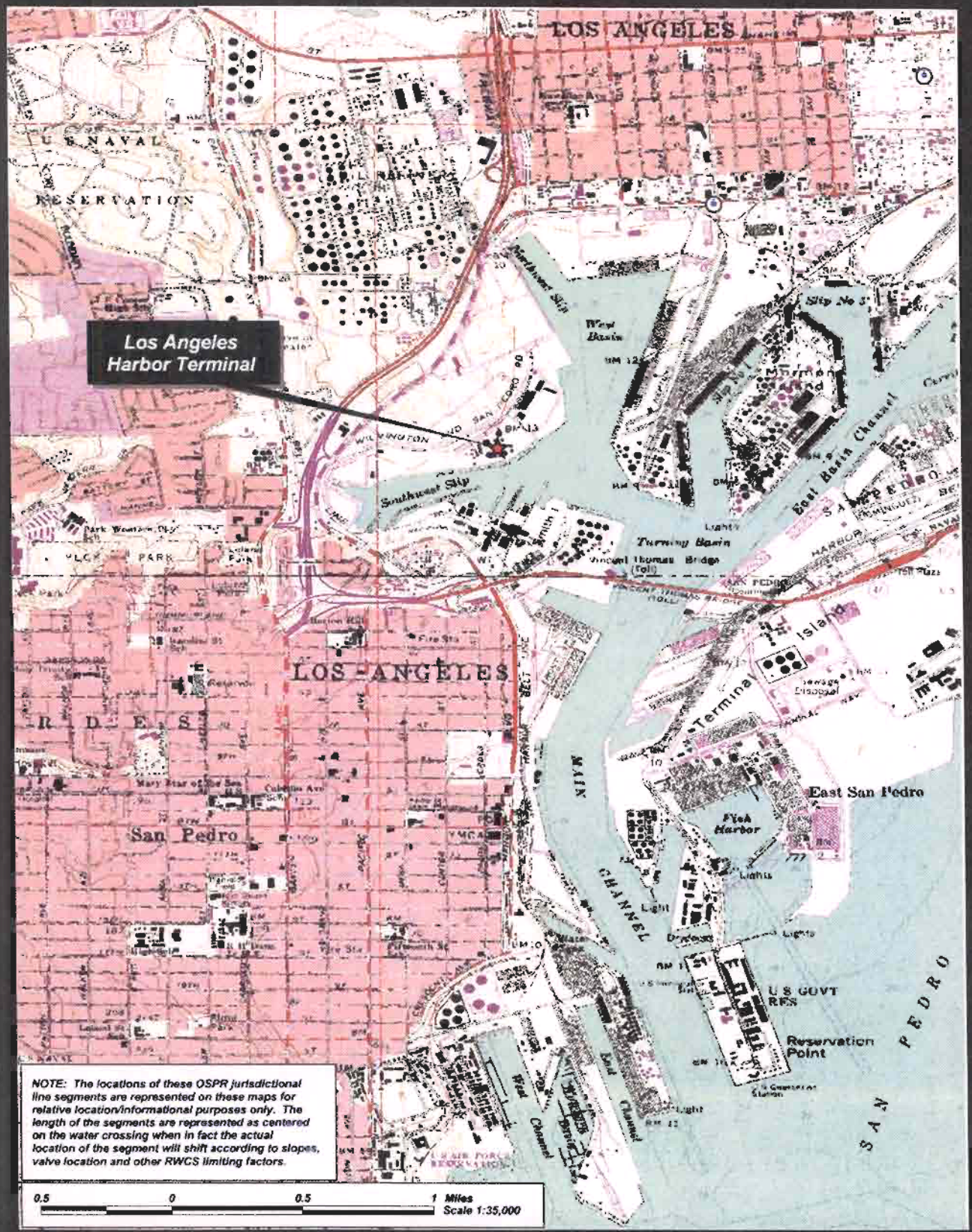
Figures presented on the following pages include:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout
- Figure 8.4 – Fire Protection Diagram

Fig. 8.2 - Area Map

General Topographical Overview

Map Prepared By
Response Management Associates
(281) 320-9796



(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: SFPP, L.P. Mission Valley Terminal
9950 San Diego Mission Road
San Diego, CA 92108

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

_____ _____

8.1.2 INTRODUCTION

Facility Overview

This Facility is a bulk distribution facility for refined petroleum products. Product is received via the Company's pipeline #122/126/125/10 into aboveground storage. The product is transported out of the Facility by tanker trucks. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	Mission Valley Terminal 9950 San Diego Mission Road San Diego, CA 92108 (619) 283-6511 (619) 285-5706 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A103
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	April, 1963
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	San Diego County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than one mile
Landside Directions:	At the intersection of I-15 and Friars Rd. Take Friars Rd. West 0.3 miles and exit off of Friars Rd. Turn left onto Mission Village Dr. to San Diego Mission Rd. Turn left onto San Diego Mission Rd. and travel 0.27 miles to the Facility on left.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operations:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Products Handled:

- Gasoline
- Diesel
- Ethanol
- Transmix
- Additives
- Red Dye

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with twelve (12) loading and four (4) off-loading spots which handle various refined petroleum products.
- A maximum of twelve (12) tank trucks may load simultaneously, and a maximum of four (4) trucks may unload simultaneously.
- The loading/unloading operations are conducted 24 hours per day 7 days per week.
- The Facility handles an average of 230 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- Full discharge prevention details are provided in Section 7 of the SPCC Plan.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

- The majority of the Facility was constructed in 1962 and 1963. Eight (8) tanks with a maximum capacity of 6,133,260 gallons were initially constructed. Five (5) new tanks were constructed in 1968 and 1969, another in 1979, and another in 1999. Six (6) tanks were purchased from Shell Oil Company in 2004.
- Shell San Diego Terminal purchased in 2010

Figures presented on the following pages include:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout
- Figure 8.4 – Fire Protection Diagram

Figure 8.2 - Area Map

Map Prepared By
Response Management Associates
(281) 320-9796

KINDER MORGAN
KCP-V2

(b) (7)(F), (b) (3)

8.1.1 CERTIFICATION OF SUBSTANTIAL HARM

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name and Address: SFPP, L.P. Orange Terminal
1350 N. Main Street
Orange, CA 92667

(Detailed Facility information, including data required for the Response Plan Cover Sheet, is provided in Figure 8.1)

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	**Yes:**	**No: X**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	**Yes:**	**No: X**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility could cause injury (as defined in 40 CFR 112.2) to fish an wildlife and sensitive environments?	**Yes: X**	**No:**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix (40 CFR 112 Appendix C) or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?	**Yes:**	**No: X**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the past five (5) years?	**Yes:**	**No: X**

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

CERTIFICATION

I hereby certify the following:

- Under penalty of law that I have personally examined and am familiar wit the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe the submitted information is true, accurate and complete.
- The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Volume 1, Section 1.5.

Signature: _____
Marty Vice, Area Manager

Date: 5-11-2010

8.1.2 INTRODUCTION

This Facility is a bulk distribution facility for refined petroleum products. Product is received via pipeline into aboveground storage tanks. The product is transported out of the Facility by tanker trucks. The following Figure 8.1 provides Facility specific information, Figure 8.2 provides an Area Map for the Facility, and Figure 8.3 provides a Facility Diagram.

This Section 8 is provided in order to document the following Facility-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- Facility Information (Figure 8.1)
- Area Map (Figure 8.2)
- Hazard Identification including Tank Tables (Section 8.2)
- Inspections (Section 8.2.2)
- Vulnerability Analysis (Section 8.2.3)
- Discharge Scenarios (Section 8.3)
- Evacuation (Section 8.4)

FIGURE 8.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	SFPP, L.P.
Physical Address:	Orange Terminal 1350 N. Main Street Orange, CA 92667 (714) 538-5227 (714) 538-0207 *(Fax)*
NAICS Code:	493190
EPA FRP Number:	FRP09A0104
Dun & Bradstreet Number:	618 450-886
Date of Initial Storage:	December, 1962
Owner/Operator:	See Volume 1, Section 1.1
Qualified Individual (Emergency Coordinator):	See Volume 1, Section 1.1
Telephone/FAX:	Additional telephone references, including 24 hour numbers, for the Facility, Owner, and QI/AQI are provided in Section 2 of Volume I.

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

FACILITY LOCATION	
County:	Orange County, CA
Latitude:	(b) (7)(F), (b) (3) [redacted]
Longitude:	
Area Map:	Provided in Figure 8.2
Facility Diagram:	Provided in Figure 8.3
Wellhead Protection Area:	None
Facility Distance to Navigable Water:	Less than one quarter mile
Landside Directions:	At the intersection of I-5 and CA-57/Pomona, merge onto SR-57 (Orange Freeway North). Turn off onto ramp towards Katella Avenue. Turn right onto Katella Avenue. Turn left (north) onto N. Main Street. Arrive at 1350 N. Main Street, Orange.
Waterside Directions:	There is no water access to this Facility.

PHYSICAL DESCRIPTION - GENERAL

Description of Operation:

- This Facility is a bulk distribution facility for refined petroleum products.

(b) (7)(F), (b) (3) [redacted]

- The Facility normally operates 24 hours a day, 7 days a week.
- The Facility's Worst Case Discharge amount is (b) (7)(F), (b) (3) [redacted]

FIGURE 8.1

FACILITY INFORMATION (Cont'd)

PHYSICAL DESCRIPTION - GENERAL (Cont'd)

Products Handled:

- Gasoline
- Diesel
- Ethanol
- Transmix
- DRA (Drag Reducing Agents)
- Additives

Note: The Facility maintains a stand alone full encompassing MSDS reference binder in the Facility office.

PHYSICAL DESCRIPTION - LOADING RACK

Description of Operation:

- The Facility is equipped with three (3) loading/unloading bays.
- A maximum of two (2) tank trucks may load, and one (1) tank truck may unload, simultaneously.
- The loading/unloading operations are conducted 24 hours a day, 7 days a week.
- The Facility handles an average of 65 trucks per day.

Loading Rate: 600 gpm (*per truck*)

Truck Capacity: 9,000 gallons (*maximum*)

Discharge Prevention:

- The curbed concrete slab drains directly to an oil water separator.
- Loading of refined products are only conducted by the truck drivers.
- Safe operating procedures are posted.

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

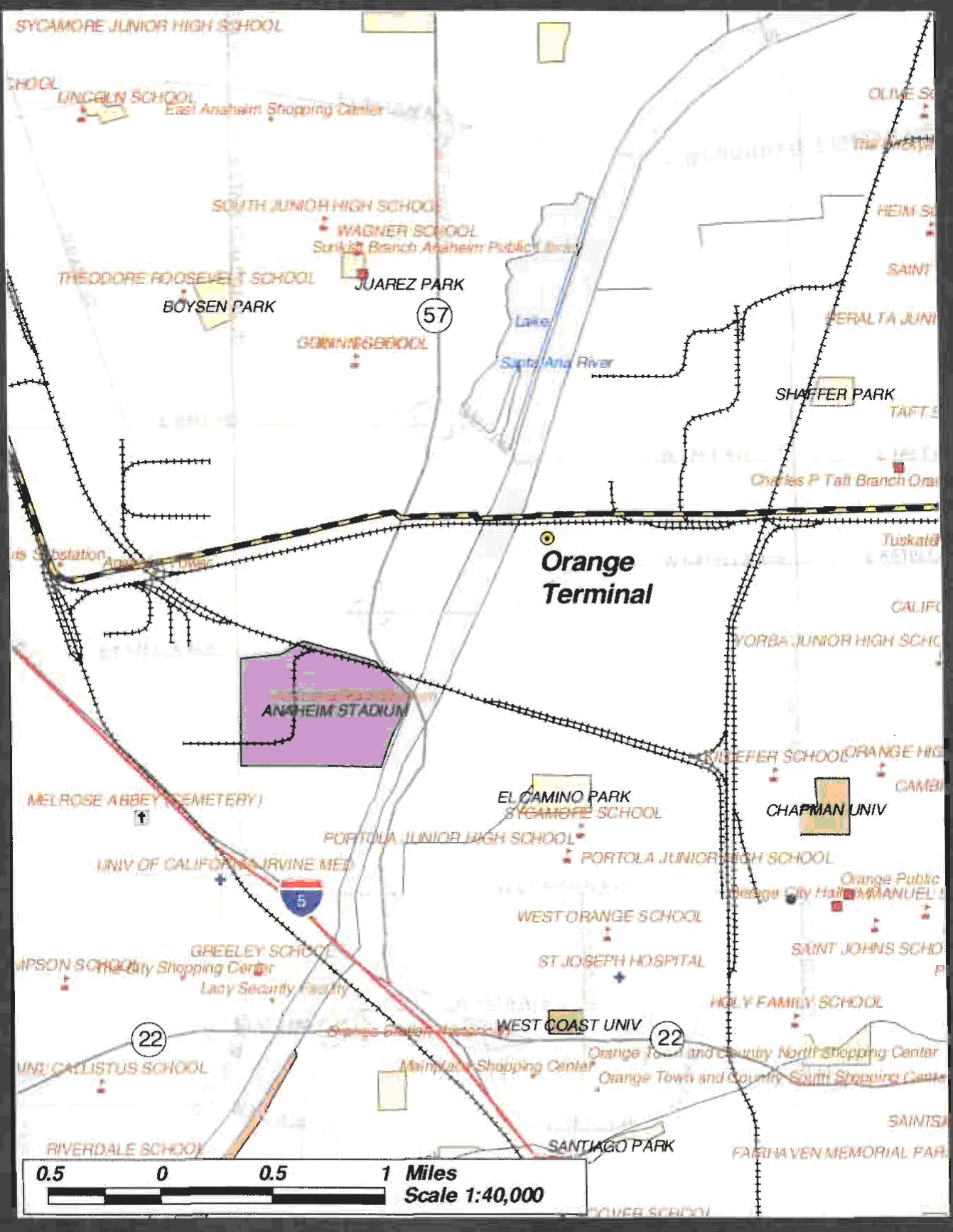
- The majority of the Facility was constructed in 1962 and 1963. Seven (7) tanks with a maximum capacity of 6,453,720 gallons were initially constructed. One (1) new tank was constructed in 1965 and another in 1986.

Figures presented on the following pages include:

- Figure 8.2 – Area Map
- Figure 8.3 – General Layout
- Figure 8.4 – Fire Protection Diagram

Fig. 8.2 Area Map

Map Prepared By
Response Management Associates
(281) 320-9796



(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Rail car loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed on the Potential Spill Sources and Containment Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Containment Identification table in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the truck rack loading and unloading facilities is contained in a depressed area (with curbs). Drainage is through area drains to a sump. The product is pumped to the product interface tank (TK #16034). Periodically, the interface tank is pumped down and the oil returned to the Temporary Storage Disposal Facility (TSDF). The water phase is drained to a water treatment system, treated and released to the municipal sewer system.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/structures or inhibit operations conducted within the containment area.

- Stormwater which does accumulate within diked areas, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.

- Drainage from diked storage areas is restrained by manually controlled valves.

- Dike drain valves are secured in the closed position when not draining containment areas.

- Flapper-type drain valves are not used to drain diked areas.

- Stormwater from diked areas is emptied by valves and pumps which are manually activated.

- Individually diked areas all drain to a common collection point located in the northeast corner separation ponds of the Facility area through normally closed butterfly valves.

- All interconnecting valves between tank dikes are manually operated.

- The Facility is located on a hillside with natural drainage to the north and east. This drainage pattern, however, has been substantially altered by the installation of secondary containment structures for the Facility tankage. Rainwater falling into these secondary containment areas is allowed to either percolate, evaporate, or it is drained through the Facility's stormwater drain system.

- The stormwater drain system utilizes catch basins, underground pipelines, and manually opened and closed isolation valves to remove the stormwater from within the secondary containment areas. The isolation valves in the drain system are in the closed position, except during discharges. Authorized personnel physically inspect the secondary containment areas to ensure that there is no sheen or oil contamination in the stormwater prior to opening the isolation valves to drain the water. Water which is determined to have oil contamination is not discharged and is either pumped to the slop tank (#16034) or it is cleaned up with absorbent material. Alternatively, the contaminated stormwater could be removed by vacuum truck and disposed of properly.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas (Cont'd)

- At the Facility, there are two destinations for the stormwater that is drained from the secondary containment. The majority of the secondary containment areas discharge stormwater to the stormwater retention ponds located in the northeast corner of the Facility. Stormwater from the balance of the secondary containment areas is directed to the stormwater retention basin (commonly referred to as the "slough" in the southwest portion of the Facility).

- The two stormwater retention ponds function as oil water separators to ensure that the stormwater being discharged from the Facility to the Dominguez Channel meets discharge limitations. Discharges from the stormwater retention ponds are governed by the NPDES permit. Prior to discharging any water offsite from the retention ponds, personnel visually inspect the water for any sign of oil. During the discharge, a sample of the wastewater is collected and sent to a laboratory for analysis to verify that the fluid was in compliance with the NPDES permit. Facility personnel monitor all drainage operations.

- Drainage water collected from the highway tanker loading rack areas is routed to the Facility's 16,000 bbls slop tank (#16034). Additionally, drainage from pipeline areas within the Facility flows into either the tank secondary containment areas or the loading rack strip drains.

- Stormwater from outside of the operational areas, such as the office complex and parking lot and areas outside of the loading racks, is controlled using an earthen berm equipped with a gate valve. Clean stormwater can be discharged from this containment area via the gate valve. If the water is contaminated with oil, the water is either pumped to the slop tanks or it is cleaned up with absorbent material prior to discharge.

- Contaminants are routed to a collection tank (#16034) and trucked offsite.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Piping located outside the diked areas is contained by the in-plant drainage system and stormwater collection system.

- Surface drainage from undiked areas on the property flows to a Clean Water Line Stormwater Collection System. The water from this system is discharged from the property through one outfall.

- All undiked piping is located in areas away from vehicular traffic.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Drainage From the Undiked Areas (Cont'd)

- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- The two stormwater retention ponds function as oil water separators to ensure that the stormwater being discharged from the Facility to the Dominguez Channel meets discharge limitations. Discharges from the stormwater retention ponds are governed by an NPDES permit. Prior to discharging any water offsite from the retention ponds, personnel visually inspect the water for any sign of oil. During the discharge, a sample of the wastewater is collected and sent to a laboratory for analysis to verify that the fluid was in compliance with the NPDES permit. Facility personnel monitor all drainage operations.

- Water is visually inspected for product and discharged only if no product sheen is visible.

- Facility drainage does flow directly into an open watercourse.

- When draining the containment area, water is discharged to the drainage ditch which drains ¼ mile to Dominguez Channel.

- The Facility does not have a wastewater treatment plant nor does it treat water prior to discharge off site.

- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.

- Adequate records are kept of such drainage events and records of drainage events are maintained at the Facility.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Carson Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection measures.

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds. *

(b) (3), (b) (7)(F)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A1										
80003*	RFG 87 (112' x 47'-11.25")	(b) (7)(F), (b) (3)		IFR	1992	Leak/Rupture	Instantaneous	None	East then North	(b) (7)(F), (b) (3)
80022*	RFG 92 (112' x 50')			IFR	1992	Leak/Rupture	Instantaneous	None	East then North	
80065*	ULR 87 (112' x 50')			IFR	1991	Leak/Rupture	Instantaneous	None	East then North	
100057	Gasoline (125' x 50')			IFR	1991	Leak/Rupture	Instantaneous	None	East then North	
100058	Gasoline (125' x 50')			IFR	1991	Leak/Rupture	Instantaneous	None	East then North	
100059	Gasoline (125' x 50')			IFR	1991	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									
BULK STORAGE CONTAINERS – AREA A2										
80001*	ULP 92 (126' x 40')	(b) (7)(F), (b) (3)		IFR	1989	Leak/Rupture	Instantaneous	None	East then North	(b) (7)(F), (b) (3)
80002*	Alkylate (112' x 48'-1")			IFR	1990	Leak/Rupture	Instantaneous	None	East then North	
150050*	Alkylate (150' x 50')			IFR	1980	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A4										
150051*	RFG 87 (150' x 50')	(b) (7)(F), (b) (3)		IFR	1980	Leak/Rupture	Instantaneous	None	East then North	(b) (7)(F), (b) (3)
	TOTAL									
BULK STORAGE CONTAINERS – AREA A5										
9548	Ethanol (48' x 29'-5")	(b) (7)(F), (b) (3)		VFR	1936	Leak/Rupture	Instantaneous	None	East then North	(b) (7)(F), (b) (3)
80004*	Raffinate (112' x 50')			IFR	1993	Leak/Rupture	Instantaneous	None	East then North	
80005*	Jet (117'-2" x 41'-10")			IFR	1993	Leak/Rupture	Instantaneous	None	East then North	
80006*	Diesel (117'-2" x 41'-10")			IFR	1993	Leak/Rupture	Instantaneous	None	East then North	
80012*	RFG 87 (117'-2" x 41'-10")			IFR	1994	Leak/Rupture	Instantaneous	None	East then North	
80017*	Diesel (112' x 50')			IFR	1991	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A7										
80008**	RFG 87 (117'-2" x 41' 10")	(b) (7)(F), (b) (3)		EFR	1923	Leak/Rupture	Instantaneous	None	East then North	(b) (7)(F), (b) (3)
80009	Empty (117'-2" x 41' 10")			EFR	1923	Leak/Rupture	Instantaneous	None	East then North	
80010	RFG 87 (117'-2" x 41' 10")			EFR	1923	Leak/Rupture	Instantaneous	None	East then North	
150053*	Diesel (150' x 50')			IFR	1980	Leak/Rupture	Instantaneous	None	East then North	
150054*	A kylate (150' x 50')			IFR	1980	Leak/Rupture	Instantaneous	None	East then North	
150062*	ULR 87 (150' x 51;)			IFR	1991	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A8										
25050	Ethanol (75' x 50')	(b) (7)(F), (b) (3)		Sphere ICAC Tank	1937	Leak/Rupture	Instantaneous	None	East then North	(b) (7)(F), (b) (3)
60066*	Jet (100' x 50')			IFR	1993	Leak/Rupture	Instantaneous	None	East then North	
60067*	Jet (100' x 50')			IFR	1993	Leak/Rupture	Instantaneous	None	East then North	
60068*	Jet (100' x 50')			IFR	1993	Leak/Rupture	Instantaneous	None	East then North	
80007**	Diesel (117'-2" x 41'-10")			EFR	1923	Leak/Rupture	Instantaneous	None	East then North	
150052*	Jet (150' x 50')			IFR	1980	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									
BULK STORAGE CONTAINERS – AREA A9										
80019*	Crude (117'-2" x 41'-10")			EFR	1923	Leak/Rupture	Instantaneous	None	West and South	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A10										
80011	RFG 87 (117'-2" x 41'-10")	(b) (7)(F), (b) (3)		EFR	1944	Leak/Rupture	Instantaneous	None	West and South	(b) (7)(F), (b) (3)
80069*	Jet (112' x 50')			IFR	1994	Leak/Rupture	Instantaneous	None	East then North	
80071*	Jet (112' x 50')			IFR	1994	Leak/Rupture	Instantaneous	None	East then North	
80072*	Jet (112' x 50')			IFR	1994	Leak/Rupture	Instantaneous	None	East then North	
80073*	(115' x 53'-1")			IFR	2005	Leak/Rupture	Instantaneous	None	East then North	
150055*	ULP 92 (150' x 50')			IFR	1980	Leak/Rupture	Instantaneous	None	East then North	
178013*	Crude (175'-9" x 41'-6")			VFR	1923	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									
BULK STORAGE CONTAINERS – AREA A11										
178014*	Crude (175'-9" x 41'-6")			VFR	1923	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A12										
80023*	Crude (117'-2" x 41'-10")	(b) (7)(F), (b) (3)		EFR	1927	Leak/Rupture	Instantaneous	None	West and South	(b) (7)(F), (b) (3)
	TOTAL									
ULK STORAGE CONTAINERS – AREA A13										
80074*	Distillates (115' x 53.5")			IFR	2006	Leak/Rupture	Instantaneous	None	West and South	
80075*	Distillates (115' x 53'-1")			IFR	2006	Leak/Rupture	Instantaneous	None	West and South	
80076*	Distillates (115' x 53'-1")			IFR	2006	Leak/Rupture	Instantaneous	None	West and South	
80077*	Distillates (115' x 53'-1")			IFR	2008	Leak/Rupture	Instantaneous	None	West and South	
	TOTAL									
ULK STORAGE CONTAINERS – AREA A14										
100064*	Diesel (125' x 50')			IFR	1993	Leak/Rupture	Instantaneous	None	East then South	
178016**	Diesel (178' x ")			VFR	1923	Leak/Rupture	Instantaneous	None	East then South	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
		(b) (7)(F), (b) (3)		**BULK STORAGE CONTAINERS – AREA A15**						(b) (7)(F), (b) (3)
178015*	Crude (175'-9" x 41'-6")			VFR	1923	Leak/Rupture	Instantaneous	None	East then South	
	TOTAL									
				BULK STORAGE CONTAINERS – AREA A16						
100060*	Diesel (125' x 50')			IFR	1992	Leak/Rupture	Instantaneous	None	South	
100061**	Diesel (125' x 49'-11,75')			IFR	1992	Leak/Rupture	Instantaneous	None	South	
100063**	Diesel (125' x 50')			IFR	1992	Leak/Rupture	Instantaneous	None	South	
	TOTAL									
				BULK STORAGE CONTAINERS – AREA A19						
16034	Slop (50' x 48')			EFR	1956	Leak/Rupture	Instantaneous	None	East then North	
16041	Jet (50' x 48')			EFR	1956	Leak/Rupture	Instantaneous	None	East then North	
23570*	Transmix (65' x 40')			IFR	1980	Leak/Rupture	Instantaneous	None	East then North	
30091*	Transmix (75' x 40')			IFR	2013	Leak/Rupture	Instantaneous	None	East then North	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A20										
80078*	Blend Stock/Refined Products (112' x 50')	(b) (7)(F), (b) (3)		IFR	2010	Leak/Rupture	Instantaneous	None	North	(b) (7)(F), (b) (3)
80079*	Blend Stock/Refined Products (112' x 50')			IFR	2010	Leak/Rupture	Instantaneous	None	North	
80080*	Blend Stock/Refined Products (112' x 50')			IFR	2010	Leak/Rupture	Instantaneous	None	North	
80081*	Blend Stock/Refined Products (112' x 50')			IFR	2010	Leak/Rupture	Instantaneous	None	North	
80082*	Blend Stock/Refined Products (112' x 50')			IFR	2010	Leak/Rupture	Instantaneous	None	North	
80083*	Blend Stock/Refined Products (112' x 50')			IFR	2010	Leak/Rupture	Instantaneous	None	North	

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom
** = Complex Jurisdictional Tank

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks
* = DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – AREA A20 (Cont'd)										
80084*	Blend Stock/Refined Products (112' x 50')	(b) (7)(F), (b) (3)		IFR	2012	Leak/Rupture	Instantaneous	None	North	(b) (7)(F), (b) (3)
80085*	Blend Stock/Refined Products (112' x 50')			IFR	2012	Leak/Rupture	Instantaneous	None	North	
80086*	Blend Stock/Refined Products (112' x 50')			IFR	2012	Leak/Rupture	Instantaneous	None	North	
80087*	Blend Stock/Refined Products (112' x 50')			IFR	2012	Leak/Rupture	Instantaneous	None	North	
80088*	Under Construction (112' x 50')			IFR	---	Leak/Rupture	Instantaneous	None	North	
80089*	Blend Stock/Refined Products (112' x 50')			IFR	2011	Leak/Rupture	Instantaneous	None	North	
80090*	Blend Stock/Refined Products (112' x 50')			IFR	2011	Leak/Rupture	Instantaneous	None	North	
Total										

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
OTHER BULK STORAGE CONTAINERS										
Fire pump #1 Diesel Tank	Diesel Fuel	(b) (7)(F), (b) (3)		Diesel Tank	Unk.	Leak/Rupture	Instantaneous	None	N/A	(b) (7)(F), (b) (3)
Fire pump #2 Diesel Tank	Diesel Fuel			Diesel Tank	Unk.	Leak/Rupture	Instantaneous	None	South	
Portable Diesel Tank	Diesel			Diesel Tank	Unk.	Equipment Failure/ Rupture/Leak /Overfill	Instantaneous	None	NE to Sump	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank
**	=	Complex Jurisdictional Tank			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
374	Additive 8' x 31'9"	(b) (7)(F), (b) (3)		Horizontal	1993	Leak/ Rupture	Instantaneous	None	Within containment	(b) (7)(F), (b) (3)
375	Additive 8' x 31'9"			Horizontal	1993	Leak/ Rupture	Instantaneous	None	Within containment	
128	Additive			Horizontal	Unknown	Leak/ Rupture	Instantaneous	None	Within containment	
Red Dye Tote (three)	Red Dye			Tote	Tote	Leak/ Rupture	Instantaneous	None	East	
Lubricity	Lubricity			Horizontal	2005	Leak/ Rupture	Instantaneous	None	Drains to Sump	
	TOTAL									

VFR = Vertical Fixed Roof
IFR = Internal Floating Roof
EFR = External Floating Roof
DW = Double-walled
H = Horizontal
MV = Manual Valves
DB = Double Bottom

EF = Earthen Floor
CF = Concrete Floor
EW = Earthen Walls
CW = Concrete Walls
PP = Portable Pump
VT = Vacuum Trucks

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow *(gpm)*	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING AREAS							
10 Spot Loading Rack	Oil Products	9,000	Equipment Failure/ Rupture/Leak/Overfill	600 gpm per meter	None	Drains to Sump	5" high curbing, sump pumped to Tank 16034
Returned Product Unload Area	Oil Product Return	9,000	Equipment Failure/ Rupture/Leak/Overfill	Instantaneous	None	Drains to Sump	Drains to black oil sump

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume-Gallons) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES									
Saturator Tank #1 (8'O x 14'-4")	Gasoline/ Diesel	(b) (7)(F), (b) (3)		Vapor Saturator	Leak/ Rupture	Instantaneous	None	N/A	(b) (7)(F), (b) (3)
Saturator Tank #2 (8'O x 14'-4")	Gasoline/ Diesel			Vapor Saturator	Leak/ Rupture	Instantaneous	None	N/A	
VCS Hydraulic Seal #1 (3' x 4')	Water w/ hydrocarbons			Hydraulic Seal	Leak/ Rupture	Instantaneous	None	N/A	
VCS Hydraulic Seal #2 (3' x 4')	Water w/ hydrocarbons			Hydraulic Seal	Leak/ Rupture	Instantaneous	None	N/A	
Jet Fuel Filters (3' x 5')	Jet Fuel			Jet Fuel Filters	Leak/ Rupture	Instantaneous	None	N/A	
Ethanol Filters OOS (3' x 5')	Ethanol			Ethanol Filters	Leak/ Rupture	Instantaneous	None	N/A	
Product Filters (7) OOS (3' x 5')	Petroleum Products			Product Filters	Leak/ Rupture	Instantaneous	None	Southeast	
Haz. Waste Drum Storage	Petroleum Products			55 Gallon Drums	Leak/ Rupture	Instantaneous	None	N/A	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume-Gallons)* *(Construction Material)* *(Drainage Type)*
OPERATIONAL EQUIPMENT									
Oil Filled Transformer	Oil	(b) (7)(F), (b) (3)		Oil Filled Transformer	Leak/ Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
Oil Filled Transformer #1	Oil			Oil Filled Transformer	Leak/ Rupture	Instantaneous	None	West	
Oil Filled Switch Gear #1	Oil			Oil Filled Switch Gear	Leak/ Rupture	Instantaneous	None	West	
Oil Filled Transformer #2	Oil			Oil Filled Transformer	Leak/ Rupture	Instantaneous	None	West	
Oil Filled Switch Gear #2	Oil			Oil Filled Switch Gear	Leak/ Rupture	Instantaneous	None	West	
Oil Filled Transformer #3 & 4	Oil			Oil Filled Transformer	Leak/ Rupture	Instantaneous	None	West	
Oil Filled Switch Gear #3 & 4	Oil			Oil Filled Switch Gear	Leak/ Rupture	Instantaneous	None	West	
Oil Filled Switch Gear #5	Oil			Oil Filled Switch Gear	Leak/Rupture	Instantaneous	None	Southwest	
Oil Filled Transformer #5	Oil			Oil Filled Transformer	Leak/Rupture	Instantaneous	None	West	

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume-Gallons)* *(Construction Material)* *(Drainage Type)*
OPERATIONAL EQUIPMENT (Cont'd)									
Oil Filled Transformer #6	Oil	(b) (7)(F), (b) (3)		Oil Filled Transformer	Leak/Rupture	Instantaneous	None	East	(b) (7)(F), (b) (3)
Oil Filled Transformer on Poles (3)	Oil			Oil Filled Transformers	Leak/Rupture	Instantaneous	None	West	

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Tank Number	Substance Stored *(Oil & Haz. Substance)*	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Tank Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Failure/Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Containment Capacity *(Gallons)*
		There are no Underground Storage Tanks					

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SI)
(Surface Impoundment = natural topographic depression, man-made excavation)

SI Number	Substance Stored	Quantity Stored *(Gallons*	Maximum Capacity *(Gallons)*	Surface Area	Year Built	Failure/Cause *(Record cause and date of any SI failure which has resulted in a loss of SI contents)*
		There are no Surface Impoundments				

8.2-23

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested. Liquid level transmitters are tied to the Varec level gauge system. (b) (7)(F), (b) (3) [redacted]
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Container Testing and Inspections (Cont'd)

- An inspection and maintenance program is in place to periodically test the level control, alarm, and gauging systems on the Facility tanks. Additionally, liquid level sensors are regularly checked against physical measurements during product transfers to verify accurate sensor readings. Liquid level sensors are calibrated if discrepancies are noted.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, and replacement.

- Annually, a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report, which recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located approximately 250 feet from the Dominguez Channel which flows into the Los Angeles Inner Harbor, and is therefore also in a tidally influenced area.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

(b) (3), (b) (7)(F)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

(b) (3), (b) (7)(F)

Residential Areas

Residential areas are located in all directions from the Facility. These areas begin within a half mile of the Facility and continue outward in all directions.

Businesses

The area surrounding the Facility is heavily commercialized. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Long Beach Naval Station	0.50 miles S *(approximate)*
Los Angeles Harbor Administration	3.35 miles SW *(approximate)*
Federal Correction Institution Terminal Island	3.90 miles SW *(approximate)*
USCG Sector Los Angeles/Long Beach	3.90 miles SW *(approximate)*

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments

The immediate area surrounding the Facility is commercialized and supports only minor amounts of wildlife. The overall impact on fish and wildlife, wetlands, and other sensitive environments will happen upon impact of the Main Channel and San Pedro Bay area. The Dominguez Channel has a variable flow potential depending on weather conditions. The channel supports minor amounts of wildlife, primarily microbial and passing birds.

The coastal area along San Pedro Bay is home for a variety of migratory species during parts of the year. The common coastal inhabitants include shorebirds, wading birds, fish, reptiles, invertebrates, and various plants. The coastal shorelines have been divided into ten categories according to potential sensitivity to oil. The U.S. Coast Guard - Area Contingency Plan for Los Angeles, CA details these categories.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude (b) (7)(F), (b) (3)
Dominguez Channel Riverine Habitat	

Wetland habitats are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year.

The Seal Beach National Wildlife Refuge is located adjacent to Sunset Bay. This refuge lies along the coastline towards Huntington Beach (near 33° 44' 21" N 118° 07' 06" W

All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
San Pedro Channel	1.00 miles S *(approximate)*
Los Angeles River	2.00 miles E *(approximate)*
San Gabriel River	11.50 miles SE *(approximate)*

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning

Recreational Areas	Location
Harbor Highlands Park	2.50 miles SW *(approximate)*
Angels State Park	5.70 miles SW *(approximate)*
Point Fermin Park	5.70 miles SW *(approximate)*
Pacific Coast Club	7.50 miles SE *(approximate)*
Shoreline Aquatic Park	7.50 miles SE *(approximate)*
Bluff Park	9.00 miles SE *(approximate)*

The recreational areas that may be potentially impacted by a discharge originating at the Facility are more fully identified on the maps in Section 6.

Transportation Routes (air, land, and water)

Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Routes	Location
Long Beach / Daugherty Field Airport	5.00 miles E *(approximate)*

The San Pedro Bay supports vessel traffic and would require vessel traffic control in the event of a discharge impacting the bay.

Utilities

Review of GIS Data determined that the following utilities are within the planning distance of the Facility:

Utilities	Location
Harbor Steam Plant	0.50 miles S *(approximate)*

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Veterans Memorial	2.70 miles E *(approximate)*
Long Beach Public Library	2.75 miles E *(approximate0*
Los Angeles Maritime Museum	3.30 miles SW *(approximate)*
Fort MacArthur Military Museum	5.20 miles SW *(approximate)*
Cabrillo Marine Museum	5.70 miles SW *(approximate)*
Long Beach Arena	6.00 miles SE *(approximate)*
Long Beach Convention and Entertainment Center	6.00 miles SE *(approximate)*
Long Beach Museum of Art	9.30 miles SE *(approximate)*
Bay Shore Community Center	9.35 miles SE *(approximate)*
Seal Beach City Hall	12.00 miles SE *(approximate)*
Mary Wilson Branch Orange Library	12.00 miles SE *(approximate)*
Wayfarers Chapel	12.50 miles SW *(approximate)*
Isle de Lopez	13.50 miles SE *(approximate)*
Bolsa Chica State Beach	15.00 miles SE *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow northeast and southwest to catchment basins.

Vulnerability to a Natural Disaster

All storage tanks and ancillary piping are fabricated in compliance with rigorous nationally recognized design specifications. The specifications include wind-load allowances and recognition of any applicable seismic considerations. These factors minimize the risk of vulnerability to natural disasters, including tornadoes.

In addition to the above referenced factors, it should also be noted that Facility inspection and response drills, as well as Standard Operating Procedures (SOPs) for loading operations and the like, contribute to minimization of spill potential at the Facility.

Other Factors

The Hector Mine Earthquake caused an Agency Reportable Spill on 10/16/99. All products were contained on site and no product left the Facility.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

FIGURE 8.7

FACILITY DRAINAGE DIAGRAM

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Marine transfer operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed on the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed on the Potential Spill Sources and Container Identification form located in this Section.

Loading Rack Containment System

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from truck rack loading facility is contained by depressed area with curbs. Where it is held until removed by operating personnel. Containment is 330 bbls, maximum truck 180 bbls.
- Drainage from truck rack unloading facility is contained by depressed area with curbs. Product drains into a sump and is pumped from the sump to tank 5716 “Slop Tank”.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage from the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.

- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures. The Facility drainage system is constructed to aid in preventing oil from reaching navigable waters. Facility drainage is diverted to an oily water separator. The stormwater is discharged under an NPDES permit (No. CA0055816) to the Los Angeles Harbor/Pacific Ocean at the dock facility. Prior to being drained, contents of the separator are inspected and tested for compliance with NPDES permit/local water quality standards. Process water is pumped to the Slop Tank (M-5716).

- Drainage from diked storage areas is restrained by manually controlled valves.

- Dike drain valves are secured in the closed position when not draining containment areas.

- Flapper-type drain valves are not used to drain diked areas.

- Stormwater from diked areas is emptied by gravity or pumps which are manually activated.

- Drainage water collected at the collection point is inspected for any evidence of oil or oil sheen. After the determination of no evidence of oil or oil sheen is made, the stormwater is drained through an NPDES permitted outfall. The outfall drains directly into Los Angeles Harbor.

- The NPDES outfall is subject to inspection, sampling, and reporting requirements (Permit No. CA0055816).

- The stormwater treatment system consists of a 172,074 gallon capacity oil water separator.

- Contaminants are routed to a collection tank (TK 5716) and trucked offsite for processing.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage from the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Piping located outside the diked areas is contained by the Facility drainage and stormwater collection system. The Facility drainage system is constructed to aid in preventing oil from reaching navigable waters. Facility drainage is diverted to an oily water separator. The stormwater is discharged under an NPDES permit (No. CA0055816) to the Los Angeles Harbor/Pacific Ocean at the dock facility. Prior to being drained, contents of the separator are inspected and tested for compliance with NPDES permit/local water quality standards. Process water is pumped to the Slop Tank (M-5716).

- All undiked piping is located in areas away from vehicular traffic.

- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

- The majority of the piping is contained within the diked areas except for the sections noted on the Potential Spill Sources and Container Identification table in this Section.

- It is impractical to provide secondary containment for undiked piping due to the following reasons:

  - Piping is located directly over Los Angeles Harbor waterway.
  - Piping is located outside of the controlled boundary of the Facility (on third party property) and it is impracticable to provide secondary containment.

- This section, due to its location, would be impracticable to contain and equivalent environmental measures have been developed as follows:

  - The piping is subject to routine inspections during operating rounds.
  - The piping is subject to hydrostatic testing every three (3) years while transfer hose is tested annually.
  - The Facility maintains response equipment on site to utilize in the event that a spill did escape the facility.

- The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

- In the event that a spill did originate from undiked piping, the Facility would immediately activate its Contingency Plan to mitigate the spill before leaving the property.

- All undiked piping is located in areas away from vehicular traffic.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Stormwater is not drained from the secondary containment areas.
- The Facility drainage system is constructed to aid in preventing oil from reaching navigable waters. Facility drainage is diverted to an oily water separator. The stormwater is discharged under an NPDES permit (No. CA0055816) to the Los Angeles Harbor/Pacific Ocean at the dock facility. Prior to being drained, contents of the separator are inspected and tested for compliance with NPDES permit/local water quality standards. Process water is pumped to the Slop Tank (M-5716).
- Water is visually inspected for product and discharged only if no product sheen is visible.
- Facility drainage does flow directly into an open watercourse.
- When draining the containment area, water is discharged to an oily water separator and then discharged under an NPDES permit to the Los Angeles Harbor/Pacific Ocean at the dock facility
- The Facility does not have a wastewater treatment plant nor does it treat water prior to discharge off site.
- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- Adequate records are kept of such drainage events. Records of drainage events are maintained at the Facility.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Los Angeles Harbor Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput (Cont'd)

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection measures.

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds. Refer to Figure 8.5 and 8.6 for sample Tank Inspection and Secondary Containment Inspection Checklists.

(b) (3), (b) (7)(F)

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS										
5742	Av Gas (30' x 40')	(b) (7)(F), (b) (3)		IFR/DB	1959	Leak/ Rupture	Instantaneous	None	N/A	(b) (7)(F), (b) (3)
10735*	Transmix (48' x 29'-6")			IFR	1935	Leak/ Rupture	Instantaneous	None	N/A	
30731	Av Gas (78' x 35')			EFR/DB	Unknown	Leak/ Rupture	Instantaneous	None	N/A	
30732	Av Gas (78' x 35')			EFR/GD/DB	Unknown	Leak/ Rupture	Instantaneous	None	N/A	
42739*	Empty (78' x 35')			EFR	Unknown	Leak/ Rupture	Instantaneous	None	N/A	
42740*	Jet (80' x 50')			EFR	1959	Leak/ Rupture	Instantaneous	None	N/A	
42741	Av Gas (80' x 50')			EFR/GD	1959	Leak/ Rupture	Instantaneous	None	N/A	
55733*	Empty (115' x 30')			EFR/GD	1923	Leak/ Rupture	Instantaneous	None	N/A	
55734*	Fuel Oil (115' x 30')			EFR	1923	Leak/ Rupture	Instantaneous	None	N/A	
131736*	Jet (140' x 50')			EFR	1959	Leak/ Rupture	Instantaneous	None	N/A	

Note 1: "Third-party engineering calculations dated April 11, 2003 were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	OOS	=	Out of Service
DB	=	Double Bottom	GD	=	Geodesic Dome	*	=	DOT Jurisdictional Tank

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume – Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS (Cont'd)										
67737*	Transmix (100' x 50')	(b) (7)(F), (b) (3)		EFR	1959	Leak/ Rupture	Instantaneous	None	N/A	(b) (7)(F), (b) (3)
67738*	Blend Stock (100' x 50')			EFR	1959	Leak/ Rupture	Instantaneous	None	N/A	
	TOTAL									
BULK STORAGE CONTAINERS										
1723	Water (18' x 29'-8"			VFR	1949	Leak/ Rupture	Instantaneous	None	N/A	
2717	Water (24' x 29'-7"			VFR	1935	Leak/ Rupture	Instantaneous	None	N/A	
2718	OOS (24' x 29'-7"			VFR	1935	Leak/ Rupture	Instantaneous	None	N/A	
2721	OOS (24' x 29'-7"			VFR	1949	Leak/ Rupture	Instantaneous	None	N/A	
2722	OOS (24' x 29'-7"			VFR	1949	Leak/ Rupture	Instantaneous	None	N/A	
5716	Slop (40' x 22'-3"			IFR/DB	1935	Leak/ Rupture	Instantaneous	None	N/A	
	TOTAL									

Note 1: "Third-party engineering calculations dated April 11, 2003 were presented to RMA by Kinder Morgan as being true and accurate documentation of the adequacy of associated containments. Where mathematical formulae were supplied, RMA has confirmed the accuracy of the mathematics only."

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor	LAL	=	Level Alarm Low
IFR	=	Internal Floating Roof	CF	=	Concrete Floor	LAH	=	Level Alarm High
EFR	=	External Floating Roof	EW	=	Earthen Walls	LAHH	=	Level Alarm High High
DW	=	Double-walled	CW	=	Concrete Walls	CP	=	Cathodic Protection
H	=	Horizontal	PP	=	Portable Pump	DVG	=	Direct Vision Gauge
MV	=	Manual Valves	VT	=	Vacuum Trucks	OOS	=	Out of Service
DB	=	Double Bottom	GD	=	Geodesic Dome	*	=	DOT Jurisdictional Tank

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Secondary containment, curbing , sorbents)*
OPERATIONAL EQUIPMENT									
Oil/Water Separator	Oil/Water	(b) (7)(F), (b) (3)		Oil/Water Separator	Overfill	Instantaneous	None	East	(b) (7)(F), (b) (3)
Pump #10	Petroleum Products			Pump & Piping	Leak/Rupture	Instantaneous	None	East	
Jet T & T Pumps	Petroleum Products			Pump & Piping	Leak/Rupture	Instantaneous	None	East	
Jet fuel filters with no filters	Jet Fuel 3' od x 5' tall 35.35ft3 265 gal.			Filter Housing	Leak/Rupture	600 gpm	None	To loading rack	
Large Transformer	Oil			Oil Filled Transformer	Leak/Rupture	Instantaneous	None	To curbing	
Small Transformer	Mineral Oil 2.41'x4.41'x3 .916' = 41.62ft3 311 gal.			Oil Filled Transformer	Leak/Rupture	Instantaneous	None	To curbing	
Large Transformer #3	Oil			Oil Filled Transformer	Leak/Rupture	Instantaneous	None	West	

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow *(gpm)*	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING AREAS							
AV Gas truck unloading station (OOS)	AV Gas	9,000	Equipment failure/ rupture/ leak	Instantaneous	None	To OWS	4" to 6" high curbing with drain to OWS OOS
Vacuum truck unloading station	Misc. petroleum products	7,000	Equipment failure/ rupture/ leak	Instantaneous	None	East then south	None, would flow east & then south Would not leave property Possible Remedy: Look into using the OOS AvGas unloading station
Loading Rack #1 loading (1 Spot)	Petroleum products	9,000	Equipment failure/rupture leak/overfill	Instantaneous	None	To OWS	Concrete floor with curbing, drains to sump, pumped to OWS 85'-0" x 13'-0" x 0'3" = 276,25 ft3 2,066.35 gal.
Black products trucks unloading rack (OOS)	Black products	-----	Equipment failure/rupture/leak	Instantaneous	None	N/A	N/A
Berth 118 (2 lines in service; all others OOS)	Bunker products	6,500	Equipment failure/rupture leak/overfill	Instantaneous	None	To sumps	Catch pan, 38'-2" x 19'-2" x 0'-3" – 182.88ft3 = 1,367.95 gal. 2 sumps, 1'-4" x 2'-0" x 1'-0" = 2.66ft3 = 19.94 gal. each Drains into 2,20 gall sumps pumped to slop tank Possible Remedy: Catch pan has some holes in it that need to be repaired
Center dock clean products	Clean products	6,500	Equipment failure/rupture leak/overfill	Instantaneous	None	To catch pan	Catch pan, 84'-7"x19'-2"x0'-3" = 405.29ft3 = 3,031.6 gal. 1 sumps, 1'-4"x2'-0"x1'-0" = 2.66ft3 = 19.94 gal. Drains into 1,20 gal. sump pumped to slop tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow *(gpm)*	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING AREAS (Cont'd)							
Berth 119 (2 lines in service; all others OOS)	Bunker products	6,500	Equipment failure/rupture leak/overfill	Instantaneous	None	To sumps	Catch pan, 47'-0"x19'-2"x0'-3" = 225.20ft3 = 1,684.5 gal. 1 sumps, 1'-4"x2'-0"x1'-0" = 2.66ft3 – 19.94 gal. Drains into 1,20 gal. sump pumped to slop tank Possible Remedy: Catch pan has some holes in it that need to be repaired
Berth 120 (2 lines in service; all others OOS)			Equipment failure/rupture leak/overfill				

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containmen Capacity *(Volume) (Construction Material) (Drainage Type)*
OTHER POTENTIAL SPILL SOURCES									
Pipe Conduit	Petroleum Products	(b) (7)(F), (b) (3)		Piping	Leak/Rupture	4,550 gpm	None	To containment area	(b) (7)(F), (b) (3)
Pump House	Petroleum Products			Pumps & Piping	Leak/Rupture	4,900 gpm	None	East into pipe conduit	
Hazardous Waste Drum Storage	55 gal. drums Petroleum Products			55 gallon drums	Leak/Rupture	Instantaneous	None	N/A	

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Tank Number	Substance Stored *(Oil & Haz. Substance)*	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Tank Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Containment Capacity *(Gallons)*
		There are no Underground Storage Tanks					

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SI)
(Surface Impoundment = natural topographic depression, man-made excavation)

SI Number	Substance Stored	Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Surface Area	Year Built	Failure / Cause *(Record cause and date of any SI failure which has resulted in the loss of SI contents)*
		There are no Surface Impoundments				

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity "10-Year Program".
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per Company policy, as required by age, condition, and service. (Refer to the "10-Year Program" and the storage tanks section (Section 11) of the Kinder Morgan Specification Manual).
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated (see Sample Log in Appendix B).
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested. Liquid level transmitters are tied to the Varec level gauge system. (b) (7)(F), (b) (3) [redacted]
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event. Hose – Yearly. All piping every three (3) years (Shore Pipe into first valve in containment).

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- A Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

FIGURES 8.5 AND 8.6

Note: The following Kinder Morgan forms comprise the typical tank and secondary containment Inspection Checklists for this Facility. These forms may change over time to accommodate the specific operations of the Facility.

TANK INTEGRITY REPORT

QUARTERLY ***BI-ANNUAL***

FIRST	SECOND	THIRD	FORTH

FIRST	SECOND

LOCATION _____

REFERENCE NUMBER	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required	status	maintenance required
1. Shell Plates & Paint																				
2. Shell-Bottom Weld																				
3. Tank Foundation																				
4. Apron Around Tank																				
5. Grounding System																				
6. Auto Gauge Equipment																				
7. Shell Manways																				
8. Bottom Leak Detection																				
9. Stairway Handrails & Ladders																				
10. Lighting																				
11. Walkways & Platforms																				
12. Rain Gutter & Down Spout																				
13. Shell Rim Angle																				
14. Fixed Roof & Paint																				
15. Foam Hole Covers																				
16. Gauge & View Hatches																				
17. Vents																				
18. Liquid Level Control & Alarms																				
19. Wind Girders																				
20. Floating Roof & Pontoons																				
21. Roof Drain Mechanism																				
22. Roof Manways																				
23. Anti-Rotation Pole/Bar																				
24. Vapor Recovery Pipe																				
25. Foam Injection																				

LEGEND

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

_____

_____

REPORT PREPARED BY: _____ DATE: _____

TANK SEAL INSPECTION SUMMARY

LOCATION: ______________________

INSPECTION PERFORMED BY: ______________

DATE: ______________

REFERENCE NUMBER

1. Primary Seal
2. Secondary Seal
3. Anti-Rotation Pole/Bar Seal
4. Apron Seal
5. Floating Roof Deck
6. Floating Roof Drain Sump
7. Floating Roof Legs
8. Floating Pan Compartments
9. Vapor Recovery Pipe Seal
10. Center Column Seal
11. Gauge Pipe Float Seal
12. Emergency Drain
13. Pressure/Vacuum Vent
14. Sampling Funnel Cover
15. Sampling Hatch
16. Floating Roof Pontoons
17. Auto Gauge Float Well Cover

STATUS

N = NEW

R = REPEAT

Tank Number	Tank Type	Product	Status N or R	Reference Number	DESCRIPTION	Priority A or B	Cost Estimate	Responsibility

TANK SEAL INSPECTION REPORT

QUARTERLY | FIRST | SECOND | THIRD | FORTH |

SEMI-ANNUAL | FIRST | SECOND |

LOCATION _____

REFERENCE NUMBER																				
	Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type		Tank Type	
	Product		Product		Product		Product		Product		Product		Product		Product		Product		Product	
	Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level		Liquid Level	
	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required	in compliance	maintenance required
1 Primary Seal																				
2 Secondary Seal																				
3 Anti-Rotation Pole/Bar Seal																				
4 Apron Seal																				
5 Floating Roof Deck																				
6 Floating Roof Drain Sump																				
7 Floating Roof Legs																				
8 Floating Pan Compartments																				
9 Vapor Recovery Pipe Seal																				
10 Center Column Seal																				
11 Gauge Pipe Float Seal																				
12 Emergency Drain																				
13 Pressure/Vacuum Vent																				
14 Sampling Funnel Cover																				
15 Sampling Hatch																				
16 Floating Roof Pontoons																				
17 Auto Gauge Float Well Cover																				

G/D = Gasoline/Distillates

T = Turbine

TX = Transmix

D = Diesel

G = Gasoline

ET = Ethanol

MTBE = Methyl Tri Butyl Ether

REMARKS: _____

REPORT PREPARED BY: _____ DATE: _____

TANK FARM CONTAINMENT BERMS
INSPECTION REPORT

LOCATION : _____ DATE : _____

AREA OF LOCATION : _____

TYPE OF CONTAINMENT :

Dirt and Gravel	☐	Dirt With asphalt	☐
Dirt With Tar	☐	Dirt With Chip Rock	☐
Dirt With Tar and Chip Rock	☐	Dirt With Concrete	☐
Cinder Block	☐	Other	☐

COMMENTS : _____

CONDITION OF CONTAINMENT BERMS :

Excellent	☐	Good	☐	Fair	☐	Poor	☐
Wore Down / Ruts	☐			Erosion	☐	Gaps	☐
Animal Holes	☐			Cracks	☐	Other	☐
Cave-In / Under-Mined	☐						

COMMENTS : _____

RECOMMENDATIONS : _____

INSPECTED BY : _____

TANK MAINTENANCE LOG

LOCATION: _____ INSPECTION PERFORMED BY: _____

DATE: _____

TANK NUMBER	TANK TYPE	DESCRIPTION
		.

PHMSA 000104048

TANK LEAK DETECTION REPORT

QUARTERLY	SEMI-ANNUALLY	ANNUALLY

LOCATION :

DATE :

TANK NO.	TUBE NO.	P.P.M.	BATTERY CHECK	COMMENTS

READINGS TAKEN BY : ______________________________

INTERNAL FLOATER TANK

VAPOR REPORT

LOCATION : DATE :

TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING	TANK NUMBER	LEL READING	PPM READING

INSPECTED BY : _____

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located on a 12.4 acre parcel at Berths 118-119 on the west side of Main San Pedro Channel in the Los Angeles Harbor.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

[redacted]

Residential Areas

Residential areas are located west from the Facility. These areas begin within one mile west of the Facility.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Businesses

Review of GIS Data determined that the following businesses are within the planning distance.

Businesses	Distance from Facility
American President Lines Ltd.	0.00 miles
Los Angeles City of Police Department, Business, Harbor Division, Desk-Information	0.00 miles
Police Departments Wilmington	0.00 miles
Yang Ming Lines	0.00 miles
Party Time Ice Co.	0.04 miles

Fish and Wildlife, Wetlands, and other Sensitive Environments

The immediate area surrounding the Facility is industrial and supports only minor amounts of wildlife. The overall impact on fish and wildlife, wetlands, and other sensitive environments will happen upon impact of the local waterways. Refer to Volume 1, Figure 4.1 for threatened/endangered species.

The local ecosystem is host to a variety of species including migratory as well as year round inhabitants. The general species found in the area of the Facility are detailed in the ACP. State and Federal agencies as well as contract resources will provide guidance on response and protection strategies during an actual response situation.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Location
Estuarine Deep	L. A. Harbor
Point Fermin	L. A. Harbor
Cabrillo Beach	L. A. Harbor
Cabrillo Beach Wetlands	L. A. Harbor

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

There are wetland habitats near the Facility. Habitats that could potentially be impacted by a spill from the Facility into Southwest slip and Los Angeles Harbor are addressed in the ACP.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following Lakes and Streams are within the planning distance.

Lakes and Streams	Location
San Pedro Channel	1.00 miles south

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Section 4, Figure 4.1 of Volume 1

Recreational Areas

Review of GIS Data determined that the following recreational areas are within the planning distance.

Recreational Areas	Distance from Facility
Harbor Highlands Park	0.50 miles southwest
Angels State Park	3.70 miles southwest
Point Fermin Park	3.70 miles southwest

The recreational areas that may be potentially impacted by a discharge originating at the Facility are more fully identified on the maps in Section 6.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Transportation Routes (air, land, and water)

Review of GIS Data determined that the following transportation routes are within the planning distance.

Transportation Route	Distance from Facility
John S. Gibson Boulevard	Adjacent to Facility
Harbor Belt Line Railroad	Adjacent to Facility
Long Beach/Daugherty Field Airport	5.00 miles east

The local emergency assistance agencies (police department, fire department, etc.) and the U.S. Coast Guard (as applicable) would be contacted for traffic control in the area of the discharge.

Utilities

Review of GIS Data determined that the following utilities are within the planning distance:

Utilities	Distance from Facility
Harbor Steam Plant	0.50 miles south

Other Areas of Economic Importance

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Other Areas of Economic Importance	Distance from the Facility
Long Beach Naval Station	0.50 miles south
Los Angeles Maritime Museum	1.30 miles southwest
Los Angeles Harbor Administration	1.35 miles southwest
Fed Corr Inst. Terminal Island	1.90 miles southwest
Fort MacArthur Military Museum	3.20 miles southwest
Cabrillo Marine Museum	3.70 miles southwest
Veterans Memorial	4.70 miles east
Long Beach Public Library	4.75 miles east

The local waterways are bordered by various dock facilities, other commercial facilities, industrial facilities and recreational/public use areas.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history for the life of the Facility.

Tank Age

Refer to the Potential Spill Source and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow east through the Facility.

Vulnerability to a Natural Disaster

All storage tanks and ancillary piping are fabricated in compliance with rigorous nationally recognized design specifications. The specifications include wind-load allowances and recognition of any applicable seismic considerations. These factors minimize the risk of vulnerability to natural disasters, including tornadoes.

In addition to the above referenced factors, it should also be noted that Facility inspection and response drills, as well as Standard Operating Procedures (SOPs) for loading operations and the like, contribute to minimization of spill potential at the Facility.

Other Factors

The area in which the Facility is located is prone to minor earthquakes.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file in the Facility office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

DATE	REPORT #	LOCATION	PRODUCT TYPE	QTY	ON/OFF FACILITY	WATER IMPACTED (Y/N)
11-21-94		LAHT: By pump #10, hit vent valve on pipeline with pickup truck	Av. Jet	40 gal.	On	No
7-22-95		LAHT: Barge loading hose leak.	Gas Oil	1 cup of oil on water	On & Off	Yes - Harbor
7-22-95		LAHT: Barge loading hose leak.	Gas Oil	1 cup of oil on water	On & Off	Yes - Harbor
3-13-96		LAHT: Vessel "ERVOS". A small amount of oil believed to have originated from the vessel was noticed within the boomed area of the vessel.	Oil	2 gal.	Off	Yes - harbor
11-5-96	5519	LAHT: Ballast line underneath the center dock leaked.	Gas Oil	8-10 bbls.	On/Off	Yes - harbor

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

DATE	REPORT #	LOCATION	PRODUCT TYPE	QTY	ON/OFF FACILITY	WATER IMPACTED (Y/N)
4-17-97	5522	LAHT: Testing fire pimp, water went onto vessel and then water discharged from vessel deck and overflowed dock pan.	Slop product	5 gals.	On & Off	Yes - harbor
05-26-99	A-10#216	LAHT: A hose rope contacted product at the dock pan and dripped product into the water when later used.	Gasoline	5-10 drops	Off	Y
10-16-99		LAHT: Hector earthquake caused tank 67737 to spill over.	Gas Oil	1 barrel	On	No
5/6/04		LAHT: dock-pan drain line failure	Diesel	< a gallon	Off	Y
3/1/05		LAHT: sheen within remediation boom	Petroleum sheen	Sheen	Off	Y
5/1/05		LAHT: stain	Stain	1'x1'	On	N
5/18/05		LAHT: GX-120 stain	Stain	2'x3'	Off	N

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

- Secondary containment is provided for the bulk storage containers and transfer points at the Facility. Capacities for each of the storage tanks areas are listed in the Potential Spill Sources and Container Identification table in this Section.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System

Main Loading/Unloading Rack

The loading/unloading rack area is designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from Loading Racks 1-5 and loading /unloading areas is contained in a depressed area (with curbs). Drainage is through area drains to an oil/water separator. The product is pumped using a skimming device from the oil/water separator to a transmix tank. The water phase is drained to a 20,000 gallon Baker tank. Process water is hauled off to a TSDF by third-party trucks.
- Drainage from Loading Rack 6 and the Ethanol/Additive unloading areas (former Shell San Diego Terminal) is contained by curbed concrete pads with strip drains which drain to a 12,000 underground waste water tank (UG-1). Contents of this tank are hauled off to a TSDF by third-party trucks.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage areas is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment areas.
- Stormwater which does accumulate within the diked areas, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas is emptied by gravity via manually controlled valves.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Surface drainage from undiked areas on the east side of the property flows to the municipal storm sewer system.
- All undiked piping is located in areas away from vehicular traffic.

The risk of leaks originating from piping is low since it is observed frequently enough to detect excessive corrosion, defective pipe supports, or other anomalies which could compromise the integrity of the pipe.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Water is visually inspected for product and discharged only if no product sheen is visible.
- Facility drainage does not flow directly into an open watercourse.
- Stormwater accumulating in diked areas is visually inspected for evidence of oil or oil sheen. If no evidence of oil or oil sheen is found, the Area Manager or Lead Operator will authorize opening the manual valve and water is drained to the municipal storm sewer system.
- Contaminated stormwater is pumped to the oil/water separator system. Product is pumped to a transmix tank and water is pumped to a Baker tank.
- The Facility has an oil/water separator system but no other treatment system for water prior to discharge off site.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

- The Facility does not have a wastewater treatment plant nor does it chemically treat water prior to discharge off site:
- Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
- Records of drainage events are maintained at the Facility office.

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Mission Valley Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan. The Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional detection measures.

(b) (3), (b) (7)(F)

Detection by Personnel

- Facility personnel conduct monthly inspections of tank gauges and cathodic protection readings.
- Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating rounds.
- Annual Secondary Containment Inspection as part of the SPCC Plan.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – NORTH TANK FARM										
MV-18	Gasoline (110' x 48')	(b) (7)(F), (b) (3)		EFR	1969	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
MV-19	Gasoline (123' x 48')			IFR	1999	Leak/Rupture	Instantaneous	None	E	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tanks

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK FARM										
MV-01	Gasoline (60' x 40')	(b) (7)(F), (b) (3)		EFR	1962	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
MV-02*	Transmix (50' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	E	
MV-03	Gasoline (86.5' x 48')			IFR	1972	Leak/Rupture	Instantaneous	None	E	
MV-04	Gasoline (74' x 42')			IFR	1969	Leak/Rupture	Instantaneous	None	E	
MV-05	Gasoline (70' x 40')			EFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-06	Gasoline (70' x 40')			IFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-07	Gasoline (60' x 40')			EFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-08	Diesel (60' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	E	
MV-09	Gasoline (60' x 40')			IFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-10	Gasoline (60' x 40')			IFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-11	Diesel (38' x 40')			IFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-12	Diesel (90' x 40')			EFR	1962	Leak/Rupture	Instantaneous	None	E	
MV-13	Gasoline (80' x 40')			EFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-14	Gasoline (60' x 40')			IFR	1966	Leak/Rupture	Instantaneous	None	E	

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
BULK STORAGE CONTAINERS – SOUTH TANK FARM (Cont'd)										
MV-15	Gasoline (60' x 42')	(b) (7)(F), (b) (3)		IFR	1968	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
MV-16	Gasoline (60' x 42')			IFR	1968	Leak/Rupture	Instantaneous	None	E	
MV-17	Diesel (60' x 40')			VFR	1968	Leak/Rupture	Instantaneous	None	E	
MV-21	Ethanol (50' x 40')			IFR	1962	Leak/Rupture	Instantaneous	None	E	
MV-22	Ethanol (45' x 40')			IFR	1963	Leak/Rupture	Instantaneous	None	E	
MV-23	Diesel (86' x 48')			IFR	1979	Leak/Rupture	Instantaneous	None	E	
MV-31	Transmix (30' x 24')			IFR	1962	Leak/Rupture	Instantaneous	None	E	
MV-32	Transmix (30' x 24')			IFR	1962	Leak/Rupture	Instantaneous	None	E	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS (Former Shell San Diego Terminal)										
MV-25	Gasoline (85' x 56')	(b) (7)(F), (b) (3)		IFR	2003	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
MV-26	Gasoline (68' x 48')			IFR	1964	Leak/Rupture	Instantaneous	None	E	
MV-27	Gasoline (57' x 48')			IFR	1964	Leak/Rupture	Instantaneous	None	E	
MV-28	Gasoline (57' x 48')			IFR	1964	Leak/Rupture	Instantaneous	None	E	
MV-29	Diesel (48' x 48')			IFR	2003	Leak/Rupture	Instantaneous	None	E	
MV-30	Ethanol (38' x 48')			IFR	1964	Leak/Rupture	Instantaneous	None	E	
60012	OOS (18' x 30')			IFR	UNK	Leak/Rupture	Instantaneous	None	E	
ADDITIVE BULK STORAGE CONTAINERS (Former Shell San Diego Terminal)										
60014	Diesel Additive (9.5' x 20')	(b) (7)(F), (b) (3)		Horizontal	1964	Leak/Rupture	Instantaneous	None	E	
60015	Gasoline Additive (9.2' x 20')			Horizontal	2003	Leak/Rupture	Instantaneous	None	E	
Totals										

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tank

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
MVA-1	Community Additive	(b) (7)(F), (b) (3)		H	Unknown	Leak/Rupture	Instantaneous	None	E	(b) (7)(F), (b) (3)
1	Mobil Additive			H	Unknown	Leak/Rupture	Instantaneous	None	E	
MVA-2	Valero Additive			H	Unknown	Leak/Rupture	Instantaneous	None	E	
LR-1	Red Dye Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
4	Conoco Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
AG-1	Additive			H	Unknown	Leak/Rupture	Instantaneous	None	E	
AG-3	Valero Additive			H	Unknown	Leak/Rupture	Instantaneous	None	E	
LR-5	Red Dye Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
SPARE	Red Dye Additive			VFR	Unknown	Leak/Rupture	Instantaneous	None	E	
MV-DLA-1	Lubricity			H	2005	Leak/Rupture	Instantaneous	None	E	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom			

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION									
Source I.D.	**Substance Held** *(Oil & Haz. Substance)*	**Average Quantity** *(Gallons)*	**Maximum Capacity** *(Gallons)*	**Source Type** *(i.e. piping, separation equipment, etc.)*	**Potential Failure** *(Leak/ Rupture/ Overflow)*	**Rate of Flow**	**Failure / Cause** *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	**Direction of Flow**	**Secondary Containment Capacity** *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
OPERATIONAL EQUIPMENT									
Terminal Manifold	Petroleum products	(b) (7)(F), (b) (3)		Manifold	Leak/Rupture	3850 gpm	None	South to drain valve catch basin	(b) (7)(F), (b) (3)

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION							
Rack I.D.	**Substance Transferred** *(Oil & Haz. Substance)*	**Truck Maximum Capacity** *(Gallons)*	**Potential Failure** *(Equipment Failure/ Rupture/Leak/Overfill)*	**Rate of Flow**	**Failure / Cause** *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	**Direction of Flow**	**Secondary Containment Capacity** *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
TRUCK LOADING/UNLOADING RACKS/AREAS							
Loading Rack 1	Refined Products	5,040	Leak/Rupture	Instantaneous	None	E	9,684 Curb, Sump, OWS
Loading Rack 2	Refined Products	5,040	Leak/Rupture	Instantaneous	None	E	9,684 Curb, Sump, OWS
Loading Rack 3	Refined Products	5,040	Leak/Rupture	Instantaneous	None	E	9,684 Curb, Sump, OWS
Loading Rack 4	Refined Products	5,040	Leak/Rupture	Instantaneous	None	E	9,684 Curb, Sump, OWS
Loading Rack 5	Refined Products	5,040	Leak/Rupture	Instantaneous	None	E	9,684 Curb, Sump, OWS
Loading Rack 6	Refined Products	9,000	Leak/Rupture	Instantaneous	None	E	12,000 Curb, Sump, UG-1

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
TRUCK LOADING/UNLOADING RACKS/AREAS (Cont'd)							
Additive Off Load Area (Shell)	Gasoline and Diesel Additives	9,000	Leak/Rupture	Instantaneous	None	E	12,000 Curb, Sump, UG-1
Ethanol Off Load Area (Shell)	Ethanol	9,000	Leak/Rupture	Instantaneous	None	E	12,000 Curb, Sump, UG-1
Additive Rack	Additives	5,040	Leak/Rupture	Instantaneous	None	E	9,684 Curb, Sump, OWS
Ethanol Area	Ethanol	5,040	Leak/Rupture	Instantaneous	None	E	9,684 Curb, Sump, OWS
Additive Offload Area	Additive	5,040	Leak/Rupture	Instantaneous	None	E	Curb, Sump, MV
Off Spec Product Area	Off Spec Refined Product	5,040	Leak/Rupture	Instantaneous	None	E	Curb, Sump, MV

HAZARD IDENTIFICATION TANKS
UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
UG1	Waste Water 8' x 32'	(b) (7)(F), (b) (3)		Horizontal	1964	Leak	___	None	E
Totals									

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested.
- High level alarms are on a monthly basis.
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

8.2.2 FACILITY SELF-INSPECTIONS (Cont'd)

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- Leak detection testing is done on an annual basis using tracer gas tests.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located in northern San Diego approximately five (5) miles east of Mission Bay and 0.4 miles north of the San Diego River.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

(b) (3), (b) (7)(F)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

(b) (3), (b) (7)(F)

Residential areas are located in all directions from the Facility. These areas begin within one mile of the Facility and continue outward in all directions.

Additional details on the residential areas within the area of the Facility are included on the maps in Section 6.

Businesses

The area surrounding the Facility is for the most part commercialized. Along the San Diego River there are various businesses and commercial establishments which may be potentially impacted by a discharge. Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Beneto Tank Lines	0.02 miles *(approximate)*
Coastal Transport	0.02 miles *(approximate)*
Dedicated Transport, Inc.	0.02 miles *(approximate)*
Santa Fe Pacific Pipelines, Inc.	0.02 miles *(approximate)*
Shell Oil Products	0.03 miles *(approximate)*
Sunburst Transport	0.02 miles *(approximate)*

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. The coastal area is home for a variety of migratory species during parts of the year. The common coastal inhabitants include shorebirds, wading birds, fish, reptiles, invertebrates, and various plants. The coastal shorelines have been divided into ten categories according to potential sensitivity to oil. The *Area Contingency Plan for this area (OSPR ACP 6 San Diego) details these categories. Refer to Volume 1, Figure 4.1 for details.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
San Diego River, Freshwater Emergent Wetland; Mission Bay, Estuarine and Marine	(b) (7)(F), (b) (3)
San Diego River, Freshwater Forested/Shrub Wetlands; San Diego River, Riverine Habitat;	

Wetland habitats, however, are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
San Diego River	0.4 miles S *(approximate)*

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

Recreational Areas

There are several recreational areas within the planning distance from the Facility. Review of GIS Data determined that the following recreational areas are within the planning

Recreational Area	Distance from Facility
Driving Range	Adjacent (North of Facility)
Qualcomm Stadium	0.2 mile S *(approximate)*
Admiral Baker Golf Course	0.8 mile ENE *(approximate)*
Socio Economic Sensitivities – Mission Valley Shopping	3.37 miles W *(approximate)*
Socio Economic Sensitivities – Stardust Country Club	5.07 miles W *(approximate)*
River Valley Golf Club	5.45 miles W *(approximate)*
Presidio Hills Park	6.34 miles W *(approximate)*
Mission Bay Park	7.75 miles W *(approximate)*

Additional details on the recreational areas within the planning distance are found on the maps in Section 6.

Transportation Routes (air, land, and water)

There are various public roadways and waterways which may be potentially affected by a discharge originating from the Facility. Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Transportation Routes (air, land, and water) (Cont'd)

Transportation Route	Distance from Facility
Interstate 15 (I-15)	200 yards E *(approximate)*
Interstate 8 (I-8)	0.5 mile S *(approximate)*
San Diego Trolley Line	0.5 mile S *(approximate)*
Mission Bay Entrance Channel	6.0 – 7.0 miles SW *(approximate)*

Utilities

There are utilities located within the planning distance that may be potentially impacted by a discharge originating from the Facility. These include SDG&E power lines, which traverse the Facility.

Other Areas of Economic Importance

The San Diego River and connecting waterways are bordered by various areas of economic importance other than those previously mentioned. Review of GIS Data determined that the following other areas of economic importance are within the planning

Name	Distance from Facility
Murphy Canyon	0.1 miles *(approximate)*
San Diego River	0.4 mile *(approximate)*
Richard Donovan Correctional Facility	1.55 miles W *(approximate)*
Public Building Juniper Sierra Museum	6.34 miles W *(approximate)*
Public Building International Area	7.32 miles W *(approximate)*
Mission Bay	5.0 miles W *(approximate)*
San Diego Recruit Depot	7.57 miles W *(approximate)*
Socio Economic Sensitivities – point Loma Junction	7.75 miles W *(approximate)*

Any evacuation efforts necessary for these areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.), State Police, U.S. Coast Guard, and other agencies as the situation demands.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Discharge History portion of this Section for details concerning spill history of the Facility.

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

All storage tanks and ancillary piping are fabricated in compliance with rigorous nationally recognized design specifications. The specifications include wind-load allowances (must withstand minimum 100 mph wind) and recognition of any applicable seismic considerations. These factors minimize the risk of vulnerability to natural disasters, including tornadoes.

In addition to the above referenced factors, it should also be noted that Facility inspection and response drills, as well as Standard Operating Procedures (SOPs) for loading operations and the like, contribute to minimization of spill potential at the Facility.

Other Factors

The area in which the Facility is located is prone to landslides and minor earthquakes, however, none have resulted in a discharge.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

The Facility maintains a separate Oil Spill History file in the Area Manager's office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).

8.2.5 REPORTABLE OIL DISCHARGE HISTORY (Cont'd)

- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

*

(b) (7)(F), (b) (3)

8.2.1 HAZARD IDENTIFICATION

Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Truck loading/unloading operations
- Pipeline transfer operations

Work such as piping replacement/repair is rare and would only be done on portions of the system that are isolated from the active system.

Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the Facility. Capacities for each of the storage tank areas are listed in the Potential Spill Sources and Container Identification table in this Section.

- The North and South Tank Farms are surrounded by seal coated berms as secondary containment, which is sufficiently impervious to spilled oil.
- A combination seal coated berm and concrete block wall surrounds the West Tank Farm.

Tanks

- Secondary Containment volumes for all bulk storage tanks are detailed in the Potential Spill Sources and Container Identification table located in this Section.

Loading Rack Containment System

The loading/unloading rack areas are designed and operated as follows:

- Loading/Unloading area drainage flows into a catchment basin or treatment facility, designed to handle discharges.
- The containment system is designed to hold the maximum capacity of any single compartment of a single tank truck loaded or unloaded at the Facility.
- A quick drainage system is not used for tank truck loading/unloading.
- Drainage from the loading rack loading and unloading facilities is contained in a depressed area (with curbs). Drainage is through area drains to a 6,000 gallon oil/water separator. The product is pumped using a skimming device from the oil/water separator to a transmix tank. The water phase is drained to an 8,000 gallon visual inspection tank. Water is pumped to sock and carbon filter units before release to the municipal storm sewer system.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Secondary Containment Volumes (Cont'd)

Drainage From the Diked Areas

Drainage of stormwater or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- The preferred method of removal of accumulated stormwater is by natural dissipation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Stormwater which does accumulate within the diked area, and does not dissipate naturally, is removed in accordance with the stormwater drainage procedures.
- Drainage from diked storage areas is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment areas.
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater from diked areas is emptied by gravity through manually activated valves.

Drainage From the Undiked Areas

Drainage from undiked areas is controlled as follows:

- Piping located outside the diked areas is contained by asphalt curbs. The curbed area drains to a sump where liquids are pumped to the OWS. The product is pumped, using a skimming device from the OWS, to a transmix tank. The water phase is pumped to a 10,000 gallon holding tank. Water is pumped to two (2) 800 lbs. carbon vessels before release to the municipal sewer system.

General Drainage

The procedure for supervising the drainage of stormwater from secondary containment into a storm drain or an open watercourse is as follows:

- Water is visually inspected for product and discharged only if no product sheen is visible.
- Facility drainage does not flow directly into an open watercourse.
- When draining the containment area, water is discharged to the city storm sewer.
- The Facility does not have a wastewater treatment plant nor does it chemically treat water prior to discharge off site. Water is treated only through the use of a carbon filtration system.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Normal Daily Throughput

The Normal Daily Throughput for the Facility:

FACILITY	NORMAL DAILY THROUGHPUT	AVERAGE DAILY STORAGE	TOTAL STORAGE
Orange Terminal	Seasonal	(b) (7)(F), (b) (3)	

The rate of flow from the pipeline system to tankage and the filling rate of the trucks is essentially fixed, and not a function of daily throughput. Thus changes in daily throughput would have no effect on potential discharge volumes.

The Facility has sufficient tank volume to handle any potential increase in pipeline throughput and the loading rack has sufficient capability to handle any potential increase in transfer capacity. The loading rack operates 24 hours a day, 7 days a week.

Discharge Detection

The Facility has a discharge detection program which consists of both manual (personnel) and automated detection systems. The Facility maintains separately from this Plan the Spill Prevention, Control, and Countermeasure (SPCC) Plan which details additional discharge detection measures.

(b) (3), (b) (7)(F)

Detection by Personnel

- Facility personnel conduct monthly inspection of tank gauges and cathodic protection readings. Daily Visual Inspections (including tanks, loading rack, secondary containment, aboveground piping, etc.) during operating personnel rounds.
- Annual Secondary Containment Inspections are part of the SPCC Plan.
- Tank Inspections are part of the SPCC Plan.

8.2.1 HAZARD IDENTIFICATION (Cont'd)

Security

(b) (7)(F), (b) (3)

[redacted]

8.2.1 HAZARD IDENTIFICATION (Cont'd)

(b) (7)(F), (b) (3)

[redacted]

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons)* *(Construction Material)* *(Drainage Type)*
BULK STORAGE CONTAINERS – TANK FARM										
OR-01	Gasoline (80' x 40')	(b) (7)(F), (b) (3)		EFR	1962	Leak/ Rupture	Instantaneous	None	SW	(b) (7)(F), (b) (3)
OR-02	Gasoline (70' x 40')			EFR	1962	Leak/ Rupture	Instantaneous	None	SW	
OR-03	Gasoline (60' x 48')			EFR	1962	Leak/ Rupture	Instantaneous	None	SW	
OR-04	Gasoline (60' x 48')			EFR	1962	Leak/ Rupture	Instantaneous	None	SW	
OR-05	Diesel (60' x 40')			EFR	1963	Leak/ Rupture	Instantaneous	None	SW	
OR-06	Diesel (60' x 40')			EFR	1963	Leak/ Rupture	Instantaneous	None	SW	
OR-07	Ethanol (48' x 40')			IFR	1965	Leak/ Rupture	Instantaneous	None	SW	
OR-08	Gasoline (86'6" x 48')			IFR	1986	Leak/ Rupture	Instantaneous	None	SW	
OR-09	Transmix (30' x 24')			EFR	1962	Leak/ Rupture	Instantaneous	None	SW	
	TOTAL									

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom	*	=	DOT Jurisdictional Tanks

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/ Rupture/ Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Construction Material) (Drainage Type)*
ADDITIVE BULK STORAGE CONTAINERS										
OR 10	Additive	(b) (7)(F), (b) (3)		VFR	Unknown	Leak/ Rupture	Instantaneous	None	SW	(b) (7)(F), (b) (3)
Red Dye	Red Dye			Tote	Unknown	Leak/ Rupture	Instantaneous	None	S	
DRA Unit	Additive			VFR	Unknown	Leak/ Rupture	Instantaneous	None	W	
OR-DLA-1	Lubricity			H	Unknown	Leak/ Rupture	Instantaneous	None	SW	
	TOTAL									

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Rack I.D.	Substance Transferred *(Oil & Haz. Substance)*	Truck Maximum Capacity *(Gallons)*	Year Built	Potential Failure *(Equipment Failure/ Rupture/Leak/Overfill)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume - Gallons) (Secondary containment, curbing , sorbents)*
TRUCK OR RAIL LOADING/UNLOADING RACK								
Loading Rack 1	Ethanol	7,560	1962	Leak/Rupture	Instantaneous	None	W	13,614 Curbing, OWS
Loading Rack 2	Gasoline, Diesel	7,560	1962	Leak/Rupture	Instantaneous	None	E	13,614 Curbing, OWS

VFR	=	Vertical Fixed Roof	EF	=	Earthen Floor
IFR	=	Internal Floating Roof	CF	=	Concrete Floor
EFR	=	External Floating Roof	EW	=	Earthen Walls
DW	=	Double-walled	CW	=	Concrete Walls
H	=	Horizontal	PP	=	Portable Pump
MV	=	Manual Valves	VT	=	Vacuum Trucks
DB	=	Double Bottom			

KINDER MORGAN ENERGY PARTNERS, L.P.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Potential Failure	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume)* *(Construction Material)* *(Drainage Type)*
OTHER POTENTIAL SPILL SOURCES								
HazMat Drum Storage	Oil and Haz Sub	(b) (7)(F), (b) (3)	Drums	Leak/Rupture	Instantaneous	None	SW	(b) (7)(F), (b) (3)

UNDERGROUND STORAGE TANKS

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. completely, partially buried)*	Year Built	Potential Failure *(Leak/Overflow)*	Rate of Flow	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
COMPLETELY AND PARTIALLY BURIED TANKS									
			There are no Underground Storage Tanks at this Facility.						

8.2.2 FACILITY SELF-INSPECTIONS

Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.
- The Engineering Department oversees the tank integrity in accordance with the SPCC Plan and L O&M Procedure 2101.
- Comparative records are maintained by the Engineering Department at the Orange office.
- The container inspection programs conducted and maintained by Facility personnel are as follows:
  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per the SPCC Plan and L O&M Procedure 2101, as required by age, condition, and service.
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.
- The required inspections are divided into three categories:
  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections
- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated.
- Drums or totes brought on-site are built or tested to the standard(s) established by the drum manufacturer or the drum recycler, as applicable.
- While on-site, drums and totes will be visually inspected at least monthly and ground contact will be minimized.
- Liquid level sensing devices are regularly tested. Liquid level transmitters are tied to the Varec level gauge system. (b) (7)(F), (b) (3) [redacted]
- The bulk storage containers are equipped with ground-level gauges and are hand-gauged at regular intervals.

Container Testing and Inspections (Cont'd)

- An inspection and maintenance program is in place to periodically test the level control, alarm, and gauging systems on the Facility tanks. Additionally, liquid level sensors are regularly checked against physical measurements during product transfers to verify accurate sensor readings. Liquid level sensors are calibrated if discrepancies are noted.

Aboveground Valves and Pipelines Inspections

The Facility's aboveground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtenances

- Periodic pressure testing may be warranted for piping in areas where Facility drainage is such that a failure might lead to a spill event.

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation or replacement.

- Annually a Corrosion Specialist visits the Facility to inspect all rectifiers, read earth potentials and conduct interference testing. An annual report recommending repairs and upgrades, if applicable, is prepared and maintained at the Facility.

Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

8.2.3 VULNERABILITY ANALYSIS

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located approximately 300 yards east of the Santa Ana River.

The effects on critical areas listed in this Plan will be minimized by the Company's rapid containment and cleanup plans and arrangements with oil spill removal organizations.

MSDS sheets indicate possible exposure risks and are located in the Facility Office.

Any evacuation efforts for these critical areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.).

Water Intakes

(b) (7)(F), (b) (3)

[redacted]

Review of historical data determined that the following wells are within the planning distance of the Facility:

CITY	Distance from Facility
Anaheim	
Well # 19	1.75 miles NW (*approximate*)
Orange	
Well # 8	0.25 miles SW (*approximate*)
Well # 9	0.44 miles SW (*approximate*)
Well # 16	1.90 miles SE (*approximate*)
Well # 13	2.00 miles SW (*approximate*)
Well # 20	1.90 miles SW (*approximate*)
Santa Ana	
Well # 24	3.00 miles SW (*approximate*)
Well # 32	3.25 miles SW (*approximate*)
Well # 27	2.68 miles SE (*approximate*)
Well # 28	3.00 miles SE (*approximate*)
Well # 22	1.30 miles S (*approximate*)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

(b) (3), (b) (7)(F)

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Residential Areas

Residential areas are located in all directions from the Facility.

Additional detail on the residential areas within the area of the Facility are included on the maps in Section 6.

Businesses

Review of GIS Data determined that the following businesses are within the planning distance of the Facility:

Businesses	Distance from Facility
Antiques Plus	0.04 miles
Katella Grill	0.05 miles
Uniform Center	0.06 miles
Carecraft, Inc.	0.06 miles
David Wilson's Ford of Orange	0.06 miles
Albertsons Shopping Center	11.0 miles SW

The area surrounding the Facility is for the most part commercialized. Along the Santa Ana River there are various businesses and commercial establishments which may be potentially impacted by a discharge.

Additional detail on the general layout of businesses within the area of the Facility is included on the maps in Section 6.

Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is host to a variety of species. Refer to Figure 4.1 of this Volume for details.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Review of the USF&W Wetlands Mapper and Terraserver data indicates the following wetlands are within the planning distance of the Facility:

Wetlands	Latitude/Longitude
Riverine (Santa Ana River)	(b) (7)(F), (b) (3)

Wetland habitats, however, are common throughout portions of the area. The size and diversity of the wetland environments vary with season and year. Wetlands play a disproportionally large role in maintaining the stability of the global environment. Wetlands retain and gradually release large quantities of water and their dense vegetation traps sediments and consumes pollutants.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

Review of GIS Data determined that the following lakes and streams are within the planning distance of the Facility:

Lakes and Streams	Location
Santa Ana River	0.1 miles W *(approximate)*
Santiago Creek Mouth	3.0 miles SW *(approximate)*
Unnamed Creek	9.5 miles SW *(approximate)*
Unnamed Creek	11.0 miles SW *(approximate)*
Talbert Flood Control Channel	13.3 miles SW *(approximate)*
Pacific Ocean	13.5 miles SW *(approximate)*

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Facility are detailed in Figure 4.1 of this Volume.

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Recreational Areas

There are several recreational areas within the planning distance from the Facility.

Review of GIS Data determined that the following recreational areas are within the planning

Recreational Area	Distance from Facility
Anaheim Convention Center	3.34 miles W *(approximate)*
Anaheim Stadium	1.31 miles SW *(approximate)*
Anaheim Pond	0.25 miles SW *(approximate)*
Crystal Cathedral	3.20 miles SW *(approximate)*
Anaheim Stadium	1.0 miles SW *(approximate)*
River View Golf Course	2.3 miles SW *(approximate)*
Willowick Municipal Golf Course	5.0 miles SW *(approximate)*
Spurgeon Park	5.0 miles SW *(approximate)*
Centennial Reg Park	6.5 miles SW *(approximate)*
Discovery Museum of Orange County	7.0 miles SW *(approximate)*
Suburbia Park	9.2 miles SW *(approximate)*
Mesa Verde Golf Course	10.0 miles SW *(approximate)*
Mesa Verde Country Club	10.2 miles SW *(approximate)*
Alevalos Park	10.5 miles SW *(approximate)*
Talbert Regional Park	11.0 miles SW *(approximate)*
Bard Park	11.3 miles SW *(approximate)*
Gisler Park	12.0 miles SW *(approximate)*
Huntington State Beach	13.5 miles SW *(approximate)*
Theaters/Restaurants	0.2 miles SW *(approximate)*

The recreational areas that may be potentially impacted by a discharge originating at the Facility are more fully identified on the maps in Section 6.

Transportation Routes (air, land, and water)

There are various public roadways and waterways which may be potentially effected by a discharge originating from the Facility.

Review of GIS Data determined that the following transportation routes are within the planning distance of the Facility:

Transportation Route	Distance from Facility
Interstate 57 (I-57)	0.5 miles W *(approximate)*
Union Pacific Railroad	Adjacent to Facility
Santa Ana River	300 yards W *(approximate)*

8.2.3 VULNERABILITY ANALYSIS (Cont'd)

Utilities

Review of GIS Data determined that the following utilities are within the planning distance of the Facility:

Utilities	Distance from Facility
SCE Power Lines	Adjacent to Facility

Other Areas of Economic Importance

The Santa Ana River is bordered by various areas of economic importance other than those previously mentioned.

Review of GIS Data determined that no terrestrially sensitive or unique environments such as wildlife refuges, management areas, or ecological reserves are within the planning distance of the Facility.

Name	Distance from Facility
Garden Grove Municipal Golf Course	6.74 miles *(approximate)*
Lacy Security Facility	2.3 miles SW *(approximate)*
McFadden Branch Library	6.0 miles SW *(approximate)*
Fountain Valley Commerce Center	7.0 miles SW *(approximate)*
Fountain Valley Fire Station No. 2	7.5 miles SW *(approximate)*
Banning Branch Huntington Beach Library	13.0 miles SW *(approximate)*

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The Facility is located in an industrial area.
- The Facility is located in the western portion of Orange.
- The closest navigable water is the Santa Ana River, approximately 300 yards west of the Facility.
- The Facility is connected by pipelines to facilities in Los Angeles, California.

The Facility has taken considerable action to lessen the probability of the hazard occurring.

Potential hazards are identified below:

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Earthquake	The Facility is located in a semi-active earthquake zone with occasional seismic activity.
Fire	Fire from an external source. Internal fire sources out of control are also a threat.
Terrorism	Bombing or malicious destruction could be directed at tanks, piping systems, or control systems by a third-party source.
Vehicular Accident	This would include any of the tank trucks that are visiting the Facility for loading or off-loading.
Material Failure	Tank plating, fittings, and piping, are all subject to failure from material corrosion, impact, or fatigue breakage.
Equipment Failure	Pumps, gauges, detectors, or controllers (mechanical or electrical) are all subject to failure.
Human Error	The wrong decision and or action by personnel may potentially cause a spill.

Investigation and Monitoring of Natural Hazards

- The Company has historical data that defines the low probability of seismic activity in the Orange County area.

- The construction of the Facility has taken the possibility of some seismic activity into consideration; the location of Tank Farms away from slide prone areas and constructing the Facility, including all subgrade soil preparation, along with slope and tank construction in accordance with appropriate building codes and industry guidelines.

Fire Protection Safety

The Facility has portable fire suppressant foam capability and adequate portable fire extinguishers to combat a moderate fire. The Facility is located close to a city and county fire departments that would respond to fires. The brush free zone surrounding the Facility will prevent brush fires from reaching the fuel storage tanks. The fuel piping and transfer systems have metal supports, fire walls, and additional protection including welded pipe joints within the fire walls. The Facility has a fire system serviced by a city water line.

Material Maintenance of Tanks, Piping Systems, and Valves

- The tanks are visually inspected daily on the outside and are inspected internally when the tanks are taken out of service. The piping is tested to 150% of working pressure.

The potential for a spill has been analyzed and deemed to be present, but unlikely. This is based on a review of the following factors:

Oil Spill History

Refer to the Reportable Oil Spill History portion of this Section for details concerning spill history of the Facility.

8.2.4 ANALYSIS OF THE POTENTIAL FOR A SPILL (Cont'd)

Tank Age

Refer to the Potential Spill Sources and Container Identification table in this Section for the year of construction of each of the bulk storage containers at the Facility.

Horizontal Range of a Spill

Secondary containment dikes at the Facility will in almost all cases prevent the horizontal migration of a spill. Containment and recovery of any spilled material which might escape a diked area would be accomplished through the implementation of spill response activities by: (1) Facility personnel, or if necessary, (2) one of the spill response contractors listed in this Plan.

Should a spill escape containment, it would flow southwest through the Facility.

Vulnerability to a Natural Disaster

The Tank Farms' location is relatively flat, therefore, unlikely to incur damage due to shifting and sliding. The seismic stability of the area is good. The probability of a landslide or earthquake is low.

Other Factors

The area in which the Facility is located is prone to landslides and minor earthquakes, however, actions taken to lessen hazards at the Facility reduces the probability to a low potential. Hazard reduction protective measures have been designed into tanks and into the construction of the Facility. Tanks were designed to industry standards which reduces the potential for hazards. Based on the care and construction of the tanks, the potential of any one tank rupturing and emptying product into the secondary containment is low. The potential of several tanks simultaneously rupturing is very low.

The Facility conforms to good engineering practices in the tank integrity inspection program. The inspection program reduces the likelihood of leaks. The Facility has not experienced a failure associated with a tank structure.

8.2.5 REPORTABLE OIL DISCHARGE HISTORY

Kinder Morgan maintains an online database of reportable spills available at all locations via the company's intranet. The database contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

FIGURE 8.7
FACILITY DRAINAGE DIAGRAM

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Carson Terminal is classified as an "EPA jurisdictional non-transportation related Onshore Facility" which operates in a Higher Volume Port Area.

The agency discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

8.3 DISCHARGE SCENARIOS (Cont'd)

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		**D**	**E**		**D**	**E**
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Carson Terminal
EPA - Response Planning Volume Calculations

Location Data	(b) (7)(F), (b) (3)
Location Type	
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	(b) (7)(F), (b) (3)
Average Most Probable or Small Discharge (bbls)	
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	20%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	15%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	25%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	40%

Response Planning Volume Calculation	(b) (7)(F), (b) (3)		
On-Water Recovery Volume (bbls)			
On-Shore Recovery Volume (bbls)			
Shoreline Cleanup Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity. Spills that enter the bar ditch can be handled by response contract vacuum truck, absorbent pad and boom, or other equipment.

The closest waterway is the Dominguez Channel, which is east of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the channel or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Dominguez Channel, which is east of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the channel. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd)
● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes:
● Equipment and manpower resources are detailed in Section 3 of Volume 2.
● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Dominguez Channel. Adverse weather conditions would increase the chances of a discharge entering the channel; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table found in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Dominguez Channel so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 6 hours.
- Sufficient quantity of containment boom must arrive within 6 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 6 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 6 hours; Tier 2 = 30 hours; Tier 3 = 54 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 6 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the channel.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table found in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow northeast and enter the Dominguez Channel which is located east of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located west of the Dominguez Channel, which flows to the Los Angeles Harbor and into the Pacific Ocean. The priority during larger spills is to prevent oil from reaching the waterway. Oil spill response organizations (OSROs) are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of six (6) feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. – Los Angeles Harbor Terminal is classified as a "Complex Facility" which operates in a Higher Volume Port Area.

"Complex" means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the Clean Water Act (CWA).

Complexes must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. The agency discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

USCG Discharge Volume Calculation

(b) (7)(F), (b) (3)

8.3 DISCHARGE SCENARIOS (Cont'd)

OSPR Discharge Volume Calculation
● **Reasonable Worse Case Spill (RWCS)** *The portion of the total linefill capacity which could be lost during a spill, taking into account the availability and location of the emergency shut-off controls; plus the amount of additional spillage that could reasonably be expected to enter California marine waters during emergency shut-off, transfer or pumping operations if a hose or pipeline ruptures or becomes disconnected, or if some other incident occurs which could cause or increase the size of an oil spill.* *Total Linefill Capacity + Additional Spillage (during Shut Down) = RWCS.*

Discharge Volume Calculations from Marine Operations
USCG Worst Case Discharge (WCD) **OSPR Reasonable Worst Case Spill (RWCS)**
(b) (7)(F), (b) (3)

OSPR TABLES
FOR REASONABLE WORST CASE RESPONSE PLANNING VOLUME

PERSISTENCE FACTORS				
Oil Group	**Group 1**	**Group 2**	**Group 3**	**Group 4**
On-Water Volumes	(b) (7)(F), (b) (3)			
Oil Group				
Emulsification				

8.3 DISCHARGE SCENARIOS (Cont'd)

OSPR TABLES
FOR REASONABLE WORST CASE RESPONSE PLANNING VOLUME (Cont'd)

DAILY RECOVERY RATES
(HIGH VOLUME PORTS)

Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

DAILY RECOVERY RATES
FACILITY/TRANSFER AREAS AND SANTA BARBARA CHANNEL AREA

Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

Worst Case Discharge Volume Calculations from Marine Operations (WCD)
(b) (7)(F), (b) (3)

Note: The quantity associated with "the loss of the entire capacity of all in-line, break-out and portable storage tank(s)…" is excluded from the RWCS volume calculation since these tanks are under SPCC jurisdiction (i.e., tanks are subject to Chapter 6.67 or Chapter 6.7 of Div. 20, CA health and Safety Code and thus, exempt from this calculation.)

8.3 DISCHARGE SCENARIOS (Cont'd)

LA HARBOR TERMINAL
OSPR – RESPONSE PLANNING VOLUME CALCULATIONS

On-Water Planning Volume
(b) (7)(F), (b) (3) [redacted]

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

8.3 DISCHARGE SCENARIOS (Cont'd)

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		**D**	**E**		**D**	**E**
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

	F
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Los Angeles Harbor Terminal
EPA - Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b) (3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	20%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation			
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)		
On-Shore Recovery Volume (bbls)			
Shoreline Recovery Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking Facility piping.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity. Spills that enter the bar ditch can be handled by response contract vacuum truck, absorbent pad and boom, or other equipment.

The closest waterway is the Los Angeles Harbor, which is south of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the harbor or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall include:

- 1,000' of containment boom (or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater) and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility unless it occurred at the dock during transfer operations.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack or the dock. In the event of a spill at either location, shut down would begin immediately by manually activating one of the ESDs that are located at the rack or at the dock. For spill at the rack, Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading racks drainage system. The rack is contained by a curbed concrete slab which is slightly depressed. Another possible spill source is the dock.

Offsite Impact

- The closest waterway is the Los Angeles Harbor, which is south of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the harbor. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd)
● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes:
● Equipment and manpower resources are detailed in Section 3 of Volume 2.
● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (35,994 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge from a tank would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it would enter Los Angeles Harbor, as with the case of a Medium Discharge at the dock. Adverse weather conditions would increase the chances of a discharge entering the harbor; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is Los Angeles Harbor so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 6 hours.
- Sufficient quantity of containment boom must arrive within 6 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 6 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 6 hours; Tier 2 = 30 hours; Tier 3 = 54 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 6 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the harbor.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 3.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow south and enter the Los Angeles Harbor which is located south of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in storm water ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located on Southwest Slip in Los Angeles Harbor north of San Pedro Bay which leads into the Pacific Ocean. The priority during larger spills is to prevent oil from reaching the waterway. OSROs are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. – Mission Valley Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation
• **Worst Case Discharge** *100% of the largest single tank* **WCD** = (b) (7)(F), (b)
• **Medium Discharge** *Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD* **MD** = 857 bbls
• **Small Discharge** *Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD* **SD** = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA			
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Mission Valley Terminal
EPA - Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b)(3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)
On-Shore Recovery Volume (bbls)	
Shoreline Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping and would be diesel, gasoline or turbine fuel.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the Facility could be diverted to the product tanks that are not at maximum capacity. Spills that enter the bar ditch can be handled by response contract vacuum truck, absorbent pad and boom, or other equipment.

The closest waterway is the San Diego River which is south of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility. Severe rain and associated flooding would increase the chances.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the San Diego River, which is south of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Offsite Impact (Cont'd)

- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. If a spill occurred in the tank farm or manifold area, the product would be contained within the tank farm or manifold berms or dikes. If a spill occurred on the loading racks, the product would flow into system sumps and then to the oil/water separator. If a spill of this size escaped the property it could possibly enter the San Diego River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the San Diego River so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an OSRO as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- A 857 barrel discharge of gasoline could occur from Facility piping. Severe rain and associated flooding would increase the chances of an oil spill leaving the property.
- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the River.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility employees receive training periodically on the proper procedures to deal with a natural disaster. Employees are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow south and enter the San Diego River which is located south of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in stormwater ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located north of the San Diego River, which flows to the Mission Valley Channel and into the Pacific Ocean. The priority during larger spills is to prevent oil from reaching the waterway. OSRO(s) are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by the state and federal trustees would more than likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of six (6) feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.3 DISCHARGE SCENARIOS

The Kinder Morgan Energy Partners, L.P. - Orange Terminal is an EPA jurisdictional "Non-Transportation Related Onshore Facility" which operates in a Non-Higher Volume Port Area.

The EPA discharge volume calculations are described as follows:

EPA Discharge Volume Calculation

- **Worst Case Discharge**
  100% of the largest single tank

  WCD = (b) (7)(F),

- **Medium Discharge**
  Discharge greater than 2,100 gallons (50 bbls) and less than or equal to 36,000 gallons (857 bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD

  MD = 857 bbls

- **Small Discharge**
  Discharge of less than or equal to 2,100 gallons (50 bbls), not to exceed the WCD

  SD = 50 bbls

8.3 DISCHARGE SCENARIOS (Cont'd)

The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

Planning Volume for On-Shore Recovery (OSR)

OSR = WCD * % Oil On Shore * Emulsification Factor

Planning Volume for On-Water Recovery (OWR)

OWR = WCD * % Recovered Floating Oil * Emulsification Factor

Recovery Capacity (RC)

RC = OWR * On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables, the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

USCG/EPA TABLES
FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION
AND REMOVAL CAPACITY PLANNING

Spill Location	(1) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore
I. Non-persistent oils	80	10	10	80	20	10
II. Light crudes	40	15	45	50	50	30
III. Medium crudes and fuels	20	15	65	30	50	50
IV. Heavy crudes and fuels	5	20	75	10	50	70

EMULSION FACTORS

F	
NON-PERSISTENT OIL	(b) (7) (F), (b) (3)
Group I	
PERSISTENT OIL	
Group II	
Group III	
Group IV	
Group V	

RESPONSE CAPABILITY CAPS (bbls/day)
(Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3
Rivers and Canals	(b) (7)(F), (b) (3)		
Great Lakes			
Inland/Nearshore			

ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

AREA	TIER 1	TIER 2	TIER 3
River	(b) (7)(F), (b) (3)		
Inland/Nearshore Great Lakes			

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	(b) (7)(F), (b) (3)		
All Other			

Orange Terminal
EPA - Response Planning Volume Calculations

Location Data	
Location Type	(b) (7)(F), (b) (3)
Port Type	
WCD Product Type	
Product Group	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations	
Average Most Probable or Small Discharge (bbls)	(b) (7)(F), (b) (3)
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank	

Selected Calculation Factors (Based on EPA Tables)	
Removal Capacity Planning Volume - Percent Natural Dissipation	80%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	10%
Removal Capacity Planning Volume - Percent Oil Onshore	10%
Emulsification Factor	1.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	60%

Response Planning Volume Calculation	
On-Water Recovery Volume (bbls)	(b) (7)(F), (b) (3)
On-Shore Recovery Volume (bbls)	
Shoreline Cleanup Volume (bbls)	

	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bpd)	(b) (7)(F), (b) (3)		
Shallow Water Resp Cpblty (bpd)			
Storage Capacity (bpd)			
On-Water Response Caps (bpd)			
Additional Response Req'd (bpd)			
Response Time (hrs)			

RESPONSE CAPABILITY SCENARIOS

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including:

- Tank overfill and/or failure
- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers)

The response resources, including detail on equipment and manpower, are identified in Section 3 of Volume 2. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Section 2 of Volume 1.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls

A small discharge at this Facility is considered to be a discharge that does not exceed 50 bbls (2,100 gallons).

Description

This size discharge would most likely occur due to minor equipment failures or human error. Examples may include, but not limited to,

- Pump seal leak
- Truck loading rack hose rupture
- Valve leak
- Container rupture
- Storage spill

The most likely location for a discharge of this size would be at the loading rack, or leaking piping.

This size discharge would likely be noticed quickly and appropriate clean up measures taken since product transfers are monitored by Facility personnel. These types of small spills are typically contained on the grounds of the Facility (earthen material or concrete). Adverse weather conditions would not hinder response efforts during a small discharge.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for the loading/ unloading of product to and from trucks. All truck loading is done by truck drivers who are trained prior to being allowed to load at the Facility. In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Also, old or worn parts are replaced as needed. Annual product transfer and pipeline testing is the most important of these measures.

Additional Comments

While the Facility's OSRO or spill contractor would be notified and the best method for containment determined, such discharges that are contained at the loading rack would be diverted to the in line oil water separator.

The closest waterway is the Santa Ana River, which is west of the Facility. The storage tanks and truck loading racks, have adequate secondary containment so it is unlikely that a spill would reach the river or travel very far if it did. Therefore, the threat to sensitive areas is minimal. Finally, this type of spill is not one that would result in a chain reaction of failures of other equipment.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient resources, by contract or other approved means, to respond to a Small Discharge. The response resources shall, as appropriate, include:

- 1,000' of containment boom and a means of deploying it within one (1) hour of the discovery of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

Facility Response Resources/Capability

The Facility will respond to a *Small Discharge* with the manpower and local contract resources as detailed in Section 2 and 3 of Volume 2.

- A 50 bbls discharge typically will not escape the containment of the Facility.
- If a 50 bbls discharge escaped the Facility it would likely occur at the truck loading rack. In the event of a spill, the rack would immediately be shut down by manually activating one of the ESDs that are located at the rack. Facility management would immediately be notified and the situation would be assessed. The need for activating response contractors would be unlikely due to the design and containment capacity of the loading rack. The rack is contained by a curbed concrete slab which is slightly depressed.

Offsite Impact

- The closest waterway is the Santa Ana River, which is west of the Facility. The surface topography of the area around the Facility is relatively flat with a slight decrease in elevation toward the river. A spill of this size is not expected to migrate offsite, because the Facility possesses sufficient quantities of absorbent pads and granular material to effectively respond to a small discharge. The worst probable chain reaction to a spill of this type would be fires caused by accidental sparks. Weather impacts would be minimal since most of the product would not leave the site.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Small Discharge = 50 bbls (Cont'd)
Offsite Impact (Cont'd) ● Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.
Notes: ● Equipment and manpower resources are detailed in Section 3 of Volume 2. ● Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1. ● Facility personnel are trained for responding to small discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, and actual spills.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls

A medium discharge at this Facility is considered to be a discharge that does not exceed 857 bbls (36,000 gallons).

Description

This size discharge would most likely occur due to a major equipment failure or during product transfer. Examples may include, but not limited to,

- Line or flange rupture
- Valve rupture
- Tank failure
- Tank overfill
- Pipeline manifold rupture.

Because of dikes and other containment located throughout the Facility, it is very unlikely that the discharge would leave the Facility property or reach a navigable waterway before a spill containment could begin. The spilled material would more than likely collect in the containment area sump system and be routed to the separator system. If a spill of this size escaped the property it could possibly enter the Santa Ana River. Adverse weather conditions would increase the chances of a discharge entering the river; however, the following response actions would minimize the impacts on sensitive areas.

Prevention

Several steps can be taken to limit the number of occurrences and the amount of discharges. In particular, employees receive training periodically on the proper procedures for truck unloading/ loading and transfers to and from tanks (e.g. proper tank gauging procedures). This training includes what to do in the event of an unusual occurrence such as equipment rupture (i.e. how to transfer spilled material to the miscellaneous tank or product tanks).

In addition, preventive maintenance of equipment is performed at regularly scheduled intervals to ensure that any weaknesses are discovered. Old or worn parts are replaced as needed. Storage tank ages can be referenced in the Potential Spill Sources and Container Identification table in Section 8.2.

Additional Comments

In the event of a medium discharge, the OSRO or spill contractor would be notified. While waiting for the OSRO to arrive, qualified Facility personnel would evacuate the Facility and initiate "immediate response actions" located in Section 4 of Volume 2.

The closest waterway is the Santa Ana River so the potential for a spill of this size reaching navigable water does exist. The area is industrialized and commercialized so damage to ecologically sensitive habitats, recreational areas, etc. would be minimal. Finally, the most likely chain reaction of failure would be fires resulting from accidental spark or downed power lines.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Medium Discharge = 857 bbls (Cont'd)

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium Discharge* volume that are capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment as well as for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity.

Facility Response Resources/Capability

The Facility will initially respond to a *Medium Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Section 3 of Volume 2 and will arrive within 12 hours.

- All resources shall be capable of arriving at the Facility within the applicable response tier requirements (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Oil recovery devices with an effective daily recovery capacity of 428 bbls (50% of the Medium Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 bbls of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.
- Containment boom for oil collection and containment as well as for protection of fish and wildlife, and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the river.
- Recovery of large spills in diked containment areas can be handled with the use of contractor vacuum trucks.

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to medium discharges through regularly scheduled tabletop exercises, discharge prevention/safety meetings, FRP reviews, HAZWOPER training, and other PREP training.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

A Worst Case Discharge (WCD) at this Facility is considered to be a discharge that does not exceed (b) (7)(F), (b) (3)

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to,

- Tank fire
- Earthquake-induced spills
- Catastrophic tank shell failure
- Wind-induced spills
- Pipeline manifold rupture

Diking and containment areas are located throughout the Facility. For a discharge this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached).

Prevention

For a WCD caused by a natural disaster, preparedness is more appropriate than prevention. The Facility personnel receive training periodically on the proper procedures to deal with a natural disaster. Personnel are also trained in steps to follow if the Facility must be evacuated (due to a tank fire or other emergency). In addition, preventive maintenance of tanks is performed at regularly scheduled intervals (to ensure that any weaknesses are discovered). Storage tank ages can be located in the Potential Spill Sources and Container Identification table in Section 8.2.

Worst Case Discharge and Adverse Weather

Severe rain events, tornadoes, and associated flooding would increase the chances of an oil spill leaving the property. Severe weather of this type could also negatively affect the response times of response contractors and other responders.

Probable chain reactions of failures would be induced by the weather conditions. They would include, but not be limited to, fires, health hazards, and discharges of more than one product.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Worst Case Spill Pathway Scenario

In the event of a tank rupture, the product may splash over the dike wall, flow southwest to the Santa Ana River which is located west of the property.

For a spill that is confined to the land along the pathway, Facility personnel would have at least two (2) options by which to contain the spill:

- Dams
- Trenches

Ditch Containment

A spill may be contained in stormwater ditches. Some practical containment methods are:

- A board skimming device
- Earth dam and weir
- Wire fence filter boom
- Culvert weir
- Under flow dam

These methods are simple to construct and effective for containment.

Spills that Reach the Waterway

The Facility is located east of the Santa Ana River. The priority during larger spills is to prevent oil from reaching the waterway. Oil spill response organizations (OSROs) are under contract with the Facility. The Company, however, will use Facility personnel and Facility owned equipment to initiate response actions within one hour. Several recreating areas and other ecologically sensitive areas could be potentially impacted by the spill and its associated response activities. A Damage Assessment by state and Federal trustees would likely follow the response.

Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a WCD to the maximum extent practicable. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps, then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Response Requirement (Cont'd)

- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

Facility Response Resources/Capability

The Facility will respond to a WCD initially with a similar response as identified for a Small or Medium Discharge. Facility Management will initiate "immediate response actions" located in Section 3 of Volume 1 immediately upon discovering a spill. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.
- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.
- The local fire department will provide support for fires at the Facility.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge = (b) (7)(F), (b) (3)

Notes:

- Equipment and manpower resources are detailed in Section 3 of Volume 2.
- Telephone references are provided in Section 2 of Volume 2 and Section 2 of Volume 1.
- Spill response personnel, including Facility personnel, are continually trained to respond to worst case discharges through regularly scheduled PREP exercises (i.e. TTX, QI notification, equipment deployment), discharge prevention/safety meetings, FRP reviews, and HAZWOPER training. A minimum of one tabletop exercise (TTX) in a triennial cycle will involve a WCD scenario.

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the ICP, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Emergency Director assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2000 E. Sepulveda Blvd.
Carson, CA 90810
c. Activate the Facility's employee emergency alarm system (siren) from the Operations Coordinator's office . (Backup notifications and announcements to be made to personnel via 2-way radio.)
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility.
h. Establish a Command Center immediately.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Administration Building or contractor parking lot near the main gate. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Administration, Operations, or Maintenance building, or the north or south staging areas.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to Little Company of Mary Hospital

Start out going east on E. Sepulveda Boulevard towards Intermodel Way. E. Sepulveda Boulevard becomes W. Willow Street. Take the CA-103 South ramp. Merge onto CA-103 South. CA-103 South becomes CA-47 South. CA-47 South becomes I-110 North ramp. Turn left onto N. Gaffey Street. N. Gaffey Street becomes N. Gaffey Street/CA-110. Turn right onto West 9th Street. Turn right onto S. Patton Avenue. Turn left onto West 7th Street.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located at the northern end of the Facility. If the situation permits, the Facility may also be accessed through the emergency gate on the southwestern side of the site adjacent to Alameda Street.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area are generally from the west, northwest at an average speed of 8 - 10 mph.

9. Water Currents

Currents in the Los Angeles Harbor and San Pedro Bay are usually no more than 0.1 to 0.2 knots and rotary in nature.

FIGURE 8.8

EVACUATION DIAGRAM

(b) (7)(F), (b) (3)

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the ICP, which utilizes the Incident Command and Unified Command Systems.

The primary means of signaling an emergency evacuation will be the emergency evacuation sirens. These sirens can be heard in all outside locations within the Facility. The alarm activation button is located outside the operations office next to the main entrance of the building. Backup notification will be handled by use of two-way radios and/or employee runners. The evacuation sirens will be tested each Wednesday at 10:00 a.m.

All Facility personnel will evacuate as directed to the primary rendezvous location shown in the Evacuation Diagram in this Section. If it is not possible to reach the primary rendezvous location, employees must gather at one of the secondary rendezvous locations (see Evacuation Diagram). Contractors will be responsible for performing a head count for their personnel and communicating this information to the Incident Commander (or his designee). It is the Incident Commander's (or his/her designee's) responsibility to perform a "head count" at the rendezvous location to ensure that all Facility personnel, contractors and visitors are accounted for. All personnel will remain at the designated safe area until otherwise instructed by the Incident Commander of his designee.

The Company will notify the neighboring companies as necessary.

1. <u>First Responder until Emergency Director assumes control</u>

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 2200 John S. Gibson Blvd.
San Pedro, CA 90731
c. Activate the Facility's employee emergency alarm system (siren). (Notifications and announcements to be made to personnel via 2-way radio.)
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility.
h. Establish a Command Center immediately.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

8.4 FACILITY EVACUATION (Cont'd)

2. Assembly Area

a. **Primary Assembly Area** - See the Evacuation Diagram in this Section.

b. **Secondary Assembly Area** - See the Evacuation Diagram in this Section.

3. Location of Shelter at the Facility

See the Evacuation Diagram in this Section.

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to Little Company of Mary Hospital

Start out going south on John S. Gibson Blvd. towards N Pacific Avenue by turning left for 0.05 miles. Turn right onto W. Channel St. for 0.10 miles. Turn left onto N. Gaffey Street and travel 1.26 miles. N. Gaffey Street becomes N. Gaffey Street/CA-110. Turn right onto W. 9th Street and travel 0.76 miles. Turn right onto S. Patton Avenue for 0.12 miles to Hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located on John S. Gibson Blvd. and also from the waterside via the main basin channel of Los Angeles Harbor.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 3.2.

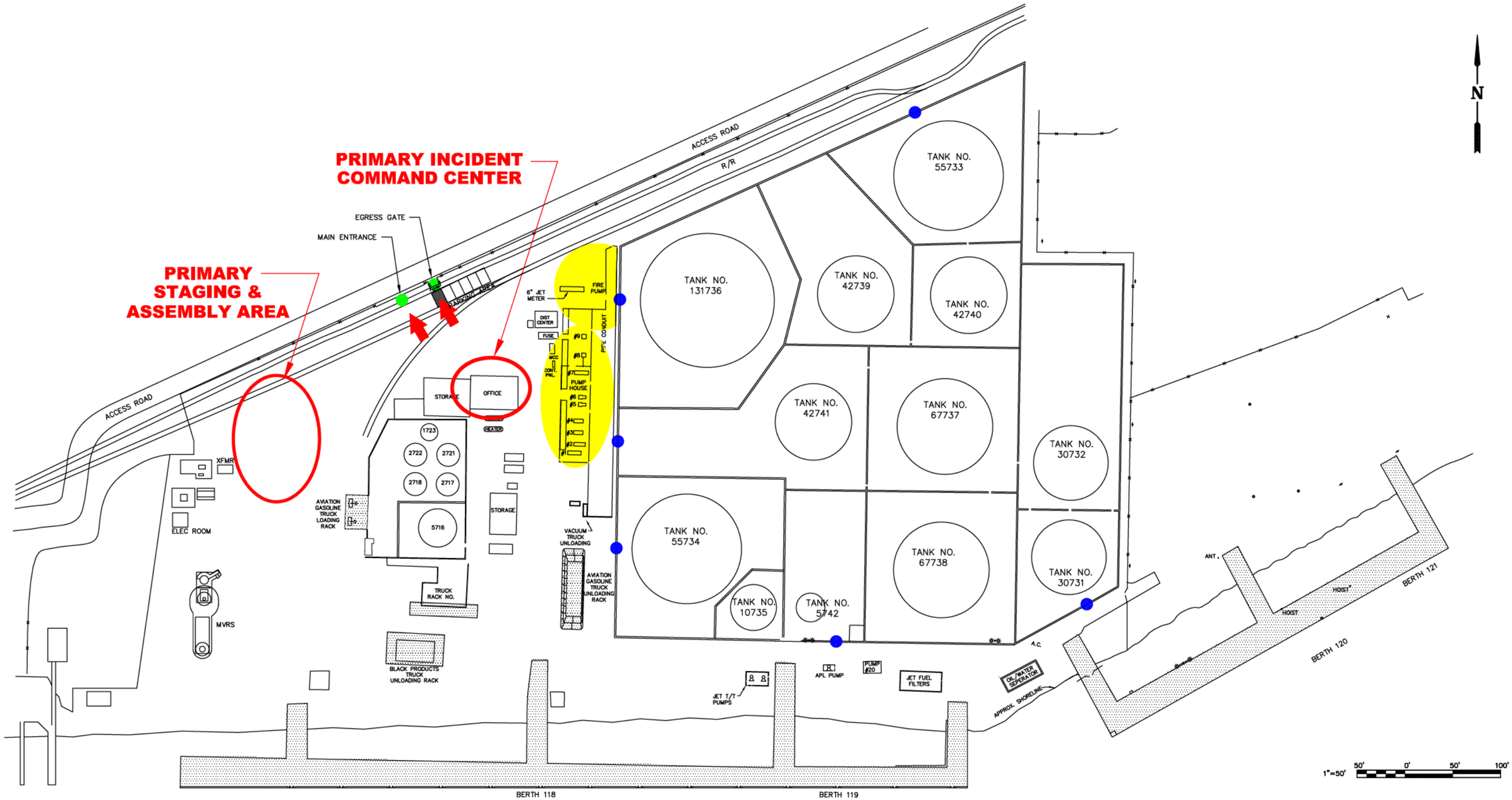
8. Prevailing Winds

The prevailing winds in the Facility area are generally come from the northwest, west northwest at an average speed of eight (8) mph year round.

9. Water Currents

Currents in the Los Angeles Harbor and San Pedro Bay are usually no more than 0.1 to 0.2 knots and rotary in nature.

EVACUATION DIAGRAM



LEGEND:

- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS
- HEARING PROTECTION REQUIRED

KINDER MORGAN
LIQUIDS TERMINALS
ENERGY PARTNERS, L.P.

EVACUATION DIAGRAM
HARBOR TERMINAL

CADD	SCALE: 1"=50'	RECORD DRAWING NO.
FILE: EVAC-HT	DESIGN SUPT	EVAC-HT
BY: ENS	MGR. SAFETY	
DATE: 02-25-08	AREA SUPR.	

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the ICP, which utilizes the Incident Command and Unified Command Systems.

1. First Responder until Emergency Director assumes control

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location: 9950 San Diego Mission Road
San Diego, CA 92108
c. Activate the Facility's employee emergency alarm system (siren). (Notifications and announcements to be made to personnel via 2-way radio.)
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility.
h. Establish a Command Center immediately.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. Assembly Area

a. **Primary Assembly Area** - All employees will report to the Control Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a headcount of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the Primary Assembly Area by the incident should proceed to the main office or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. Location of Shelter at the Facility

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office, Control Building, or the north or south staging area.

4. Mitigation Control Center

The initial mitigation command center will be established at the Control Building.

8.4 FACILITY EVACUATION (Cont'd)

5. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

6. Directions to Sharp Memorial Hospital

From the intersection of I-15 and Friars Rd travel west, southwest approximately 1.5 miles to I-805. Exit right (Northwest) onto I-805 and travel approximately 2 miles to Mesa College/Kearny Villa Rd. Exit off of I-805 right and turn left (South) onto Mesa College. Travel 0.3 miles to Sharp Memorial Hospital.

7. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate located Southeast of the Control Building. If the situation permits, the Facility may also be accessed through the northern access road.

8. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with spilled refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

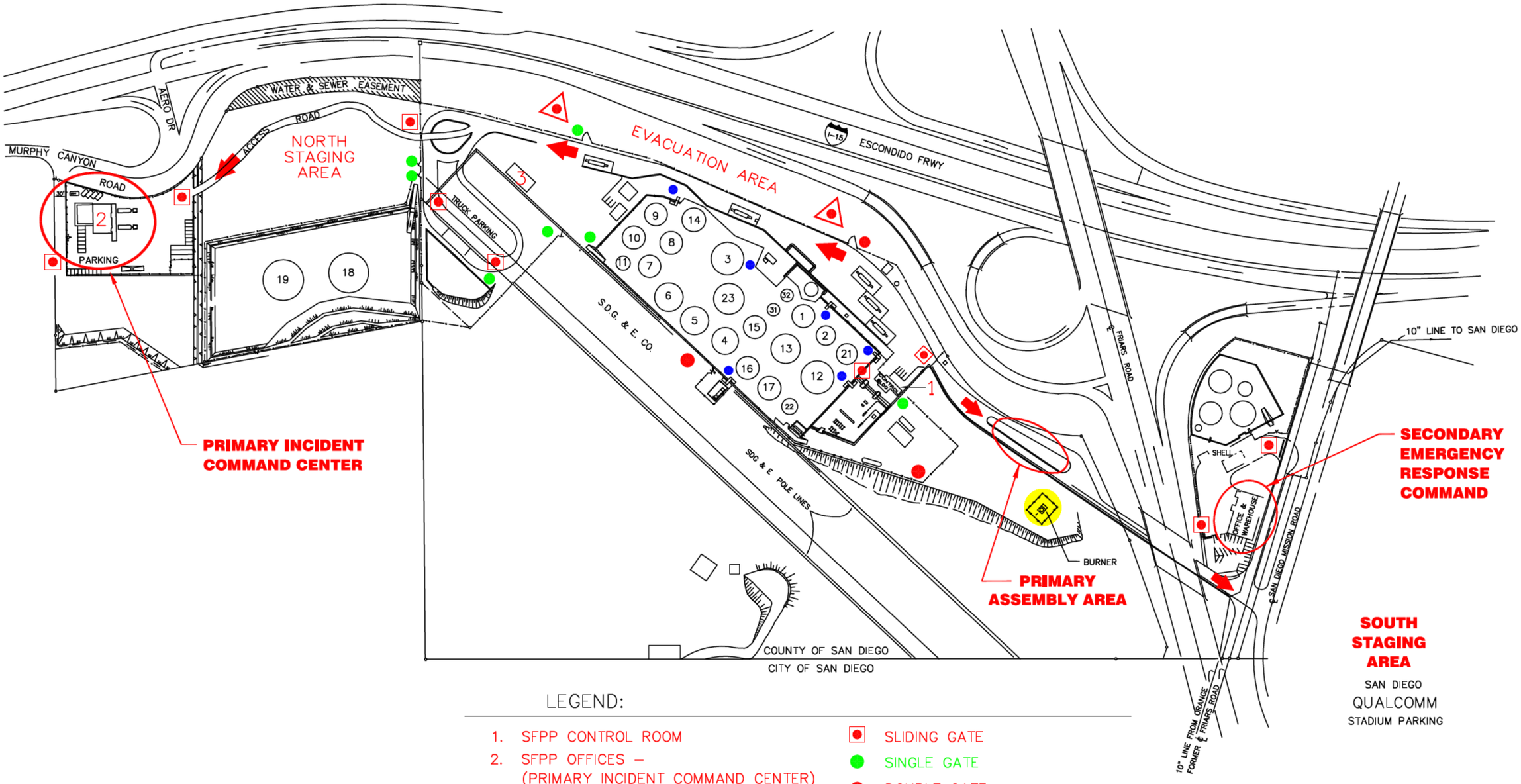
9. Prevailing Winds

The prevailing winds in the Facility area generally come from the northwest, west northwest at an average speed of eight (8) mph year round.

10. Water Currents

Currents in the San Diego River are minimal due to the number of dams located along the length of the river.

EVACUATION DIAGRAM



LEGEND:

1. SFPP CONTROL ROOM
2. SFPP OFFICES – (PRIMARY INCIDENT COMMAND CENTER)
3. WAREHOUSE

- SLIDING GATE
- SINGLE GATE
- DOUBLE GATE
- STAIR/LADDER
- MAIN EXITS
- EVACUATION AREA
- HEARING PROTECTION REQUIRED

SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
MISSION VALLEY TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-MV	DESIGN SUPV	EVAC-MV
BY: VFV	MGR. SAFETY	
DATE: 3-14-07	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.4 FACILITY EVACUATION

The First Responder shall initiate evacuation for isolated emergencies when an immediate reason for evacuation exists (e.g., life-threatening condition). The local law enforcement will coordinate community evacuation activities if necessary and determine area of impact. Response activities would be handled in accordance with the ICP, which utilizes the Incident Command and Unified Command System.

1. <u>(First Responder until Company Personnel (IC) assumes control)</u>

a. In case of a major spill, make emergency notification calls.
b. Give Facility Location:1350 N. Main Street
Orange, CA 92667
c. Activate the Facility's employee emergency alarm system (siren).
d. Shut down pipeline and cease all loading. Do not start engines or move trucks. All drivers and employees go to the primary evacuation site if possible. If it is not possible to reach the primary site, proceed to the secondary site if possible. If it is not possible to reach the primary site, proceed to the secondary site.
e. Shut off power in the area of the spill.
f. Upon authorization from the Fire Department or Area Manager, all trucks are to leave the Facility area as directed. **DO NOT BLOCK ROADWAYS.**
g. Contact other oil company offices within or near the Facility and Southern Pacific Railroad, if applicable.
h. Staging area for Emergency Command Post will be at the entrance to the Facility or where the Fire Department selects.
i. Make the Command Center identifiable.
j. Report location & communication methods to responding help (public authorities, specialized contractors).
k. Assemble appropriate personnel, including outside response agencies.
l. Centralize all materials, including communications.
m. Set up staging areas.
n. Be ready to move off site if emergency conditions change.

2. <u>Assembly Area</u>

a. **Primary Assembly Area** - All employees will report to the Office Building. (Refer to the Evacuation Diagram in this Section for evacuation routes.) Company Personnel (IC) will conduct a head count of personnel (employee & contractor) that were in his area. The results of such headcount will be communicated to the Incident Commander immediately.
b. **Secondary Assembly Area** - Employees who find themselves isolated from the primary assembly area by the incident should proceed to the main gate or other safe area up wind of incident. (Refer to the Evacuation Diagram in this Section for evacuation routes.)

3. <u>Location of Shelter at the Facility</u>

Should a safe evacuation of the Facility become unlikely, shelter can be taken at the Facility Main Office.

8.4 FACILITY EVACUATION (Cont'd)

4. Community Evacuation

The local Law Enforcement provides methods of warning the public of the need to evacuate. The current procedure for informing the public when there is a need to do so is by door-to-door notification, use of electronic media by direct contact to radio and television stations, or the employment of the Emergency Broadcast System (EBS). The local authorities will initiate and coordinate all efforts concerning the evacuation of the community.

5. Directions to St. Joseph Medical Center

From the Facility start out going south on N. Main St. towards W. Katella Avenue 1.9 miles. Turn left onto W. Stewart Drive 0.1 miles. Turn right onto S. Pepper St. to the hospital.

6. Arrival Route of Emergency Response Personnel and Response Equipment

The Facility can be accessed via the main gate. If the situation permits, the Facility may also be accessed through the northern access road.

7. Location of Stored Material & Hazards Imposed by Those Materials

Materials are stored permanently in the bulk fuel aboveground storage tanks (ASTs) in the tank yard at the Facility. Hazards posed by any releases from this area include fire, direct contact with refined products, and inhalation of vapors associated with spilled refined products. Spill flow directions, outside the secondary containment areas, are shown on the Drainage Diagram found in Section 8.2.

8. Prevailing Winds

The prevailing winds in the Facility area generally come from the southeast at an average speed of five to ten (5 – 10) mph and the mean temperature is 60°F.

9. Water Currents

Currents in the Santa Ana River are minimal and have no tidal influence.

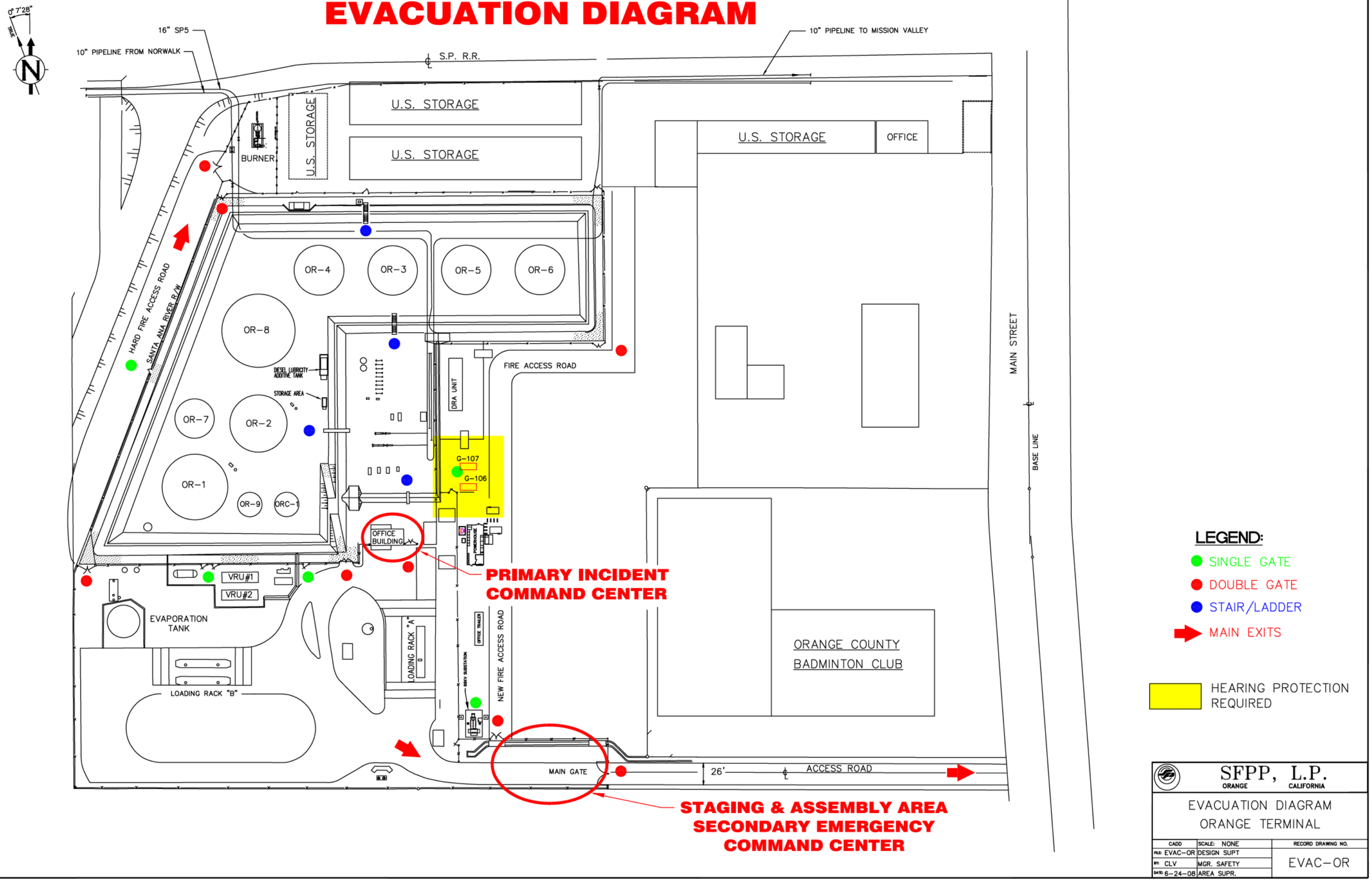
10. Evacuation Procedures

The Company has confirmed with the Orange Police Department that a Community Evacuation Plan currently exists for this area. A copy of the Plan will be forwarded to the Company for integration into the Facility's evacuation procedures.

FIGURE 8.8

EVACUATION DIAGRAM

EVACUATION DIAGRAM



SFPP, L.P.
ORANGE CALIFORNIA

EVACUATION DIAGRAM
ORANGE TERMINAL

CADD	SCALE: NONE	RECORD DRAWING NO.
FILE: EVAC-OR	DESIGN SUPT	EVAC-OR
BY: CLV	MGR. SAFETY	
DATE: 6-24-08	AREA SUPR.	

FIGURE 8.9

TACTICAL PLAN

The following Tactical Plan has been provided to assist initial response to a spill incident from this Facility. The plan includes the following:

- Driving directions
- General pictures of the site and tactical response strategy
- General response equipment and personnel recommendations

Note: This Tactical Plan is provided as a general guidance tool for response to an incident emanating from this Facility. The selection of response strategy equipment, manpower and deployment site may vary based on actual field conditions (e.g. terrain, weather conditions, product type/volume) and incident details.

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

8.5 RISK AND HAZARD ANALYSIS

8.6 CONSEQUENCE ANALYSIS

[Note: The Risk and Hazard Analysis and The Consequence Analysis for this Facility was performed during GATX ownership of the Facility and continues to be valid under KMEP ownership. This effort was performed on the GATX LA Complex operations in which the combined operations of LA Harbor Terminal (LAHT), Gaffey Street Terminal and Carson Terminal was evaluated. Since KMEP's acquisition of this complex, the Gaffey Street operations have been terminated and the LAHT and Carson Terminal operations have been segregated. Accordingly, the LAHT operations, which is the only Terminal with marine operations, is the OSPR jurisdictional facility and this Risk and Hazard Analysis and Consequence Analysis remains valid. These sections are incorporated herein and attached hereto in their entirety.]

6.1 Risk and Hazard Analysis

6.1.1 Spill History

A history of significant spills is provided for each terminal and pipeline operation in the site specific annexes (Annexes A.3.1, B.3.1, and C.3.1). Information on the type of oil, amount spilled, location, date and time of the incident, watercourses affected (if any), agencies notified and corrective actions taken is provided.

6.1.2 Hazard Analysis

Hazard analyses have been performed for all GATX Los Angeles Petroleum Complex facilities, to identify hazards associated with the facilities. A summary of the hazard analyses performed are described in the site specific annexes for the following:

- Annex A Carson Terminal
- Annex B Los Angeles Harbor Terminal
- Annex C Gaffey Street Terminal
- Annex D Pipeline Facilities

6.1.2.1 Hazard Analysis Methodology

The hazard studies were performed using one the following techniques, in accordance with Guidelines for Hazard Evaluation Procedures published by the American Institute of Chemical Engineers.

- What-If
- What-If / Checklist
- Hazard and Operability (HAZOP)

The studies identified hazards associated with the facilities, including:

- Operation of the facilities
- Operator or human error
- Potential equipment failure
- Maintenance
- Safety Systems
- External events (natural hazards) likely to cause a release

The hazard analysis teams were composed of representatives from operations, maintenance and a team leader with experience in the hazard analysis technique.

6.1.2.2 Summary of Findings and Corrective Actions

The studies concluded that safeguards and procedures are in place to prevent or substantially reduce the potential for a release. The level of risk posed by the hazards identified have been evaluated, and no scenarios were identified as having an "Unacceptable" or "Undesirable" level of risk.

The most severe consequence which can not be totally mitigated by safeguards, was the potential for a pipeline rupture due to third party damage. An underground service network is in operation to identify underground lines prior to excavation or boring operations. GATX inspects the work area to verify their pipelines are not in danger from external interference. In the event of a pipeline release, pipeline monitoring devices and procedures will quickly alert the operator to a pipeline failure.

A number of scenarios were identified during the hazards analyses as having an "Acceptable With Controls" or "Moderate" level of risk. These were primarily associated with the detection of releases. Release detection on a complex pipeline system requires regular pipeline flow and pressure measurements, and monitoring procedures. GATX have procedures to measure pipeline deliveries and receipts to detect discrepancies in pipeline in transfer quantities. During the hazards assessments, recommendations were made to improve the monitoring and integrity of the pipeline system. Since the studies were performed, GATX have implemented a number of risk reduction measures to further reduce the risk of a release or the impact of a potential release.

6.2 Off-Site Consequence Analysis

6.2.1 Trajectory Analysis

Planning Distances

The EPA and USCG require the determination of a planning distance for potential impact such as injury to fish and wildlife and sensitive environments, or disrupt operations at a public drinking water intake. Since the facilities are located in a tidally influenced area, the planning distance is 15 miles from the facility down current during ebb tide and 15 miles during flood tide for the persistent oils stored at the facility. For the non-persistent oils stored at the facility, the planning distance is 5 miles from the site down current during ebb tide and 5 miles during flood tide.

The Carson Terminal site is located approximately 250 feet from the Dominguez Channel which flows into the Los Angeles Inner Harbor, and is therefore also in a tidally influenced area.

Representative Worst Case Trajectory Analysis

(b) (7)(F), (b) (3) [redacted] The following is a brief discussion of this trajectory analysis.

An envelope of possible spill trajectories was calculated for a cluster of facilities located between the mouth of the Dominguez Channel and the middle of the main channel, including the Turning Basin, leading into the Los Angeles inner harbor. The trajectory analysis considered oil transport by wind stress, tidal currents, and spreading by physical processes including gravity, surface tension, and tidal dispersion.

Circulation (and spill transport) in the shallow waters of San Pedro Bay is dominated by wind stress. Tidal currents within the bay, usually no more than 0.1-to-0.2 knots and rotary in nature, are much less important than wind stress and probably would not contribute significantly to spill transport.

Tidal currents, wind stress, and spreading could transport oil either eastward of the mouth of the Dominguez Channel or southward towards the waters of the San Pedro Bay. Should the spill travel southward of the Los Angeles Harbor main channel entrance, westerly (i.e. blowing from the west) or northwesterly winds could drive the spill as far as the eastern end of the Long Beach breakwater. Under these conditions, it is possible for oil to be transported outside the San Pedro breakwater. Over a 3-day period, the spill could be transported as far south as Huntington Beach, and about 6 nautical miles southeast of the Long Beach breakwater.

These spill trajectory envelopes represent the outer perimeter of the shoreside areas that could receive oil in the event of any spill. The envelopes are based on regional extremes of climate, tide, current, and wind and assume pessimistic dispersion and other adverse weather conditions. These trajectory envelopes do not represent the trajectory of any one spill. A full discussion of the details used for preparing these spill envelopes is provided in Section 202.2 of the CCW Regional Resource Manual.

6.2.2 Oil Characteristics and Persistence

6.2.2.1 Impact on Biological Resources

In general, oil can be toxic to biological resources. Oil contamination of intertidal areas, waterfowl, and fur-bearing mammals can be severe. The following summarizes the potential toxicity from oil to biological resources as presented in the CCW Regional Resource Manual.

- ***Wildlife –*** Wildlife are susceptible to significant injury and mortality from contact with oil spills. In general, the degree of sensitivity to oil spills is based on habitat location and behavioral characteristics. For example, most waterfowl and shorebirds, particularly diving birds, are very sensitive to oil spills due to their extensive use of the water, whereas terrestrial birds may nest near the water but have a low sensitivity to oil spills if they do not frequent shoreline areas. Similarly, animals that frequent coastal areas may be impacted by oil spills if they feed on vegetation or dead animals along the shoreline that could become oiled.

  Wildlife impacts may result from the physical effects of the oil on their fur or feathers or through ingestion during preening or scavenging. Selected marine mammals (e.g., sea otters and fur seals) and birds (primarily waterfowl) rely on their fur or feathers for insulation and buoyancy, which can be adversely affected if they become oiled. Significantly oiled mammals or birds can perish from hypothermia and exhaustion or may become sick from the ingestion of the oil while preening. The effects of ingestion vary depending on the toxicity of the oil. In general, the lighter the crude oil or petroleum product, the more toxic it is to wildlife.

- ***Finfish and Shellfish*** – The sensitivity of various fish species to oil spills typically depends on their growth stage (juveniles are generally much more sensitive than adults), their feeding or migration habits, and the type of oil. Species that frequent shallow or near-surface areas will often be exposed to higher concentrations of dissolved hydrocarbons than those that reside primarily in deeper waters. Lighter crude oils and refined petroleum products have a greater impact on fish than heavier oils due to their generally greater solubility and higher concentrations of toxic compounds.

- ***Kelp and Eelgrass Beds*** – Kelp and eelgrass beds are valuable habitats for numerous finfish and shellfish. Eelgrass is much less abundant than kelp but is used as spawning grounds for some fish and as important sanctuary for a number of planktonic organisms. Eelgrass is very susceptible to the toxic and physical effects of oil spills. Kelp beds also serve as habitats and sanctuaries for a number of finfish, shellfish, and other marine organisms but are less susceptible to the effects of oil spills. Kelp fronds and blades are covered with mucous that inhibits the oil from sticking although a kelp forest canopy can trap substantial quantities of oil, resulting in the mortality of many of the organisms inhabiting the canopy. The effects of the oil are generally short-term due the kelp's rapid growth rate.

In general, the longer the oil is expected to persist on a shoreline, the higher the priority for protection. Long-term persistence can present chronic toxicity effects as well as affecting the natural sediment erosional and depositional processes. The potential persistence or residence time of stranded oil on a shoreline is primarily dependent on the degree of impact, the type of shoreline sediments, and the level of exposure to the elements.

Higher degrees of impact, coarser, well-sorted sediments, and lower levels of exposure to wind, waves, currents, and tidal flushing will increase the residence time of the oil on the shoreline. Coarser-grained sediments usually permit the oil to penetrate deeper into the shoreline but can also allow for greater tidal flushing and natural degradation. Fine-grained sediments typically inhibit penetration but if oil does become incorporated into the sediments, residence time will increase.

Lower levels of exposure, such as in protected inlets or bays, will increase the residence time due to the decreased natural abrasion caused by sediment movements and flushing action by wind, waves, and tides. Protected areas may also be shaded and calm, which could inhibit evaporation and photo-oxidation. General guidelines on the potential persistence of oil on a variety of shoreline types are provided in Table 303-1 of the CCW Regional Resource Response Manual.

The ACP for Los Angeles/Long Beach contains maps of the potentially affected shorelines, together with site strategy and site summary sheets that describe the characteristics of the shorelines and strategies to be used to protect the shoreline from oil and to clean up oil that reaches the shoreline (Section 4613 of the ACP).

The ACP also lists natural resources for each segment of shoreline. Environmental sensitivity rankings are presented on the maps to help prioritize response efforts. A list of sensitive areas is presented in Figure 6.3.1 and an inventory of potentially affected natural resources is presented in Figure 6.3.2 of this Plan.

The primary seasonal effect on biological resources is whether the specific resource is present at the time of the spill. This is especially true of birds and mammals. Plants may be affected differently depending on the timing of the spill relative to the plant's growing season. In general, oiling during the dormant winter season has the lowest impact, whereas oiling of vegetation during the summer growing season has longer effects.

6.2.2.2 Impact on Economic and Cultural Resources

Economic resources include marinas, mariculture operations, recreational and tourist facilities, parks, and the like. The ACP contains a discussion of economically significant areas in Section 4620 and 4622. The discussion describes the criteria for prioritizing response using three codes to indicate relative priority for protection. Codes A, B, and C apply to natural resources. The codes applicable to economic resources are defined below.

- D = Economic activities and resources that require high water quality for their operation or existence.
- E = Facilities, businesses, or resources that directly use coastal or bay waters within their economic activity, and which are at risk of oiling from a spill in marine waters.

- F = This category contains marine facilities, business, and resources.

The economic resources that may be affected are summarized in Figure 6.3.3.

6.2.2.3 Summary of Consequences

The consequences of oil spills on wildlife and shoreline habitats are well documented. Section 303 of the CCW Regional Resource Manual discusses sensitive resources and the potential effects of oil on key sensitive resources. Figure 6.2.1 summarizes the vulnerability of aquatic ecosystems to the toxic effects of oil. This summary is based on research conducted by the U.S. Fish and Wildlife Service National Wetlands Research Center.

Effects on economic resources are generally temporary. They include:

- Possible direct effects on mariculture operations and commercial fisheries such as contamination of fish, shellfish, or vegetation. These effects may impact the value of products or make them unfit for sale, and may thereby adversely impact the operator or fishermen. Fishermen may be compensated if they assist in oil spill response through cooperative vessel of opportunity programs that would offset reduced earnings from fishing.
- Possible damage or adverse aesthetic effects to boats, on-water equipment, shore-based industrial operations, marinas, piers, and the like. These effects generally require cleaning of the contaminated boats or equipment to remove the oil. In certain circumstances, oil may be taken into mechanical and cooling systems in vessels or shoreside equipment, and this may require cleaning or overhaul of the equipment prior to returning it to service.
- Possible reduced tourism and park attendance and reduced revenues for the local economy from tourism. The existence of a spill may deter potential visitors from visiting the area during and, for a period of time, after the spill. A spill may prevent visitors from engaging in some activities that require using beaches, harbors, piers, or other shoreside amenities while spill cleanup operations are in progress. However, spill cleanup does create a demand for local labor and temporary housing which may compensate somewhat for lost revenues.

Figure 6.2.1 Vulnerability of Aquatic Ecosystems to Spilled Oil

Habitat	Vulnerability To Oil Discharges
Intertidal Shore	
Sandy Beach	Moderate
Rocky Shore	High
Tidal Flat (bird nesting and feeding)	High
Intertidal Wetlands	
Marshes (breeding for nursery grounds)	Low – High
Subtidal Systems	
Seagrass (fish feeding and nursery)	High
Soft bottom stabilization	High
Rocky	Moderate
Fisheries	
Offshore Commercial Fisheries	Low (except spawning)
Nearshore	Moderate - High

Source: U.S. Department of the Interior, Fish and Wildlife Service, National Wetlands Center.

6.3 Sensitive Resources

6.3.1 Environmentally Sensitive Resources

Environmentally sensitive resources include:

- Shoreline types and associated marine resources.
- Presence of migratory and resident marine birds.
- Mammal migration routes and breeding, nursery, stopover, haul-out, and population concentration areas (seasonal).
- Presence of aquatic resources.
- Presence of natural terrestrial animals and plant resources in marine-associated environments.
- Presence of state/federal-listed rare, threatened, or endangered species.
- Commercial and recreational fisheries including aquaculture sites, kelp leases, and other harvest areas.

Sensitive resources are identified and mapped in the following documents:

1. Clean Coastal Waters (CCW) Regional Resource Manual.
2. Area Contingency Plan (ACP) for Los Angeles/Long Beach.

GATX maintains copies of these documents at its Carson facility. The response maps listed below cover the areas of concern for the GATX facilities. Copies of these response maps are provided in Section 6.7 of this plan to ensure that response personnel have access to the maps.

The CCW Regional Resource Manual sensitive area maps and corresponding tables are sequentially numbered from west to east. Resources of concern are identified on the following maps:

- CCW-06. San Pedro Bay
- CCW-07. Seal Beach Area.
- CCW-08. Huntington Beach Area.
- CCW-09. Newport Beach Area.

On each map, Areas of Special Significance are identified and prioritized with respect to sensitivity. Information provided on the map and in the corresponding table on the Area of Special Significance includes:

- Physical features,
- Biological features (e.g., the presence of spawning areas, fish, birds, marine mammals, sensitive, threatened, and/or endangered species).

- Primary, secondary, tertiary substrate.
- Primary response technique.
- Trustee Agency/Manager/Local Expert contacts.

The ACP for Los Angeles/Long Beach (Section 4613) presents similar and additional information on sensitive resource areas. Resources of concern are identified on ACP maps as follows:

- Map 119. San Pedro Channel and Bay.
- Map 121. San Pedro Bay.
- Map 122 - 123. Long Beach to Huntington Beach.
- Map 124 – 125. Huntington Beach to Laguna Beach.

Using OSPR maps, sensitive areas are mapped and prioritized (Codes A, B, and C) according to an environmental sensitivity ranking. A Site Summary Sheet is provided for each sensitive site and includes information on the site's:

- Location (USGS quad, longitude and latitude).
- Physical features.
- Access.
- Seasonal concerns.
- Resources of primary concern.
- Trustee Agency/Local Expert contacts.

A second sheet for each sensitive area, the Site Strategy Sheet, specifically addresses protection, containment, and cleanup strategies, including recommended techniques, equipment considerations, access and logistics information.

Sensitive areas and resources noted on the maps in the ACP are consistent with those listed in the CCW Regional Resource Manual's maps. A cross-reference for the sensitive sites called out on these maps is provided in Figure 6.3.1. Natural resources of concern in the area are summarized in Figure 6.3.2.

6.3.2 Economically and Culturally Sensitive Resources

Economic and cultural resources include:

- Public beaches, parks, marinas, boat ramps, and diving area.
- Industrial and drinking water intakes, power plants, salt pond intakes.
- Offshore oil and gas leases and associated drilling platforms.
- Historical/archaeological sites.
- Areas of cultural or economic significance for Native Americans.

6. Prevention Measures

- Major waterways and vessel traffic patterns that are likely to be impacted.

The ACP contains a discussion of economically significant areas similar to the manner addressed for environmentally sensitive areas. Priority ranking codes D, E, and F are used to signify lower priorities for protection.

The coastal economic resources that may be affected, along with the appropriate priority ranking code for each resource type, are summarized in Figure 6.3.3. Additional information can be obtained from the ACP, Sections 4620, 4622, and 4623. The CCW Regional Resource Manual also identified economic resources on its maps CCW-06 to CCW-09.

Figure 6.3.1 Environmentally Sensitive Areas

CCW Map No.	ACP Map No.		Sensitive Site Name
CCW-06-01	Map 119	B/C-5-011	Point Fermin
CCW-06-02	Map 119	B/C-5-012	Cabrillo Beach
CCW-06-03	Map 119	A-5-013	Cabrillo Beach Wetlands
CCW-06-04	Map 119	A-5-014	Terminal Island
CCW-06-05	Map 121	C-5-015	Shoreline Lagoon
CCW-07-01	Map 121	B/C-5-016	Long Beach City Beach
CCW-07-02	Map 121	B/C-5-017	Belmont Shore Beach
CCW-07-03	Map 122/123	A-5-019	Alamitos Bay/Cerritos Wetlands
CCW-07-04	Map 122/123	B/C-6-001	Seal Beach
CCW-07-05	Map 122/123	A-6-002	Anaheim Bay
CCW-08-01	Map 122/123	A-6-003	Bolsa Chica
CCW-08-02	Map 124/125	B/C-6-004	Huntington Beach
CCW-08-03	Map 124/125	A-6-005	Santa Ana River/Huntington Wetlands
CCW-09-02	Map 124/125	B/C-6-006	Newport Beach
CCW-09-03/09A	Map 124/125	A-6-007	Lower Newport Bay
CCW-09-01	Map 124/125	A-6-008	Upper Newport Bay
CCW-09-03	Map 124/125	B/C-6-009	Corona Del Mar

Figure 6.3.2 Inventory of Potentially Affected Coastal Natural Resources

Potentially Affected Coastal Natural Resources	
Marine Mammals Harbor Seal California Sea Lion **Mammals** Salt Marsh Harvest Mouse (endangered) Pacific Pocket Mouse (endangered) **Seabirds** Brown Pelican (endangered) California Least Tern (endangered) Light Footed Clapper Rail (endangered) Belding's Savannah Sparrow (endangered Peregrine Falcon (endangered) Black Skimmer **Finfish** California Barracuda White Sea Bass Yellowtail Halibut (nursery) Corbina (nursery) White Croaker Bonita Jack Mackerel Thresher Shark Northern Anchovy (bait fish) Corbina	**Shellfish** Spiny Lobster (commercial fishery) Crab (commercial fishery) Red Rock Shrimp(commercial fishery) Abalone (commercial fishery) **Habitat / Reserves** Abalone Cove Ecological Reserve Point Fermin Marine Life Refuge Anaheim Bay Bolsa Chica Ecological Preserve Huntington Beach Wetlands Upper Newport Bay Newport Beach Marine Life Refuge Irving Coast Marine Life Refuge Heisler Park Ecological Reserve Corona Del Mar (ASBS) ***Source: CCW Regional Resource Manual, ACP, OSPR Guidance Documents***

Figure 6.3.3 Inventory Of Potentially Affected Coastal Economic Resources

Resource Type & Ranking	Locations
Mariculture Areas - D	Newport Bay/Balboa Beach Corona Del Mar Kelp Lease Area
Parks - E	Point Fermin Park and Lighthouse Lookout Point Park Cabrillo Beach Shoreline Park Long Beach City Park Bixby Park Bluff Park Belmont Shore Alamitos Peninsula Alamitos Bay Beach Naples Marine Park Seal Beach Surfside Beach Trinidad Island Sunset Aquatic Regional Park Bolsa Chica State Beach Huntington City and State Beaches Santa Ana River County Beach Newport Beach Bayside Drive County Beach China Cove Beach Rocky Point Corona Del Mar State and City Beach Little Corona Beach
Marine Services and Commercial Fishing - E	Los Angeles Harbor (various wharves and marinas) Long Beach Harbor (various wharves and marinas) Long Beach Downtown Marina Long Beach Shoreline Marina Alamitos Marina Anaheim Bay Huntington Harbor Newport Bay Several Commercial Fisheries

Figure 6.3.3 Inventory Of Potentially Affected Coastal Economic Resources (continued)

Resource Type & Ranking	Locations
Tourist Areas - F	Los Angeles International Hostel Cabrillo Fishing Pier Cabrillo Marine Museum Ports O'Call Village John S. Gibson Jr. Park Catalina Terminal Queen Mary Queensway Bay Terminal for Long Beach/Catalina Cruises Long Beach Aquarium Long Beach Waterfront Belmont Pier Seal Beach Seal Beach Pier Sunset Beach Huntington Beach Colonial Inn Hostel Huntington Beach International Surfing Museum Huntington Pier Newport Beach and Pier Balboa Beach and Pier West Jetty View Park Balboa Pavillon Corona Del Mar
Cultural Resources	None identified. A cultural resources specialist would advise the spill response team as necessary. Refer to ACP Section 4624 for contact list.

Priority Rankings:
D = Economic activities and resources which require high water quality for their operation or existence.
E = Facilities, business, or resources which directly use coastal or bay waters within their economic activity and which are at risk of oiling from a spill in marine waters.
F = Marine-associated facilities, businesses, and resources.

Sources:
ACP Los Angeles/Long Beach
CCW Regional Resource Manual
OSPR Guidance Documents

B.3 Site Spill Prevention

Spill prevention is accomplished by a combination of engineered systems and continuous daily monitoring by company personnel. Spill prevention and mitigation measures for GATX Los Angeles facilities are described in the main plan in Section 6.4. The following section provides a description of the spill history and hazard analysis, specific to the Harbor Terminal.

B.3.1 Spill History

A history of reportable spills recorded at the Harbor Terminal is provided in Figure B.3.1, for spills from 1994 to 1999.

A reportable spill is defined as follows:

- Federal Reportable Quantity

  Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge to be deposited beneath the surface of the water or upon adjoining shorelines, or

  Violates applicable water quality standards

- California Reportable Quantity

  Any petroleum spill to the waters of the State, or

  Any spill to land of one barrel (42 gallons) or more.

B.3.2 Risk and Hazard Analysis

B.3.2.1 Introduction

The GATX Los Angeles Harbor Terminal located at Berths 118-119 in Los Angeles, California functions as a petroleum liquids terminal for loading/unloading tankers and barges. Products are received into the site by tanker, barge, pipeline and tank truck and shipped from the site by tanker, barge, pipeline and tank truck. Rarely, some product is received into the site by tank truck.

This Hazard and Risk Analysis evaluates the varied operations performed at the site to accomplish the receipt, storage, and delivery of products; and assesses the potential for product discharges as a result of such operations.

This analysis is limited to the evaluation of product discharges at the site. It does not address potential discharges from vessels or vehicles calling at the site or from pipelines connected to the site except in conjunction with the terminal transfer operations. Neither does it address the potential for adverse incidents other than spills or discharges (fire, explosion, etc.).

B.3.2.2 Study Technique

This analysis evaluates the potential for a discharge from each of the several types of operations performed at the site:

- Vessels unloading to tankage

- Vessels loading from tankage
- Vessels unloading directly to pipeline
- Tank trucks unloading to tankage
- Tank trucks loading from tankage
- Pipeline receipts into tankage
- Pipeline deliveries from tankage

Where it is appropriate each of the above operations are evaluated under two operating modes - (1) during operation start-up and (2) during continuous operations. The potential for a discharge and the magnitude of such discharge may be different for each operating mode.

Additionally, an evaluation is made of the potential for a discharge from segments of the site during routine system maintenance, and when such segments are idle.

A series of "what if" questions were utilized to perform the analysis (Figure B.3.2). It was presumed that as long as operating conditions were normal and operating practices and procedures were being followed, then no hazard or risk existed.

The "what if" questions addressed deviations from normal operating conditions and variances from practices and procedures that could lead to adverse consequences or could be the result of adverse consequences.

For each "what if" event, the potential consequences were identified; and for each consequence, an evaluation was made of the safeguards in place to eliminate or reduce the impact of that consequence.

For any event where it was determined that the safeguards might not preclude all adverse consequences, the perceived level of risk of any remaining consequences was evaluated. The perceived level of risk was identified as being Very Minimal, Minimal, Moderate, or Major. For risks judged to be more than Minimal, recommendations for reducing the level of risk were offered for consideration.

B.3.2.3 Study Team

Vern Grimshaw, with the consulting firm of Robert J. Meyers and Associates, conducted the study. Mr. Grimshaw has over 39 years experience in engineering, operations, and management of petroleum pipelines and terminals, including risk analysis and spill response.

Mr. Grimshaw interviewed Mr. Steven Caddell, Terminal Superintendent (at the time of evaluation), and other site personnel regarding several elements of site operations. Operating procedures and practices for each specific operation were discussed; Written Operating Procedures for various site operations were reviewed and explained; and an assessment was made of the various control devices, monitoring systems, and alarm systems that are a part of the site design.

B.3.2.4 Study Conclusions

The study concluded that, except as described below, adequate safeguards are in place to either totally prevent, or substantially reduce the potential for a discharge resulting from site operations.

The site has adequate secondary containment for major tankage in the event of a tank failure or overfill. The drainage systems would adequately contain discharges from the tank truck loading and unloading areas and other un-diked areas of the site. Comprehensive written operating procedures are provided for operations routinely performed at the site.

Recommendations for reducing the potential risk of a discharge in certain operations are provided in Figure B.3.3 and described as follows:

1. For movements via pipeline in either direction between the terminal and the GATX Carson storage site, the risk of not rapidly detecting a pipeline leak or break is determined to be "Moderate". System balance between the two locations (comparing volume pumped with volume received) is typically accomplished by obtaining tank gauge readings and making a comparison.

   This risk could be reduced by:

   - utilizing meters to make a continuous comparison, or alternatively,
   - implementing procedures to make more frequent and more precise volume readings.

   Neither method would prevent the discharge, but either would reduce the potential volume of the discharge and reduce the potential adverse consequences.

2. The difficulty in rapidly detecting a pipeline leak or break on the lines between the terminal and the GATX Carson storage site is greater during the start-up phase of the operation, before the system reaches equilibrium. This potential risk could be reduced by placing a stand-up pressure on the system prior to the start of pumping to confirm integrity.

3. The possibility exists of over-pressuring the low pressure segments at the receiving end of the Carson-Harbor pipeline system in the event of a mis-alignment during start-up or a switching error during the operation.

   Alternatives for reducing the level of risk include:

   - utilizing pressure alarms or pressure shut-down devices,
   - utilizing physical relief systems, or
   - strengthening the operating procedures at the receiving end to emphasize proper initial line-up and to prevent erroneous switches during the movement.

   The worksheets and support data for this Hazard and Risk Analysis are available in the full hazard assessment report.

Figure B.3.1 GATX TERMINALS - SPILL REPORT DATABASE
LOS ANGELES HARBOR TERMINAL 1992 – 1999

DATE	REPORT #	LOCATION	PRODUCT TYPE	QUANTITY	ON/OFF FACILITY	WATER IMPACTED (Y/N)	AGENCIES NOTIFIED	STATUS (see codes)
4-10-92	92-002	LAHT: Tank 2722	Jet A	(b) (7)(F), (b) (3)	On	No	OES	4
6-10-92	92-003	Seepage into rock at Berth 119	Old lube and diesel		Adjacent	Yes	Continuing project	5
7-15-93	93-003H	Marine diesel oil line on water side of valve, Berth 118	Marine diesel		On	Yes	OES Coast Grd.	4
5-17-94	94-008	LAHT: Jet filter vessel seal leak	Jet Fuel		On & Off	Yes - Harbor	USCG, OES, Fire Dept. Fish & Game	4
7-11-94	94-012	LAHT: Painting contractor spill into harbor water	Paint		Off	Yes	USCG	1
9-20-94		LAHT: Pipeline leaked between dock and slop product tank 10735	Slop Oil		On & Off	Yes	USCG, F&G, LAFD, State Lands, Police	4 & 5
11-21-94		LAHT: By pump #10, hit vent valve on pipeline with pickup truck	Av. Jet		On	No	OES	4
7-22-95		LAHT: Barge loading hose leak.	Gas Oil		On & Off	Yes - Harbor	OES, FD, Port Warden, CG, F&G, State Lands	4. All leakage cleaned up on dock, except one cup, leaned up with sorbent pads.

Figure B.3.1 GATX TERMINALS - SPILL REPORT DATABASE
LOS ANGELES HARBOR TERMINAL 1992 – 1999

DATE	REPORT #	LOCATION	PRODUCT TYPE	QUANTITY	ON/OFF FACILITY	WATER IMPACTED (Y/N)	AGENCIES NOTIFIED	STATUS (see codes)
3-13-96		LAHT: Vessel "ERVOS". A small amount of oil believed to have originated from the vessel was noticed within the boomed area of the vessel.	Oil	(b) (7)(F), (b) (3)	Off	Yes - harbor	Coast Guard State Lands	4, oil on water cleaned up, letter of protest (3/14/96) issued by GATX to vessel " ERVOS"
11-5-96	5519	LAHT: Ballast line underneath the center dock leaked.	Gas Oil		On/Off	Yes - harbor	Coast Guard State Lands, and OSPR	4
4-17-97	5522	LAHT: Testing fire pimp, water went onto vessel and then water discharged from vessel deck and overflowed dock pan.	Slop product		On & Off	Yes - harbor	NRC, OES, State Lands, Fire Dept., F&G, Coast Guard	4
05-26-99	A-10#216	LAHT: A hose rope contacted product at the dock pan and dripped product into the water when later used.	Gasoline		OFF	Y	NRC, OES, MSO	4
10-16-99		LAHT: Hector earthquake caused tank 67737 to spill over.	Gas Oil		On	No	NRC, OES, LACFD	4

Figure B.3.1 GATX TERMINALS - SPILL REPORT DATABASE
LOS ANGELES HARBOR TERMINAL 1992 – 1999

* Status Codes:

1. liquid cleanup complete, no soil or water impacted
2. liquid cleanup complete, soil cleanup pending
3. liquid and soil cleanup complete, soil disposal pending
4. cleanup and disposal complete, no further action
5. ongoing groundwater cleanup
6. further investigation in progress

Figure B.3.2 Summary of "What If" Questions

Operations Related Events

- What if system pressure increases?
- What if system pressure decreases?
- What if flow rate increases?
- What if flow rate decreases?
- What if receiving tank volume is inadequate?
- What if product temperature increases? (see note)
- What if product temperature decreases? (see note)
- What if atmospheric temperature reaches extremes?

Maintenance Related Events

- What if system control devices fail?
- What if system monitoring devices fail?
- What if maintenance procedures are not followed?
- What if preventative maintenance program is not followed?
- What if piping integrity is less than design?

External Events

- What if third party damage occurs to connecting pipelines?
- What if earthquake occurs?
- What if storms/subsidence damages facilities?
- What if vandalism occurs?

Figure B.3.3 Summary of Recommendations

Item	Section	Recommendation	Level of Risk*
LAH-1	Vessel loading/unloading to tankage or pipeline – high temperature	The Operating Procedures for off-loading of heated products should emphasize the need to monitor off-loading temperature during the operation.	Minimal
LAH-2	Vessels unloading to tankage or pipeline– low temperature	The Operating Procedures for off-loading of products that require a minimum temperature should emphasize the need to monitor off-loading temperature during the operation.	Minimal
LAH-3	Vessels unloading to Carson pipelines, or transfer movements – line failure during startup	Consideration should be given to the procedure of placing a "stand-up" pressure on the pipeline prior to start-up to insure line integrity.	Moderate
LAH-4	Vessels unloading to Carson pipelines or transfer movements – line failure during normal operation	The potential level of risk could be reduced through an improved method of observing system volume balance.	Moderate
LAH-5	Pipeline movements to and from Carson – high pressure	A review of start-up procedures should be made, with emphasis on careful observance on the part of the operator at the receiving location to confirm product receipt into the appropriate receiving tank before excessive pressure build-up. High pressure alarms, high pressure shut down devices, and physical relief systems are alternatives.	Moderate

* Perceived level of risk: Very minimal, minimal, moderate or major.

8.7 RISK REDUCTION INCENTIVE PROGRAMS

The Facility participates in an annual safety awareness program which is administered at the Corporate level. The Facility has evaluated workplace hazards and how to prevent or mitigate them under workplace illness and injury prevention guidelines. The Facility conducts monthly safety meetings to discuss conditions, which could cause accidents or spills, and how to mitigate or prevent them from occurring. The Facility (through the Operations Review Committee) also conducts quarterly meetings for continuously improving the quality and effectiveness of operating practices and procedures.

8.8 DRUG AND ALCOHOL POLICIES

Kinder Morgan, Inc. and Kinder Morgan Energy Partners, L.P.

Human Resources Policy Manual

Drugs and Alcohol in the Workplace

(Effective 01/01/2000)

(Revised 01/01/2003)

Purpose

The purpose of this Policy is to maintain a safe and productive work environment for all employees, applicants, and the public by ensuring that employees on Company property, while conducting Company business, operating Company property, or during their employment with the Company may not possess or use illegal or unauthorized drugs. The Policy is also intended to promote worker and public safety, to comply with the Drug-Free Workplace Act of 1988, and to provide procedures for workplace-related searches of persons and property and the lawful drug and alcohol testing of employees. Kinder Morgan maintains a "Zero Tolerance" policy.

Scope

This Policy applies to all Company employees, applicants, contract workers, and employees of third-party contractors, including employees and contract workers who perform functions covered by regulations promulgated by the Department of Transportation (DOT). In the event of a contradiction between this Policy and the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan, the Company's Anti- Drug Plan and Alcohol Misuse Prevention Plan shall govern.

This Policy is broader in scope than the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan. For additional information refer to the Anti-Drug Plan and Alcohol Misuse Prevention Plan.

This Policy shall be administered in accordance with all applicable federal, state, and local laws and regulations.

Responsibilities and Prohibitions

Employees

All applicants and employees are reminded that the following actions are included as violations of this Policy: (1) use, possession, sale, distribution of illegal or unauthorized drugs on Company property, while operating any Company vehicle or equipment, or while conducting Company business; (2) use, possession, sale, distribution of alcohol on Company property. while operating any Company vehicle or equipment, or while conducting Company business, with the exception that use and possession of alcohol during Company sponsored business or social functions, where the use of alcohol remains moderate, will not be considered a violation of this Policy; (3) use of any drug, including prescribed drugs, which is unsafe to use while operating Company vehicles or equipment; (4) possession, sale or distribution of paraphernalia and equipment related to illegal or unauthorized drug use; and (5) refusal to test in any testable situation.

As a condition of employment, any employee whose work directly relates to the performance of a federal contract and who is or has been convicted of a criminal drug offense occurring in the workplace during employment must notify his/her supervisor and Human Resources representative in writing within five days of such conviction. Similarly, as a condition of employment, any employee that is required to possess a valid driver's license as a pre-requisite of their position, must notify his/her supervisor and Human Resources representative in writing within five days of either a drug and/or alcohol related criminal offense. Failure to provide notification will result in disciplinary action being taken, up to and including termination.

All employees while operating any Company vehicle or equipment, or while conducting Company business (either during or after regular business hours), cannot refuse to submit to drug and/or alcohol testing administered or ordered by the Company or a lawful authority. Refusal to submit to the testing will result in disciplinary action being taken, up to and including termination.

All employees taking a prescription or over-the-counter medication that could adversely affect performance of job-related functions or pose a direct threat to the health and safety of the employee or others in the workplace are responsible for notifying their supervisor. It is not the intent of the Company to interfere with the use of drugs legitimately prescribed by a physician. The Company's designated physician will be the sole person that the Company uses in making determinations concerning employees' fitness to perform the job.

All employees should notify a supervisor or Human Resources Representative of any behavior of co-workers or contract workers that may indicate a violation of this Policy.

Definitions

"Alcohol" means ethyl alcohol, an intoxicating element in fermented or distilled liquor or in any other compound, or other low molecular weight alcohol, including but not limited to, methyl and isopropyl alcohol, and including without limitation, beer, wine, and distilled liquors.

"Company property" is used in the broadest sense and includes, but is not limited to, all property, equipment, land, onshore and offshore platforms, buildings, structures, installations, facilities, locations, boats, aircraft, and vehicles which are owned, leased, used or operated by or on behalf of the Company for any purpose, or which are located on Company property, and any personal effects or items located thereon or therein. This includes, among other items, desks, lockers, and workstations, as well as privately owned vehicles and other personal belongings located on or in Company property,

"Possess" or "possession" means having any amount of illegal or unauthorized drugs or alcohol on one's person or belongings at any time during employment; on Company property; while conducting Company business; operating Company property; in one's personal belongings or vehicle while on Company property; in a vehicle or any mode of transportation owned or leased, or rented for Company use; or at any location used by the Company to conduct business.

"Drugs" means prescription drugs, inhalants, and other illegal, controlled, or unauthorized substances that may cause addiction and/or affect coordination of memory, or a drug that federal and state law makes illegal to distribute, use or possess.

"Use" with regard to drugs is defined as having any trace amount of drugs in the applicant's or employee's system, or physical consumption of drugs, "Use" with regard to alcohol is defined as the physical consumption of alcohol. "Use" with regard to drugs and alcohol is also defined as being under the influence of drugs or alcohol at any time during working hours.

"Zero Tolerance" means that if an employee tests positive for drugs or alcohol, as defined by this Policy, the resulting disciplinary action will be termination of employment for cause.

Testing for Types of Drugs/Alcohol and their Cutoff Levels

Drug/Alcohol tests will be conducted in a confidential manner according to procedures adopted by the Company and in compliance with applicable law. Below are the examples of illegal and unauthorized drugs for which Kinder Morgan tests and the, levels at which an employee will be considered as "testing positive for drugs": Employees who test at a alcohol concentration level of .04 or greater will be considered as "testing positive" for alcohol.

1. Marijuana	15 ng/ml
2. Cocaine	150 ng/ml
3. Amphetamines and Methamphetamines	500 ng/ml
4. Opiates (codeine, heroin, morphine)	2000 ng/ml
5. Phencyclidine (PCP or Angel Dust)	25 ng/ml

Types of Drug and Alcohol Testing

Kinder Morgan conducts the following types of drug and alcohol testing:

Drug Testing	Alcohol Testing
1. Pre-employment	1. Reasonable cause
2. Reasonable cause	2. Random (as permitted by federal and state law)
3. Random (as permitted by federal and state law)	3. Return to duty
4. Return to duty	4. Post-Accident
5. Post-Accident	

Searches and Tests

The Company reserves the right to have authorized personnel conduct searches of our employees, contract workers, and employees of third-party contractors without prior notice to determine if this Policy is being violated. Accordingly, all areas of Company property may be searched, including employee work locations, stations, areas, offices, desks, files, lockers, etc.; employees and their personal belongings, vehicles, etc. may also be searched if on or within Company property. Employee searches will be conducted in compliance with applicable law.

The Company reserves the right, at all times, to have authorized personnel conduct urinalyses, blood tests, or other types of tests of our applicants, employees, contract workers, and employees of third-party contractors for the purposes of determining if any such persons are in violation of this Policy. A urinalysis, blood test, or other type of test may be used in the following situations: (a) pre-employment testing, (b) testing based on reasonable cause or suspicion, (c) random or periodic testing, (d) testing following an accident or incident involving injury or property damage, and (e) testing that is consistent with the enforcement of this Policy.

The Company reserves the right to inspect and search Company property at any time without the presence or consent of any employee. An employee who, as a result of a search, has been found in violation of this Policy or other Company Policy will be subject to corrective action as described in the Corrective Action Policy.

Violations of Policy

Any violation of the Drugs and Alcohol in the Workplace Policy will result in disciplinary action being taken, up to and including termination.

Employee Assistance Program

The Employee Assistance Program (EAP) is available to all Company employees. Employees are encouraged to obtain professional help when needed by using the EAP . Employees may contact their supervisor or Human Resources for information about the EAP. The EAP is strictly confidential and available for use by telephoning:

- Magellan Behavioral Health 1-800-424-5654

Use of the EAP does not exempt or excuse a violation of this Policy.

Voluntary Rehabilitation

Any employee who voluntarily seeks counseling or rehabilitation in advance of failing any of the tests or who would otherwise be in violation of this policy must provide certification, in accordance with any applicable governmental requirements, of the credentials of the attending physician, psychologist, or psychiatrist, who is trained in substance abuse disorders.

When the employee successfully completes or is participating in a supervised substance-abuse or alcohol-related rehabilitation program and is no longer engaging in the use of illegal drugs or unauthorized alcohol, the Company requires certification from the substance abuse professional that the employee is fit to return to duty and perform the essential functions of his or her job.

An employee described in the paragraph above will be tested on a random basis by the Medical Review Officer and/or Substance Abuse Professional to ensure such employee is no longer engaging in the illegal use of drugs or unauthorized alcohol.

Interpretation and Exceptions

Questions regarding this Policy should be referred to the Vice President, Human Resources. Requests for exceptions should be submitted to Human Resources for review by Human Resources and the Legal Department to ensure regulatory requirements and appropriate test protocols and standards are met. The President and Chief Operating Officer must approve all exceptions.

This Policy does not constitute or imply a contract between the Company and its employees. This Policy creates no Company obligation nor any individual obligation, right, privilege, term, or condition of employment not otherwise established by law. The Company has voluntarily adopted this Policy for its sole and exclusive and may amend or withdraw it at any time without prior notice.

8.9 VESSEL LOADING PROCEDURES

[The following document is an excerpt of the Facility O&M Manual and is included here for regulatory reference only].

SECTION 4
Sizes, Types and Number of Vessels the Facility can Transfer Materials to or from simultaneously

The size and number of vessels that can be accommodated simultaneously at the facility will vary according to circumstances at the time: however, the following are offered normal maximums:

1) A single 90,000 d.w.t. vessel approximately 1,000 feet in length with 150' feet beam and 35' draft (or 39'-6" draft with fenders) at mean water (zero tide)
2) A type T-2 tanker approximately 525 feet in length and barge approximately 200 feet in length.
3) Two barges approximately 250 feet in length.
4) Kinder Morgan suggests 6" as a terminal Minimum Under Keel Clearance at all times for all vessels which call at the Los Angeles Harbor Terminal.

The normal vessel unloading procedures:

The vessel will have a certain amount of product which will out the GX-120 pipeline to Carson or other area refineries, we will give the vessel two 8" hoses and have three shore boosters pump to pump between 2,500-10,200 bph. (so if vessel has 300,000 bbls at 10,200 bph it will take about 29.5 hrs to unload)

The normal vessel loading procedures:

The vessel will come to the dock and load down the GX-120 pipeline we will give the vessel one 8" hose for cargos and one 6" hose for vapor recovery. Carson or some other area refinery will load at a max rate of 6,270 bph (so if the load calls for 80,000 bbls at 6,270 bph it will take about 12.5 hrs to load)

The normal pipeline procedures:

We would use the GX-120 pipeline which has a max. psi of 720 psi. The Carson terminal or another area refinery will pump to or from the LAHT tanks with various rates not exceeding 720 psi.

Section 17: Procedures for Operating Each Loading Arm including the Limitations of Each Loading Arm: Transferring Oil or Hazardous Materials; Completion of Pumping; and Emergencies

A.) Procedures for Operation of Each Loading Arm including the Limitations of Each Loading Arm

This facility has no loading arms.

B.) Procedures for Transferring Oil or Hazardous Materials

Oil transfer operations SHALL NOT START, or if started, SHALL STOP, if:

1.) Severe electrical storm occurs.

2.) Fire occurs at or near the facility.

3.) A break occurs in the system.

4.) English speaking personnel are not in position on the dock.

5.) Any unauthorized craft is brought alongside berthed vessel.

6.) Any disregard of safety regulations occur.

7.) Automatic or Emergency Shutdown of the Marine Vapor Control System at the Center Berth.

Transfer operations shall be controlled by the "Person in Charge", who shall INSURE THAT:

Before Unloading/Loading Starts:

1.) Warning signs in wharf are in place and visible.

2.) Communications system is tested (radio check).

3.) Loading/Unloading hose is equipped with a State Lands Required insullating flange..

4.) Drip pans are in place during cargo hose connections.

5.) Gaskets used to connect hoses are in good condition.

6.) Cargo hoses are in good condition.

7.) No visible leaks or weeping exists after hose is connected.

8.) Log book shows date and time of day for the following:
   a.) Vessel/Barge arrival time.
   b.) Time vessel was secured..
   c.) Time hoses connected.
   d.) Time fire department was notified.

9.) Dock watch is in effect.

10.) Declaration of Inspection form has been completed and signed by "Person in Charge" of vessel and facility operations.

11.) The Marine Vapor Control System at the Center Berth is tested per 33 CFR Coast Guard regulations before starting cargo loading. See the Marine Vapor Control System (MVCS) Operator Procedures Manual, Section 3.1 for the Pre-Loading Checklist.

During Transfer:

1.) Transfer is started slowly.

2.) Immediate check for leaks is made at all hose connections, valves, and piping in use.

3.) Log book shows date and time of day:
   a.) Transfer started.
   b.) Operating pressure in system at start.
   c.) Operating pressure in system at least every hour.

4.) Drip pans remain in place.

5.) Dock watch is maintained.

6.) Complete check of entire operations is made at least once each hour.

7.) Shore tank and ship/barge gauges are reconciled every 2 hours.

8.) Emergency action is taken as required.

9.) Marine Vapor Control System operation is continuously monitored.

C.) Procedures for Completion of Pumping

1.) Pumps are shut down.

2.) Hoses are disconnected and drained in a manner to prevent oil spillage.

3.) Drip pans are emptied and returned to position at block valves.

4.) Static cable is disconnected from vessel.

5.) Log book shows date and time of day:
   a.) Transfer was completed.
   b.) Cargo hose was disconnected.
   c.) Vessel/Barge departure time.

6.) Dock watch is removed.

D.) Procedures for Emergencies

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)

[redacted]

Vessel Collision with Dock or Vessel to Vessel Collision:

NOTE; These steps should only be used as a guide, each situation must be evaluated and the appropriate action taken.

1.) The "Person In Charge" will follow the "EMERGENCY SHUT DOWN PROCEDURES". This will shut down transfer pumps, close on shore block valves, and shutdown the Marine Vapor Control System. All other valves that could result in loss of product will be manually closed. This will insure a minimum loss of product for pollution prevention.

2.) Notify proper authorities agencies.

3.) Evaluate dock area.

4) Evaluate situation, take proper action to prevent explosion or fire.

5) The highest ranking employee at the scene acts as the RESPONSE COORDINATOR until relieved by a higher ranking employee. In addition to coordinating the initial response, the following duties should also be performed.

a) Locate all Kinder Morgan personnel and secure status.
b) Set up a command center with adequate communications for coordinating response.
c) Open the gates for emergency vehicles and company responders.
d) Direct emergency crews to the incident and assist as needed.

Fire:

The highest ranking employee at the scene acts as the RESPONSE COORDINATOR until relieved by a higher ranking employee. In addition to coordinating the initial response, the following duties should also be performed.

1) Notification required for emergency response.

2) Locate all Kinder Morgan personnel and secure status.

3) Set up a command center with adequate communications for coordinating response.

4) Open the gate for emergency vehicles and company responders.

5) Direct emergency crews to the incident and assist as needed.

Earthquake:

There is an earthquake detector located outside the main office. This device is wired to the computer room and automatically shuts-down the Loading Truck Rack.

During an earthquake, the highest ranking employee at the scene acts as the Response Coordinator until relieved by a higher ranking employee. In addition to coordinating the initial response, the following duties should also be performed:

1) Notification required for emergency response.
2) Locate all Kinder Morgan personnel and secure status.
3) Set up a command center with adequate communications for coordinating response.
4) Open the gates for emergency vehicles and company responders.
5) Direct emergency crews to the incident and assist as needed.

See attached Map #8 for Emergency Exit Routes and Staging Area.

Maximum Loading Rate

The maximum loading rate is determined from a variety of factors including the dock line pressure; maximum MVCS back pressure, certified throughput rate, and vessel limitations.

If the marine vapor control system (MVCS) is used during cargo loading, the maximum rate at which a vessel may be loaded is the lesser of the 6,270 bbls/hr MVCS capacity or the maximum allowable vessel loading rate. The tankerman is responsible for determining the maximum allowable vessel loading rate. However, either the terminal PIC will inform the tankerman what the maximum MVCS back pressure will be before the tankerman can determine what the maximum allowable vessel loading rate is.

The maximum MVCS back pressure will be the greater of 0.1 psig or the maximum ship pressure controller set point plus 0.2 psi. Here are two examples of how to calculate the maximum MVCS back pressure.

Example 1. The pressure controller set point for an inerted ship will be 0.3 psig. 0.3 psig + 0.2 psi= 0.5 psig is greater then 0.1 psig so tell the tankerman the maximum MVCS back pressure will be 0.5 psig.

Example 2. The pressure controller set point for an non-inerted barge will be -0.2 psig. -0.2 psig + 0.2 psi= 0.0 psig is less then 0.1 psig so tell the tankerman the maximum MVCS back pressure will be 0.1 psig.

If the tankerman reports that the maximum allowable vessel loading rate is 5,000 bbl/hr, the ship loading rate must not exceed 5,000 bbls/hr. If the tankerman reports that the maximum allowable vessel loading rate is 10,000 bbls/hr, the ship loading rate must exceed the 6,270 bbls/hr MVCS capacity.

Whenever the capacity of the pumps used to load the vessel exceeds the maximum rate at which the vessel may be loaded, the loading rate must be monitored and, if necessary, restricted to ensure that the loading the loading rate does not become too high. A flow meter is used to monitor the loading rate. At the present time, Kinder Morgan loading facilities can only accommodate the loading of one cargo at a time. The procedure to monitor and restrict the cargo loading rate is in Section 17(F).

F.) Monitoring and Restricting Cargo Loading Rates

Kinder Morgan will monitor the cargo loading rate continuously using the continuous flow monitoring system in the dock house on the dock panel. Restriction of flow when required will be communicated via radio communications to OPCARD and in the future using the SCADA system communication.

Section 16: Maximum Relief Valve Setting for Each System

The **cargo** relief valve settings are set for 150 psig.

During **cargo** transfer operations, maximum pressure will be restricted to 150 psi.

Marine Vapor Control System at Center Berth

- The vapor line vacuum relief valve is set at 0.5 psig vacuum.

  The vapor line pressure relief valve is set at 0.9 psig.

Section 11: Description and Instruction - Drip, Discharge Collection, and Vessel Slop Retention Facilities

- Upon completion of transfer operations, the hose is vented and drained back to the Terminal's drain system (for unloading) or to the vessel (for loading). Once the hose is drained, either the terminal personnel or the vessel personnel will disconnect and blind. The hose will then be placed in the dock containment area.

  Spill catchment basins are located around each of the three dock manifolds. These catchment basins are drained via a sump pump to the slop tank. Additional portable drip pans are used under hose connections to handle small drips, thereby keeping the large pan clean for walkway purposes.

SECTION 9
Communication System

Emergency response communication is accomplished through three communication systems:

1) Telephone:
   The telephone is the primary means of notification of an emergency situation. Telephones are located in the Terminal Office and at Center Dock House. Due to the frequency of use, there is constant verification that the telephones are in good working order.

2) Portable Radios:
   Portable radios are the primary means of communication between terminal personnel. Radios are also used to communicate with vessels during transfer operations. These radios are tested every hour to ensure they are in good working order.

3) "P" Lines:
   "P" lines are a secondary means of communication between the dock and the various Kinder Morgan terminals. The dock at Berth 118 and 119 are equipped with a "P" line to the Kinder Morgan Gaffey St. Terminal. Center dock is equipped with a "P" line to the Kinder Morgan Carson Terminal and the Gaffey St. Terminal.

4) Pagers:
   Pagers are a secondary means of notification of company management and off-duty personnel. Pager numbers for each issued pager are listed on the emergency call-out sheet. Due to the frequency of use, there is constant verification that the pagers are in good working order.

5) Voice Megaphone or Air Horn:
   At Center Dock there is a voice megaphone and/or an air horn which can also be used as a secondary means of alerting personnel aboard a vessel or barge as to a problem.

SECTION 8

CARSON TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

LOS ANGELES HARBOR TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** – Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.
● **USCG** – Federal Oil Pollution Act of 1990: US Coast Guard Final Rule for Transportation Related On-Shore Facilities as published in 33 CFR 154.
● **OSPR** – California Oil Spill Prevention and Response, Title 14, Division 1 Subdivision 4, Subchapter 3, Section 815.

I certify that this Integrated Contingency Plan (Plan) fulfills the requirements of 33 CFR Subpart F. The information and procedures contained herein are also consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plan (ACP).

Michael T. Tilton – Area Manager

SECTION 8

MISSION VALLEY TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

SECTION 8

ORANGE TERMINAL
FACILITY INFORMATION

REGULATORY COMPLIANCE
● **EPA** - Federal Oil Pollution Act of 1990: US EPA Final Rule for Non-Transportation Related On-Shore Facilities as published in 40 CFR Part 112.20.

INTEGRATED CONTINGENCY PLAN

Volume 2

[redacted]

Southern Region - West

Carson Area
Watson Area
Mission Valley Area

Prepared for:

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street
Houston, TX 77002
or
1100 Town and Country Road
Orange, CA 92868

Prepared by:

Response Management Associates, Inc.
6620 Cypresswood Drive, Suite 200
Spring, TX 77379
Phone: (281) 320-9796 ● Fax: (281) 320-9700
www.rmaworld.com

EMERGENCY RESPONSE ACTION PLAN (ERAP)

The users of this Plan carry and maintain the complete Volume 1 and Volume 2 documents and the Plan has been designed for quick reference. Accordingly, the Emergency Response Action Plan (ERAP) for this Integrated Contingency Plan is addressed by cross-reference as follows:

• Qualified Individual	Volume 1 Figure 2.3; Volume 2 § 8.1.2
• Emergency Notification Phone List	Volume 1 §§ 2.1, 2.2; Volume 2 §§ 2.1, 2.2
• Spill Response Notification Form	Volume 1 Figure 2.2
• Response Equipment List and Location	Volume 2 § 3.1 and Figure 3.2
• Response Equipment Testing and Deployment	Volume 2 §§ 3.1, 3.2, 3.3, Figure 3.4
• Facility Response Team	Volume 1 § 2.0; Volume 2 § 2.0
• Evacuation Plan	Volume 2 § 8.4
• Immediate Actions	Volume 1 § 3.4
• Facility Diagram	Volume 2 § 8.1.2, Figure 8.3

REVISION RECORD

CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
October 2002	ALL	ALL	New plan distribution by RMA replacing all former CalNev Pipeline, GATX Terminals, and SFPP, L.P. OPA 90 Response Plans
April 2004	Major revisions to all sections	Major revisions to all sections	OSPR Lines Update, General Plan Update; Revisions to Address DOT-RSPA Review
January 2005	Pgs. iii, 2-2, 2-6 thru 2-10, 3-5, 3-7, 3-8, Carson - 7-5, 8.2-4, 8.2-27, 8.2-28, 8.2-36, Los Angeles Harbor 8.2-3, 8.2-4, 8.2-15, 9-14	Pgs. iii, 2-2, 2-6 thru 2-10, 3-5, 3-7, 3-8, OSRO Contracts, Carson - 7-5, 8.2-4, 8.2-27, 8.2-28, 8.2-36, Los Angeles Harbor 8.2-3, 8.2-4, 8.2-15, 9-14	Miscellaneous revisions
June 2005	Pgs. iii thru v; TOC-iv; 2-1, Carson - 8.1-3; LA Harbor - 8.1-2, 8.1-5, 8.2-25, 8.2-26, 8.3-3, 8.3-9, 8.7-1, 8.9-1, 8.10-1, 8.10-2; OSPR - 9-5, 9-6, 9-8, 9-11 thru 9-13, 9-15	Pgs. iii thru v; TOC-iv; 2-1, Carson - 8.1-3; LA Harbor - 8.1-2, 8.1-5, 8.2-25, 8.2-26, 8.3-3, 8.3-9, 8.7-1, 8.9-1, 8.10-1, 8.10-2; OSPR - 9-5, 9-6, 9-8, 9-11 thru 9-13, 9-15	Facility information update and miscellaneous revisions; Revisions to address Notifications and OSPR review.
July 2005	Pgs. iii, 3-2, 3-5, Carson - 8.1-7, LA Harbor – 8.1-5, 8.2-20, 8.3-13, 8.3-14, 8.3-16, Sec. 8.11, OSPR – 9-5, 9-5a, 9-9, 9-10	Pgs. iii, 3-2, 3-5, Carson - 8.1-7, LA Harbor – 8.1-5, 8.2-20, 8.3-13, 8.3-14, 8.3-16, Sec. 8.11, OSPR – 9-5, 9-5a, 9-9, 9-10	General Plan Update
October 2005	Pgs. iii, 2-6 thru 2-8, LA Harbor – 8.1-7 thru 8.1-9, 8.2-7, 8.2-21, Watson 6-1	Pgs. iii, 2-6 thru 2-8, LA Harbor – 8.1-7 thru 8.1-9, 8.2-7, 8.2-21, Watson 6-1	General Plan Update
December 2005	Pgs. Foreword, Table of Contents, Sec. 2.0, Sec. 3.0 & inserts, 4-7, Carson - 8.1, Sec. 8.2, LA Harbor – Sec. 8.0, Sec. 8.1, Sec. 8.2, Watson – 6-9, Fig. 7.2, OSPR Sec. 9 & inserts (See revision packet for specific pages)	Pgs. Foreword, Table of Contents, Sec. 2.0, Sec. 3.0 & inserts, 4-7, Carson - 8.1, Sec. 8.2, 8.4-4 (Fig. 8.9 & inserts), LA Harbor – Sec. 8.0, Sec. 8.1, Sec. 8.2, 8.11-4 (Fig. 8.9 & inserts), Watson – 6-9, Fig. 7.2, OSPR Sec. 9 & inserts (See revision packet for specific pages)	General Plan Update
December 2006	Pgs. FWD-iii, 3-4, 3-5, LA Harbor 8.1-10, 8.2-5, 8.2-7, 8.2-8	Pgs. FWD-iii, 3-4, 3-5, LA Harbor 8.1-10, 8.2-5, 8.2-7, 8.2-8	Annual Plan Review and Updates
November 2007	Pgs. iii thru v, TOC-iv, 1-5, 2-1, 2-3, 2-11,.Carson – 6-1, 8.2-15; Watson – Section 6.0 (all)	Pgs. iii thru v, TOC-iv, 1-5, 2-1, 2-3, 2-11, Carson – 6-1, 8.2-15; Watson – Section 6.0 (all)	Annual Update
March 2008	Pgs. iii thru v, TOC-iv, Section 9.0 (all)	Pgs. iii thru v, TOC-iv, Section 9.0 (all)	OSPR Resubmission

REVISION RECORD			
CHANGE DATE	**REMOVE**	**INSERT**	**DESCRIPTION OF CHANGE(S)**
	PAGE NUMBER(S)		
November 2008	Pages iii thru v, 1-1, Carson Area 6-1, 6-20 thru 6-27, 7-1 thru 7-3 and Carson Facility Diagram, 7-5, Carson Terminal 8.1-6, 8.1-8, 8.1-9, 8.2-8 thru 8.2-44 (retain Figure 8.7), LA Harbor Terminal 8.1-5, 8.1-10, 8.2-7, 8.2-8, 9-5	Pages iii thru vi, 1-1, Carson Area 6-1, 7-1 thru 7-3 and Carson Facility Diagram, 7-5, Carson Terminal 8.1-6, General Layout Diagram, Fire Protection Diagram – Foam System, Fire Protection Diagram – Water System, 8.2-8 thru 8.2-41, LA Harbor Terminal 8.1-5, 8.1-10, 8.2-7, 8.2-8, 9-5	Annual review and update. Update notification information, pipeline information, facility information, and facility diagrams.
March 2009	Pages iv thru vi, LA Harbor Area 8.1-2 and 8.1-5, 9-3, 9-5	Pages iv thru vi, LA Harbor Area 8.1-2 and 8.1-5, 9-3, 9-5	Update COFR, update distribution
August 2009	Pages iv thru vi, 1-4, 3-1, 3-2, 3-5 thru 3-12 and Contract Documents, Carson Area 8.1-4, 8.2-15	Pages iv thru vi, 1-4, 3-1, 3-2, 3-5 thru 3-15 and ACTI, ANCON and NRCES Contract Documents, Carson Area 8.1-4, 8.2-15	Annual Review and update. Update distribution, facility, WCD and OSRO information.
October 2009	Pages iv and vi, 1-2, LA Harbor Terminal 8.1-7, 8.1-11, Figure 8.3 and Fire Protection Diagrams (retain Figure 8.2 –Area Map), 8.2-5, 8.2-7, 8.2-8, Additive Tank/System Inspection Report, 8.2-25 through 8.2-31 (retain Figure 8.7), 8.3-1, 8.3-6, 8.3-13 through 8.3-16, Figure 8.8	Pages iv and vi, 1-2, LA Harbor Terminal 8.1-7, 8.1-11, General Layout and Fire Protection Diagram, 8.2-5, 8.2-7, 8.2-8, 8.2-24 through 8.2-30, 8.3-1, 8.3-6, 8.3-13 through 8.3-16, Evacuation Diagram (following page 8.4-2)	Review for USCG 5-year resubmission. Update distribution information, facility information and facility diagrams.
December 2009	Pages iv, vi, 9-3	Pages iv, vi, 9-3	Distribution update and CA COFR renewal.
June 2010	Pages iv and vi, TOC-i, TOC-ii, TOC-iv, 1-3 through 1-6, 2-2 through 2-27, 3-6 through 3-15, 4-5 through 4-7; Carson Area 6-2 through 6-27, 7-1 through 7-3, 8.1-4, 8.1-6, 8.2-1, 8.2-5, 8.2-8 through 8.2-41 (retain Figure 8.7 Drainage Diagram); Watson Area 6-1, 6-10 (retain HCA Index Map), 7-1 through 7-3 ; OSPR Jurisdictional Pipelines 9-3, 9-5 through 9-14	Pages iv, vi and vii, TOC-i, TOC-ii, TOC-iv through TOC-vi,1-3 through 1-6, Figure 1.1 Mission Valley – Orange Area Map, 2-2 through 2-11, 3-6 through 3-19, 4-5 through 4-8; Carson Area 6-2 through 6-17 and HCA Index, 7-1 through 7-3, 8.1-4, 8.1-6, 8.2-1, 8.2-5, 8.2-8 through 8.2-32; Watson Area 6-1, 6-10, through 6-12,7-1 through 7-5, Orange Terminal Section 8; Mission Valley Sections 6, 7 and 8; OSPR Jurisdictional Pipelines 9-3, 9-5 through 9-14	Annual Review, Qualified Individual and management changes and new tank construction.
June 2010(2)	Pages iv, Carson Area 7-2, 8.1-4, 8.2-15	Pages iv, Carson Area 7-2, 8.1-4, 8.2-15	New tank construction

REVISION RECORD			
CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
July 2010	Pages iv thru vii, Carson Area 6-1, 6-6, 6-8, 7-3, 7-5; Carson Terminal 8.1-1, 8.1-4, 8.2-5, 8.2-15, LA Harbor Terminal 8.0-1, 8.1-1, 8.1-3, 8.1-5	Pages iv thru viii, Carson Area 6-1, 6-6, 6-8, 7-3, 7-5; Carson Terminal 8.1-1, 8.1-4, 8.2-5, 8.2-15, LA Harbor Terminal 8.0-1, 8.1-1, 8.1-3, 8.1-5	New tank and QI changes.
November 2010	Pages v, 2-8, 2-11, 3-9 through 3-13, 3-16 through 3-19, ACTI, Ancon and NRCES Contracts	Pages v, 2-8, 2-11, 3-9 through 3-13, 3-16, 3-17, ANCON Work Directive, 3-18, NRCES Work Directives	OSRO Changes, update Oiled Wildlife Care Network contact information.
January 2011	Pages v, Watson Area: 7-5 and Orange Terminal Fire Protection Diagram; 8.1-5, General Layout and Fire Protection Diagrams; 8.4-3 and Evacuation Diagram	Pages v, Watson Area: 7-5 and Orange Terminal Fire Protection Diagram; 8.1-5, General Layout and Fire Protection Diagrams; 8.4-3 and Evacuation Diagram	Update Orange Terminal diagrams.
February 2011	Pages v, 3-10	Pages v, 3-10	USCG Aerial Oil Tracking Capability requirements.
March 2011	Pages v, Carson Terminal 8.1-6, 8.2-18, 8.4-3.	Pages v, Carson Terminal 8.1-6, 8.2-18, 8.4-3 and Evacuation Diagram.	Update Carson Terminal information.
September 2011	Pages v, 2-8, 3-9 hrough 3-13, 3-17 and Ancon Work Directive, 3-18 and NRC Work Directives; Carson Area 7-3; Carson Terminal 8.1-4, 8.2-5, 8.2-15 through 8.2-32 (Retain Drainage Diagram)	Pages v, 2-8, 3-9 hrough 3-13, 3-17 and Patriot Work Directive, 3-18 and NRC Work Directives; Carson Area 7-3; Carson Terminal 8.1-4, 8.2-5, 8.2-15 hrough 8.2-33	Update OSRO information and update Carson terminal Informa ion.
November 2011	Pages v, Mission Valley Area 7-5 and Fire protec ion Diagram (Retain FPD-MV-02) , Figure 8.3 General Layout, Figure 8.4 Fire Protection	Pages v, Mission Valley Area 7-5 and Fire protection Diagram, Figure 8.3 General Layout, Figure 8.4 Fire Protection	Update Mission Valley Facility Diagrams.
January 2012	Pages v; Carson Terminal 8.1-6, General Layout Diagram, Fire Protection Diagram (Foam), Fire Protection Diagram (Water), 8.4-3 and Evacuation Diagram; Mission Valley Area 6-7 and HCA Index; Watson Area 6-12 and HCA Index; Sec ion 9 COFR Number 20310-00-11 and COFR Number 20310-00-13 dated 1/1/2011, 9-11 and SFPP HCA Index 003 (Retain KMLT-WCT HCA Index)	Pages v; Carson Terminal 8.1-6, General Layout Diagram, Fire Protection Diagram (Foam), Fire Protection Diagram (Water), 8.4-3 and Evacuation Diagram; Mission Valley Area 6-7 and 485-D-HCA-INDEX-SFPP_003; Watson Area 6-12 and 485-D-HCA-INDEX-SFPP_003; Sec ion 9 COFR Number 20310-00-11 and COFR Number 20310-00-13 dated 1/1/2012, 9-11 and 485-D-HCA-INDEX-SFPP_003	Update HCA Diagrams, Facility Diagrams and Certificates of Financial Responsibility.
January 2012(2)	Pages v, Carson Area, LA Harbor 8.1-2; Section 9, 9-3 and COFR Number 20044-01-004 (April 1, 2009)	Pages v, Carson Area, LA Harbor 8.1-2; Section 9, 9-3 and COFR Number 20044-01-004 (April 1, 2011)	Update Certificate of Financial Responsibility
February 2012	Pages v, 4-5 hrough 4-8	Pages v, 4-5 hrough 4-10	Update Endangered/Threatened Species list.
October 2012	Pages v, 3-10, 3-13, 3-17 and Patriot WD, 3-18 and NRC WDs; Carson Area 7-3, 7-4 and Carson Terminal Diagram, 8.1-4, 8.1-6 and General Layout/Fire Protection Diagrams, 8.2-5, 8.2-16, 8.4-3 and Evacuation Diagram; 9-10	Pages v, 3-10, 3-13, 3-17 and Patriot WDs, 3-18 and NRC WDs; Carson Area 7-3, 7-4 and Carson Terminal Diagrams, 8.1-4, 8.1-6 and General Layout/Fire Protection Diagrams, 8.2-5, 8.2-16, 8.4-3 and Evacuation Diagram; 9-10	Annual review, update OSRO information,
March 2013	Title Page, v, vi, viii, 1-1, 1-5 and 1-6, 2-8, 2-11, 3-2; Carson Area Sec ion 6, LA Harbor 8.1-2 and 8.1-5; Watson Area Section 6; Mission Valley Area Section 6; Section 9, 9-3, 9-5, 9-7, 9-8	Title Page, v, vi, viii, 1-1, 1-5 through 1-7, 2-8, 2-11, 3-2; Carson Area Sec ion 6, LA Harbor 8.1-2, 8.1-5 and COFR; Watson Area Sec ion 6; Mission Valley Area Section 6; Section 9, 9-3, 9-5, 9-7, 9-8	COFR renewal; update notification, company and pipeline information.
August 2013	v, Carson Area 7-3, 7-4 and General Layout Diagram, 8.1-4, 8.1-6, General Layout and Fire Protection Diagrams, 8.2-5, 8.2-14, 8.4-3 and Evacuation Diagram	v, Carson Area 7-3, 7-4 and General Layout Diagram, 8.1-4, 8.1-6, General Layout and Fire Protection Diagrams, 8.2-5, 8.2-14, 8.4-3 and Evacuation Diagram	Addition of Tank 30091.

NOTE: It is the responsibility of the holder of this plan to insure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

REVISION RECORD			
CHANGE DATE	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
August 2013 (2)	Pages vi thru viii, Carson Terminal 8.1-2, 8.1-4, 8.2-9, 8.2-11	Pages vi thru ix, Carson Terminal 8.1-2, 8.1-4, 8.2-9, 8.2-11	Correct facility description and add ethanol to products handled.

NOTE: It is the responsibility of the holder of this plan to insure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

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2, 21 30 32, 33	Director of Operations (2) 2319 S. Riverside Avenue Bloomington, CA 92316 Manager, Compliance Codes and Standards -Pacific Region Manager Pipeline Maintenance (2)	C	C	C	C	C
    13 14-17 18 19, 20	Orange Facilities 1100 Town & Country Rd. Orange, CA 92868 Crisis Relocation Center Mission Valley (1) Orange Control Center (4) Orange Remediation Group (Environmental Specialist) Orange Engineering (2)	C	C	C	C	C
7 22, 24	Operations Manager (2) 2000 E. Sepulveda Blvd. Carson, CA 90810-1995 Vehicle Copy (Carson Area-Carson Terminal)	C	C	C	C	C
8	Area Manager – Vehicle Copy and Control Room (Carson Area – Carson Terminal) 2000 E. Sepulveda Blvd. Carson, CA 90810-1995	C	C			C
9 25	Area Manager (LA Harbor Terminal) c/o Carson Terminal Control Room (LA Harbor Terminal)	C	C			C
10, 27 28	Area Manager - Vehicle Copy and Control Room 20410 S. Wilmington Ave. Long Beach, CA 90810 Vehicle Copy	A		A		A
29	Vehicle Copy 20410 S. Wilmington Ave. Long Beach, CA 90810	C	C	C	C	C

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		Foreword thru Section 5	Carson Area	Mission Valley Area	Watson Area	OSPR Line Segments
8	Area Manager (Mission Valley Area - Mission Valley Terminal) 9950 San Diego Mission Road San Diego, CA 92108	C		C		C
30	Control Room (Mission Valley)					
31	Control Room (Orange)					
32, 33	Vehicle Copy (Mission Valley) (2)					
9	Area Manager (Watson Area - Orange Terminal) 1350 N. Main Street Orange, CA 92867	C			C	
34, 35	Vehicle Copy (Orange) (2)					

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Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration (PHMSA)
1200 New Jersey Avenue SE-E-22-321
Washington, DC 20590 (2 Copies)

U.S. Environmental Protection Agency
Region IX (SFD1-4)
75 Hawthorne Street
San Francisco, CA 94105 (One (1) per facility)

State of California Department of Fish and Game
Oil Spill Prevention and Response
Suite 250
1700 K Street
Sacramento, CA 94244

Witt O'Brien's
818 Town & Country Blvd., Suite 200
Houston, TX 77024

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NOTE: The Distribution of this Plan is controlled by the Copy Number located on the front cover. The Plan Distribution Procedures and the Plan Review and Update Procedures provided in Volume 1 should be followed when making any and all changes.

A = 2.0" Binder
C = 3.0" Binder

SECTION 9

SOUTHERN REGION – WEST
OSPR-JURISDICTIONAL PIPELINE SEGMENTS

REGULATORY COMPLIANCE
● **OSPR** - California Oil Spill Prevention and Response, Title 14, Division 1 Subdivision 4, Subchapter 3, Section 815.

9.1.1 FACILITY EXECUTABILITY STATEMENT

KINDER MORGAN
ENERGY PARTNERS, L.P.

FACILITY EXECUTABILITY STATEMENT

I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this contingency plan is true and correct and that the plan is both feasible and executable.

John W Thomann
Name

OPERATIONS MANAGER
Title

Nov 18, 2004
Date

The above certification statement, required by California Code of Regulations Title 14, Division 1, subdivision 4, Chapter 3, subchapter 3, §817.02(a)(1)(D), has been signed by an executive within the plan holder's management. The signer has training, knowledge, and experience in the area of oil spill prevention and response, has the authority to fully implement the oil spill contingency plan written within this Integrated Contingency Plan, and will review this Plan for accuracy, feasibility, and executability.

9.1.2 CERTIFICATE OF FINANCIAL RESPONSIBILITY

COFR INFORMATION	
Line Number:	LS 123, 124, 125, 126
COFR Number:	20310-00-011
Line Number:	LS 1, 10, 105, 109, 110
COFR Number:	20310-00-013
Line Number:	GX-32, 64A, 64B, 104, 120, 124, 190
COFR Number:	20044-01-004

Note to Reviewer: Renewal packet was submitted to OSPR on March 06, 2013 a copy of the packet is included on this CD.

State of California
Department of Fish & Game
Office of Spill Prevention & Response

Certificate of Financial Responsibility

No.: 20044-01-004 Expires: March 31, 2013

Facility Owner or Operator

KINDER MORGAN LIQUID TERMINALS, LLC

has met the financial responsibility requirements set forth in Government Code Section 8670.37.53 as it applies to the operation of

(Name and Location of Facility)

SOUTHERN REGION - WEST

LINE NUMBERS GX120, GX180, GX32, GX64A, GX64B, GX104, GX124, GX190

The holder of this certificate is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act), see California Government Code Sections 8670.37.51 through 8670.37.57. Additionally, the holder of this certificate is subject to the conditions on the reverse of this certificate. For the purpose of determining liability pursuant to the Act, this certificate of financial responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specified marine facility.

Date Issued : April 1, 2011

Scott D. Schafer

Administrator, Office of Spill Prevention & Response
Department of Fish & Game

№ 23491

PHMSA 000104244

CALIFORNIA CERTIFICATE OF FINANCIAL RESPONSIBILITY (CA COFR)

OWNER OR OPERATOR: SFPP, L.P.
meets the financial responsibility requirements specified in Government Code Section 8670.37.53 as it applies to the operation of

NAME AND LOCATION: Southern Region- Central Line No. 122, 123, 124, 126, 125

CERTIFICATE #: 2-0310-00-011 CONTROL #: FA076

ISSUE DATE: 01/01/2012 EXPIRATION DATE: 12/31/2013

The holder of this document named above is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act). This certificate holder has provided the necessary evidence of financial responsibility mandated by these requirements.

For the purpose of determining liability pursuant to the Act, this Certificate of Financial Responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specific Marine Facility.

No alterations of this certificate are permitted after issuance by the Administrator of OSPR. If there is a change in the name or ownership of the Marine Facility, the certificate holder must notify the Office of Spill Prevention and Response (OSPR) immediately. If the certificate expires, a new certificate will be required.

This certificate remains valid as long as the current method for demonstrating financial responsibility is maintained (eg. insurance). Any changes in this status must be reported to OSPR immediately.

It is the owner or operator's responsibility to ensure that this certificate number is also included in the owner or operator's marine oil spill contingency plan, which must be submitted to this office for approval, before operating in a location where a spill could impact California marine waters.

If you have any questions, please contact Farina Khan at 916-327-9937.

Sincerely,

Farina A. Khan

Financial Analyst
Office of Spill Prevention and Response
cacofr-facilities@ospr.dfg.ca.gov

CALIFORNIA CERTIFICATE OF FINANCIAL RESPONSIBILITY (CA COFR)

OWNER OR OPERATOR: SFPP, L.P.
meets the financial responsibility requirements specified in Government Code Section 8670.37.53 as it applies to the operation of

NAME AND LOCATION: Southern Region- West Line No. 109, 110, 10, 105,1

CERTIFICATE #: 2-0310-00-013 CONTROL #: FA078

ISSUE DATE: 01/01/2012 EXPIRATION DATE: 12/31/2013

The holder of this document named above is subject to the provisions of California Code of Regulations, Title 14, Sections 791-797, implementing the financial responsibility requirements set forth in the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act). This certificate holder has provided the necessary evidence of financial responsibility mandated by these requirements.

For the purpose of determining liability pursuant to the Act, this Certificate of Financial Responsibility is conclusive evidence that the person or entity holding the certificate is the party responsible for the specific Marine Facility.

No alterations of this certificate are permitted after issuance by the Administrator of OSPR. If there is a change in the name or ownership of the Marine Facility, the certificate holder must notify the Office of Spill Prevention and Response (OSPR) immediately. If the certificate expires, a new certificate will be required.

This certificate remains valid as long as the current method for demonstrating financial responsibility is maintained (eg. insurance). Any changes in this status must be reported to OSPR immediately.

It is the owner or operator's responsibility to ensure that this certificate number is also included in the owner or operator's marine oil spill contingency plan, which must be submitted to this office for approval, before operating in a location where a spill could impact California marine waters.

If you have any questions, please contact Farina Khan at 916-327-9937.

Sincerely,

Farina A. Khan

Financial Analyst
Office of Spill Prevention and Response
cacofr-facilities@ospr.dfg.ca.gov

9.1.3 INTRODUCTION

KMEP, in compliance with CCR Title 14, Division 1, Sections 815-819, has elected to substitute its approved DOT Oil Spill Response Plan for a blanket California OSPR Contingency Plan supplemented by this section. A complete Cross Reference of OSPR regulations to this substitute plan is included in Volume 1.

This OSPR section for the Southern Region – West Areas provides additional spill planning and response information appropriate for use along identified OSPR line segments of the KMEP pipeline system in these Areas.

The line segments referenced in Figure 9.1 have been identified as subject to OSPR jurisdiction based on the likelihood of a worst case pipeline rupture potentially resulting in impact to California marine waters. Figure 9.1 lists valve or control point locations, distances to marine waters, and reasonable worst case spill (RCWS) volumes.

This Section 9 is provided in order to document the following OSPR pipeline segment-specific information in addition to the incident response and resource summary data provided in Volumes 1 and 2.

- OSPR Pipeline Segments Information (Figure 9.1)
- Area Map/HCA Index Map (Figure 9.2)
- Discharge Scenarios (Section 9.3)
- Reportable Oil Discharge History (Section 9.4)
- Risk Analysis Summary (Section 9.5)
- Offsite Consequence Analysis (Section 9.6)
- Risk Reduction Incentive Programs (Section 9.7)
- Drug and Alcohol Policies (Section 9.8)

9.2 OSPR LINE SEGMENTS

The pipeline segments identified in Figure 9.1 for this area have been identified as subject to OSPR contingency plan requirements. The segments were selected based on the likelihood of a worst case pipeline release potentially resulting in impacts to California marine waters. Some minor ephemeral drainages crossed at substantial distances from coastal waters are not included due to the sufficient time to respond and avoid marine water impacts.

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS

GENERAL INFORMATION	
Facility Name:	Kinder Morgan Energy Partners, L.P.
Physical Address:	1100 Town and Country Road Orange, CA 92868
OSPR Plan CNTRL Number:	P2-07-0175B
COFR Certificate Number:	20310-00-013 20044-01-004 20310-00-011
Owner/Operator:	Kinder Morgan Energy Partners, L.P. 500 Dallas Street, Suite 1000 Houston, TX 77002 (713) 369-9454 *(Office)* (713) 495-2713 *(Fax)* Send correspondence to: Chuck Mathis Manager – Emergency Response Programs 1001 Louisiana Street, Suite 1000 Houston, TX 77002 *(713) 369-8530(Office)* (713) 369-9215 *(Fax)* charles_mathis@kindermorgan.com *(email)*
Qualified Individual (Emergency Coordinator):	Johnny Thomasson Operations Manager 2000 E. Sepulveda Blvd. Carson, CA 90810 (310) 518-7777 *(Office)* (310) 549-5708 *(Fax)* johnny_thomasson@kindermorgan.com *(email)*
Agent for Service:	CSC - Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833 (800) 222-2122 *(CA Toll Free)* (800) 927-9800 *(Toll Free)* (916) 641-5151 *(Fax)*
Design Details:	The design details of these line segments are provided on large-scale, alignment sheets which are revised and updated as needed. Detailed procedures for operating the pipeline system are contained within KMEP's Operations Manuals.
Products Handled:	Gasoline, Diesel and Jet Fuel

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

GENERAL INFORMATION	
Seasonal Weather Conditions:	
Air Temperature:	Ranges from 48° to 77°F
Winds:	Generally west-southwest at 7 to 9 mph.
Rain:	Generally 12 inches per year during November to April.
Site Descriptions:	
Carson, Watson and Mission Valley Areas:	The pipeline segments within the Carson, Watson and Mission Valley Areas include crossings of creeks, rivers and drainage channels within the Los Angeles and San Diego areas. The terrain for all crossings is flat. Most pipeline segments in this area reside within city and county roads and about half of the drainage crossings are buried, the other half suspended. Land uses intersected by these pipeline segments include primarily urban, commercial and residential developments, and military reservations. Figure 9.2 depicts the location of the line segments and general terrain/drainage channels in the area.

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

LINE NO.	SIZE (*inch*)	OSPR LINE SEGMENT	CONTROL POINTS (M.P.)[1]	DISTANCE TO MARINE WATER (*miles*)	VALVE TYPES[2]
CARSON AREA PIPELINE SEGMENTS					
GX-32	10/12	Dominquez Channel, Los Angeles Harbor	[redacted]		
GX-64a	14/16	Dominquez Channel, Los Angeles Harbor			
GX-64b	12/14	Dominquez Channel, Los Angeles Harbor			
GX-104	4	Dominquez Channel, Los Angeles Harbor			
GX-120	12	W. Basin of L.A. Harbor (near) E. Basin of L.A. Harbor (near)			
GX-124	24	Dominquez Channel, Los Angeles Harbor			
GX-190	8/10	Dominquez Channel, Los Angeles Harbor			
WATSON AREA					
109	16	Dominguez Channel Crossing			
110	10	Dominguez Channel Crossing			
10	16	Compton Creek Crossing Los Angeles River Crossing San Gabriel River Crossing			
105	24	Compton Creek Crossing Los Angeles River Crossing San Gabriel River Crossing			
1	16	San Jose Creek			
125	16	Santa Ana River Crossing			
126	16	Peter's Canyon Crossing Oso Creek Crossing San Juan Creek Crossing San Onofre Creek Crossing Santa Margarita River Crossing			
MISSION VALLEY AR					
122	10	Near San Diego River at Mission Valley Terminal			
123	10	Murphy Canyon Creek Crossing San Diego River Crossing San Diego Bay (near)			
124	8	San Diego Bay (near)			

(b) (3), (b) (7)(F)

FIGURE 9.1

OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

LINE NO.	SIZE (inch)	OSPR LINE SEGMENT	CONTROL POINTS (M.P.)1	DISTANCE TO MARINE WATER (miles)	VALVE TYPES[2]
MISSION VALLEY AREA PIPELINE SEGMENTS					
126	10/16	San Luis Rey Crossing	(b) (3), (b) (7)(F)		
	16	Buena Vista Creek Crossing Agua Hedionda Creek Crossing San Marcos Creek Crossing San Elijo Lagoon Crossing San Deiguito River Crossi			
Reasonable Worst Case Spill Volume[3]					

Note[1]: This identifies the location of the segment of line within OSPR jurisdiction.

Note[2]: B = Block Valve, M = MOV, A = Automatic Pressure Valve, C = Check Valve.

Note[3]: Reasonable worst case spill volume based on annual Liquid Volume Release Modeling which takes into account maximum pumping rate, discovery/shutdown times and drainage volumes based on elevation changes between isolation points (EFRDs and/or endpoint block valves).

FIGURE 9.1 OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

PREVENTION MEASURES

KMEP Operations and Maintenance Manuals

KMEP facilities are built and maintained in accordance with all applicable codes and regulations as well as relevant API (American Petroleum Institute) standards. Pipelines are coated and cathodically protected. Any abnormalities found by periodic maintenance inspections and/or internal inspections are promptly repaired. The Company's operating practices meet or exceed industry standards.

KMEP Operations and Maintenance Manuals have been developed in accordance with DOT 49 CFR 195 and various aspects of the operations, inspection, and maintenance procedures have been summarized below for reference. The design and installation details of KMEP's pipelines are provided on large-scale alignment sheets which are revised and updated as needed.

Integrity testing of pipelines and leak detection equipment

Pipelines are hydrostatically pressure tested, in accordance with DOT Part 195 when installed. In addition, KMEP performs integrity testing of OSPR pipelines by utilizing internal inspection tools or pressure test every five years. The internal inspection log produces data which is read and interpreted by third party experts and KMEP designs its verification and repair program utilizing these results.

Line monitoring and leak detection is described in the Operations Manual.

Damage criteria for equipment repair or replacement.

Damage criteria for pipelines (which would require action to be taken, such as reducing the maximum operating pressure, pipeline repair or replacement) is included in the Maintenance Manual (and generally follows ASME B31G).

Protection measures for areas subject to flooding.

Certain sections of the pipeline cross streams, rivers and bays. Other areas may be subject to periodic flooding during periods of high rainfall.

- During initial pipeline construction, streambed profiles and pipe profiles are designed and installed to withstand or be protected from the effects of flooding. In addition, major waterway crossings are inspected periodically. For example, pipeline crossings are inspected every 5 years. If necessary, rip-rap or other protective covering is installed.

Describe any leak detection, spill prevention safety and alarm systems, devices, equipment or procedures.

(b) (7)(F), (b) (3)

[redacted]

FIGURE 9.1 OSPR JURISDICTIONAL PIPELINE SEGMENTS (Cont'd)

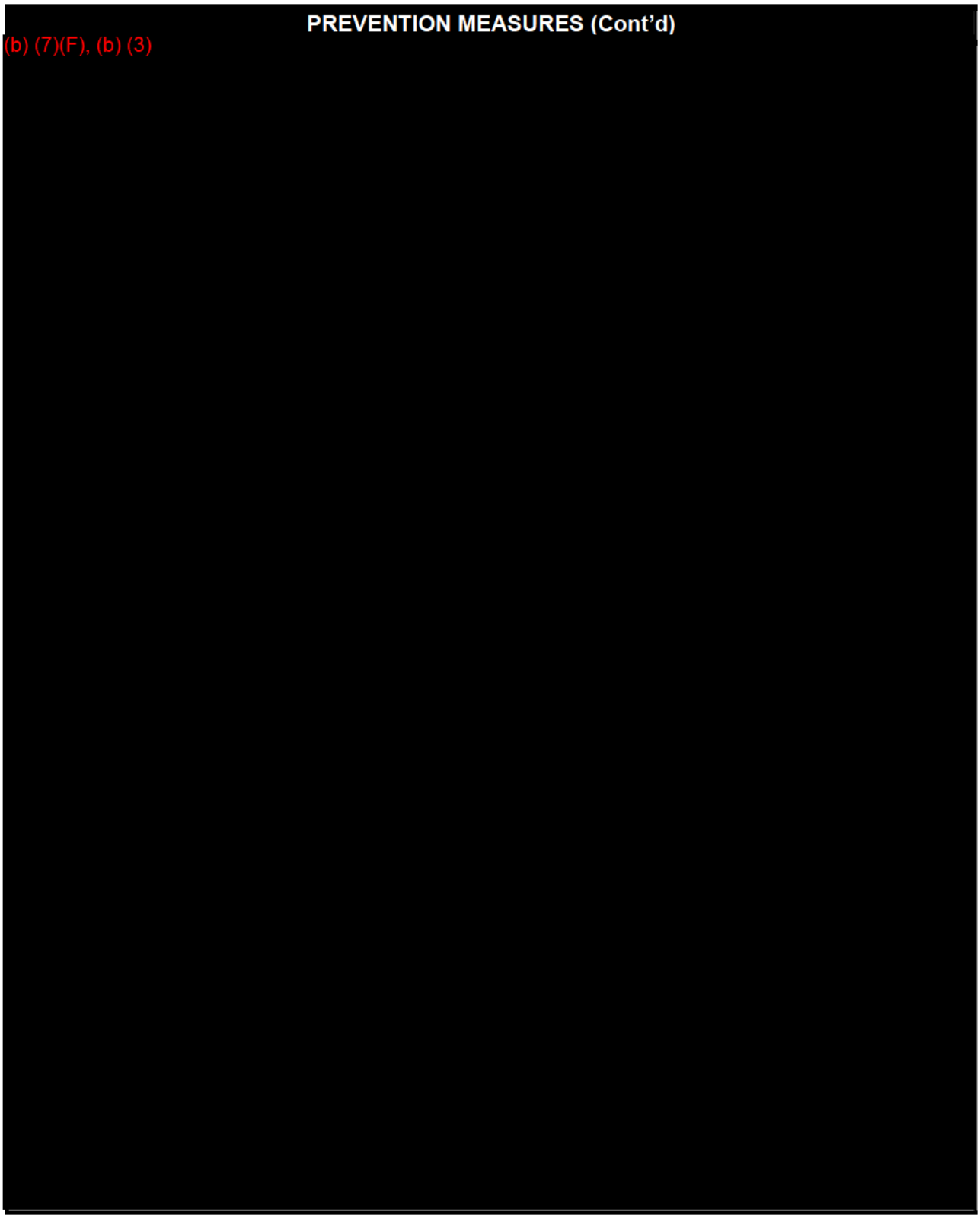


FIGURE 9.2

SOUTHERN REGION WEST – CARSON, MISSION VALLEY, WATSON AREAS
HCA INDEXES

The following Index Map shows all the corresponding Line Segments for Figure 9.2

Detailed HCA Maps are contained in the CD inside the front cover of Volume 2 (or in a separate folder on electronic copy CD).

The specific HCA maps for this area are:

485-D-HCA-INDEX-SFPP_003.pdf

485-D-HCA-WATSON-CLTN_102.pdf

485-D-HCA-WATSON-CLTN_103.pdf

485-D-HCA-WTSN-SANDIEGO_105.pdf

485-D-HCA-WTSN-SAN DIEGO_106.pdf

485-D-HCA-WTSN-SAN DIEGO_107.pdf

485-D-HCA-WTSN-SAN DIEGO_108.pdf

485-D-HCA-WTSN-SAN DIEGO_109.pdf

485-D-HCA-WTSN-SAN DIEGO_110.pdf

485-D-HCA-WTSN-SAN DIEGO_111.pdf

485-D-HCA-WTSN-SAN DIEGO_112.pdf

485-D-HCA-WTSN-SAN DIEGO_113.pdf

485-D-HCA-WTSN-SAN DIEGO_114.pdf

D-HCA-Index-KMLT-001.pdf

494-D-HCA-LIQ-TERM-CA_005.pdf

494-D-HCA-LIQ-TERM-CA_006.pdf

INDEX OF LINES BY DWG NUMBER

Dwg Name	Line Description
D-HCA-YUMA-PHNX_068	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_069	LS-114; YUMA - PHOENIX 20"
D-HCA-YUMA-PHNX_070	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_071	LS-111/112/113; COLTON - YUMA 22/20" LS-114; YUMA - PHOENIX 20" LS-61; YUMA - YUMA MCAS 6"
D-HCA-COLTON-YUMA_072	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_073	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_074	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_075	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_076	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_077	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_078	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10"
D-HCA-NLND-IMPRL_079	LS-111/112/113; COLTON - YUMA 22/20" LS-133; NILAND - REDUCER 10" LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_080	LS-58; REDUCER - IMPERIAL 6"
D-HCA-NLND-IMPRL_081	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-NLND-IMPRL_082	LS-58; REDUCER - IMPERIAL 6" LS-59; IMPERIAL - EL CENTRO NAF 4"
D-HCA-COLTON-YUMA_083	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_084	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_085	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_086	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_087	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_088	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_089	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_090	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_091	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_092	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_093	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_094	LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-COLTON-YUMA_095	LS-105/108; WATSON - COLTON 20/24" LS-98; CALNEV - UPRR 6/8/10/16" LS-51; COLTON - MARCH AFB 6" LS-120/1; WATSON - COLTON 16" LS-111/112/113; COLTON - YUMA 22/20"
D-HCA-WATSON-CLTN_096	LS-105/108; WATSON - COLTON 20/24" LS-111/112/113; COLTON - YUMA 22/20" LS-120/1; WATSON - COLTON 16" LS-51; COLTON - MARCH AFB 6" LS-98; CALNEV - UPRR 6/8/10/16"
D-HCA-WATSON-CLTN_097	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_098	LS-102; ONTARIO - ONTARIO AIRPORT 6" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_099	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_100	LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_101	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_102	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-120/1; WATSON - COLTON 16"
D-HCA-WATSON-CLTN_103	LS-10/125/126; WATSON - HWY 52 16" LS-105/108; WATSON - COLTON 20/24" LS-109; SEPULVEDA JCT - WATSON 16" LS-110 McMILLIAN VLT - WATSON 10" LS-120/1; WATSON - COLTON 16" LS-66; (LEASED TO PARAMOUNT) CARSON - GX145 10"
D-HCA-CLTN-MARCHAFB_104	LS-111/112/113; COLTON - YUMA 22/20" LS-51; COLTON - MARCH AFB 6"
D-HCA-WTSN-SANDIEGO_105	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_106	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_107	LS-10/125/126; WATSON - HWY 52 16 "
D-HCA-WTSN-SANDIEGO_108	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_109	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_110	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_111	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_112	LS-10/125/126; WATSON - HWY 52 16"
D-HCA-WTSN-SANDIEGO_113	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10"
D-HCA-WTSN-SANDIEGO_114	LS-10/125/126; WATSON - HWY 52 16" LS-122; HWY 52 - MISSION VALLEY 10" LS-123 ; MISS ION VALLEY - HARBOR JCT 10/8" LS-124, HARBOR JCT - ARCO/CHEVRON 8/10" LS-141; MISSION VALLEY - SHELL 8" LS-142; MISSION VALLEY - SHELL 8" LS-143 ; MISSION VALLEY - SHELL 8 "

GRAPHIC SCALE

10 5 0 10 20 Miles

FOR REFERENCE ONLY

Map should not be used for locating underground utilities or as a substitute for alignment sheets or strip maps

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
Cochin-US	Cochin-US	
KMLT	KMLT	
WCLT	WCLT	
Cypress	Cypress	
Plantation	Plantation	
SFPP	SFPP	

VICINITY MAP

AREA MAP

MAP LINE LIST

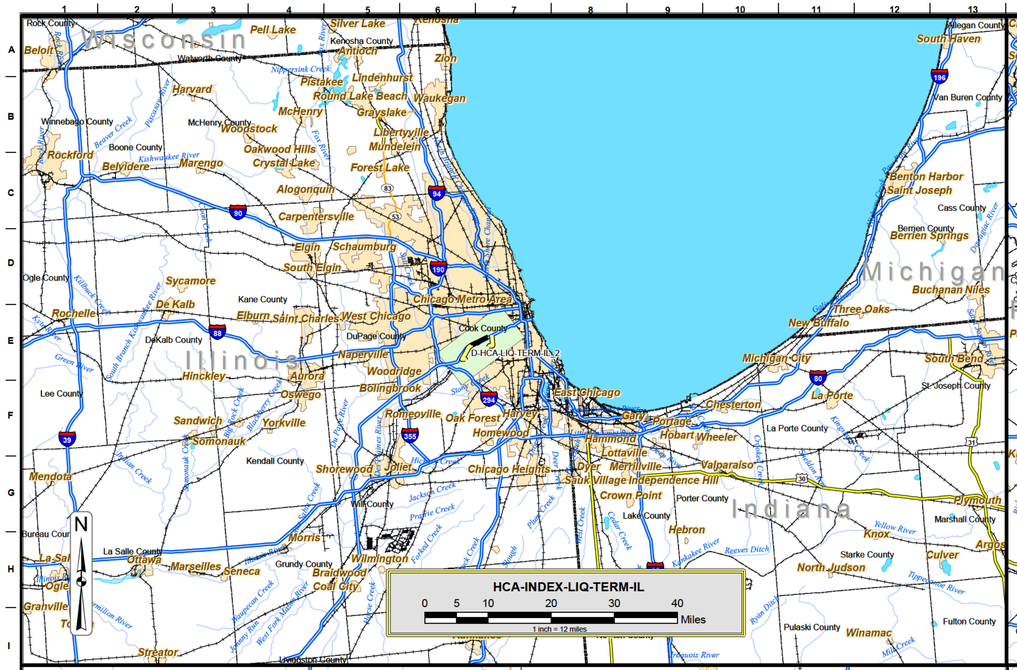
REVISIONS

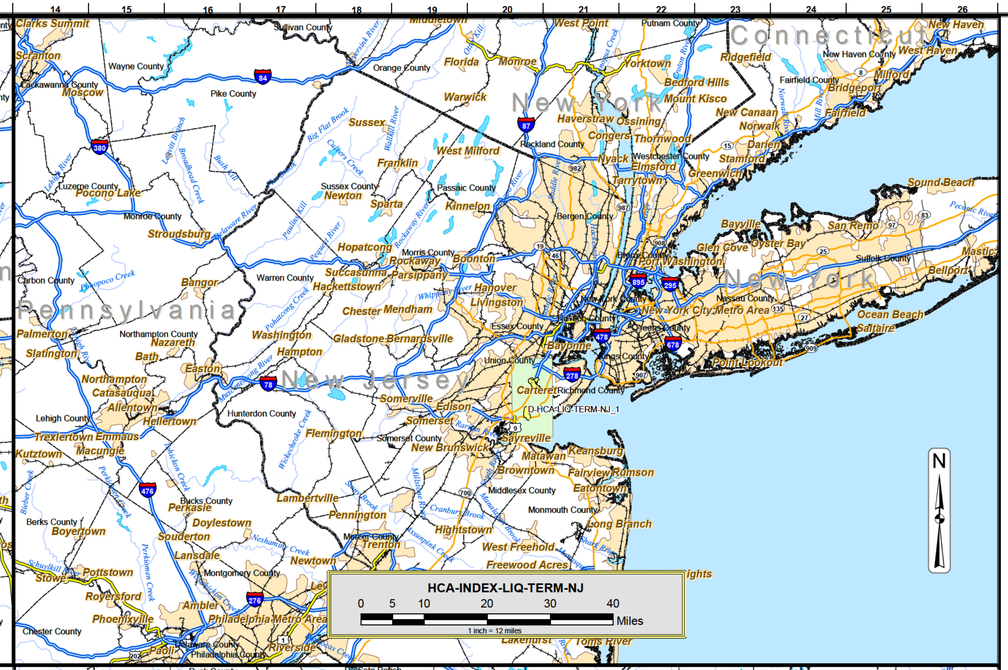
REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
PACIFIC REGION

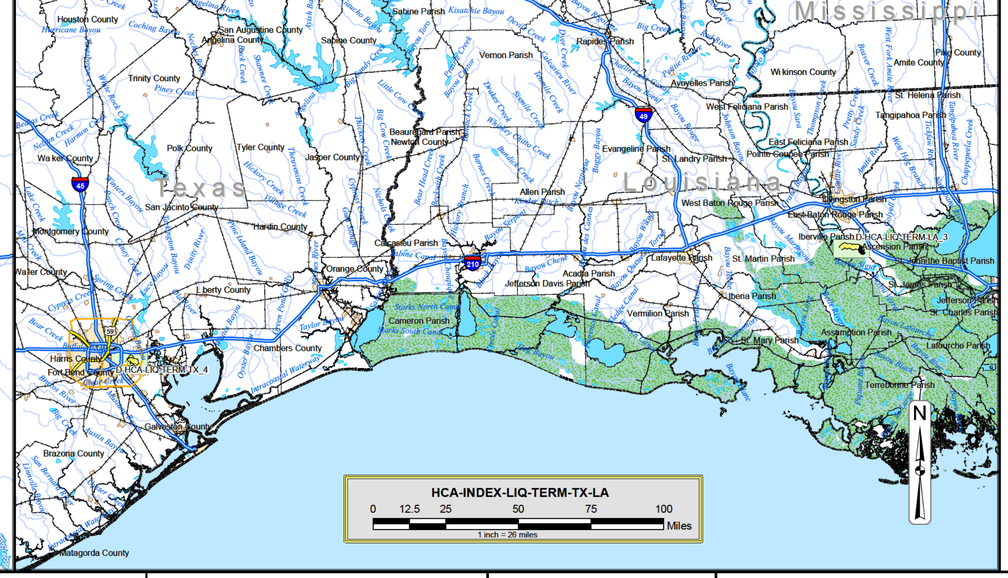
Date: 07/26/2011	SCALE: 1" = 10.25 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Jan, 2011	HPA/OPA: Version 2 DW: Version 1
By:	KM-OPA: Updated Nov, 2009	ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	485-D-HCA-INDEX-SFPP_003	





INDEX OF LINES BY DWG NUMBER

Name	Description
D-HCA-LIQ-TERM-NJ_001	CNJ-0801-1/2, 8"BUCKEYE PIPELINE CNJ-1201-1, 12" PSE&G (SUN, MOBIL) CNJ-1201-2, 12" PSE&G (Sun P/L) CNJ-1601-1, 16"BUCKEYE PIPELINE CNJ-1601-2, 16"BUCKEYE PIPELINE PANJ-1201, 12"BUCKEYE - MOTIVA
D-HCA-LIQ-TERM-IL_002	14" TEPPCO LINE P37- IL 8" SANDERS P/L - JET FUEL - MIDWAY
D-HCA-LIQ-TERM-LA_003	ICPT, L.L.C., 6" ST. GABRIEL
D-HCA-LIQ-TERM-TX_004	12" LCR OIL INBOUND-TX 12" TRUCK RACK NORTH - TX 12" TRUCK RACK SOUTH - TX 16" 16G CROSS- CHANNEL - TX 16" 16L CROSS- CHANNEL - TX 16" 16N CROSS CHANNEL 16" COLEX EXPLORER TERM- JEFFERSON ST TRUCK RACK 16" EXXON LATERAL 16" LCRC CROSS CHANNEL - TX 20" CROSS CHANNEL- TX 20" KMLT LINE 1 20" KMLT LINE 2 28" EXPLORER - TX 4" TRANSMIX - TX 8" TEPPCO - TX
D-HCA-LIQ-TERM-CA_005	GX-120; HARBOR TERMINAL - CARSON TERMINAL (12") GX-130; (SOLD) (8") GX-140S; (SOLD) BERTH 172 - CARSON TERM (10") GX-150; (SOLD) (12") GX-160; (SOLD) (8/10/12")
D-HCA-LIQ-TERM-CA_006	GX-104; TOSCO - CARSON TERMINAL (4") GX-120; HARBOR TERMINAL - CARSON TERMINAL (12") GX-124; CARSON TERMINAL - TOSCO REFINERY 64") GX-140S; (SOLD) BERTH 172 - CARSON TERM (10") GX-160; (SOLD) (8/10/12) GX-190; CARSON TERM - MOBIL/TORRANCE (8/10") GX-200; CHEMOIL TERM. - CARSON TERM. (10/12") GX-205; CHEMOIL TERM. - CARSON TERM. (12/14") GX-210; (LEASE ENDED) (8") GX-32; CARSON TERM. - ARCO MFLD (10/12") GX-64A; CARSONTERM - ARCO MFLD (14") GX-64B; CARSON TERM - ARCO MFLD (14")



NOTES

LEGEND

PIPELINES	INDEX SHEETS	
CalNev	CalNev	Pipeline
CentFla	CentFla	D_HCA_ sheet
CO2	CO2	
Cochin	Cochin	
KMLT	KMLT	
MidCon	MidCon	
Plantation	Plantation	
SFPP	SFPP	
Wink	Wink	

VICINITY MAP

AREA MAP

AREA MAP LINE LIST

REVISIONS

REV.	DATE	BY	DESCRIPTION

KINDER MORGAN

KINDER MORGAN ENERGY PARTNERS
HIGH CONSEQUENCE AREA (HCA)
INDEX MAP
KINDER MORGAN LIQUID TERMINALS

Date: 8/17/2009	SCALE: 1" = 12 Miles or 26 Miles	NPMS HCA DATES:
File:	HCA ANALYSIS DATE: Apr, 2009	HPA/OPA: Version 2 DW: Version 1
By:		ESA: Version 1 CNW: Version 2
Checked:	Dwg Name:	
Approved:	D-HCA-INDEX-KMLT_001	

9.3 DISCHARGE SCENARIOS

Reasonable worst case spill (RWCS) volumes were calculated for each OSPR Line Segment to determine the segments which had the largest potential spill volumes and impacts to marine waters. OSPR Line Segments are defined by the valve or control points on either side of drainage crossings. In parallel approaches along marine waters, the segment of the line with the longest distance between valves was used to calculate spill volumes, although in long approaches many valves may be present.

Drain down after a pipeline rupture generally contributes most of the spill volume from a significant pipeline rupture, since computer and operator monitoring normally shuts off all pumping within a reasonably brief time following a release. Precise predictions of drain down volumes is a function of the size of the pipe, topography, elevation of the break, and other variables. Motor operated remote valves and check valves effectively prevent drain down where present. Conservative assumptions were used to calculate reasonable worst case spill volumes.

Note: The quantity associated with "the loss of the entire capacity of all in-line, break-out and portable storage tank(s)…" is excluded from the RWCS volume calculation since these tanks are under SPCC jurisdiction (i.e., tanks are subject to Chapter 6.67 or Chapter 6.7 of Div. 20, CA health and Safety Code and thus, exempt from this calculation.)

The Reasonable Worst Case Spill (RWCS) volumes are consistent with the OSPR criteria as described below.

CALIFORNIA OSPR Discharge Volume Calculation

- **Reasonable Worst Case Spill (RWCS)**
  The largest volume (bbls) at the following:
  - *The pipeline's maximum release time in hours (i.e., the time between pipeline rupture and discovery, plus the maximum shut-down response time in hours based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after a shutdown of the line section(s) in the response zone expressed in barrels. (As used in this subsection: line section means a continuous run of pipe that is contained between adjacent pressure pump stations, between a pressure pump station and a Facility or break-out tank, between a pressure pump station and block valve, or between adjacent block valves; response zone means a geographic area either along a length of pipeline or including multiple pipelines, containing one or more adjacent line sections, for which the operator must plan for the deployment of, and provide spill response capabilities. The size of the zone is determined by the operator after considering available capabilities, resources, and geographic characteristics); or*
  - *The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken.*

OSPR PERSISTENCE FACTORS

Oil Group	Group 1	Group 2	Group 3	Group 4
On-Water Volumes	(b) (7)(F), (b) (3)			

9.3 DISCHARGE SCENARIOS (Cont'd)

OSPR EMULSIFICATION FACTORS				
Oil Group	Group 1	Group 2	Group 3	Group 4
Emulsification	(b) (7)(F), (b) (3)			

OSPR DAILY RECOVERY RATES (Cap) (HIGH VOLUME PORTS)	
Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

OSPR DAILY RECOVERY RATES (Cap) FACILITY/TRANSFER AREAS AND SANTA BARBARA CHANNEL AREA	
Delivery Time (Hrs)	(b) (7)(F), (b) (3)
Bbls/Day Capability	

Realistic worst case spill volume based on 3 minute pumping plus 60% of volume between isolation points (EFRDs and/or endpoint block valves). The RWCS for each segment is referenced in Figure 9.1 and the largest RWCS for this Region is as follows:

- Largest RWCS in Region = (b) (7)(F), (b) (3)

The planning volumes based on the largest RWCS for the OSPR pipeline segments in this Region are provided below, based on a nearshore/inland environment and an emulsification factor of 1.8 for Group 2 Oil discharges of gasoline, diesel and jet fuel.

OSPR – RESPONSE PLANNING VOLUME CALCULATIONS

(b) (7)(F), (b) (3)

9.4 REPORTABLE OIL DISCHARGE HISTORY

A summary of significant spills that occurred prior to KMEP ownership is provided in Section 9.5. A summary of significant OSPR Line Segment spills that have been recorded in this Region is provided in the following table. (Note: A significant spill is a spill of one barrel or greater reported within control points of each OSPR line segment.)

Line Section	Pipeline Milepost	Date	Volume	Product	Cause
123	134.87	7/17/02	(b) (7)(F), (b) (3)	Gasoline/Turbine	Valve packing failure
1		07/11/03		Jet/Turbine Fuel	Third party damage
10	5	05/28/04		Gasoline	Third party damage
125	19.771	2/16/05		Gasoline/Diesel/Turbine	Valve packing failure
1	36	04/25/05		Diesel	Equip malfunction
120	3.07	05/02/05		Diesel	Cracked threads of 1" nipple
GX-120		05/18/05		Diesel	Leaky flange
126	49	8-25-05		Diesel	Vacuum truck hose
126	124.757	9-10-05		JP-5	Leaking valve "o" ring

9.5 RISK ANALYSIS SUMMARY

A summary of the Risk Analysis and the Offsite Consequence Analysis developed during October through December 2007 to address updated Company policies and procedures, and account for additional line segments and facilities not considered in previous efforts, is presented on pages 9-15 through 9-38.

A full version of this document is available on request.

9.6 OFFSITE CONSEQUENCE ANALYSIS

Refer to pages 9-15 through 9-38.

OSPR PIPELINE SEGMENTS – RISK ANALYSIS SUMMARY

Risk Analysis Summary

A Risk Analysis was conducted on segments of the Kinder Morgan Pacific Region Pipeline and some fixed facilities within California that are jurisdictional to OSPR regulations. The method used for the Risk Analysis consisted of both a "checklist" and "what if" scenarios. The Risk Analysis team consisted of various Subject Matter Experts (SMEs) as well as others knowledgeable as to the risk analysis process. During numerous SME sessions, the SMEs were asked to provide technical information within their field of knowledge or experience directly relating to specific risk issues. The information gathered from the various SMEs was presented to the Risk Analysis Team during team meetings conducted over an approximate two (2) month period, and compiled to gauge the level of risk facing the OSPR jurisdictional pipeline segments and facilities.

2.0 RISK ANALYSIS TEAM CONSENSUS REPORT

2.1 DIRECT IMPACT ISSUES:

The team has concluded policies, practices and procedures that are currently in place are adequate with respect to those issues having a direct affect on safe pipeline operations.

2.2 INDIRECT IMPACT ISSUES

The team has identified some opportunities for improvement with respect to the following issues in the categories that indirectly impact safe operations:

- Reinforce the procedures that are followed for updating alignment sheets to assure that revision submittals have been completed (Issues AM-1 and AM-2).

- Proceed with the program for "Continuing Risk Analysis to Identify Preventative and Mitigative Measures" (Procedure L-O&M 275) for the OSPR-jurisdictional pipelines in the Pacific Region (Issue AM-9).

- Proceed with the program to complete the Emergency Flow Restriction Device studies for the OSPR-jurisdictional pipelines in the Pacific Region, when those pipeline segments are next integrity inspected (Issue O-6).

- When reviewing some of the forms placed in use in recent months there was some uncertainty as to what data might be needed and what data might not be required under some circumstances. Updated instructions for preparation of these forms have been drafted. All locations should proceed to implement these instructions (Issue M-7).

The above summary of conclusions and the detailed conclusions of the several integrity issues addressed in Section 3.0 of this report represent a consensus of the following Subject Matter Experts participating in the analysis:

Edward (Buzz) Fant
Phil Vasquez
Larry Hosler
Ed Hahn
Bob Cote
Mike Outlaw
Mike Ortiz

3.0 SUBJECT MATTER EXPERT EVALUATIONS

The Risk Analysis Team, upon reviewing the comments by team SMEs developed in both group sessions and one-on-one with the Risk Analysis Coordinator, has reached consensus on the following conclusions and recommendations.

3.1 PIPELINE RISK ISSUES

ADMINISTRATIVE AND MANAGEMENT ISSUES	
The following two issues are related and were reviewed as a single issue by the SMEs.	
AM-1	Maps and drawings accuracy: Do pipeline maps and drawings reflect accurate pipeline and related information? Are pipeline locations based on GPS data? Have the drawings been digitized for reliable database reference?
AM-2	Maps and drawings current: Are procedures in place to insure that maps and drawing have up-to-date information? Are field drawings 'red-lined" pending engineering revisions?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker, Pete Murphy, Grant McClellan

Comments: The current process for maintaining maps and records is reasonably good. Some areas maintain their master set of alignment sheets current by "red-lining" changes until revisions have been completed, while other locations do not. There is currently a substantial delay in getting revisions back, and no current procedure for confirming that revisions submitted by field personnel have been completed.

New procedures implemented in recent months have been reinforced to better assure accuracy and should improve revision turnaround time. The process for managing the preparation of all alignment sheets, which includes having all revision data entered electronically and having all current alignment sheets available to all users on line, is currently a "work-in progress".

Recommendation: There should be a procedure established to follow up on pending revisions to confirm they have been accurately made, and are received back on a timely basis. When the electronic version of the alignment sheet maintenance process has been completed the procedures that guide the process should be reviewed to confirm applicability; and they should include a procedure for the personnel submitting revisions to confirm that the electronic updating has been completed.

The following two issues are related and were reviewed as a single issue by the SMEs.	
AM-3	Qualified personnel for operations: Are all personnel involved in pipeline operations qualified? How is qualification determined?
AM-4	Qualified personnel for maintenance: Are all personnel involved in pipeline maintenance efforts qualified? How is qualification determined?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: The OQ program as set forth in API 1162 is the guidance for this issue. It is monitored on a continuing basis to assure compliance. The SMEs that addressed this issue confirmed that regional personnel having oversight of the OQ program are knowledgeable in the OQ program requirements and follow them when covered tasks are being performed.

Recommendations: None

AM-5	Qualified personnel for line locates: Are all personnel involved in one call responses and line locates familiar with locate requirement, marking, pipe locator usage, documentation and follow-up?

Primary SMEs: Phil Vasquez, Larry Hosler, Buzz Fant
Others offering comments: Steve Marositz, Curtis Parker

Comments: The SMEs that addressed this issue have confirmed that all personnel associated with line locates are qualified under the OQ program and are thoroughly trained in line locate and marking requirements; and are adequately trained in the use of line locate equipment.

Recommendations: None

AM-6	Qualified contractor personnel: Are all contractor personnel involved in pipeline maintenance efforts qualified? How is qualification determined?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker

Comments: We have a firm requirement in our contracts with contractors requiring them to fully comply with OQ guidelines. All contract personnel that may perform covered tasks must be pre-identified by name and must be in the ISNetworld database. The SMEs that addressed this issue confirmed that regional personnel having oversight of contractors performing covered tasks are knowledgeable in the OQ program requirements as they apply to contract personnel, and they follow them when contract work us being performed.

Recommendations: None

AM-7	Contractor supervision: Are all contractor personnel adequately supervised when performing maintenance work on or adjacent to pipeline facilities? Who determines level of supervision required? How is contractor performance verified?

Primary SMEs: Phil Vasquez, Larry Hosler, Bob Cote
Others offering comments: Steve Marositz, Curtis Parker

Comments: We have a firm requirement in our contracts that require full time supervision of all maintenance personnel by qualified contractor supervisors. The SMEs that addressed this issue confirmed that regional personnel having oversight of contract work are knowledgeable in this requirement. The KM contract inspector assigned to oversee the contract work determines the level of contrast supervision that the work may require. The KM contract inspectors enforce this requirement.

Recommendations: None

AM-8	Relief personnel: What is the source of relief personnel for routine operating and maintenance positions? Is there adequate depth of trained/qualified relief personnel?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: We have adequate qualified personnel to fill in as may be required for routine operations tasks and for maintenance work. Personnel are cross-trained in multiple disciplines so they can back stop any short time gaps that may develop. The SMEs that addressed this issue confirmed that all relief personnel that may be required to perform covered tasks have the requisite qualifications.

Recommendations: None

AM-9	Integrity Management Program (IMP): Has the operator established an Integrity Management Program for the pipeline systems that are subject to the PHMSA IMP program? Is it being followed at all locations where required? Are all elements of the program being adequately documented?

Primary SMEs: Mike Outlaw
Others offering comments: Buzz Fant

Comments: The IMP has been in place as required by the pipeline regulations. The SME that addressed this issue confirmed that baseline integrity assessments have been performed throughout the Pacific Region based on a priority schedule that was identified at the inception of the program. The baseline and follow-up inspections are administered by a risk management person in the Pacific Region.

The SME confirms that they have a program in place to conduct annual reviews of the risks associated with each segment. The follow up throughout the Pacific Region to address any corrective or mitigative efforts that may be required as a result of the annual reviews will be initiated in 2008.

Recommendations: Proceed with the program to follow up on any corrective or mitigative efforts required based on the annual reviews of Pacific Region pipeline segments.

AM-10	Management of Change: Has the operator adopted the "Management of Change" concept or something similar? If so, how has it been conveyed to all personnel? If no, what process is used to convey operating and procedural change information to personnel?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: An extensive MOC procedure is in place and it is used to address all variety of changes. The SMEs that addressed this issue confirmed that regional personnel having responsibility for MOC initiation and processing are knowledgeable in the MOC requirements, and they follow them whenever any applicable change is being considered.

Recommendations: None

The following two issues are related and were reviewed as a single issue by the SMEs.

AM-11	Operations and Maintenance (O/M) Manual: Is the manual complete, used by all, relevant to current operations.
AM-12	Procedure amendments: Is there a process for amending operating and maintenance procedures when needed and conveying these changes to all personnel?

Primary SME: Buzz Fant

Comments: The L-O&M Manual is an extensive compilation of procedures that are relevant to all phases of operations and maintenance. It is accessible on-line for all personnel that have a need to refer to it. It is maintained current by a rigorous amendment process. Changes are made available to all personnel. The SMEs that addressed this issue confirmed that regional personnel are familiar with the on-line set of procedures and have ready access to them whenever necessary.

Recommendations: None

AM-13	Reference materials: Do all locations have copies of applicable regulations, standards, recommended practices that are applicable to those areas of operation? Are personnel sufficiently familiar with those documents?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Curtis Parker, Buzz Fant

Comments: All such references are available on-line. The SMEs that addressed this issue confirmed that regional personnel having a need to access such documents know where to obtain them.

Recommendations: None

OPERATIONS ISSUES

The following two issues are related and were reviewed as a single issue by the SMEs.

O-1	Segment MOP: Has the MOP for each segment of line been determined? Is it recorded and clearly identified for operators and controllers? Is it consistent with the pressure relief and pressure control settings?
O-2	Overpressure relief: Are the overpressure relief systems set at the appropriate level above MOP? Are they adequately sized? Are they tested and tagged as required?

Primary SMEs: Bob Cote

Comments: The MOP for each line segment has been established. It is known by those that have to apply the MOP in operations. (b) (7)(F), (b) (3) [redacted]

The SMEs that addressed this issue confirmed that the controllers and others responsible for pipeline operations understand the MOP and the MAOP of each line segment. The SMEs also confirmed that the relief pressure settings are properly set to assure that the MAOP is never exceeded in any portion of the line segment.

Recommendations: None

O-3	Personnel work hours: Are operator and controller work shifts designed to assure minimization of fatigue?

Primary SMEs: Phil Vasquez, Larry Hosler, Ed Hahn
Others offering comments: Gary Yates, Steve Marositz, Curtis Parker

Comments: The work shifts of all personnel (field personnel, station operators and controllers) are managed in a manner that the fatigue factor is controlled. The SME responsible for controller personnel emphasized that fatigue awareness and fatigue management is emphasized. Actions or incidents that may suggest fatigue could have been a contributing factor are investigated. Job performance is monitored to assure that if it appears to be an impending concern for any individual or group follow-up investigation would be conducted.

Recommendations: None

O-4	Fail-safe operations: Are line segments designed to fail safe in case of communications failure between the segment and the controllers?

Primary SME: Ed Hahn
Others offering comments: Gary Yates

Comments: (b) (7)(F), (b) (3) [redacted] Once communications has been restored the segment is restarted in accordance with normal start-up procedures.

Recommendations: None

O-5	Backup operations: Are personnel available to staff remote facilities in case of prolonged communications failures or other situations where remote monitoring may be inadequate? Are these personnel sufficiently trained to operate such facilities?

Primary SMEs: Ed Hahn, Phil Vasquez, Larry Hosler

Comments: The SMEs that addressed this issue confirmed that the standard practice is to shut down remotely operated facilities when prolonged communications failures persist, rather than arrange for remote staffing.

Recommendations: None

O-6	Has the EFRD evaluation been conducted on this segment? Were EFRD recommendations implemented? If not, was the rationale for not following the recommendations documented?

Primary SMEs: Mike Outlaw, Mike Ortiz

Comments: The program for EFRD evaluations in conjunction with the Integrity Management Program is currently in progress. It has not yet been initiated for the Pacific Region Pipelines. The SMEs that addressed this issue have confirmed that the EFRD studies are being programmed in conjunction with integrity inspections..

Recommendation: Perform the EFRD analyses for the Pacific Region segments when those segments are next integrity inspected.

MAINTENANCE ISSUES

The following five issues are related and were reviewed as a single issue by the SMEs.

M-1	Rights-of-Way visibility: Does the segment have adequate right-of-way visibility to assure effective aerial patrol surveillance?
M-2	Aerial Markers: Are they adequate, properly spaced, in good condition, visible from air?
M-6	Line marker maintenance: Are all markers maintained in good condition, with current operator information?
P-5	Line marker adequacy: Are line markers located at all appropriate locations (as required by regulations plus other locations where they may be needed to insure location awareness)?
P-6	Line marker alternatives: In areas where typical post type markers cannot be situated or kept, what alternatives are used?

Primary SMEs: Phil Vasquez, Larry Hosler

Comments: All rights-of-way that are covered by aerial patrol are adequately cleared for surveillance. We have a routine program for monitoring the condition of line and aerial markers and replace them as necessary. Where appropriate we have surface markers that can be used in place of post markers.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.	
M-3	Cathodic Protection: Does the line have cathodic protection? If not, what is the rationale?
M-4	Cathodic protection annual surveys: Have annual surveys been done on each line segment? If not, what is the survey frequency? Is the frequency deemed adequate?
M-5	Cathodic protection close interval surveys: Have CIS been done on each segment? What was the rationale for doing or not doing? Are alternatives to CIS being used and if so, what is rationale?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering Comments: CP technicians

Comments: Annual surveys are done regularly and the resulting data is reviewed by NACE certified CP technicians. The SMEs that addressed this issue confirmed that the decision to conduct a CIS would depend on the results of the annual survey; and where warranted a CIS would be performed.

Recommendations: None

M-7	Maintenance records: Are all records (routine and abnormal) that may be required to confirm and support routine maintenance retained and available as may be required by management and regulatory agencies?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: All records required to confirm compliance and to assure continued compliance with the routine maintenance programs are being developed. The SMEs that addressed this issue advised that in recent months several forms that address routine inspection and maintenance information have been updated to include more comprehensive information. Revised procedures for completing the forms have been drafted.

Recommendation: Finalize the draft procedures.

M-8	Safety-related condition reports: Are these records being prepared and retained as may be required to meet agency requirements and to support corrective actions?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: We have a program in place to address conditions that might warrant a safety-related condition report and procedures are in place to support corrective actions.

Recommendations: None

M-9	Pipe integrity discoveries: Are procedures adequate to identify and record instances of potential lack of pipe integrity, to meet agency requirements and to support corrective actions and future review?

Primary SMEs: Mike Outlaw, Mike Ortiz, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: The region SMEs advised that the Risk Management group addressed such issues. The Risk Management Group SMEs confirmed this, and advised that integrity discoveries stemming from the integrity inspections are handled on a timely basis as required by the regulations, and that any discoveries that might require a temporary reduction in segment MAOP or other temporary mitigative measures would be immediately addressed by the project managers that oversee the integrity inspection program.

Recommendations: None

PREVENTION ISSUES

The following two issues are related and were reviewed as a single issue by the SMEs.

P-1	Internal corrosion detection: Does the segment have test coupons for checking internal corrosion rates? Is there a routine monitoring program to confirm effectiveness?
P-2	Internal corrosion inhibition: Are inhibitors being used to prevent internal corrosion? Is there a routine monitoring program to confirm effectiveness?

Issues P-1 and P-2 (continued)	
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: There have been no apparent indications of internal corrosion concerns on the OSPR-jurisdictional systems. If such conditions were to appear as a result of internal inspections, action would be taken to identify and mitigate the problem. Recommendations: None	
P-3	Adjacent utilities awareness: Is operator pro-active in knowing exact location of all adjacent underground utilities in pipeline vicinity?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: To the extent possible these are noted on our alignment sheets. The SMEs that addressed this issue confirmed that our line riders are instructed to be alert to any indication of adjacent utilities, and to arrange to have them included on our alignment sheets when they are discovered. Recommendations: None	
The following two issues are related and were reviewed as a single issue by the SMEs.	
P-4	Foreign excavation monitoring: Is operator representative always present when foreign excavations are made over or near pipelines? How is this requirement conveyed to operator personnel? To excavator personnel?
P-7	Excavation in close proximity to pipeline: Does operator demand hand excavation when opening ditch within close proximity to pipeline? How is this controlled?
Primary SMEs: Phil Vasquez, Larry Hosler Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker Comments: Our personnel are to be on site whenever any subsurface work is being done on or around our lines. We have definite requirements that at any time an excavation is to be within 24 inches of the pipe it must be done by hand only. Recommendations: None	

P-8	Line locating instruments: Are all pipe locators calibrated as required by manufacture? Have all operators been trained in proper use of the instrument and been made aware of performance limitations?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant, Curtis Parker

Comments: Our personnel are trained in the use of this equipment. The SMEs that addressed this issue advised that the accuracy of the unit is verified at least daily by testing against a known section of buried pipe.

Recommendations: None

P-9	Post-Incident Review: Are such reviews conducted in manner that will identify and trigger corrective measures?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: We have a formal procedure for conducting post-incident reviews, including where appropriate a root cause analysis; and follow through with corrective measures as necessary. The SMEs that addressed this issue advised that there is a rigorous procedure involving several staff personnel to discuss all aspect of the incident.

Recommendations: None

MONITORING AND CONTROL ISSUES

The following three issues are related and were reviewed as a single issue by the SMEs.

MC-1	Aerial patrol familiarity: Are the pilots sufficiently familiar with the exact line locations to insure proper surveillance?
MC-2	Local staff familiarity: Does local staff fly with aerial patrol periodically to insure pilots are adequately familiar with the line locations and to keep local staff familiar with line location and surface conditions?
MC-6	Are pilots directed to observe conditions beyond the pipeline right-of-way that suggest potential pending impact to the right-of-way? How is this information reported?

Issues MC-1; MC-2, MC-6 (Cont'd)

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: Our patrol pilots are familiar with precise line locations; and we confirm this by having local personnel periodically fly with them. Pilots are directed to look beyond the right-of-way and report any signs of potential concern along with their other reporting priorities.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.

MC-3	Aerial patrol priorities: Have pilots been advised on notification priorities? Some may require immediate notice to local staff, while others may permit routine reporting. Do the pilots understand and follow any expedited reporting requirements?
MC-4	Aerial patrol routine notices: Are procedures set up to insure that routine reporting of patrol surveillance information goes to the right personnel? Is a log maintained of this? How is it used to follow up on potential problems?
MC-5	Aerial patrol reporting items: Do the pilots report only abnormal conditions, or do they also advise of the need for routine maintenance work (sign painting, marker repairs etc.)?

Primary SMEs: Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Buzz Fant

Comments: Our reporting priorities are clearly given to the patrol pilots. They have the ability to immediately contact our field personnel as necessary. The SMEs that addressed this issue confirmed that their line coverage records are thorough as to details that they report and this includes any situation where maintenance or potential encroachment should been evaluated.

Recommendations: None

The following four issues are related and were reviewed as a single issue by the SMEs.	
MC-7	Volume balance: Does this segment have adequate volume measurements for effective real time balance data?
MC-8	Volume deviations: Are volume balance deviation limits set to reflect the minimum possible deviations within reliable tolerances?
MC-9	Slack lines: Is the system designed and operated to eliminate slack line conditions for adequate volume balance? It is maintained packed to insure good balance during start-up?
MC-10	(b) (7)(F), (b) (3) [redacted]

Primary SMEs: Ed Hahn, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz, Gary Yates

Comments: All line segments have volume balance measurements and volume deviation alarm set points. The SMEs that reviewed these issues confirmed that:

- deviation tolerances are set sufficiently close to maximize the controller's ability promptly react to potential adverse conditions.
- Lines are maintained packed when shut down, thus slack line conditions are not experienced.
- (b) (7)(F), (b) (3) [redacted]

Recommendations: None

PUBLIC AWARENESS ISSUES	
The following three issues are related and were reviewed as a single issue by the SMEs.	
PA-1	Public awareness programs, conducted: Does operator have, or contract for an active awareness program?
PA-2	Public awareness programs, active participation: Does operator have local personnel actively participate in public awareness efforts? To what degree?
PA-3	Public awareness, excavator contacts: Is operator pro-active in making system known to excavators (area contractors, other utilities, private back-hoe operators)?

PA-1, PA-2, PA-3 (Cont'd)

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: Our public awareness is consistent with API 1162 guidelines. The region SMEs confirmed that area personnel participate in the programs involving local agencies, excavators and the public in close proximity to our pipelines, and they document this participation.

Recommendations: None

The following three issues are related and were reviewed as a single issue by the SMEs.

PA-4	One call systems, who are they forwarded to (local personnel or a central location)?
PA-5	One call systems, follow-up: How are calls followed up on by local personnel?
PA-6	Damage prevention program formalized: Is there a written program? Is it clearly conveyed to all applicable personnel? Is it followed by all personnel? Does it have clear support and mandate from upper management?

Primary SMEs: Buzz Fant, Phil Vasquez, Larry Hosler
Others offering comments: Steve Marositz

Comments: All locations participate in one-call programs at the local level. Information typically comes in by computer linkage with the one-call system, and can be followed by fax or phone as necessary. Local personnel follow up on all one call notices and evaluate the potential for impact to our systems. We have an active written damage prevention program with full support of upper management.

Recommendations: None

3.2 FIXED FACILITY RISK ASSESSMENT

Facility: **Richmond Terminal** Date: 12/19/2007

Subject Matter Expert: Mike Sudheimer

Recorder: Vern Grimshaw

Facility Operations:

The terminal handles vegetable oils and some petroleum products. Operations include marine vessel receipts and deliveries; and loading to tank trucks and rail cars. There are no pipeline movements of petroleum products into or out of the facility.

Potential Product Releases:

The two possible sources of a release of petroleum products from the facility would be:

- During marine transfer operations, and
- From facility storage facilities and related piping.

In the event of a product release during vessel transfer operations, or if any release from facility tanks or piping were to escape containment, an Integrated Contingency Plan (ICP) is in place to address the situation. The ICP addresses the potential off-site consequences of a release and the response capabilities of KM and contractor resources.

Marine Transfer Operations:

Vessel transfers typically occur at a maximum flow rate of approximately 1,900 barrels per hour. All transfers are constantly monitored by dock and vessel personnel. In the event of a major transfer line or hose failure the maximum probable (b) (3), (b) (7)(F) s.

All vessel transfer operations are performed in accordance with USCG and applicable state regulations. KM personnel responsible for transfer operations are familiar with the Dock Operations Manual and applicable regulations; and are trained in the response requirements of the ICP.

Facility Storage Facilities:

Spill prevention from any of the facility's tanks and related piping is addressed in the facility SPCC plan.

The largest tank within the facility that contains petroleum products is approximately (b) (3), (b) (7)(F) barrels. The secondary containment capacity available for that tank in the event of a total tank failure is approximately (b) (3), (b) (7)(F), sufficient to prevent the release from escaping the containment area.

Facility Storage Facilities (Cont'd):

All petroleum piping within the facility (except dock piping that is utilized during vessel transfer operations) is contained within curbing that would direct piping releases to a controlled area on site.

Surface drainage from areas that have the potential to contain petroleum is controlled on site and checked for potential petroleum contaminants before being released.

There is no buried piping within the facility. The tank bottoms are protected from corrosion by means of a cathodic protection system. There has been no indication of internal corrosion of any of the petroleum piping.

Release History:

There have been no petroleum releases from this facility in the past ten years.

Risk Assessment Conclusions:

Based on the information provided above, it can be concluded that all appropriate preventative and mitigative efforts for spill prevention are in place for this facility.

Facility: **Los Angeles Harbor Terminal** Date: 12/19/2007

Subject Matter Expert: Tom Hosler

Recorder: Vern Grimshaw

Facility Operations:

The terminal handles refined petroleum products and crude oil. Operations include marine vessel receipts and deliveries, loading to tank trucks, and pipeline movements of petroleum products out of the facility.

Potential Product Releases:

The two possible sources of a release of petroleum products from the facility would be:

- During marine transfer operations, and
- from facility storage facilities and related piping.

In the event of a product release during vessel transfer operations, or if any release from facility tanks or piping were to escape containment, an Integrated Contingency Plan (ICP) is in place to address the situation. The ICP addresses the potential off-site consequences of a release and the response capabilities of KM and contractor resources.

Marine Transfer Operations:

Vessel transfers typically occur at maximum flow rates of approximately 10,000 barrels per hour (offloading) and 7,000 barrels per hour (loading). All transfers are constantly monitored by dock and vessel personnel. In the event of a major transfer line or hose failure the maximum probable (b) (7)(F), (b) (3)

All vessel transfer operations are performed in accordance with USCG and applicable state regulations. KM personnel responsible for transfer operations are familiar with the Dock Operations Manual and applicable regulations; and are trained in the response requirements of the ICP.

Facility Storage Facilities:

Spill prevention from any of the facility's tanks and related piping is addressed in the facility SPCC plan.

The largest tank within the facility has a maximum capacity of approximately (b) (3), (b) (7)(F) 0 barrels. The secondary containment capacity available for that tank in the event of a total tank failure is (b) (3), (b) (7)(F), sufficient to prevent the release from escaping the containment area.

Facility Storage Facilities (Cont'd):

All above ground petroleum piping within the facility (except dock piping that is utilized during vessel transfer operations) is contained within curbing that would direct piping releases to a controlled area on site.

Surface drainage from areas that have the potential to contain petroleum is controlled on site and checked for potential petroleum contaminants before being released.

The buried piping within the facility and the tank bottoms are protected from corrosion by means of a cathodic protection system. There has been no indication of internal corrosion of any of the petroleum piping.

Release History:

There have been six petroleum releases from this facility in the past ten years:

- A one barrel release was the result of a tank spill-over during an earthquake. This was contained within the tank block.
- A release of less than one gallon that reached the water was the result of a leak in a dock pan drain line.
- Four others, reported as too small to measure (a few drops or less), resulted in minor stains on the ground surface or minor sheens on the water.

All releases were cleaned up in a timely manner.

Risk Assessment Conclusions:

Based on the information provided above, it can be concluded that all appropriate preventative and mitigative efforts for spill prevention are in place for this facility.

Appendix D

(Includes only events with a release amount of at least 42 gallons)

Line Section ID	Event Date	Event Description	Product	Cause	Amount Released (gallons)
95	8/23/1999	Outside Force Damage: Third Party: Cost: A foreign pipeline company was excavating their pipeline, which parallels and is in close proximity to Kinder Morgan's pipeline - L.S. 95. The trench was being backfilled.	Jet/turbine fuel	Excavation	(b) (7)(F), (b) (3)
25	5/17/2000	Failure in original seam defect combined with external corrosion.	Diesel Fuel	Material and Welds	
25	12/12/2000	Approximately 22:58 Concord personnel contacted the ORCC regarding the discovery of product in a slough next to the Carquinez Straight approximately 3.09 miles west of the Concord Station	Gasoline	Other	
	7/27/2001	Approximately 1300, Contra Costa personnel contacted ORCC regarding the release of Diesel. A 10'x10' stain on gravel had a diesel odor. Stain originated at HOV-3.	Diesel Fuel	Other	
45	12/7/2002	Approximately 1104 on 12/7/02 Stockton personnel contacted ORCC regarding a dripping Bypass Valve on the Rough & Ready Manifold.	Mix/Transmix	Equipment and Operations	
25	4/27/2004	At 1832 on 4/27/04 an abnormal operating condition was observed on LS 25 and the line was shut down and field personnel started conducting field surveys. Approximately at 1406 on 04/28/04 the field contacted ORCC confirming that a pipeline release had occurred.	Diesel Fuel	Corrosion	
47	11/7/2004	Approximately 1650 on 11/07/04 Concord personnel contacted ORCC regarding a release that occurred from third party mechanical damage. OES was advised at 1742, case number 04-5795 was given. NRC was contacted at 1750, case number 740716 was assigned.	Jet/turbine fuel	Excavation	
16	11/9/2004	Approximately 1326 on 11/09/04 Concord personnel contacted ORCC regarding a possible line hit on LS 16 between PLMP 7 and 11. Pressure Loss was observed and reports of possible explosion and fire in area of hit. NRC was advised at 1352, case number 740-9	Gasoline	Excavation	

Line Section ID	Event Date	Event Description	Product	Cause	Amount Released (gallons)
42	2/7/2005	On the evening of 02/07/05 PNR personnel contacted ORCC regarding a mysterious sheen and odor in the San Francisco Bay downstream of Oakland Tank that the USCG was investigating and had pre-determined that it was coming from LS 42.	Jet/turbine fuel	Other Outside Force	(b) (7)(F), (b) (3) [redacted]
	8/2/2005	Approximately 1557 on 08/02/05 Concord personnel contacted ORCC regarding a stain observed near Travis Line. OES, NRC, CUPA, and US BOR were notified.	Jet/turbine fuel		
Richmond Terminal	10/24/2007	Wax Kettle overflowed onto the ground resulting in reportable spill	Wax	Incorrect Operation	
123	6/17/2002	Approximately 1410 on 06/17/02 Mission Valley personnel contacted ORCC regarding a release that occurred from a weeping hole found on MOV 101. Advised OES (case # 02-3331).	Mix/Transmix	Equipment and Operations	
1	7/11/2003	Approximately 1958 on 07/11/03 Watson personnel contacted ORCC regarding a turbine release from third party damage on LS 1. OES and NRC were advised.	Jet/turbine fuel	Other Outside Force	
120	5/2/2005	Approximately 0650 on 05/02/05 Watson personnel contacted ORCC regarding the LA River West Block Valve leaking in valve box within Nursery. OES was advised at 0658, case number 05-2619 was assigned. NRC was advised at 0825, case number 757427 was given.	Diesel Fuel	Material and Welds	
108	12/8/2005	Approximately 0921 on 12/08/05 Carson personnel contacted ORCC regarding a release that occurred the seal failed on pump 63. OES, NRC, CUPA, and the US BOR were also notified.	Diesel Fuel		

9.7 RISK REDUCTION INCENTIVE PROGRAMS

The Facility participates in an annual safety awareness program which is administered at the Corporate level. The Facility has evaluated workplace hazards and how to prevent or mitigate them under workplace illness and injury prevention guidelines. The Facility conducts monthly safety meetings to discuss conditions, which could cause accidents or spills, and how to mitigate or prevent them from occurring. The Facility (through the Operations Review Committee) also conducts quarterly meetings for continuously improving the quality and effectiveness of operating practices and procedures.

9.8 DRUG AND ALCOHOL POLICIES

Kinder Morgan, Inc. and Kinder Morgan Energy Partners, L.P. Human Resources Policy Manual

Drugs and Alcohol in the Workplace

(Effective 01/01/2000)
(Revised 01/01/2003)

Purpose

The purpose of this Policy is to maintain a safe and productive work environment for all employees, applicants, and the public by ensuring that employees on Company property, while conducting Company business, operating Company property, or during their employment with the Company may not possess or use illegal or unauthorized drugs. The Policy is also intended to promote worker and public safety, to comply with the Drug-Free Workplace Act of 1988, and to provide procedures for workplace-related searches of persons and property and the lawful drug and alcohol testing of employees. Kinder Morgan maintains a "Zero Tolerance" policy.

Scope

This Policy applies to all Company employees, applicants, contract workers, and employees of third-party contractors, including employees and contract workers who perform functions covered by regulations promulgated by the Department of Transportation (DOT). In the event of a contradiction between this Policy and the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan, the Company's Anti- Drug Plan and Alcohol Misuse Prevention Plan shall govern.

This Policy is broader in scope than the Company's Anti-Drug Plan and Alcohol Misuse Prevention Plan. For additional information refer to the Anti-Drug Plan and Alcohol Misuse Prevention Plan. This Policy shall be administered in accordance with all applicable federal, state, and local laws and regulations.

Responsibilities and Prohibitions

Employees

All applicants and employees are reminded that the following actions are included as violations of this Policy: (1) use, possession, sale, distribution of illegal or unauthorized drugs on Company property, while operating any Company vehicle or equipment, or while conducting Company business; (2) use, possession, sale, and distribution of alcohol on Company property. while operating any Company vehicle or equipment, or while conducting Company business, with the exception that use and possession of alcohol during Company sponsored business or social functions, where the use of alcohol remains moderate, will not be considered a violation of this Policy; (3) use of any drug, including prescribed drugs, which is unsafe to use while operating Company vehicles or equipment; (4) possession, sale or distribution of paraphernalia and equipment related to illegal or unauthorized drug use; and (5) refusal to test in any testable situation.

As a condition of employment, any employee whose work directly relates to the performance of a federal contract and who is or has been convicted of a criminal drug offense occurring in the workplace during employment must notify his/her supervisor and Human Resources representative in writing within five days of such conviction. Similarly, as a condition of employment, any employee that is required to possess a valid driver's license as a pre-requisite of their position, must notify his/her supervisor and Human Resources representative in writing within five days of either a drug and/or alcohol related criminal offense. Failure to provide notification will result in disciplinary action being taken, up to and including termination.

All employees while operating any Company vehicle or equipment, or while conducting Company business (either during or after regular business hours), cannot refuse to submit to drug and/or alcohol testing administered or ordered by the Company or a lawful authority. Refusal to submit to the testing will result in disciplinary action being taken, up to and including termination.

All employees taking a prescription or over-the-counter medication that could adversely affect performance of job-related functions or pose a direct threat to the health and safety of the employee or others in the workplace are responsible for notifying their supervisor. It is not the intent of the Company to interfere with the use of drugs legitimately prescribed by a physician. The Company's designated physician will be the sole person that the Company uses in making determinations concerning employees' fitness to perform the job.

All employees should notify a supervisor or Human Resources Representative of any behavior of co-workers or contract workers that may indicate a violation of this Policy.

Definitions

"Alcohol" means ethyl alcohol, an intoxicating element in fermented or distilled liquor or in any other compound, or other low molecular weight alcohol, including but not limited to, methyl and isopropyl alcohol, and including without limitation, beer, wine, and distilled liquors.

"Company property" is used in the broadest sense and includes, but is not limited to, all property, equipment, land, onshore and offshore platforms, buildings, structures, installations, facilities, locations, boats, aircraft, and vehicles which are owned, leased, used or operated by or on behalf of the Company for any purpose, or which are located on Company property, and any personal effects or items located thereon or therein. This includes, among other items, desks, lockers, and workstations, as well as privately owned vehicles and other personal belongings located on or in Company property,

"Possess" or "possession" means having any amount of illegal or unauthorized drugs or alcohol on one's person or belongings at any time during employment; on Company property; while conducting Company business; operating Company property; in one's personal belongings or vehicle while on Company property; in a vehicle or any mode of transportation owned or leased, or rented for Company use; or at any location used by the Company to conduct business.

"Drugs" means prescription drugs, inhalants, and other illegal, controlled, or unauthorized substances that may cause addiction and/or affect coordination of memory, or a drug that federal and state law makes illegal to distribute, use or possess.

"Use" with regard to drugs is defined as having any trace amount of drugs in the applicant's or employee's system, or physical consumption of drugs, "Use" with regard to alcohol is defined as the physical consumption of alcohol. "Use" with regard to drugs and alcohol is also defined as being under the influence of drugs or alcohol at any time during working hours.

"Zero Tolerance" means that if an employee tests positive for drugs or alcohol, as defined by this Policy, the resulting disciplinary action will be termination of employment for cause.

Testing for Types of Drugs/Alcohol and their Cutoff Levels

Drug/Alcohol tests will be conducted in a confidential manner according to procedures adopted by the Company and in compliance with applicable law. Below are the examples of illegal and unauthorized drugs for which Kinder Morgan tests and the levels at which an employee will be considered as "testing positive for drugs": Employees who test at a alcohol concentration level of .04 or greater will be considered as "testing positive" for alcohol.

1. Marijuana	15 ng/ml
2. Cocaine	150 ng/ml
3. Amphetamines and Methamphetamines	500 ng/ml
4. Opiates (codeine, heroin, morphine)	2000 ng/ml
5. Phencyclidine (PCP or Angel Dust)	25 ng/ml

Types of Drug and Alcohol Testing

Kinder Morgan conducts the following types of drug and alcohol testing:

Drug Testing	Alcohol Testing
1. Pre-employment	1. Reasonable cause
2. Reasonable cause	2. Random (as permitted by federal and state law)
3. Random (as permitted by federal and state law)	3. Return to duty
4. Return to duty	4. Post-Accident
5. Post-Accident	

Searches and Tests

The Company reserves the right to have authorized personnel conduct searches of our employees, contract workers, and employees of third-party contractors without prior notice to determine if this Policy is being violated. Accordingly, all areas of Company property may be searched, including employee work locations, stations, areas, offices, desks, files, lockers, etc.; employees and their personal belongings, vehicles, etc. may also be searched if on or within Company property. Employee searches will be conducted in compliance with applicable law.

The Company reserves the right, at all times, to have authorized personnel conduct urinalyses, blood tests, or other types of tests of our applicants, employees, contract workers, and employees of third-party contractors for the purposes of determining if any such persons are in violation of this Policy. A urinalysis, blood test, or other type of test may be used in the following situations: (a) pre-employment testing, (b) testing based on reasonable cause or suspicion, (c) random or periodic testing, (d) testing following an accident or incident involving injury or property damage, and (e) testing that is consistent with the enforcement of this Policy.

The Company reserves the right to inspect and search Company property at any time without the presence or consent of any employee. An employee who, as a result of a search, has been found in violation of this Policy or other Company Policy will be subject to corrective action as described in the Corrective Action Policy.

Violations of Policy

Any violation of the Drugs and Alcohol in the Workplace Policy will result in disciplinary action being taken, up to and including termination.

Employee Assistance Program

The Employee Assistance Program (EAP) is available to all Company employees. Employees are encouraged to obtain professional help when needed by using the EAP. Employees may contact their supervisor or Human Resources for information about the EAP. The EAP is strictly confidential and available for use by telephoning:

- Magellan Behavioral Health 1-800-424-5654

Use of the EAP does not exempt or excuse a violation of this Policy.

Voluntary Rehabilitation

Any employee who voluntarily seeks counseling or rehabilitation in advance of failing any of the tests or who would otherwise be in violation of this policy must provide certification, in accordance with any applicable governmental requirements, of the credentials of the attending physician, psychologist, or psychiatrist, who is trained in substance abuse disorders.

When the employee successfully completes or is participating in a supervised substance-abuse or alcohol-related rehabilitation program and is no longer engaging in the use of illegal drugs or unauthorized alcohol, the Company requires certification from the substance abuse professional that the employee is fit to return to duty and perform the essential functions of his or her job.

An employee described in the paragraph above will be tested on a random basis by the Medical Review Officer and/or Substance Abuse Professional to ensure such employee is no longer engaging in the illegal use of drugs or unauthorized alcohol.

Interpretation and Exceptions

Questions regarding this Policy should be referred to the Vice President, Human Resources. Requests for exceptions should be submitted to Human Resources for review by Human Resources and the Legal Department to ensure regulatory requirements and appropriate test protocols and standards are met. The President and Chief Operating Officer must approve all exceptions.

This Policy does not constitute or imply a contract between the Company and its employees. This Policy creates no Company obligation nor any individual obligation, right, privilege, term, or condition of employment not otherwise established by law. The Company has voluntarily adopted this Policy for its sole and exclusive and may amend or withdraw it at any time without prior notice.

1.0 INTRODUCTION AND PLAN CONTENT

1.1 OPERATOR NAME, ADDRESS AND PHONE NUMBER

Kinder Morgan Energy Partners, L.P.
1001 Louisiana Street, Suite 1000
Houston, Texas 77002
(713) 369-9454

Qualified Individual:	Phil Vasquez Director Operations 909 873-5123 *(Office)* (b) (6) *(Mobile)* vasquezp@kindermorgan.com
Alternate Qualified Individual:	Johnny Thomasson Operations Manager 310 518-7777 *(Office)* (b) (6) *(Mobile)* johnny_thomasson@kindermorgan.com
Area Manager – Carson	Tom Hosler 310 518-7727Office (b) (6) Mobile tom_hosler@kindermorgan.com
Area Manager – Orange & Watson	Marty Vice 310 635-1011 Office (b) (6) Mobile vicem@kindermorgan.com
Area Manager – Mission Valley	Frank Luera 619 281-4052 Office (b) (6) Mobile lueraf@kindermorgan.com

1.2 OPERATING ASSETS COVERED BY THIS PLAN

The following tables provide a general information summary for the pipeline sections, pipeline facilities, breakout stations and terminals in each of the Areas in this Region. Specific detail can be located in the following sections for the applicable area.

- Section 6 – Area Pipeline Sections (for DOT jurisdiction)
- Section 7 – Area Breakout Stations (for DOT jurisdiction)
- Section 8 – Area Terminals (for EPA, USCG and OSPR jurisdiction)
- Section 9 – Regional OSPR Line Segments (for OSPR jurisdiction)

CARSON AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
HARBOR TERMINAL - CARSON LINES		
Harbor to Carson 12”	GX-120	Los Angeles, CA
Harbor to Sanford and I 8” (Out of Service)	GX-180	Los Angeles, CA
OTHER CARSON AREA LINES		
Arco to Carson 10” / 12”	GX-32	Los Angeles, CA
Arco to Carson 14”	GX-64A	Los Angeles, CA
Arco to Carson 12” / 14”	GX-64B	Los Angeles, CA
Chemoil to Carson 10” / 12”	GX-200	Los Angeles, CA
Chemoil to Carson 12” / 14”	GX-205	Los Angeles, CA
Phillips 66 to Carson 24”	GX-124	Los Angeles, CA
Phillips 66 to Carson 4”	GX-104	Los Angeles, CA
Mobil to Carson 8” / 10”	GX-190	Los Angeles, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

CARSON AREA (Cont'd)	
PIPELINE SECTIONS	**COUNTY / STATE**
PIPELINE FACILITIES (Non-Storage)	
None	---
BREAKOUT STATIONS	**COUNTY / STATE**
None	---
TERMINALS	**COUNTY / STATE**
Carson Terminal	Los Angeles, CA
Harbor Terminal	Los Angeles, CA

1.2 OPERATING ASSETS COVERED BY THIS PLAN (Cont'd)

WATSON AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
WATSON INCOMING LINES		
Watson- Sepulveda Junction 10"	110	Los Angeles, CA
Sepulveda Junction - Watson 16"	109	Los Angeles, CA
WATSON OUTGOING LINES		
Watson - Norwalk 16"	10	Los Angeles, CA
Watson - Norwalk 16"	120	Los Angeles, CA
Watson - Norwalk 24"	105	Los Angeles, CA
OTHER WATSON AREA LINES		
Norwalk - Industry 24"	108	Los Angeles, CA
Norwalk - Industry 16"	1	Los Angeles, CA
Norwalk - Orange 16"	125	Los Angeles, CA
Orange - Highway 52 16"	126	Orange, CA San Diego, CA
PIPELINE FACILITIES (Non-Storage)		
Sepulveda Junction - Piping Manifold Only		Los Angeles, CA
Hynes Junction - Piping Manifold Only		Los Angeles, CA
Norwalk - Piping Manifold Only		Los Angeles, CA
Industry Pump Station (Booster)		Los Angeles, CA
BREAKOUT STATIONS		**COUNTY / STATE**
Watson Station		Los Angeles, CA
TERMINALS		**COUNTY / STATE**
Orange Terminal		Orange, CA

MISSION VALLEY AREA		
PIPELINE SECTIONS	**LINE NO.**	**COUNTY / STATE**
Highway 52 - Mission Valley 10”	122	San Diego, CA
Mission Valley - Harbor Junction 10”	123	San Diego, CA
Harbor Junction - Chevron/ARCO 8”	124	San Diego, CA
Miramar Junction (Piping Manifold Only)		San Diego, CA
Harbor Compound (Piping Manifold Only)		San Diego, CA
Harbor Junction (Piping Manifold Only)		San Diego, CA
BREAKOUT STATIONS		**COUNTY / STATE**
Miramar Station		San Diego, CA
TERMINALS		**COUNTY / STATE**
Mission Valley Terminal		San Diego, CA

1.3 SUBSTANTIAL HARM

It is Kinder Morgan Energy Partners, L.P. (KMEP)'s goal to respond as quickly as possible to all uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the overbreadth of the definitions provided in each of the applicable regulations, KMEP is compelled to consider all of the Facility's breakout stations, and active line sections listed above in this Section, as capable of a release potentially causing "significant and substantial harm". A summary of the Worst Case Discharge scenarios for these facilities is provided as follows:

SOUTHERN REGION - WEST WORST CASE DISCHARGE DOT JURISDICTION	
Discharge Scenario	Planning Volume
(b) (7)(F), (b) (3)	

* DOT Worst Case Discharge volumes are based on 50% of the tank maximum storage capacity and for pipelines based on an annual Integrity Management Program study, as follows:

Release volume prior to line shutdown and valve closures (Initial Loss):

- Full flow release due to rupture. This is computed at the maximum pumping rate the line segment.
- Detection time, analysis and pump shutdown in adverse weather conditions. This is based on a maximum of fifteen (15) minutes in the event of a full flow rupture, which would cause an instant alarm.
- Line segment valve closures. All line segments are equipped with remote activating isolation valves. Adverse weather would have no impact on line segment isolation, as isolation valves are not dependent on manual closure.

Line drainage following pump shutdown (Stabilization Loss) is computed the maximum potential line drainage between adjacent isolation or check valves, and incorporated pipeline elevation profiles to estimate how much of that total volume would escape at any release point along the line. The historic discharges have not approached either the breakout tank WCD volume or the pipeline WCD in the area.

SOUTHERN REGION - WEST DISCHARGE SCENARIOS EPA JURISDICTION	
Discharge Scenario	**Planning Volume**
Small Discharge	
• Carson Terminal	50 bbls
• Harbor Terminal	50 bbls
• Mission Valley Terminal	50 bbls
• Orange Terminal	50 bbls
Medium Discharge	
• Carson Terminal	857 bbls
• Harbor Terminal	857 bbls
• Mission Valley Terminal	857 bbls
• Orange Terminal	857 bbls
Worst Case Discharge	
(b) (7)(F), (b) (3)	

NOTE: EPA Worst Case Discharge is based on the maximum storage capacity of the largest tank at each Facility.

SOUTHERN REGION-WEST DISCHARGE SCENARIOS USCG JURISDICTION	
Discharge Scenario	**Planning Volume**
(b) (7)(F), (b) (3)	

SOUTHERN REGION - WEST REASONABLE WORST CASE SPILL CALIFORNIA OSPR JURISDICTION
The Reasonable Worst Case Spills (RWCS) for the California OSPR jurisdictional Terminal (LA Harbor Terminal) is equal to those volumes depicted in the prior USCG table and is further detailed in the Terminal Section 8.3. The RWCS for the California OSPR jurisdictional pipelines are detailed in Section 9.3.

These Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three-tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. Sections 6, 7, 8 and 9 of this Plan demonstrate a series of calculations and planning volume determinations based on guidance provided by all applicable regulations. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios detailed in the table above.

1.4 FORMAT AND SCOPE OF PLAN

This Volume 2 of the Integrated Contingency Plan (ICP) is intended to guide emergency response activities throughout KMEP's Pacific Operation Southern Region – West. This region is divided into three (3) areas (see Figure 1.1) each of which has its own tab in this document. These areas are as follows:

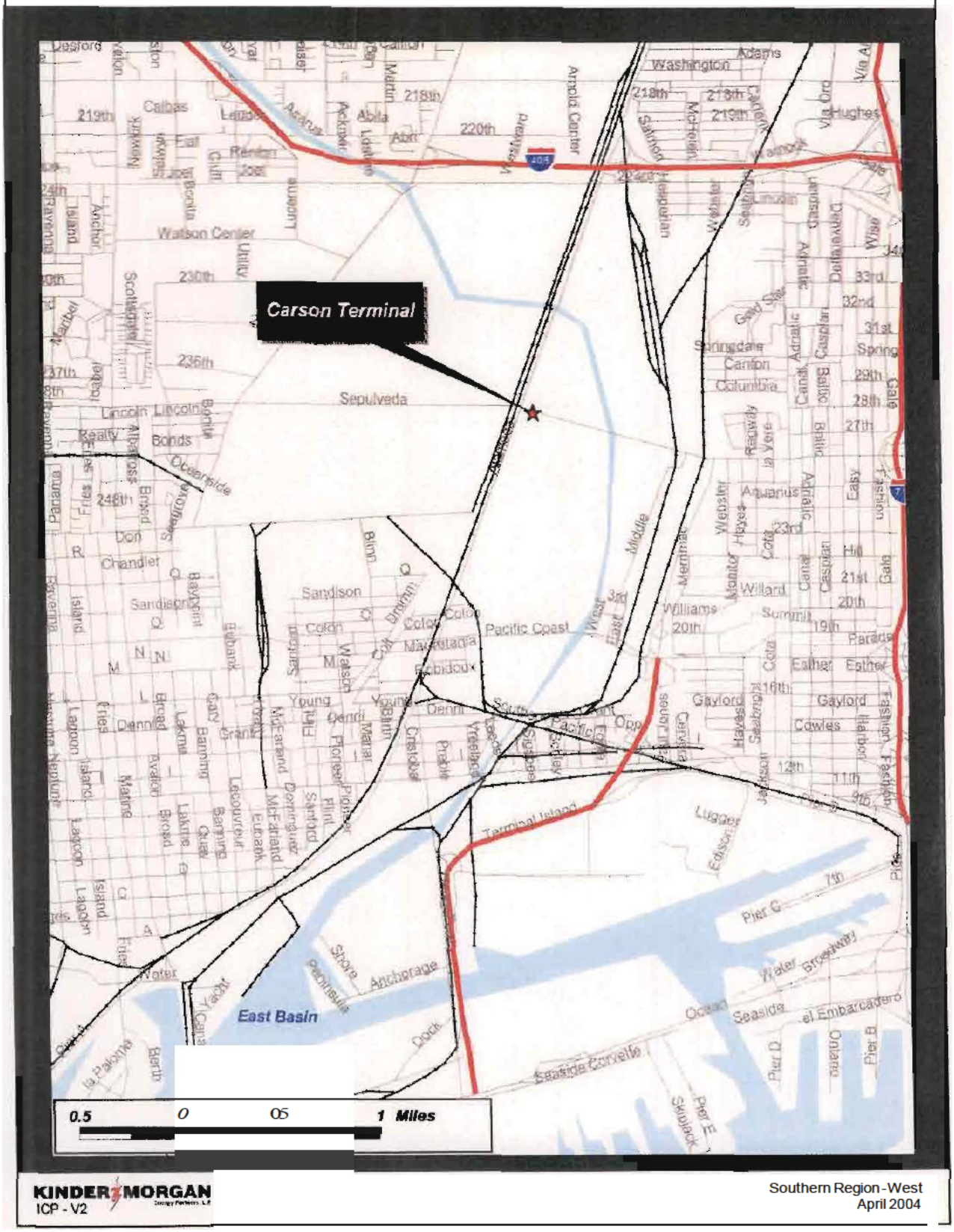
- Carson Area
- Watson Area
- Mission Valley Area

Each of the Volume 2 plans in this ICP has identical Sections 1 through 5. Section 6 of each area details the Pipeline Sections in the respective area, Section 7 of each area details the Breakout Stations (DOT jurisdictional) in the respective area, Sections 8 of each area details the Terminals (multi-jurisdictional) in the respective area, and Section 9 details the OSPR jurisdictional lines in the respective area. The Area covered by this particular plan is identified on the front cover of this plan and on the footer of each page and on the maps provided in Figure 1.1.

Volume 1 of the Integrated Contingency Plan provides guidance which is consistent across the Pacific Operations. The two (2) documents are intended to work together as one seamless Integrated Contingency Plan for the various facilities/operations and agency jurisdictions in Pacific Operations.

)\ Fig 1.1 - Carson Area Map

Map Prepared By
Response Management A$$oclates
(281) 320-9796



KINDER MORGAN
ICP - V2

Southern Region - West
April 2004

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Fig 1.1- Watson Area Map

Response M• Map *Prepared By*
nagement Associates
(281) 397H

A **Fig 1 1 Mission Valley - Orange Area Map** Response Manage !, : ; !! · · \
(281) 320-97Q6

2.0 NOTIFICATIONS

2.1 INTERNAL NOTIFICATIONS

Specific reference to all internal notifications is detailed in Volume 1 Section 2.1 which provides the following:

- KM Employee or Agent Notification Process - California Only (Figure 2.1a)
- Operator Notification Process - Non-California (Figure 2.1b)
- Company Employee Other Than Operator Notification Process - Non-California (Figure 2.1c)
- Controller - Orange, CA Notification Process - California Only (Figure 2.1d-1)
- Controller - Orange, CA Notification Process - Non-California (Figure 2.1d-2)
- Controller - Houston, TX Notification Process (Figure 2.1e)
- Managers Internal Notification Process (Figure 2.1f)
- Initial Reporting Details Form (Figure 2.2)
- Northern Region Internal Notifications References (Figure 2.3a)
- Southern Region Internal Notifications References (Figure 2.3b)
- Crisis Support Team Internal Notifications References (Figure 2.3c)

2.2 EXTERNAL NOTIFICATIONS

Specific reference to all **"Regulatory Required"** external notifications is detailed in Volume 1, Figure 2.1 and Figure 2.4. **With the exception of notification to 911 and/or local fire/police agencies which are handled by local area operations, the Environmental, Health and Safety (EHS) and/or Compliance, Codes and Standards is responsible for making all regulatory required external notifications in all states other than in California. In California and locations monitoring or controlling, pipeline sections in California, refer to Volume 1, Section 2.2 and Figure 2.4.**

The locally required notifications and additional external notification references which are detailed in the following Volume 2, Figure 2.1 provide for assistance/advisory notifications. Specific notifications for contacting OSROs are found in Volume 2, Figure, 2.1, "_____ Terminal Response Contractors".

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES

OTHER LOCATION DEPENDENT REQUIRED NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FIRE DEPARTMENTS		
California		
Los Angeles County Fire Department	Montebello, CA	(323) 890-4045
Orange City Fire Department	Orange, CA	(714) 288-2541 (714) 633-1313
Orange County Fire Department	Orange, CA	(714) 744-0463
San Bernardino County Fire Department	San Bernardino, CA	(909) 388-6942
San Diego City Fire Department	San Diego, CA	(619) 533-4300 (619) 553-4418

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-WEST

FIGURE 2.1
EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources) NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
FEDERAL		
U.S. Coast Guard (Recommended Courtesy Call - As Applicable)		
U.S. Coast Guard - Sector LA/LB (*Los Angeles, Orange, and San Bernardino Counties*)	San Pedro, CA	(310) 732-2000 (800) 221-8724* Emergencies
U.S. Coast Guard - Sector San Diego (*San Diego County*)	San Diego, CA	(619) 683-6495 (800) 854-9834* Emergencies
U.S. Environmental Protection Agency (EPA)		
U.S. Environmental Protection Agency (EPA) Region IX	San Francisco, CA	(415) 947-4400
U.S. Fish and Wildlife Service		
US Fish and Wildlife Service (USFWS) *(California/Nevada)*	Sacramento, CA	(916) 414-6464
CALIFORNIA		
Office of Spill Prevention and Response (OSPR)		
California Department of Fish and Game Office of Spill Prevention and Response (OSPR)	Sacramento, CA	(888) 334-2258 (916) 445-9338
Local Emergency Planning Committee (LEPC)		
Local Emergency Planning Committee (LEPC) Region I-*Orange and Los Angeles Counties*	El Segundo, CA	(310) 524-2242
Local Emergency Planning Committee (LEPC) Region VI-*San Bernardino, San Diego and Imperial Counties*	San Diego, CA	(619) 533-4300
California Department of Transportation (DOT)		
California Department of Transportation/Caltrans	Sacramento, CA	(916) 653-3442

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-WEST

FIGURE 2.1
EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS
(outside resources)

NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS

AGENCY	LOCATION	OFFICE/ ALTERNATE
CALIFORNIA		
Regional Water Quality Control Board		
Regional Water Quality Control Board (Region 4)- Carson/Watson Terminal	Los Angeles, CA	(213) 576-6600
Regional Water Quality Control Board (Region 8)- Orange Terminal	Riverside, CA	(909) 782-4130
Regional Water Quality Control Board (Region 9)- Mission Valley Terminal	San Diego, CA	(858) 467-2952 (858) 571-6972 Fax
Air Pollution Control District		
South Coast AQMD- Carson/Orange/Watson Terminal	Diamond Bar, CA	(909) 396-2000
San Diego County Air Pollution Control District- Mission Valley Terminal	San Diego, CA	(858) 650-4700
California Department of Conservation		
California Department of Conservation Division of Oil and Gas	Cypress, CA	(714) 816-6847
State Lands Commission		
California State Lands Commission So. California Branch	Long Beach, CA	(562) 499-6312
Cal/OSHA		
Cal/OSHA		
Los Angeles Area	Los Angeles, CA	(213) 576-7451
Torrance Area	Torrance, CA	(310) 516-3734
Orange Area	Anaheim, CA	(714) 939-0145
San Bernardino Area	San Bernardino, CA	(909) 683-383-4321
San Diego Area	San Diego, CA	(619) 767-2280
Native American Heritage Commission		
Native American Heritage Commission	Sacramento, CA	(916) 653-4082
Office of Historic Preservation Dept. Parks and Recreation		
Office of Historic Preservation Dept. Parks and Recreation	Sacramento, CA	(916) 653-6624

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-WEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS
(outside resources)
NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS

AGENCY	LOCATION	OFFICE/ ALTERNATE
CALIFORNIA		
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)		
Resource Protection Division Dept. Parks and Recreation (State Archaeologist)	Sacramento, CA	(916) 653-4529 (24-Hour recorder)
Dig Alert		
USA Underground Service Alert	Corona, CA	(800) 422-4133
Law Enforcement		
State Police (Highway Patrol)	Torrance, CA	(310) 516-3355 (323) 906-3434 non-emergency
State Police (Highway Patrol) – Orange Terminal	Santa Anna, CA	(714) 567-6000
State Police (Highway Patrol) – Mission Valley Terminal	San Diego, CA	(619) 220-5492
Los Angeles County Sheriff	Los Angeles, CA	(310) 830-1123 non-emergency
Los Angeles City Police Department - Central Division	Los Angeles, CA	(310) 832-5273 non-emergency
Los Angeles Port Police	Los Angeles, CA	(310) 732-3500
State Police (Highway Patrol)- Orange Terminal	Santa Ana, CA	(714) 567-6000
Local Water Supply System		
Los Angeles County Department of Public Works	Los Angeles, CA	(626) 458-3500
Los Angeles City Sanitation District Sewer Maintenance	Los Angeles, CA	(213) 485-7575
Los Angeles County Sanitation District Sewer Maintenance	Whittier, CA	(562) 699-7411 x2907 (562) 437-6520 (after hrs.)
City of Orange – Orange Terminal	Orange, CA	(714) 744-2233 (714) 538-1961

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-WEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS
(outside resources)
NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS

AGENCY	LOCATION	OFFICE/ ALTERNATE
CALIFORNIA		
Local Water Supply System (Cont'd)		
City of San Diego –Mission Valley Terminal	San Diego, CA	(619) 515-3525
City of Santa Anna	Santa Anna, CA	(714) 647-6599
City of Anaheim	Anaheim, CA	(714) 765-5196
Weather Report		
Weather Report National Weather Service	Oxnard, CA San Diego, CA	(805) 988-6610 (619) 289-1212
Weather Report, Orange County Register	Santa Ana, CA	(714) 550-4636 Ext. 2500
Radio/Television		
Emergency Broadcasting	Los Angeles, CA	(323) 267-2504
KFWB - Radio	Los Angeles, CA	(323) 462-5392 (323) 462-6870*
Cool 94.3 FM - Radio	Anaheim, CA	(714) 502-9494
KCBS Channel 2 - TV	Los Angeles, CA	(323) 460-3000
KNBC Channel 4 - TV	Los Angeles, CA	(818) 840-4444
KABC Channel 7 - TV	Los Angeles, CA	(818) 863-7500
KPLS - Radio	Orange, CA	(714) 282-8300
KIFM 98.1 - Radio	San Diego, CA	(619) 297-3698
Planet 103.7 - Radio	San Diego, CA	(858) 560-1037
Channel 4 NBC- TV	Orange, CA	(714) 288-0444
KABC - TV	Anaheim, CA	(714) 634-1847
Fox 6 - TV	San Diego, CA	(858) 279-6666
KPBS - TV	San Diego, CA	(619) 594-1515

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-WEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

NON REQUIRED ASSISTANCE/ADVISORY NOTIFICATIONS
(outside resources)
NOTE: ALL REGULATORY REQUIRED FEDERAL & STATE NOTIFICATIONS ARE DETAILED IN VOLUME 1 AND ARE HANDLED BY THE CONTROL CENTER; LOCAL REQUIIRED NOTIFICATIONS ARE HANDLED BY LOCAL AREA OPERATIONS

AGENCY	LOCATION	OFFICE/ ALTERNATE
CALIFORNIA		
Hospitals/Ambulance Service		
American Medical Response Inc.	Los Angeles, CA	(323) 808-2100
Americare Ambulance	Harbor City, CA	(310) 835-9022
Americo Medi Ride Care	Los Angeles, CA	(323) 954-0999
Children's Hospital of Orange County	Orange, CA	(714) 997-3000
Health One Medical Transport	Orange, CA	(714) 544-4475
Kaiser Hospital	San Diego, CA	(619) 528-5000
Long Beach Memorial Medical Center	Long Beach, CA	(562) 933-3000
Long Beach Priority One Medical Group	Long Beach, CA	(562) 435-6570
Rural Metro Corp	San Diego, CA	(619) 280-6060
St. Joseph's Hospital	Orange, CA	(714) 633-9111
St. Mary's Medical Center	Long Beach, CA	(562) 491-9000
San Pedro Pennisula Hospital	San Pedro, CA	(310) 832-3311
Schaefer's Ambulance Service	Los Angeles, CA	(323) 469-1473
Sharp Memorial Hospital	San Diego, CA	(858) 541-3400
Temple Community Hospital	Los Angeles, CA	(213) 382-7252
UC Irvine Medical Center	Orange, CA	(714) 456-7890
US Healthworks Medical Group	Rancho Dominquez, CA	(310) 637-9611
Western Medical Center	Santa Ana, CA	(714) 835-3555

NOTE: Internal Company Numbers are provided in Volume 1.

* 24-hour number

SOUTHERN REGION-WEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

SOUTHERN REGION-WEST RESPONSE CONTRACTORS			
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
National Response Corporation	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Long Beach, CA San Diego, CA	(800) 337-7455*
Marine Spill Response Corporation	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Carson, CA	(800) 645-7745* (310) 527-6565
Patriot Environmental Services	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Long Beach, CA San Bernardino, CA San Diego, CA Santa Clarita, CA Ventura, CA	(800) 624-9136*
SPILL MANAGEMENT TEAM SUPPORT			
Witt O'Brien's	Personnel, Comms and Management Equipment	Slidell, LA Houston, TX Brea, CA Seattle, WA	(981) 781-0804* (281) 320-9796

* 24 Hour Number

SOUTHERN REGION WEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS			
ADDITIONAL RESPONSE RESOURCES			
COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Non-USCG Classified OSRO with Contract Agreement			
M.P. Environmental Services	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Bakersfield, CA	(661) 393-1151
Ecology Control Industries, Inc.	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Torrance, CA Long Beach, CA	(800) 236-7324* (310) 320-2555* (800) 236-7324* (805) 648-5123
Universal Environmental	Environmental Clean-Up Skimmers, Boom, Vac-trucks	Benicia, CA	(800) 747-6609* (707) 747-6699*

* 24 Hour Number

SOUTHERN REGION WEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL CONTRACTED RESPONSE RESOURCES			
COMPANY	SERVICE	LOCATION	OFFICE ALTERNATE
Pipeline Contractors			
Arizona Pipeline Co.	Pipeline Contractor Heavy Equipment Vac-Trucks	Apple Valley, CA Corona, CA	(760) 244-8212 (909) 270-3100
Doty Brothers Equipment Company	Pipeline Contractor Heavy Equipment Vac-Trucks	Whittier, CA	(562) 864-6566
Southwest Contractors	Pipeline Contractor Heavy Equipment Vac-Trucks	Bakersfield, CA Orange, CA	(661) 588-0484 (714) 279-2784

SOUTHERN REGION WEST

FIGURE 2.1

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REGIONAL CONTRACTORS / SERVICES			
ADDITIONAL RESPONSE RESOURCES			
COMPANY	**SERVICE**	**LOCATION**	**OFFICE ALTERNATE**
Consultants			
Witt O'Brien's	Consultants	Slidell, LA Houston, TX	(981) 781-0804* (281) 320-9796 (281) 320-9700 FAX
Cleanup Contractor			
Philip Services, Corp.	Environmental Clean-Up, Skimmers, Boom, Vac-Trucks	Benicia, CA	(800) 800-7472 (707) 748-3040
Heavy Equipment – Vacuum Trucks – Tank Trucks			
Claremont Equipment	Equipment Rental	San Diego, CA	(858) 278-8338
O.C. Vacuum	Vacuum Trucks	Long Beach, CA	(562) 984-8178
Sunbelt Rentals	Equipment Rental	Orange, CA	(877) 628-8781
Wildlife/Rescue			
Oiled Wildlife Care Network	Wildlife Rescue & Rehab.	Davis, CA	(877) 823-6926* (530) 752-4167
International Bird Rescue Research Center	Wildlife Rescue & Rehab.	San Pedro, CA	(310) 514-2573

* 24 Hour Number

SOUTHERN REGION WEST

3.0 RESPONSE RESOURCES

The following sections outline the various response equipment/resources available from the Facility, other Company facilities, and other outside resources.

3.1 AREA RESPONSE EQUIPMENT

This Area of the KMEP operations maintains response equipment readily available for spill response as detailed on the "Facility Response Equipment" lists provided in Figure 3.1 and the "Pipeline Repair Equipment" lists provided in Figure 3.2. The equipment is stored at locations in the Area as detailed on the equipment lists.

The preventative maintenance schedule requires a monthly inventory and visual inspection of spill response equipment. Maintenance and repair is performed as needed, following manufacturers recommended procedures. The equipment will be exercised as semi-annually (Terminal equipment) or annually (pipeline equipment) as required (PREP Guidelines). A sample form for documenting these Equipment Deployment Exercises is provided in Figure 3.4.

KMEP has contracts in place with Oil Spill Removal Organizations and other clean-up and response contractors that are capable of responding to all discharges within the Area and supplementing Area KMEP resources.

The Qualified Individual has the authority to activate these and other KMEP resources or that of private contractors and other experts and consultants as the situation demands.

3.2 OTHER COMPANY RESOURCES

Neighboring KMEP Areas have response resources similar to those provided in this Area (Figures 3.1 and 3.2). These resources as well as additional Company spill response equipment and manpower resources may be available to supplement the response operation.

3.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation. *The Company will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.*

Response resources will be secured from a Company approved contractor. Facility Management will typically handle notification/implementation of these resources. Section 2 of this Volume provides a quick reference to the OSROs and additional clean-up and response contract organizations. A detailed list of the "Pacific Region Open End and On-Call Contractors" is provided in Figure 2.2. Specific reference to their response capability (UCSG OSRO classification) is provided in Figure 3.3.

These OSRO's have adequate equipment and personnel resources available within the Area to respond to the applicable regulatory planning volumes in the required time frames.

3.3 CONTRACT RESOURCES (Cont'd)

OSROs have the expertise to conduct and lead on water and shoreline containment and recovery efforts. KMEP personnel will oversee and coordinate with the OSRO to ensure their actions conform with overall incident objectives and established incident action plans.

OSROs also have extensive experience in using the Area Contingency Plans (ACPs) as a resource when responding to an incident that has affected a navigable waterway. The KMEP Incident Commander, Planning Officer and Operations Chief will employ the OSRO's experience to integrate applicable local ACPs into the overall incident action plans.

3.4 AREA CONTINGENCY PLANS (ACP)

Area Committees comprised of Federal, state and local agencies develop ACPs. Response efforts performed within a certain "area" should reference the ACPs for that specific area. ACPs include clean-up strategies and information on environmentally sensitive areas within a particular region. Some of the ACPs include maps, shoreline characteristics and booming strategies for specific areas while other ACPs offer priority lists of environmentally sensitive areas.

ACPs generally contain the following information:

- Physical features
- Seasonal concerns
- Resources of primary concern
- Containment, and cleanup strategies, including recommended techniques
- Equipment considerations
- Incident Command System Roles and Responsibilities (NIMS)

To identify specific spill response and protection strategies for the applicable region/area, ACP and Geographic Response Plan information can be found at: http://kmonline.kindermorgan.com/operations/products/pacific_icp/rmaplan.html. Responders can navigate through the site to locate the region/area of interest and the appropriate response resources needed for the operation.

For all controlled copies of the Integrated Contingency Plan distributed to non-KMEP plan holders, a CD-ROM containing the same information as referenced above will be included in a CD-sleeve in Volume 1(inside front cover) or in a separate folder in electronic copies and is referenced in Figure 4.2.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

3.5 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/mutual aid resources will be utilized when available and/or necessary.

3.6 EXPERTS AND CONSULTANTS

The Company maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

3.7 VOLUNTEERS

Volunteers will not be utilized by KMEP for the response operations. All volunteers will be referred to the state or Federal On-Scene Coordinator.

3.8 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/diversion, repair, traffic control, public control or evacuation, and restoration.

Communication of the overall spill response operation between KMEP and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

3.8.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with KMEP emergencies. The notification procedures and telephone contacts documented in Section 2 of Volume 1 and Volume 2 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of required Federal and state emergency telephone numbers for the Orange Control Center and emergency response personnel (Volume 1; Section 2).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Volume 2; Figure 2.1).
- A list of emergency telephone numbers for contract response resources (Volume 2; Figure 2.1).

3.8 COMMUNICATIONS (Cont'd)

3.8.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing KMEP communications network. This network will utilize existing radios, telephones, fax machines, and computers and will be maintained by KMEP personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other KMEP and contract resources as the situation demands.

Each KMEP responder has, at a minimum, a cellular telephone. All KMEP response personnel also have access to other telephones, radios and satellite communications equipment that may be needed for effective response operations. Additionally, communications equipment is maintained in the KMEP spill response trailers. The Logistics Officer would create a communications plan based on the equipment immediately available and would identify the need for any additional equipment that may be needed throughout the response effort.

3.8.3 Communication Types

Radios - Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled and have a typical range that will cover the area of the response operation. Each location maintains a minimum of 4 radio sets, functionally maintained per manufacturer's specifications and kept in designated KMEP response trailers. In addition, KMEP also utilizes radio sets provided by contract resources. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain KMEP personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

FAX Machines - FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and KMEP personnel. Computers also speed the consolidation of information and preparation of written reports.

FIGURE 3.1
Facility Response Equipment

LA HARBOR TERMINAL		
Type of Equipment	**Location**	**Comments**
*Boom (24")	Deployed along dock	5500' - Harbor Boom
Sorbent Materials	Berth 119	Three (3) bales of sorbent pads Sausage boom & rags
*Boat (1)	Dock	19' Monson w/125 H.P. engine

***Note: Should this major response equipment be removed from service for a period of 24 hours or more for maintenance or repair, the OSPR Administrator shall be notified. A temporary replacement shall be furnished in such cases so that the ability to respond is not affected.**

FIGURE 3.2
Pipeline Repair Equipment

Mission Valley Terminal		
Qty.	**Description**	**Location**
	INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT	
	Leak sleeves - line size (2-1/2", 1-18", 1-24", 1-36")	Yard
	Neoprene cones and sheets	Warehouse
1	Skinner clamp (for temporary product control)	Emergency Trailer
6	Buckets: three - 5 gal., two - 2 gal., one - 1/2 tub	Response Vehicle/Emergency Trailer
	Halogen lights and stands, spare bulbs	
	Line-up clamps (line size)	Emergency Trailer
	Pipe cutter, spare blades (line size)	Emergency Trailer
2	Weld plus ends - (line size)	Warehouse
	Bonding cables and clamps	Response Vehicle/Emergency Trailer
	Line probes	Response Vehicle
1	Metrotech 850 (line finder)	Line Rider Truck
2	Taping machine, valves, plugs, fittings	Response Vehicle/Emergency Trailer
	Coating and primer, trimming knives, brushes, brass hammer	Response Vehicle/Emergency Trailer
	Spare diesel and oil, funnels, gas	
	Hand tools, hammer wrenches, sockets	Response Vehicle
	Spare 1-1/8" bolts and nuts (for clamp - 12 minimum)	
	Shovels, picks, sharp shooters	Response Vehicle
	Hydraulic jacks	Response Vehicle
	Burlap bags	Warehouse
	Skids 4" x 6" (8 to 10)	Yard
	Rope	Emergency Trailer
	Equipment for sleeve modification	
	Five lengths of 2" hose, foot valve, hose fittings	Warehouse
	Full oxygen and acetylene bottles, lines, torches	Response Vehicle/Welding
1	150# Ansul fire extinguisher	Warehouse
12	30# Ansul fire extinguishers	Emergency Trailer
6	Rubber boots and rain gear	Emergency Trailer
	Fans and compressor (if applicable)	Emergency Trailer/Yard
6	Fire blanket / water gel	Response Vehicle/Emergency Trailer
	Spare Ansul powder	Warehouse
	Spare CO^2 cartridges for 30# Ansuls	Warehouse
	Barricades	Yard
	"No Smoking" signs	Emergency Trailer
4	Flashlights, spare batteries, bulbs	Emergency Trailer
	Shop rags - soap	Response Vehicle/Emergency Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.2a
PIPELINE REPAIR EQUIPMENT

Mission Valley Terminal (Cont'd)		
Qty.	**Description**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
	Spare water	Response Vehicle/Emergency Trailer
2	MSA-261 / Gastech	Response Vehicle/Emergency Trailer
1-dozen	Rubber gloves	Response Vehicle/Emergency Trailer
	Overalls (emergency clothes change)	Response Vehicle/Emergency Trailer
	Air purifiers	Response Vehicle/Emergency Trailer

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes

FIGURE 3.2b
PIPELINE REPAIR EQUIPMENT

Orange Terminal		
Qty.	**Description**	**Location**
INCIDENT SUPPORT AND PIPELINE REPAIR EQUIPMENT		
	Drager Pump	Emergency Trailer
	Duct Tape	Emergency Trailer
	Lock-out Equipment	Emergency Trailer
	MSA Gastech Parts	Emergency Trailer
	Emergency Signs	Emergency Trailer
	Plastic Buckets	Emergency Trailer
	All Batteries	Emergency Trailer
	Barrier Tape	Emergency Trailer
	Binoculars	Emergency Trailer
	Clear Tape	Emergency Trailer
	Haz Materials Bags	Emergency Trailer
	Power Strip	Emergency Trailer
	Radio	Emergency Trailer
	Trash Bags	Emergency Trailer
	Skinner Clamp	Emergency Trailer
	Pipe Cutters	Emergency Trailer
	Bonding Cables and Clamps	Emergency Trailer
	Water Gel Blankets	Emergency Trailer
	Water Gel Pads	Emergency Trailer
	Gloves and Goggles	Emergency Trailer
	Respirators	Emergency Trailer
	Safety Glasses	Emergency Trailer
	Tyvek Suits	Emergency Trailer
	Eye Wash	Emergency Trailer
	Fire Extinguishers	Emergency Trailer/Terminal

NOTE: This inventory of equipment is intended for PIPELINE REPAIR ONLY. Response to an oil spill incident will be conducted by KMEP contracted Oil Spill Removal Organizations as detailed in Figures 2.1 and 3.3. This equipment will not be "deployed" for equipment deployment exercise purposes.

FIGURE 3.3
Terminal OSRO Information

AMPD INFORMATION - KMEP Carson Terminal

- **AMPD response provider**

  OSRO / Clean-up Contractor: Patriot Environmental

  Contract Expiration Date: Refer to Work Directive

- **Equipment Address (*1-hour response time):**
  508 East E Street, Wilmington, CA 90744
  Boom: 6,000'

- **Equipment Address (*2-hour response time):**
  508 East E Street, Wilmington, CA 90744

  Skimmer: 2 ea. Skimmer Systems

  Vacuum Trucks: 5 ea. Vacuum Trucks

  Temporary Storage: 4 ea. 500 BBL Storage Tanks

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Los Angeles/Long Beach Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Patriot Environmental	25286	Rivers/Canals	X				Yes
		Inland	X				

FIGURE 3.3 (Cont'd)
Terminal OSRO Information

AMPD INFORMATION - KMEP LA Harbor Terminal

- **AMPD response provider**

  OSRO / Clean-up Contractor: Patriot Environmental

  Contract Expiration Date: Refer to Work Directive

- **Equipment Address (*1-hour response time):**
  508 East E Street, Wilmington, CA 90744
  Boom: 6,000'

- **Equipment Address (*2-hour response time):**
  508 East E Street, Wilmington, CA 90744

  Skimmer: 2 ea. Skimmer Systems

  Vacuum Trucks: 5 ea. Vacuum Trucks

  Temporary Storage: 4 ea. 500 BBL Storage Tanks

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Los Angeles/Long Beach Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
Patriot Environmental	25286	Rivers/Canals	X				Yes
		Inland	X				

FIGURE 3.3 (Cont'd)
Terminal OSRO Information

AMPD INFORMATION - KMEP Mission Valley Terminal

- **AMPD response provider**

  OSRO / Clean-up Contractor
  National Response Corp.

  Contract Expiration Date
  Refer to Work Directive

- **Equipment Address (*1-hour response time):**
  NRC Environmental Services, 3500 Estudillo St., San Diego, CA 92110

  Boom: 1,300'

- **Equipment Address (*2-hour response time):**
  NRC Environmental Services, 3500 Estudillo St., San Diego, CA 92110

  Skimmer: Aqua Guard and Skim Pac

  Vacuum Trucks: 6 ea. 120 BBL Vac-Trucks
  2 ea. 70 BBL Vac-Truck

  Temporary Storage: 36,120 Gals

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

San Diego Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)
OSPR Rated Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
National Response Corporation	11559	Rivers/Canals	X	X	X	X	No
		Inland	X	X	X	X	

FIGURE 3.3 (Cont'd)
Terminal OSRO Information

AMPD INFORMATION - KMEP Orange Terminal

- **AMPD response provider**

  OSRO / Clean-up Contractor: National Response Corporation

  Contract Expiration Date: Refer to Work Directive

- **Equipment Address (*1-hour response time):**
  National Response Corp., Pier 47, Berth D-47, Long Beach, CA 90802

  Boom: 1,300'

- **Equipment Address (*2-hour response time):**
  National Response Corp., Pier 47, Berth D-47, Long Beach, CA 90802

  Skimmer: Aqua Guard and Skim Pac

  Vacuum Trucks: 4 ea. 120 BBL Vac-Trucks
  1 ea. 70 BBL Vac-Truck
  Temporary Storage: 23,100 Gals

**Planning Assumptions*: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Los Angeles/Long Beach Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)
OSPR Rated Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
National Response Corporation	11559	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	

FIGURE 3.3 (Cont'd)
Response Zone OSRO Information

Southern Region – West

Oil Spill Removal Organization
National Response Corporation
Patriot Environmental

Contract Expiration Date
Refer to Work Directives

The identified Oil Spill Removal Organization is capable of arriving at the scene of a discharge within the time specified for the applicable response tier, as follows:

	Tier 1	Tier 2	Tier 3
High Volume Areas	(b) (7)(F), (b) (3)		
All Other Areas			

The Southern Region – West Response Zone is not in a High Volume Area as defined in 49 CFR 194 Appendix B

***Planning Assumptions**: *On-water speed, 5 knots; land speed, 35 miles per hour; notification/mobilization – 30 minutes.*

Los Angeles/Long Beach Captain of the Port (COTP) Zone
San Diego Captain of the Port (COTP) Zone

USCG Classified Oil Spill Removal Organization (OSRO)
OSPR Rated Oil Spill Removal Organization (OSRO)

OSRO Name	Contract Number	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
National Response Corporation	11559	Rivers/Canals	X	X	X	X	Yes
		Inland	X	X	X	X	
Patriot Environmental	25286	Rivers/Canals	X				
		Inland	X				

FIGURE 3.3

OIL SPILL REMOVAL ORGANIZATIONS (Cont'd)

USCG OSRO Classifications

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS

Classification	Resource Quantity Guidelines [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Inland [1]			
MM	Protective Boom: 6,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W 1	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W 2	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W 3	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

FIGURE 3.4

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Terminal/Response Zone: _____

3. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

4. Deployment location(s):

   _____
   _____
   _____
   _____
   _____
   _____

5. Time started: _____
   Time completed: _____

6. Equipment deployed was:
   - ☐ Facility - owned
   - ☐ Oil spill removal organization - owned if so, which OSRO? _____
   - ☐ Both

7. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:

   _____
   _____
   _____
   _____

8. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):

   _____
   _____
   _____
   _____

9. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's small/average most probable spill?

   _____
   _____

   Was the equipment deployed in its intended operating environment?

   _____
   _____

FIGURE 3.4 (Cont'd)

Internal Exercise Documentation Form
Semi-Annual (Terminal)
Annual (Pipeline)

Equipment Deployment Exercise (Cont'd)

10. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

    Was the equipment deployed in its intended operating environment?

11. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

    If so, describe the program: _____

    Date of last equipment inspection: _____

12. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

13. Was all deployed equipment operational? If not, why not?

14. Attach a description of lessons learned, procedures and schedule for implementation, and persons responsible for follow up of corrective measures.

_____ _____
Certifying/Evaluator Signature Date

Retain this form and other documentation related to this exercise for a minimum of 5 years.

California Facilities/Response Zones: Submit this form and supporting documentation to OSPR Drills at osprdrills@ospr.dfg.ca.gov or FAX (916) 324-9786.

FIGURE 3.5a

Patriot Environmental Services, Inc.

OSRO Work Directives

WORK DIRECTIVE

To PATRIOT ENVIRONMENTAL SVCS INC

P.O. BOX 1091

LONG BEACH, CA 90801
Attention: RICHRD YUKIHIRO

Phone: 562-436-2614
Fax: 563-436-3688
Email: ryukihiro@patriotenvironmental.com

Date: September 17, 2013

Work Directive No.: 477391-16-STAT

Agreement No.: 25286

Requisition No/ Accounting Information: 270504

This Work Directive is entered pursuant to the terms of the Emergency Response Services Agreement ("Agreement") dated 01/01/2011 , by and between KINDER MORGAN ENERGY PARTNERS, L.P. ("COMPANY") and PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT'S proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued and this Work Directive arising out of or related to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and all other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1.0 **Project Name and Work Location Details:** OSRO SERVICES / Carson Terminal and Watson Station

2.0 **Scope of Work:** The following is a full and complete description of the Work (and goods) to be provided by CONSULTANT including, but not limited to specifications, conditions and referenced bids/proposals.

2.1 See EXHIBIT WD_A – SCOPE OF WORK

2.2 For Questions, contact ROSE, TINA at 909-873-5106

3.0 The COMPANY will not furnish any materials to the Work Site(s), unless previously approved by the Designated Representative.

4.0 CONSULTANT shall commence the Work by the 08/01/2013 and shall complete the Work on or before 07/31/2014.

5.0 CONSULTANT offers to complete the Work in accordance with the Agreement for the total Lump Sum Amount of **$15,000.00,** Fifteen Thousand Dollars and Zero Cents, which shall constitute full and complete payment.

6.0 The parties hereby agree to AMEND Agreement 25286 as follows (or if the Agreement has been thus amended previously, to repeat the following sections):

i) Under the Compliance with Laws section, a **new subsection** is hereby added to the Agreement which reads as follows:

CONSULTANT certifies that at the time of execution of this Agreement CONSULTANT is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement CONSULTANT cannot so certify to COMPANY, CONSULTANT shall promptly notify COMPANY as to CONSULTANT'S status.

ii) The following language is hereby added to the Termination section under the termination for default paragraphs:

– violates any EHS law; or

iii) All other provisions of the Agreement shall continue in full force and effect.

7.0 **Retainage:** Waive 10% retainage.

8.0 CONSULTANT shall submit invoices in duplicate to:

KINDER MORGAN LIQUIDS TERMINALS LLC

2319 S Riverside Ave

Bloomington, CA 92316

Attn: ROSE, TINA
Phone: 909-873-5106
Fax: 909-877-9036

8.1 Invoices must clearly indicate the Agreement Number, Work Directive Number, as indicated above.

8.2 For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

9.0 CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Indemnitees at: contractor_safety@kindermorgan.com prior to commencement of any Work.

10.0 Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

11.0 For Work performed within the State of California, CONSULTANT shall certify within three working days of execution hereof that the requirements set forth in Exhibit B to this Work Directive have been satisfied. Failure by CONSULTANT to do so shall constitute a breach under Section10 [for cause with no notice] of the Agreement.

In the **Agreement**, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware corporation. This change resulted from an internal corporate reorganization. Kinder Morgan, Inc. owns the same assets formerly owned by Kinder Morgan Kansas, Inc.

By signing below, COMPANY and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 477391-16-STAT is by reference hereby made part of Agreement No. 25286 .

This Work Directive is hereby agreed to and accepted:

KINDER MORGAN LIQUIDS TERMINALS LLC	PATRIOT ENVIRONMENTAL SVCS INC
Signature	Signature
MARTINEZ, MICHAEL	Richard Yukelwicz
Name	Name
PURCHASING SUPERVISOR	COO
Title	Title
Sept 17, 2013	9/16/13
Date	Date

Please return executed Work Directive to:

KINDER MORGAN LIQUIDS TERMINALS LLC
1100 Town & Country Rd
Suite 700
Orange, CA 92868
Attention: MARTINEZ, MICHAEL
Phone: 714-560-4694
Fax: 714-560-6531
Email: michael_martinez@kindermorgan.com

The following Exhibits shall be provided by COMPANY:

X	Exhibit WD_A	- Scope of Work
X	Exhibit WD_B	- Revised Release Reporting Criteria (California only)
___	Exhibit WD_C	- Work Directive Specific Schedule of Values/Rates
___	Exhibit WD_D	- Operator Qualification Form (as provided by the Designated Representative via electronic or hardcopy submission)

EXHIBIT WD_A – SCOPE OF WORK

Provide OSRO response for Carson Terminal and Watson Station, detailed as follows:

Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the Federal OPA '90 requirements for contracted oil spill removal services for the Carson Terminal located at 2000 E. Sepulveda Blvd, Carson, CA 92108 and Watson Station located at 20410 S. Wilmington Ave., Long Beach, CA 90810 as follows:

- Sufficient Response Resources to enable the COMPANY to meet the requirements of OPA '90 for pre-contracted Response Resources at the commencement of the Agreement including:
    - Responding with 1,000 feet of containment boom and a means to deploy it or other appropriate equipment and materials, as identified in the Tactical Response Plans presented in Volume 2, Section 8.4, within one (1) hour of notification*;
    - Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2,100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification*;
    - Documentation of equipment deployment exercises and personnel training must be submitted annually to Mr. Edward (Buzz) Fant, Director-Compliance/Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 1001 Louisiana St, Suite 1000 Houston, TX 77002 or fante@kindermorgan.com ;
    - Compliance by the CONSULTANT and CONSULTANT's subcontractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar applicable State laws, rules and/or standards.

    * Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland or five (5) knots on water.

Regulatory References: 29 CFR 1910.120 (OSHA); 40 CFR 112 Appendix E 3.3 (U.S. EPA)

EXHIBIT WD_B – REVISED RELEASE REPORTING CRITERIA

1.0 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT'S activities in the performance of the Work:

1.1 are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

1.2 understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT'S employees, agents and subcontractors' employees who will be performing at such a site.

1.3 Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT'S employees, agents and subcontractors' employees will be trained relative to COMPANY'S revised release reporting criteria.

1.4 For purposes of this Exhibit "Hazardous Material(s)" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any EHS Law. "EHS Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

CONSULTANT shall certify its compliance with this training requirement upon COMPANY request.

Acknowledged, agreed and accepted this 18 day of September, 2013

PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT")

Richard Yukilno / COO
Officer Name and Title (please print)

Richard Yukilno
Officer Signature

KINDER MORGAN

REQUISITION

RQ#: 270504

REQUESTER: TINA ROSE

PROVIDE OSRO AT WATSON AND CARSON TERMINALS.

.

REFERENCE WORD DOCUMENT SENT BY TINA ROSE

.

CONTACT: RICHARD YUKIHIRO richardyukihiro@patriotenvironmental.com
(w) 562-436-2614
(f) 562-436-2688

DELIVERING LOCATION: BLOOMINGTON, CA - COLTON TERM

VENDOR: 100075841
PATRIOT ENVIRONMENTAL SVCS INC

BUYER: MICHAEL MARTINEZ

APPROVAL VALUE: 15,000.00

LINE	ITEM AND LINE COMMENTS	QTY	UOM	UNIT COST	DELIVERY DATES
1	SVC-WATSON OSRO **Type:** S WATSON OSRO **Accounting:** 048579696381 - 613200 - 9400 **AFE:** 913853999001400 - 90100	1.00	LO	7,500.00	01/01/1700
2	SVC-CARSON OSRO **Type:** S CARSON OSRO **Accounting:** 049446406381 - 623200 - 9400 **AFE:** 913783999001400 - 90100	1.00	LO	7,500.00	01/01/1700

<< End of Requisition >>

RQ#: 270504

ERA
1/1/11
KMEP

CA CHECKLIST
REQ # ✓ REC'D _____
EAR. ✓
ISNETWORLD: GRADE B EXEMPT _____
INSURANCE. ✓
BID WORK. ✓ WAIVER. _____ NR. _____
WD# _____ DATE ISSUED ___/___/___
CMS. _____
NOTES. _____

477391-16-STAT

PHMSA 000104335

ISN Collect. Verify. Connect.

MICHAEL MARTINEZ *Kinder Morgan* KINDER MORGAN
| Meetings | Webcasts | My Profile | | **Log Out**

Home | My To-Do List | My Clients | My Contractors | Messages | Reports | Favorites | More...

YOU ARE HERE: Home » Find Companies » Dashboard | Help

Search Results | Patriot Environmental Services, Inc.

Company ID: 400-134107 | Richard Yukihiro, COO, (949)201-6517 | KMEP - US PCL | B

Patriot

- Dashboard Overview
- Questionnaire
- OSHA & EMR
- Insurance
- Compliance & Training
- Audits, Evaluations & Reviews
- Company Profile and Information
- Summary (Print View)

Dashboard Overview

Grade Component	Status	Points	Gaps
Contractor Job Evaluation (Does Not Negatively Impact Grade)	**Contractor Job Evaluation** is between **0** and **69.99**	0 / 10	⚠
EMR Letters	Rate is **1.05**	6.50 / 13	⚠
Insurance	Insurance Documents are **Accepted**	0 / 0	✓
Open Audit Action Items - Past Due	**Open Audit Action Items - Past Due** Grade **N/A**	0 / 0	✓
OQ Plan Approved?	**OQ Plan Approved** Grade **Not Applicable**	0 / 0	✓
RAVS Safety Program	**RAVS** score is **100**	35 / 35	✓
T-RAVS	**T-RAVS** score is **100**	5 / 5	✓
US MSQ Grading / Rating	**MSQ Score is between 80.00 and 89.99**	35.25 / 47	⚠
Total		**81.75 / 110**	

View Archived Grades: Select

Contractor Notes

ISN Customer Service Notes

Disclaimer

Time/Date	Action	Category
8:15 AM - 09/09/2013	Initiated Outbound Call	Change in Contact
11:02 AM - 09/06/2013	Responded to Inbound Call	Insurance
9:23 AM - 07/08/2013	Responded to Inbound Call	RAVS

View Additional Notes

Variance

US PCL Variance: Not Submitted

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Last Login: 09/16/2013 4:15 PM

OSRO (mm)

KINDER MORGAN

RQ #: 270504 9/11/13

Procurement Receipt Date: Aug 29, 13

Request for Services (RFS)

WD #: 477391

For assistance or guidance in completing this form, please contact your Procurement representative.

AGREEMENT INFORMATION

☐ New Agreement ☐ Amendment ☒ Work Directive for Agreement # 25286 V1/14 ☐ Change Order for WD # -

Payment Type: ☒ Lump Sum ☐ Unit price ☐ Time & Materials ☐ Schedule of Values

REQUESTER / BILLING INFORMATION

KM Company Name:	Kinder Morgan	Requester:	Tina Rose / Tom Hosler / Marty Vice
Billing Address:	2319 S. Riverside Ave.	Req. Phone:	909-873-5106 Ext.
City, State, Zip:	Bloomington, CA 92316	Designated Representative:	
Attention:		D/R Phone:	Ext.

CONTRACTOR INFORMATION

Contractor Name:	Patriot Environmental Services	Vendor #:	100078841
Contact Name:	~~Robert~~ Richard Yukihiro	Agreement / Work Directive Amt:	$15,000.00
Mailing Address:	P.O. Box 1091, Long Beach CA 90801	Secondary Cost:	
Physical Address:	1900 W Anaheim Street	Retainage:	☐ Yes: % OR ☒ No
City, State, Zip:	Long Beach, CA 90813	Agreement Start Date:	
Contact Phone:	562-436-2614	Agreement Term:	(e.g. 1 year)
Fax:	562-436-2688	Work Directive Start Date:	8/1/13
Email:	richard.yukihiro@patriotenvironmental.com	Work Directive End Date:	7/31/14

ACCOUNTING INFORMATION

Note: For Work Directive commitment, at least one line must be completed!

Company 10/20/30	*Accounting Unit (12) (Entity / Loc / RC)*	*Account (6)*	*TOC / Sub-Account (4)*	*Activity (AFE) (15)*	*Account Category (5) (Property Unit)*	***Choose One:*** *$ Amount*	*% of Charges*	*Project Mgr Name on AFE*	*Lawson Loc Code (HO2TX, SNITX)*
10	0485 7969 6381	613200	9400	91385 3999 001 400	90100	$ 7,500.00	%		
10	0494 4640 6381	623200	9400	91378 3999 001 400	90100	$ 7,500.00	%		
						$	%		
						$	%		
						$	%		

Are multiple lines required for Lawson Work Directive commitment? ☐ Yes ☒ No

LOCATION OF WORK OR SERVICES

Be Specific: (e.g. Address, location of project within KM facility, surroundings, etc.)

Carson Terminal & Watson Station 9/11 B Rating w/Insurance & DOT Satisfied.

9/11/13 Sent without quotes per Tina

Distribution: Original and supporting documentation to: Procurement Representative
Copies: Requester, Project Manager, Project Files

DOT AND/OR OPERATOR QUALIFICATION COVERED TASK(S)

☐ Performs DOT Jurisdictional Work (Drug & Alcohol Testing) ☐ OQ Tasks Required ☐ OQ Tasks NOT Required

If OQ required, check one option: ☐ OQ Covered Task List Attached **OR** ☐ OQ set up in ISNetworld completed

SAFETY EVALUATION REQUIREMENTS

Choose One: ☒ ISNetworld Score Acceptable **OR** ☐ Manual Evaluation/Exemption on File **OR** ☐ Offsite Vendor/Consultant

SCOPE OF WORK OR SERVICES

Note: If for a Change Order, please specify reason for scope change and/or addition(s). If attachments need to be incorporated into Agreement/Amendment/WD/Change Order, please indicate and provide attachments to Procurement representative with RFS.

Requester must refer to Work Code Matrix and enter appropriate risk level here: **Med 19.1.1**

(See **Scope of Work Guidelines** and **Scope of Work Attribute Checklist** for additional guidance.)

Scope of Work or Services:

Provide OSRO response for Carson Terminal and Watson Station, detailed as follows:

Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the Federal OPA '90 requirements for contracted oil spill removal services for the Carson Terminal located at 2000 E. Sepulveda Blvd, Carson, CA 92108 and Watson Station located at 20410 S. Wilmington Ave., Long Beach, CA 90810 as follows:

- Sufficient Response Resources to enable the COMPANY to meet the requirements of OPA '90 for pre-contracted Response Resources at the commencement of the Agreement including:
    - Responding with 1,000 feet of containment boom and a means to deploy it or other appropriate equipment and materials, as identified in the Tactical Response Plans presented in Volume 2, Section 8.4, within one (1) hour of notification*;
    - Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2,100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification*;
    - Documentation of equipment deployment exercises and personnel training must be submitted annually to Mr. Edward (Buzz) Fant, Director-Compliance/Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 1001 Louisiana St, Suite 1000 Houston, TX 77002 or fante@kindermorgan.com ;
    - Compliance by the CONSULTANT and CONSULTANT's subcontractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar applicable State laws, rules and/or standards.

* Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland or five (5) knots on water.

Regulatory References: 29 CFR 1910.120 (OSHA); 40 CFR 112 Appendix E 3.3 (U.S. EPA)

APPROVALS

Note: In addition to Requester's information/signature, appropriate approval(s) are required for Lawson Work Directive commitment(s), per org chart and EAR guidelines. If AFE No.(s) will be charged, additional approval from AFE owner is also required.

Name (typed or printed)	Signature	Employee ID	Date
Tina Rose		10993	8-29-13
Phil Vasquez		11192	9-3-13

Distribution: Original and supporting documentation to: Procurement Representative
Copies: Requester, Project Manager, Project Files

WORK DIRECTIVE

To PATRIOT ENVIRONMENTAL SVCS INC

P.O. BOX 1091

LONG BEACH, CA 90801
Attention: RICHRD YUKIHIRO

Phone: 562-436-2614
Fax: 563-436-3688
Email: rukihiro@patriotenvironmental.com

Date: September 17, 2013

Work Directive No.: 477391-14-STAT

Agreement No.: 25286

Requisition No/ Accounting Information: 270506

This Work Directive is entered pursuant to the terms of the Emergency Response Services Agreement ("Agreement") dated 01/01/2011, by and between KINDER MORGAN ENERGY PARTNERS, L.P. ("COMPANY") and PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT'S proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued and this Work Directive arising out of or related to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and all other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1.0 **Project Name and Work Location Details:** OSRO Services / Los Angeles Harbor Terminal, Line sections GX 32, GX 64a, GX 104, GX 124, GX 190 Dominguez channel to Los Angeles Harbor and GX 120 West Basin Los Angeles harbor to East Basin Los Angeles Harbor.

2.0 **Scope of Work:** The following is a full and complete description of the Work (and goods) to be provided by CONSULTANT including, but not limited to specifications, conditions and referenced bids/proposals.

2.1 See EXHIBIT WD_A – SCOPE OF WORK

2.2 For Questions, contact ROSE, TINA at 909-873-5106

3.0 The COMPANY will not furnish any materials to the Work Site(s), unless previously approved by the Designated Representative.

4.0 CONSULTANT shall commence the Work by the 08/01/2013 and shall complete the Work on or before 07/31/2014.

5.0 CONSULTANT offers to complete the Work in accordance with the Agreement for the total Lump Sum Amount of **$10,000.00**, Ten Thousand Dollars and Zero Cents, which shall constitute full and complete payment.

6.0 The parties hereby agree to AMEND Agreement 25286 as follows (or if the Agreement has been thus amended previously, to repeat the following sections):

i) Under the Compliance with Laws section, a **new subsection** is hereby added to the Agreement which reads as follows:

CONSULTANT certifies that at the time of execution of this Agreement CONSULTANT is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement CONSULTANT cannot so certify to COMPANY, CONSULTANT shall promptly notify COMPANY as to CONSULTANT'S status.

ii) The following language is hereby added to the Termination section under the termination for default paragraphs:

-- violates any EHS law; or

iii) All other provisions of the Agreement shall continue in full force and effect.

7.0 **Retainage:** Waive 10% retainage.

8.0 CONSULTANT shall submit invoices in duplicate to:

KINDER MORGAN LIQUIDS TERMINALS LLC

2319 S Riverside Ave

Bloomington, CA 92316

Attn: ROSE, TINA
Phone: 909-873-5106
Fax: 909-877-9036

8.1 Invoices must clearly indicate the Agreement Number, Work Directive Number, as indicated above.

8.2 For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

9.0 CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Indemnitees at: contractor_safety@kindermorgan.com prior to commencement of any Work.

10.0 Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

11.0 For Work performed within the State of California, CONSULTANT shall certify within three working days of execution hereof that the requirements set forth in Exhibit B to this Work Directive have been satisfied. Failure by CONSULTANT to do so shall constitute a breach under Section 10 [for cause with no notice] of the Agreement.

In the **Agreement**, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware corporation. This change resulted from an internal corporate reorganization. Kinder Morgan, Inc. owns the same assets formerly owned by Kinder Morgan Kansas, Inc.

By signing below, COMPANY and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 477391-14-STAT is by reference hereby made part of Agreement No. 25286

This Work Directive is hereby agreed to and accepted:

KINDER MORGAN LIQUIDS TERMINALS LLC	PATRIOT ENVIRONMENTAL SVCS INC
Signature	Signature
MARTINEZ, MICHAEL	Richard Yukilis
Name	Name
PURCHASING SUPERVISOR	COO
Title	Title
Sept 17, 2013	9/18/13
Date	Date

Please return executed Work Directive to:

KINDER MORGAN LIQUIDS TERMINALS LLC
1100 Town & Country Rd
Suite 700
Orange, CA 92868
Attention: MARTINEZ, MICHAEL
Phone: 714-560-4694
Fax: 714-560-6531
Email: michael_martinez@kindermorgan.com

The following Exhibits shall be provided by COMPANY:

X	Exhibit WD_A	- Scope of Work
X	Exhibit WD_B	- Revised Release Reporting Criteria (California only)
___	Exhibit WD_C	- Work Directive Specific Schedule of Values/Rates
___	Exhibit WD_D	- Operator Qualification Form (as provided by the Designated Representative via electronic or hardcopy submission)

EXHIBIT WD_A – SCOPE OF WORK

Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the applicable State of California and Federal OPA '90 requirements for contracted oil spill removal services for the Los Angeles Harbor Terminal located at 1900 Wilmington - San Pedro Road, San Pedro, CA 90733 and pipeline sections GX 32, GX 64a, GX 104, GX 124, GX 190 Domguiz channel to Los Angeles harbor, and GX 120 West Basin Los Angeles harbor to East Basin Los Angeles harbor as follows:

- Sufficient Response Resources to enable the COMPANY to meet the requirements of the State of California and OPA '90 for pre-contracted Response Resources at the commencement of the Agreement including:

- Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2,100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification*;

- Additional trained personnel, equipment and materials necessary to meet the State of California Response Planning Standards;

- Provide a copy of CA OSPR OSRO Rating Letter and documentation of annual equipment deployment exercises and personnel training to Mr. Edward (Buzz) Fant, Director-Compliance/Emergency Response Programs, c/o Kinder Morgan Energy Partners, L.P., 1001 Louisiana Street, Suite 000, Houston, TX 77002, or fante@kindermorgan.com ;

- CONSULTANT's personnel and subcontractors shall be trained to all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar State of California laws, rules and/or standards.

* Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland or five (5) knots on water.

Regulatory References: 29 CFR 1910.120 (OSHA); 33 CFR 154.1045 (c) (US Coast Guard); 40 CFR 112 Appendix E 3.3 (U.S. EPA); CCR Title 14, Division 1, Subdivision 4, Chapter 3, Subchapter 3, 815.07(a) and 820.01(10)(A) (State of California)

EXHIBIT WD_B – REVISED RELEASE REPORTING CRITERIA

1.0 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT'S activities in the performance of the Work:

1.1 are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

1.2 understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT'S employees, agents and subcontractors' employees who will be performing at such a site.

1.3 Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT'S employees, agents and subcontractors' employees will be trained relative to COMPANY'S revised release reporting criteria.

1.4 For purposes of this Exhibit "Hazardous Material(s)" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any EHS Law. "EHS Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

CONSULTANT shall certify its compliance with this training requirement upon COMPANY request.

Acknowledged, agreed and accepted this 18 day of September, 20 13

PATRIOT ENVIRONMENTAL SVCS INC ("CONSULTANT")

Richard Yukelunas / COO
Officer Name and Title (please print)

Richard Yukelunas
Officer Signature

KINDER MORGAN

REQUISITION

RQ#: 270506

REQUESTER: TINA ROSE

OSRO AT LA HARBOR TERMINA AS OUTLINED ON WORD DOCUMENT

.

ISN RATING, INSURANCE AND DOT SATISFIED

.

CONTACT: RICHARD YUKIHIRO richardyukihiro@patriotenvironmental.com
(w) 562-436-2614
(f) 562-436-2688

DELIVERING LOCATION: BLOOMINGTON, CA - COLTON TERM

VENDOR: 100075841
PATRIOT ENVIRONMENTAL SVCS INC

BUYER: MICHAEL MARTINEZ

APPROVAL VALUE: 10,000.00

LINE	ITEM AND LINE COMMENTS	QTY	UOM	UNIT COST	DELIVERY DATES
1	SVC-LAHT OSRO **Type:** S SVC-OSRO AT LAHT **Accounting:** 049446606381 - 623200 - 9400 **AFE:** 913653999001400 - 90100	1.00	LO	10,000.00	01/01/1700

<< End of Requisition >>

RQ#: 270506

PHMSA 000104345

ERA
1/1/11
KMEP

CA CHECKLIST
REQ # ____ REC'D ____
EAR. ✓
ISNETWORLD: GRADE B EXEMPT ____
INSURANCE. ✓
BID WORK. ____ WAIVER. ____ NR. ✓
WD# ____ DATE ISSUED ____/____/____
CMS. ____
NOTES. ____

477391-14- STAT

FIGURE 3.5b

NATIONAL RESPONSE CORPORATION ENVIRONMENTAL SERVICES OSRO WORK DIRECTIVE

WORK DIRECTIVE

To: NRC ENVIRONMENTAL SERVICES,INC
1605 FERRY POINT

ALAMEDA , CA 94501
Attention: STEPHANIE BARTON

Phone: 206-730-3993
Fax:
Email: sbarton@nrces.com

Date: August 30, 2012
Work Directive No.: 402461-64-CONT

Agreement No.: **05ER45064ORG**

Requisition No/ Accounting Information: 242104

This Work Directive is entered pursuant to the terms of the Emergency Response Services Agreement ("Agreement") dated 06/01/2005, by and between KINDER MORGAN OPERATING L.P. "D" ("COMPANY") and NRC ENVIRONMENTAL SERVICES,INC ("CONSULTANT"). By its execution hereof, CONSULTANT agrees to perform for the Kinder Morgan ("KM") entity named below and executing this Work Directive pursuant to the terms, conditions and provisions of the Agreement, the following described Work which will additionally describe "Covered Tasks" as provided for under DOT Operator Qualification Requirements, and shall furnish all services, labor, supervision, technical capability, tools, equipment, vehicles, vessels, barges, transportation, materials, (except as set forth below), and other facilities and items necessary or convenient to complete the following work as further described and specified in the Specifications and/or Drawing(s) attached hereto or the Agreement and by this reference made a part of this Work Directive ("the Work"). If CONSULTANT'S proposal, quotation, or any other CONSULTANT document supplied to the KM entity named below is included as part of this Work Directive or another exhibit to the Agreement, then any terms or conditions provided by CONSULTANT which differ from or conflict with COMPANY'S terms and conditions are hereby rejected and shall be of no force or effect. The KM entity named below in this Work Directive shall be solely responsible for the liabilities and obligations set forth in the Agreement under which this Work Directive is being issued, as the same apply to the Work to be performed pursuant hereto. All such liabilities and obligations, as they apply to this Work Directive, shall be non-recourse to the COMPANY (if the COMPANY is not the KM Entity executing this Work Directive) and other related entities as further provided for and agreed in the Agreement. Payments made to CONSULTANT under this Work Directive shall include all taxes and similar charges except as otherwise agreed to herein or under the terms of the Agreement. Any capitalized term used in this Work Directive and not otherwise defined herein shall have the meaning as ascribed in the Agreement.

1.0 **Project Name and Work Location Details:** OSRO Services / Mission Valley Terminal, Orange Terminal, Line Sections 1, 10, 105, 109, and 110 from Watson Station to Norwalk Stations to Colton Terminal, South lines - LS 121, 122, 123, 124, 125 and 126 from Norwalk to San Diego, CA.

2.0 **Scope of Work:** The following is a full and complete description of the Work (and goods) to be provided by CONSULTANT including, but not limited to specifications, conditions and referenced bids/proposals.

2.1 See EXHIBIT WD_A – SCOPE OF WORK

2.2 Year one (1) of three (3) years under this Scope of Work & Rate.

2.3 For Questions, contact ROSE, TINA at 909-873-5106

3.0 The COMPANY will not furnish any materials to the Work Site(s), unless previously approved by the Designated Representative.

4.0 CONSULTANT shall commence the Work by the 09/01/2012 and shall complete the Work on or before 08/31/2013.

5.0 CONSULTANT offers to complete the Work in accordance with the Agreement for the total Lump Sum Amount of **$36,204.00**, Thirty Six Thousand Two Hundred Four Dollars and Eighteen Cents, which shall constitute full and complete payment.

6.0 The parties hereby agree to AMEND Agreement 05ER45064ORG as follows (or if the Agreement has been thus amended previously, to repeat the following sections):

i) Under the Compliance with Laws section, a **new subsection** is hereby added to the Agreement which reads as follows:

CONSULTANT certifies that at the time of execution of this Agreement CONSULTANT is not included on any debarment list maintained by any federal, state or local governmental authority nor prevented from performing Work for COMPANY by virtue of any governmental order, proceeding or otherwise. If at any time during the term of this Agreement CONSULTANT cannot so certify to COMPANY, CONSULTANT shall promptly notify COMPANY as to CONSULTANT'S status.

ii) The following language is hereby added to the Termination section under the termination for default paragraphs:

-- violates any EHS law; or

iii) All other provisions of the Agreement shall continue in full force and effect.

7.0 **Retainage:** Waive 10% retainage.

8.0 CONSULTANT shall submit invoices in duplicate to:

SFPP, L.P.

2319 S Riverside Ave

Bloomington, CA 92316

Attn: ROSE, TINA
Phone: 909-873-5106
Fax: 909-877-9036

8.1 Invoices must clearly indicate the Agreement Number, Work Directive Number, as indicated above.

8.2 For Construction Projects, a Certificate of Final Completion must be completed, signed by an authorized representative, notarized, and attached to CONSULTANT'S final invoice.

9.0 CONSULTANT hereby certifies that it has downloaded, reviewed and understood the Kinder Morgan Contractor Safety Manual and shall, prior to the commencement of any Work hereunder, make the same available to its employees and subcontractors who will be performing work on premises owned and/or operated by the KM entity named below. If the English language is a communication barrier, CONSULTANT at its expense shall timely convert/translate the Kinder Morgan Contractor Safety Manual accurately into the appropriate language for its employees and subcontractors. Questions concerning the Manual should be directed to the Kinder Morgan Contractor Safety Indemnitees at: contractor_safety@kindermorgan.com prior to commencement of any Work.

10.0 Facsimile Signatures/Counterparts. This Work Directive may be executed in multiple original counterparts, each of which shall be deemed an original, and together they shall constitute one and the same agreement. Signature of this Work Directive may be effected by facsimile (with confirmation by transmitting machine) and/or transmitted by portable document format ("pdf") file which shall be treated as an original signature, and any such signature, facsimile, pdf file or copy of this signed Work Directive shall be construed and treated as the original and shall be binding as if it were the original.

11.0 For Work performed within the State of California, CONSULTANT shall certify within three working days of execution hereof that the requirements set forth in Exhibit B to this Work Directive have been satisfied. Failure by CONSULTANT to do so shall constitute a breach under Section 10 [for cause with no notice] of the Agreement.

In the **Agreement**, if there is a reference to "Kinder Morgan Kansas, Inc.," it shall now be deemed a reference to Kinder Morgan, Inc., a Delaware corporation. This change resulted from an internal corporate reorganization. Kinder Morgan, Inc. owns the same assets formerly owned by Kinder Morgan Kansas, Inc.

By signing below, COMPANY and CONSULTANT affirm that the individual signing below has the requisite authority to authorize the commitment described herein, and that this Work Directive No. 402461-64-CONT is by reference hereby made part of Agreement No. 05ER45064ORG .

This Work Directive is hereby agreed to and accepted:

SFPP, L.P. By: Kinder Morgan Operating L.P. "D", its General Partner By: Kinder Morgan G.P., Inc., its General Partner By: Kinder Morgan Management, LLC, the Delegate of the General Partner	NRC ENVIRONMENTAL SERVICES,INC
Michael Martinez Signature	Signature
MARTINEZ, MICHAEL Name	Name
AUTHORIZED SIGNATORY Title	Title
August 30, 2012 Date	Date

Please return executed Work Directive to:

SFPP, L.P.
1100 Town & Country Rd
Suite 700
Orange, CA 92868
Attention: MARTINEZ, MICHAEL
Phone: 714-560-4694
Fax: 714-560-6531
Email: michael_martinez@kindermorgan.com

The following Exhibits shall be provided by COMPANY:

X	Exhibit WD_A	- Scope of Work
X	Exhibit WD_B	- Revised Release Reporting Criteria (California only)
___	Exhibit WD_C	- Work Directive Specific Schedule of Values/Rates
___	Exhibit WD_D	- Operator Qualification Form (as provided by the Designated Representative via electronic or hardcopy submission)

EXHIBIT WD_A – SCOPE OF WORK

Provide all trained personnel, labor, tools, and equipment necessary to provide Oil Spill Removal Organization (OSRO) services to meet the Federal OPA '90 requirements for contracted oil spill response services as follows:

A. Pipelines in the Orange California to San Diego California and Norwalk, California to Ontario, California areas as follows:

- Pipelines numbered Line Sections 121,122, 123, 124, 125 and 126 running from Kinder Morgan's Orange, CA facility to its Mission Valley Facility
- Pipelines numbered Line Section 1, 10, 105, 109 and 110 located in the Watson to Norwalk to Ontario Areas

B. SFPP, L.P. (Mission Valley Terminal, located at 9950 San Diego Mission Road, San Diego, CA 92108 and Orange Terminal located at 1350 Main Street, Orange, CA 92867).

Services to include:

□ Sufficient Response Resources to enable COMPANY to meet the requirements of the OPA '90 for pre-contracted Response Resources at the commencement of the Agreement, including:

- Prepositioning one thousand feet of containment boom at the Orange and Mission Valley facilities and responding with means to deploy it or other appropriate equipment and materials, as identified in the Tactical Response Plans presented in Volume 2, Section 8.4, within one (1) hour of notification;

- Oil recovery devices with an effective daily recovery capability (EDRC) equal to the amount of oil discharged in a small discharge (2100 gallons) and temporary storage capacity equal to two (2) times the EDRC within two (2) hours of notification. Travel times are based on suitable safety conditions and travel time capability per the U.S. Coast Guard minimum response time calculation factor of 35 mph overland and five (5) knots on water;

- Documentation of equipment deployment exercises and personnel training must be submitted annually to

Mr. Chuck Mathis
Manager Emergency Response Programs
c/o Kinder Morgan Energy Partners, L.P.
500 Dallas Street, Suite 1000
Houston, TX 77002
Or charles_mathis@kindermorgan.com

- Compliance by the CONSULTANT and CONSULTANT's subcontractors with all applicable Federal Occupational Safety and Health Administration (OSHA) standards and similar applicable State laws, rules and/or standards.

05 ER 45064 ORG

July 15, 2012

Phil Vasquez
Director, Pacific Southern Region
Kinder Morgan Energy Partners, LP
2319 S. Riverside Ave.
Bloomington, CA 92316

Via Email: VasquezP@kindermorgan.com

RE: RFP for OSRO Services dated June 14, 2012

Dear Mr. Vasquez:

NRC Environmental Services Inc. (NRC) is pleased to provide the following proposal to Kinder Morgan Energy Partners L.P. (KM) and its affiliated companies to act as KM's OSRO to respond to leaks and spill emergencies for KM's Office of Spill Prevention and Response (OSPR) facilities of Mission Valley Terminal, Orange Terminal and LA Harbor Terminal and their associated Pipeline Line Sections as outlined in the referenced Request for Proposals.

NRC, the leading oil spill response contractor operating in the United States, is fully qualified to provide the requested OSRO services. NRC is the only spill response contractor rated by OSPR as meeting all levels of OSRO rating requirements throughout the State of California, including all containment booming, recovery, temporary storage and shoreline protection capabilities. NRC is also rated by the USCG as meeting all OSRO Classification requirements for facilities, including MM, W1, W2, and W3 for all operating environments including rivers/canals, inland and oceans.

Mission Valley Terminal, San Diego, CA and Orange Terminal, Orange, CA

Including Pipeline Line Sections: 122, 123, 124, 125, 126 – Orange, CA to San Diego Harbor, CA; 1, 10, 105, 109, 110 – Watson Station (Carson, CA) to Norwalk Station (Norwalk, CA) to Colton Station (Bloomington, CA)

NRC has provided OSRO coverage to the Mission Valley and Orange Terminals and associated pipelines since 2005 pursuant to annual Work Directives with KM. As part of its coverage, NRC has pre-positioned 1000 feet of NRC containment boom at both the Mission Valley Terminal and the Orange Terminal in order to facilitate meeting KM's initial one-hour response requirement. NRC's OSRO coverage also meets all of KM's other state and federal

contingency planning requirements for contracted oil spill response capabilities, including containment, recovery and storage, as well as shoreline protection. NRC also provides two NRC response personnel to participate in annual tabletop drills for the facilities as requested by KM at no additional charge.

Based on continuing to provide the above OSRO coverage for a three-year term beginning September 1, 2012 through August 31, 2015, NRC offers the following proposal:

- Current annual retainer fee of $40,226.86 discounted by 10% to $36,204.17
- No CPI increase applied to second and third year annual retainers
- 10% discount on Price List rates for NRC equipment used on covered facility spills
- 20% annual rebate on planned projects up to annual retainer fee amount

LA Harbor Terminal, San Pedro

Including Pipeline Line Sections: GX32, GX64a, GX64b, GX 104, GX 124, GX, 190 – Dominguez Channel to Los Angeles Harbor; GX 120 – West Basin Los Angeles Harbor to East Basin Los Angeles Harbor

NRC has provided OSRO coverage to the LA Harbor Terminal for the past two years pursuant to pursuant to annual Work Directives with KM. However, coverage of the associated pipelines has not been specifically included in the WD. NRC's OSRO coverage for the Terminal includes a 2-hour initial response requirement, as well as capabilities to meet all of KM's state and federal contingency planning requirements for contracted oil spill response, including containment, recovery and storage, as well as shoreline protection. NRC also provides two NRC response personnel to participate in annual tabletop drills for the facilities as requested by KM at no additional charge.

NRC proposes to continue providing OSRO coverage to the LA Harbor Terminal – as well as add the OSRO coverage for the associated Pipeline Line Sections as outlined above – for a three-year term beginning September 1, 2012 through August 31, 2015, as follows:

- Current annual retainer fee of $37,573.62 discounted by 10% to $33,816.26
- No CPI increase applied to second and third year annual retainers
- 10% discount on Price List rates for NRC equipment used on covered facility spills
- 20% rebate on planned project NRC resources up to annual retainer fee amount

Proposal Details

The above proposals would provide KM's Mission Valley, Orange and LA Harbor Terminals and their associated Pipeline Line Sections with NRC's unmatched OSRO coverage in the most cost effective manner possible. With the longer coverage period of 3 years, NRC is offering a discount on the current rate with no CPI increase for the term of the contract.

In addition, to offering the extended term discount, the entire retainer amount could be rebated back to KM based on the proposed 20% rebate on NRCES labor, equipment and

materials utilized on planned projects at any of these covered terminals. For example, planned project revenues from the Mission Valley and/or Orange Terminals and/or Pipelines of $160,000 would yield a rebate of $32,000, effectively offsetting the annual retainer for those facilities. Each planned project invoice will reflect the rebate, so the KM facility would realize the offset savings immediately.

NRC appreciates the long standing relationship it has had in providing OSRO coverage and related services to KM and looks forward to continuing to provide KM and its affiliated companies with OSRO coverage services. If you have any questions regarding this proposal or about NRC's OSRO capabilities or services, please don't hesitate to contact me either by phone at 206-730-3993 or by email at sbarton@nrces.com. In addition, I would welcome an opportunity to discuss further cost savings that would result from NRC providing nationwide OSRO coverage services to KM.

Best Regards,

Stephanie Barton

Stephanie Barton
Director, Emergency Response Programs
NRC Environmental Services Inc.

Copy: Craig Bishop, via email at bishopc@kindermorgan.com
Todd Roloff, via email at troloff@nrces.com

EXHIBIT WD_B – REVISED RELEASE REPORTING CRITERIA

1.0 CONSULTANT shall ensure that its employees, agents, and subcontractors' employees engaged in CONSULTANT'S activities in the performance of the Work:

1.1 are notified, and when required, as determined by COMPANY, trained and instructed by COMPANY, either directly or through a train-the-trainer program instituted by COMPANY, concerning the order of actions to be taken upon discovery of a release or threatened release condition of a Hazardous Material or pollutant substance; and

1.2 understand that no Work or visit shall be undertaken to any COMPANY right-of-way or facility where there is no COMPANY representative onsite and readily accessible (a "Non-Company Onsite Situation"), unless the training referred to in (i) above has occurred for CONSULTANT'S employees, agents and subcontractors' employees who will be performing at such a site.

1.3 Will be working in a COMPANY Onsite Situation and MUST ensure that its employees, agents and subcontractors' employees have been notified accordingly, and if deemed necessary by COMPANY, CONSULTANT will assure that prior to performing any Work CONSULTANT'S employees, agents and subcontractors' employees will be trained relative to COMPANY'S revised release reporting criteria.

1.4 For purposes of this Exhibit "Hazardous Material(s)" shall mean and include (a) all elements or compounds that are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency and the list of toxic pollutants designated by Congress or the Environmental Protection Agency or under any EHS Laws; and (b) any "hazardous waste," "hazardous substance" (including, but not limited to, petroleum and petroleum-related materials), "toxic substance," regulated substance," "pollutant" or "contaminant", each as defined under any EHS Law. "EHS Laws" shall mean any and all federal, state, and local laws, regulations and requirements pertaining to health, safety, or the environment.

CONSULTANT shall certify its compliance with this training requirement upon COMPANY request.

Acknowledged, agreed and accepted this day of , 20___

NRC ENVIRONMENTAL SERVICES,INC ("CONSULTANT")

_____

Officer Name and Title (please print)

_____

Officer Signature

4.0 SPILL IMPACT CONSIDERATIONS

4.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil. The Federal, state, and local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY

- Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species.
- Areas which consist of vegetated low banks, freshwater/saltwater marshes, swamps, scrub-shrub wetlands and impact to threatened/endangered species.

MODERATE SENSITIVITY

- Areas of moderate productivity, somewhat resistant to the effects of oiling.
- Areas which consist of mixed sand, gravel beaches, bars, gently sloping banks, and no impact to threatened/endangered species.

LOW SENSITIVITY

- Areas of low productivity, man-made structures, and/or high energy.
- Areas which consist of gravel, sand, or clay material, barren/rocky shores or banks, man-made structures, concrete/compacted earthen drainage ditches and no impact to threatened/endangered species.

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

To determine adequate response resources, the Worst Case Discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three (3) tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in six (6) hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3).

4.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Applicable Area Contingency Plans (see CD affixed to inside front cover of Volume 1 and the CD Navigation Summary in Figure 4.2)
- Other industry and private experts

The environmental and socio-economic sensitivities in the area have been broken down into specific categories and identified in this section.

4.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

4.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 4.1.

4.3.2 Wildlife Rescue

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

4.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

4.3.2 Wildlife Rescue (Cont'd)

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
  - Use of capture and relocation.

4.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife on their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
  - Outside rehabilitation organizations
  - Local regulatory agencies
  - Other resources

4.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

4.5 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

FIGURE 4.1a

ENDANGERED/THREATENED SPECIES LISTING
Los Angeles County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	Arroyo (=arroyo southwestern)		Endangered	Ventura Fish And Wildlife Office	Arroyo Southwestern Toad	Final
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Amphibians	Mountain yellow-legged frog	southern California DPS	Endangered	Carlsbad Fish And Wildlife		
Birds	California condor (Gymnogyps	U.S.A. only	Endangered	Ventura Fish And Wildlife Office	California Condor Recovery	Final Revision 3
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	California least tern (Sterna		Endangered	Carlsbad Fish And Wildlife	Revised California Least Tern	Final Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Light-footed clapper rail (Rallus	U.S.A. only	Endangered	Carlsbad Fish And Wildlife	Light-footed Clapper Rail	Final Revision 1
Birds	San Clemente loggerhead		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Birds	San Clemente sage sparrow		Threatened	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Western snowy plover	Pacific coastal pop.	Threatened	Arcata Fish And Wildlife Office	Final Recovery Plan for the	Final
Birds	Marbled murrelet	CA, OR, WA	Threatened	Washington Fish And Wildlife	Recovery Plan for the	Final
Birds	Coastal California gnatcatcher		Threatened	Carlsbad Fish And Wildlife		
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Riverside fairy shrimp		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Crustaceans	Vernal pool fairy shrimp		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Fishes	Unarmored threespine		Endangered	Ventura Fish And Wildlife Office	Unarmored Threespine	Final Revision 1
Fishes	Santa Ana sucker (Catostomus	3 CA river basins	Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Braunton's milk-vetch		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ventura Marsh Milk-vetch		Endangered	Ventura Fish And Wildlife Office		
Flowering Plants	Coastal dunes milk-vetch		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Five Plants	Final
Flowering Plants	Nevin's barberry (Berberis		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Thread-leaved brodiaea		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Catalina Island mountain-		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Fernando Valley		Candidate	Ventura Fish And Wildlife Office		
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Marcescent dudleya (Dudleya		Threatened	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Clemente Island woodland-		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lyon's pentachaeta		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Santa Cruz Island rockcress		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Clemente Island indian		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Salt marsh bird's-beak		Endangered	Carlsbad Fish And Wildlife	Salt Marsh Bird's-beak	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Clemente Island larkspur		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Clemente Island broom		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	San Clemente Island bush-		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Flowering Plants	California Orcutt grass (Orcuttia		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Marsh Sandwort (Arenaria		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Marsh	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Spreading navarretia		Threatened	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Verity's dudleya (Dudleya		Threatened	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Slender-horned spineflower		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Gambel's watercress (Rorippa		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Marsh	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Santa Monica Mountains		Threatened	Ventura Fish And Wildlife Office	Recovery Plan for Six Plants	Final
Flowering Plants	Brand's phacelia (Phacelia		Candidate	Carlsbad Fish And Wildlife		
Insects	El Segundo blue butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the El	Final
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	Quino checkerspot butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Quino	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Palos Verdes blue butterfly		Endangered	Carlsbad Fish And Wildlife	Palos Verdes Blue Butterfly	Final
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Santa Catalina Island Fox		Endangered	Carlsbad Fish And Wildlife		
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Pacific pocket mouse		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Pacific	Final
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	San Bernardino Merriam's		Endangered	Carlsbad Fish And Wildlife		
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for Leatherback	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S.	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for the Northwest	Final Revision 2
Reptiles	Olive ridley sea turtle	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Island night lizard (Xantusia		Threatened	Carlsbad Fish And Wildlife	Recovery Plan for the	Final
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1b

ENDANGERED/THREATENED SPECIES LISTING
Orange County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	Arroyo (=arroyo southwestern)		Endangered	Ventura Fish And Wildlife Office	Arroyo Southwestern Toad	Final
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	California least tern (Sterna		Endangered	Carlsbad Fish And Wildlife	Revised California Least Tern	Final Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Light-footed clapper rail (Rallus	U.S.A. only	Endangered	Carlsbad Fish And Wildlife	Light-footed Clapper Rail	Final Revision 1
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Western snowy plover	Pacific coastal pop.	Threatened	Arcata Fish And Wildlife Office	Final Recovery Plan for the	Final
Birds	Coastal California gnatcatcher		Threatened	Carlsbad Fish And Wildlife		
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Riverside fairy shrimp		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	San Diego fairy shrimp		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Fishes	Tidewater goby (Eucyclogobius	Entire	Endangered	Ventura Fish And Wildlife Office	Recovery Plan for the Tidewater	Final
Fishes	Santa Ana sucker (Catostomus	3 CA river basins	Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	San Diego thornmint		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Diego ambrosia (Ambrosia		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Thread-leaved brodiaea		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Laguna Beach liveforever		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Salt marsh bird's-beak		Endangered	Carlsbad Fish And Wildlife	Salt Marsh Bird's-beak	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Diego button-celery		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	California Orcutt grass (Orcuttia		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Santa Ana River woolly-star		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Slender-horned spineflower		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Munz's onion (Allium munzii)		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Big-leaved crownbeard		Threatened	Carlsbad Fish And Wildlife		

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	Quino checkerspot butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Quino	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Stephens' kangaroo rat		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Pacific pocket mouse		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Pacific	Final
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	San Bernardino Merriam's		Endangered	Carlsbad Fish And Wildlife		
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for Leatherback	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S.	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for the Northwest	Final Revision 2
Reptiles	Olive ridley sea turtle	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.1c

ENDANGERED/THREATENED SPECIES LISTING
San Diego County, CA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Amphibians	California tiger Salamander	U.S.A. (CA - Sonoma County)	Endangered	Sacramento Fish And Wildlife		
Amphibians	Arroyo (=arroyo southwestern)		Endangered	Ventura Fish And Wildlife Office	Arroyo Southwestern Toad	Final
Amphibians	California red-legged frog (Rana	subspecies range clarified	Threatened	Sacramento Fish And Wildlife	Recovery Plan for the California	Final
Amphibians	Mountain yellow-legged frog	southern California DPS	Endangered	Carlsbad Fish And Wildlife		
Birds	Aleutian Canada goose (Branta		Recovery			
Birds	California least tern (Sterna		Endangered	Carlsbad Fish And Wildlife	Revised California Least Tern	Final Revision 1
Birds	Arctic peregrine Falcon (Falco		Recovery			
Birds	Light-footed clapper rail (Rallus	U.S.A. only	Endangered	Carlsbad Fish And Wildlife	Light-footed Clapper Rail	Final Revision 1
Birds	Least Bell's vireo (Vireo bellii		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for the	Draft
Birds	Western snowy plover	Pacific coastal pop.	Threatened	Arcata Fish And Wildlife Office	Final Recovery Plan for the	Final
Birds	Coastal California gnatcatcher		Threatened	Carlsbad Fish And Wildlife		
Birds	Southwestern willow flycatcher		Endangered	Arizona Ecological Services	Final Recovery Plan for the	Final
Crustaceans	California freshwater shrimp		Endangered	Sacramento Fish And Wildlife	California Freshwater Shrimp	Final
Crustaceans	Conservancy fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Longhorn fairy shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	Riverside fairy shrimp		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Crustaceans	Vernal pool tadpole shrimp		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Crustaceans	San Diego fairy shrimp		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Fishes	Unarmored threespine		Endangered	Ventura Fish And Wildlife Office	Unarmored Threespine	Final Revision 1
Fishes	Desert pupfish (Cyprinodon		Endangered	Arizona Ecological Services	Desert Pupfish (Cyprinodon	Final
Fishes	Tidewater goby (Eucyclogobius	Entire	Endangered	Ventura Fish And Wildlife Office	Recovery Plan for the Tidewater	Final
Flowering Plants	San Diego thornmint		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Sonoma alopecurus		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Diego ambrosia (Ambrosia		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Del Mar manzanita		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Ione manzanita (Arctostaphylos		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pallid manzanita		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for	Draft
Flowering Plants	Clara Hunt's milk-vetch		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Nevin's barberry (Berberis		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Thread-leaved brodiaea		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Chinese Camp brodiaea		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Mariposa pussypaws		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Stebbins' morning-glory		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	White sedge (Carex albida)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Fleshy owl's-clover (Castilleja		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Pine Hill ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Hoover's spurge (Chamaesyce		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Orcutt's spineflower		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Suisun thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Vine Hill clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Soft bird's-beak (Cordylanthus		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Flowering Plants	Baker's larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Yellow larkspur (Delphinium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Ione (incl. Irish Hill) buckwheat		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Red Mountain buckwheat		Candidate	Arcata Fish And Wildlife Office		
Flowering Plants	Pine Hill flannelbush		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	El Dorado bedstraw (Galium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Otay tarplant (Deinandra		Threatened	Carlsbad Fish And Wildlife	Recovery Plan for Deinandra	Final
Flowering Plants	Pitkin Marsh lily (Lilium		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Willowy monardella (Monardella		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Few-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Many-flowered navarretia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Colusa grass (Neostapfia		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Hairy Orcutt grass (Orcuttia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Lake County stonecrop		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Calistoga allocarya		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Bernardino bluegrass (Poa		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Napa bluegrass (Poa napensis)		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Hartweg's golden sunburst		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	San Joaquin adobe sunburst		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Tahoe yellow cress (Rorippa		Candidate	Nevada Fish And Wildlife Office		
Flowering Plants	Layne's butterweed (Senecio		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Gabbro Soil	Final
Flowering Plants	Keck's Checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Kenwood Marsh checker-mallow		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Presidio Manzanita		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Sonoma sunshine		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	Tiburon mariposa lily		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Coyote ceanothus (Ceanothus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sonoma spineflower		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Flowering Plants	Fountain thistle (Cirsium		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Presidio clarkia (Clarkia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Salt marsh bird's-beak		Endangered	Carlsbad Fish And Wildlife	Salt Marsh Bird's-beak	Final
Flowering Plants	Palmate-bracted bird's beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Diego button-celery		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Marin dwarf-flax (Hesperolinon		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Sebastopol meadowfoam		Endangered	Sacramento Fish And Wildlife		
Flowering Plants	California Orcutt grass (Orcuttia		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	San Joaquin Orcutt grass		Threatened	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Sacramento Orcutt grass		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Diego mesa-mint		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Metcalf Canyon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Tiburon jewelflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Hidden Lake bluecurls		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Solano grass (Tuctoria		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	San Mateo thornmint		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Encinitas baccharis (Baccharis		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	Tiburon paintbrush (Castilleja		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Loch Lomond coyote thistle		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Spreading navarretia		Threatened	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Otay mesa-mint (Pogogyne		Endangered	Carlsbad Fish And Wildlife	Vernal Pools of Southern	Final
Flowering Plants	Red Hills vervain (Verbena		Threatened	Sacramento Fish And Wildlife		

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Springville clarkia (Clarkia		Threatened	Sacramento Fish And Wildlife		
Flowering Plants	Pennell's bird's-beak		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Mexican flannelbush		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Orcutt's hazardia (Hazardia		Candidate	Carlsbad Fish And Wildlife		
Flowering Plants	Slender-horned spineflower		Endangered	Carlsbad Fish And Wildlife		
Flowering Plants	Kern mallow (Eremalche		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	San Mateo woolly sunflower		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Butte County meadowfoam		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Vernal Pool	Final
Flowering Plants	Bakersfield cactus (Opuntia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Flowering Plants	Santa Clara Valley dudleya		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Serpentine	Final
Flowering Plants	Gambel's watercress (Rorippa		Endangered	Ventura Fish And Wildlife Office	Recovery Plan for Marsh	Final
Flowering Plants	Vail Lake ceanothus		Threatened	Carlsbad Fish And Wildlife		
Flowering Plants	San Francisco lessingia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Coastal	Final
Flowering Plants	Brand's phacelia (Phacelia		Candidate	Carlsbad Fish And Wildlife		
Insects	Lange's metalmark butterfly		Endangered	Sacramento Fish And Wildlife	Revised Recovery Plan for	Final Revision 1
Insects	Mission blue butterfly (Icaricia		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Myrtle's silverspot butterfly		Endangered	Sacramento Fish And Wildlife	Seven Coastal Plants and the	Final
Insects	Quino checkerspot butterfly		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Quino	Final
Insects	San Bruno elfin butterfly		Endangered	Sacramento Fish And Wildlife	Recovery Plan for San Bruno	Final
Insects	Callippe silverspot butterfly		Endangered	Sacramento Fish And Wildlife		
Insects	Laguna Mountains skipper		Endangered	Carlsbad Fish And Wildlife		
Insects	Delhi Sands flower-loving fly		Endangered	Carlsbad Fish And Wildlife	Delhi Sands Flower-Loving Fly	Final
Insects	Carson wandering skipper		Endangered	Nevada Fish And Wildlife Office	Final Recovery Plan for the	Final
Insects	Caseys June Beetle (Dinacoma		Proposed Endangered	Arcata Fish And Wildlife Office		
Mammals	Salt marsh harvest mouse		Endangered	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft
Mammals	Stephens' kangaroo rat		Endangered	Carlsbad Fish And Wildlife	Draft Recovery Plan for	Draft
Mammals	Tipton kangaroo rat (Dipodomys		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Southern sea otter (Enhydra	south of Pt. Conception, CA	Experimental Population, Non-	Ventura Fish And Wildlife Office		
Mammals	Pacific pocket mouse		Endangered	Carlsbad Fish And Wildlife	Recovery Plan for the Pacific	Final
Mammals	Riparian brush rabbit (Sylvilagus		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Peninsular bighorn sheep (Ovis	Peninsular CA pop.	Endangered	Carlsbad Fish And Wildlife	Recovery Plan for Bighorn	Final
Mammals	Buena Vista Lake ornate Shrew		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Mammals	Palm Springs round-tailed		Candidate	Carlsbad Fish And Wildlife		
Mammals	Riparian woodrat (=San Joaquin		Endangered	Sacramento Fish And Wildlife	Recovery Plan for Upland	Final
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for Leatherback	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S.	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for the Northwest	Final Revision 2
Reptiles	Olive ridley sea turtle	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Desert tortoise (Gopherus	U.S.A., except in Sonoran	Threatened	Nevada Fish And Wildlife Office	Draft Revised Recovery Plan for	Draft Revision 1
Reptiles	Giant garter snake (Thamnophis		Threatened	Sacramento Fish And Wildlife	Draft Recovery Plan for the	Draft

FIGURE 4.2

ACP/GRP CD
NAVIGATION INSTRUCTIONS
(Excerpt from CD affixed to inside front cover of Volume 1)

KINDER MORGAN

The information contained herein is provided to identify specific spill response and protection strategies for the applicable Kinder Morgan Pacific Operations Regions. Navigating through the bookmark links provided on the CD will take you to the Environmentally Sensitive Sites and the Economically Significant Sites provided in the applicable Area Contingency Plans and Geographic Response Plans.

INSTRUCTIONS FOR USE

1. From the screen on the left, click on region of interest. The different regions are identified by the red font.
2. Once the appropriate region is accessed, click on the "+" to the left of the region name to display the various areas within each region. These are identified with blue font.
3. Once the appropriate area is accessed, the links to the Environmentally Sensitive Sites and the Economically Significant Sites will be available for selection.
   - ➢ It is important to note that once each Environmentally Sensitive Site and Economically Significant Site is accessed, the user will have to scroll to the desired location.
   - ➢ Use the zoom icon to zoom into each page for easier reading.

NOTES:

1. In those areas where the statement "No ACP Information Available" is made, it indicates that there is no ACP or GRP information which is specific to the particular region or area of interest.
2. EPA REGION IX: For areas without specific ACP/GRP information, the Region IX Contingency Plan (RCP) is used as the response guidance; however, this RCP is currently in revision.
3. EPA REGION X: Region X is covered by the Northwest Area Contingency Plan; however, inland facilities are not addressed.
4. Thus, the following areas are covered by specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Linnton-Willbridge, Washington Area
   - Northern Region—Bay: Brisbane, Concord, Richmond, San Jose
   - Southern Region—Central: Colton
   - Southern Region—West: Carson, Watson, Mission Valley
5. And, the following areas do not have specific area contingency or geographic response plans on this CD:
   - Northern Region—Northwest: Oregon Pipelines (inland)
   - Northern Region—Central: Fresno
   - Northern Region—CalNev: Sacramento, Rocklin, Reno
   - Southern Region—East: Imperial, Phoenix, Tucson
   - Southern Region—Central: Colton, Barstow, Las Vegas

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5.0 DISPOSAL PLAN

5.1 OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Manager or their designee to manage the following:

- Coordinate waste disposal activities;
- Identify appropriate interim storage methods and locations;
- Coordinate permitting activities needed to ensure proper disposal; and
- Documents compliance with appropriate local, State, and Federal handling of hazardous materials and/or wastes.

Material will be containerized or stored in a manner complying with applicable environmental regulations pertaining to the known or suspected materials characteristics. Upon characterization, waste, recyclable materials, or contaminated materials will be treated on-site, recycled, or transported and disposed of at an appropriate KMEP approved facility after appropriate regulatory approval.

5.2 WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Solid Wastes

A solid waste is defined as any discarded material provided that it is not specifically excluded under the regulations. These exclusions cover materials such as domestic sewage and mixtures of sewage discharged through a sewer system or industrial wastewater point source discharges.

A discarded material is any material which is abandoned (disposed of, burned or incinerated) or accumulated, stored or treated prior to being abandoned. A discarded material is also any material recycled or any material considered inherently wastelike. Recycled material is considered solid waste when used in a manner constituting disposal, placed on land or burned for energy recovery.

5.2 WASTE CLASSIFICATION (Cont'd)

Solid Wastes (Cont'd)

A solid waste may be considered a hazardous waste. A solid waste, as defined above, may be a hazardous waste if it is not excluded from regulation and is either a listed hazardous waste or exhibits the characteristics of a hazardous waste. A solid waste exhibits the characteristics of a hazardous waste if it exceeds the thresholds established in determining the following:

1) ignitability
2) corrosivity
3) reactivity
4) toxicity

A solid waste may also become a hazardous waste if it is mixed with a listed hazardous waste or, in the case of any other waste (including mixtures), when the waste exhibits any of the characteristics identified above.

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

5.3 WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

Safety Considerations

Care would be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes would wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles would be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste would be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

5.3 WASTE HANDLING (Cont'd)

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.

- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure 5.1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

5.4 WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure 5.2. The majority of these options can be used either onshore or offshore.

If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.
- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Access.
- Public contact.

5.4 WASTE STORAGE (Cont'd)

Temporary storage sites should use the best achievable technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 mils or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least 3 meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

5.5 WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

During an oil spill incident, the Company would consult with the federal and state On Scene Coordinator (OSC) to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. The Company maintains a list of approved disposal sites that satisfy local, state, and federal regulations and company requirements. This identification of suitable waste treatment and disposal sites would be prepared by the Environmental Manager or their designee in the form of an Incident Disposal Plan which must be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

5.5 WASTE DISPOSAL (Cont'd)

Techniques for Disposal of Recovered Oil (Cont'd)

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure 5.3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Environmental Manager or their designee is responsible for ensuring that all waste materials be disposed of at an internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

5.5 WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning

As a general rule, *in situ* burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at Company-approved disposal facilities. The Environmental Manager or their designee is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Environmental Manager or their designee prior to sending any waste to such a facility.

5.6 REGULATORY REQUIREMENT AND PERMITS

The management of oil and oily wastes must comply with the standards set forth in.:

- Code of Federal Regulations (CFR) Parts 261 and 265 as mandated by the Resource Conservation and Recovery Act (RCRA).

- California Code of Regulations (CCR) Title 22, Division 4, Chapter 30.

- CCR, Title 14, Division 1, Subdivision 4, Chapter 7, Subchapter 2, Determining Amount of Petroleum Hydrocarbons Recovered.

To expedite removal of spilled oil, refined products, and contaminated material from marine waters during an emergency response, temporary storage sites may be erected at appropriate shore locations (22 CCR 66270.1(c)(3)). The transportation of oil and contaminated material to temporary storage sites during emergency response is exempt from handling and permitting requirements (22 CCR 66263.30 and/or 66263.43). The onsite California Environmental Protection Agency, Department of Toxic Substance Control (DTSC) representative or duty officer should be contacted for approval. If a Unified Command is established, OSPR will facilitate the contact with DTSC through their liaison function.

Kinder Morgan will maintain responsibility for recovered oil and oily wastes generated during recovery operations. A temporary storage site may require an emergency permit from the San Francisco Bay Conservation & Development Commission (BCDC) or the California

Coastal Commission (CCC).

5.6 REGULATORY REQUIREMENT AND PERMITS (Cont'd)

Citing of the temporary facility must be done with the concurrence of the USCG and State OSC, DTSC, the local RQQCB, and the local health, fire and emergency services. If a Unified Command is established, OSPR will facilitate the contact of the state and local agencies through their liaison function.

The San Francisco Bay Conservation and Commission and the California Coastal Commission have created the Joint CCC/BCDC Oil Spill Program to respond to oil-spill-related matters in the San Francisco Bay area and along the coast. This program acts as the single point of contact, and requests for emergency permits (including waste management) should be directed to the following Joint CCC/BCDC Oil Spill Program staff:

Joint CCC/BCDC Oil Spill Program	(415) 904-5250 (phone)
45 Fremont Street, Suite 2000	(415) 904-5400 (fax)

The Incident Commander will coordinate activities to obtain the necessary permits to ensure proper disposal or recycling of recovered oil and debris.

FIGURE 5.1

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

A. Normally require remote power sources, thus are safe around flammable fluids.
B. Should have a relief valve in the outlet line to prevent bursting hoses.
C. Air powered units tend to freeze up in sub-freezing temperatures.
D. Units with work ball valves are difficult to prime.
E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
F. Can also pump air at low pressure.
G. Transfer is batch-wise rather than continuous.
H. Waste must be in separate container for efficient transfer.
I. Transportable with its own prime mover.
J. High shear action tends to emulsify oil and water mixtures.

FIGURE 5.2

TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

FIGURE 5.3

OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

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4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

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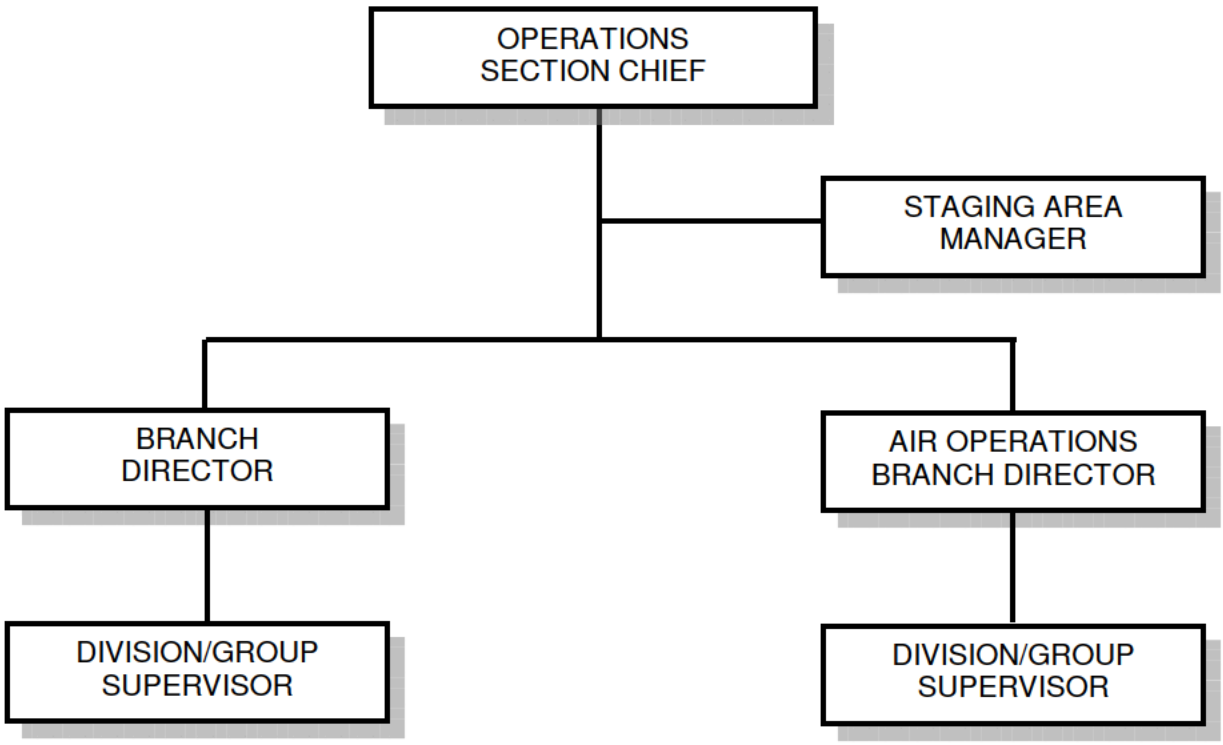


OPERATIONS SECTION CHIEF

The Operations Section Chief (OPS) is responsible for the management of all operations directly applicable to the primary mission (i.e. clean-up, recovery etc.). The OPS activates and supervises tactical response elements in accordance with the Incident Action Plan (IAP) and directs its execution. The OPS also requests or releases resources, makes expedient changes to the IAP, as necessary; and reports these actions to the IC.

Overall OPS Responsibilities

- Develop operations portion of IAP.
  This generally includes the designation of branches, divisions and groups, as well as input on required resources.
- Brief and assign Operations Section personnel in accordance with the IAP.
- Supervise Operations Section.
- Determine need and request additional resources.
- Review suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble strike teams assigned to the Operations Section.
- Report information about special activities, events, and occurrences to the IC.
- Respond to resource requests in support of NRDAR activities.

Additional KM Required OPS Responsibilities

- Directs KM personnel and emergency response contractors performing operations activities
- Review and ensure communication of the Site Specific H&S Plan to KM personnel and emergency response contractors performing operations activities
- Supervise the decontamination system
  - Ensure decontamination system is set-up and functional prior to Hot Zone entry
  - Request input from the Safety Officer, as necessary

AIR OPERATIONS BRANCH DIRECTOR

The Air Operations Branch Director (AIROPS), who is ground-based, is primarily responsible for preparing the air operations portion of the IAP. The plan will reflect agency restrictions that have an impact on the operational capability or utilization of resources (e.g., night flying, hours per pilot). After the plan is approved, the AIROPS is responsible for implementing its strategic aspects, which are those that relate to the overall incident strategy as opposed to those that pertain to tactical operations (specific target selection). Additionally, the AIROPS is responsible for providing logistical support to helicopters operating on the incident. The Air Tactical Group Supervisor, working in conjunction with ground and air resources, normally performs specific tactical activities, such as target selection and suggested modifications to specific tactical actions in the IAP.

Overall AIROPS Responsibilities:

- Organize preliminary air operations.
- Request declaration (or cancellation) of restricted air space
- Participate in preparation of the IAP through the OPS. Insure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
- Perform operational planning for air operations.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

Overall AIROPS Responsibilities (Cont'd):

- Prepare and provide Air Operations Summary Worksheet (ICS Form 220) to the Air Support Group and Fixed-Wing Bases.
- Determine coordination procedures for use by air organization with ground Branches, Divisions, or Groups.
- Coordinate with appropriate Operations Section personnel.
- Supervise all air operations activities associated with the incident.
- Evaluate helibase locations.
- Establish procedures for emergency reassignment of aircraft.
- Schedule approved flights of non-incident aircraft in the restricted air space area.
- Coordinate with the Operations Coordination Center (OCC) through normal channels on incident air operations activities.
- Inform the Air Tactical Group Supervisor of the air traffic situation external to the incident.
- Consider requests for non-tactical use of incident aircraft.
- Resolve conflicts concerning non-incident aircraft.
- Coordinate with FAA.
- Update air operations plans.
- Report to the OPS on air operations activities.
- Report special incidents/accidents.
- Arrange for an accident investigation team when warranted.

Air Tactical Group Supervisor - The Air Tactical Group Supervisor is primarily responsible for the coordination of aircraft operations when fixed and/or rotary-wing aircraft are operating on an incident. These coordination activities are performed by the Air Tactical Group Supervisor while airborne. The Air Tactical Group Supervisor reports to the AIROPS.

Overall Air Tactical Group Supervisor Responsibilities:

- Determine what aircraft (air tankers and helicopters) are operating within the area of assignment.
- Manage air tactical activities based upon the IAP.
- Establish and maintain communications and Air Traffic Control, with pilots, Air Operations, Helicopter Coordinator, Air Tanker/Fixed Wing Coordinator, Air Support Group (usually Helibase Manager), and fixed-wing Support Bases.
- Coordinate approved flights of non-incident aircraft or non-tactical flights in restricted air space area.
- Obtain information about air traffic external to the incident.
- Receive reports of non-incident aircraft violating restricted air space area (OPS, Branch Director, or Division/Group Supervisor).
- Make tactical recommendations to approved ground contact.
- Inform AIROPS of tactical recommendations affecting the air operations portion of the IAP.
- Report on air operations activities to the AIROPS. Advise air operations immediately if aircraft mission assignments are causing conflicts in the Air Traffic Control System.
- Report on incidents/accidents.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

Air Support Group Supervisor - The Air Support Group Supervisor is primarily responsible for supporting and managing helibase and helispot operations and maintaining liaison with fixed-wing air bases. This includes providing: 1) fuel and other supplies; 2) maintenance and repair of helicopters; 3) retardant mixing and loading; 4) keeping records of helicopter activity, and 5) providing enforcement of safety regulations. These major functions are performed at helibases and helispots. Helicopters during landing and take-off and while on the ground are under the control of the Air Support Groups Helibase or Helispot Managers. The Air Support Group Supervisor reports to the AIROPS.

Overall Air Support Group Supervisor Responsibilities:

- Obtain a copy of the IAP from the AIROPS including Air Operations Summary Worksheet (ICS Form 220).
- Participate in AIROPS planning activities.
- Inform AIROPS of group activities.
- Identify resources/supplies dispatched for the Air Support Group.
- Request special air support items from appropriate sources through Logistics Section.
- Identify helibase and helispot locations (from IAP) or from AIROPS.
- Determine need for assignment of personnel and equipment at each helibase and helispot.
- Coordinate special requests for air logistics.
- Maintain coordination with airbases supporting the incident.
- Coordinate activities with AIROPS.
- Obtain assigned ground-to-air frequency for helibase operations from the Communications Unit Leader (CUL) or Incident Radio Communications Plan (ICS Form 205).
- Inform AIROPS of capability to provide night flying service.
- Ensure compliance with each agency's operations checklist for day and night operations.
- Ensure dust abatement procedures are implemented at helibases and helispots.
- Provide crash-rescue service for helibases and helispots.
- Ensure that Air Traffic Control procedures are established between helibases and helispots and the Air Tactical Group Supervisor, the Helicopter Coordinator or the Air Tanker/Fixed-Wing Coordinator.

OIL SPILL

Air Tactical Group Supervisor - The coordination and scheduling of aircraft operations intended to locate, observe, track, surveil, support dispersant applications, or to be used for other deliverable response application techniques, or report on the incident situation when fixed and/or rotary-wing aircraft are airborne at an incident. These coordination activities are normally performed by the Air Tactical Group Supervisor while airborne.

Overall Air Tactical Group Supervisor Responsibilities:

- Obtain a briefing from the Air Operations Branch Director or the OPS.
- Coordinate dispersant, in-situ burning, and bioremediation application through the Air Operations Branch Director.

AIR OPERATIONS BRANCH DIRECTOR (Cont'd)

OIL SPILL (Cont'd)

- Coordinate air surveillance mission scheduling and observer assignments with the SUL.
- Identify remote sensing technology that may enhance surveillance capabilities.
- Coordinate air surveillance observations and provide reports by the most direct methods available.
- Report on air surveillance and operations activities to the Air Operations Branch Director.
- Coordinate application-monitoring requirements with the Helicopter and Fixed-Wing Coordinators and the Situation Unit.
- Report on air application activities to the Air Operation Branch Director.

Resource Request Message

ICS-213 RR CG (05/06)

Requestor

1. Incident Name:	2. Date/Time:	3. Resource Request No:

4. ORDER Note: Use additional forms when requesting different resource sources of supply

a. Qty.	b. Kind	c. Type	d. Detailed item description (Vital characteristics, brand, specs, experience, etc. & if applicable describe purpose/use, attach diagrams, & other amplifying info)	e. Requested Reporting Location:	e. Requested Reporting Date/Time:	f. ETA (LSC):	g. Cost (FSC):

5. Suggested source(s) of Supply - POC phone no. if known & suitable subtitutes:

6. Requested by Name/Position/Phone:	7. Date/Time:	8. Section Chief Approval:	Date/Time:

☐ 9. Check box if request is for tactical/personnel resources & Submit to RESL, otherwise submit directly to Logistics

10. RESL Review/Signature:

☐ Resources as noted are Available ☐ Resources Not Available

Logistics

11. Logistics Order No.:	12. Supplier Name/Phone/Fax/Email:

13. Notes:

14. Approval Signature of Auth Logistics Rep:	15. Date/Time:

16. Order placed by (check box): ☐ SPUL ☐ PROC

Finance

17. Reply/Comments from Finance:

18. Finance Section Signature:	19. Date/Time:

Full Instructions on back page. Requestor fills out # 1-9 & keeps yellow copy (bottom). If applicable, RESL reviews if resource available & signs # 10. Logistics fills in remainder of # 4 & # 10-15 & keeps pink copy. Finance, if needed fills out appropriate items & keeps green copy. Blue original is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL.

Instructions for filling out the ICS-213RR CG Form (5/06)

REQUESTOR: The requestor must fill in Blocks 1 through 9:

Block # 1	Incident name: This is the same as the name stated on the ICS-201 Form and/or the Incident Action Plan (IAP).
Block # 2	Current date and time when submitting request
Block # 3	Resource Request Number: This is to be assigned by the Section submitting request (i.e. CMD, OPS, PLAN, LOG, FIN)
Block # 4	Fill in blocks 4a through 4e. Items requested: Must include Quantity, Kind and Type (if applicable) and detailed description of requirements. **BE SPECIFIC AS POSSIBLE**. The request should focus on capability rather than naming the brand or specific item (e.g. helicopter capable of carrying 4 personnel from location A to B rather than requesting a Coast Guard H-65 helicopter). This gives the logistics section the ability to find the best resource to meet the need. 4.e Requested Reporting Location/Date/Time: This is self-explanatory and is required for ordering official. Leave blocks 4.f. ETA (LSC) and 4.g. Cost (FSC) blank. These will be filled in later by Logistics and Finance.
Block # 5	Suggested sources of supply and suitable substitutes: Enter applicable information if known.
Block # 6 & 7	Requestor: Print Name and Signature and date/time.
Block # 8	Approval: This must be approved by the Section Chief or Deputy Section Chief.
Block # 9	Check box if request is for tactical or personnel resource(s) and submit request to Resources Unit Leader (RESL) to review and approve since RESL tracks all tactical and personnel resources.

Request goes to RESOURCES UNIT if requesting Tactical/Personnel Resource(s):

Block # 10	Resources reviews request and checks to see if resource is available. If the resource is available, reassigns resource as appropriate and sends request back to requester with information noted as to reporting time, etc. The request form is then sent to Documentation Unit Leader (DOCL) for filing. If the resource is not available, RESL sends request to Logistics.

LOGISTICS SECTION: The following blocks are to be filled out be the Supply Unit (SPUL).

Block # 11	Logistics Order Number: To be assigned by Supply Unit.
Block # 12	Supplier Point of Contact, Phone Number and Fax Number: This information is needed for Credit Card purchases and/or Purchase Orders.
Block # 13	Notes: Enter applicable information as need for request.
Block # 4	ETA and Cost: SPUL or PROC fills in Estimated time of arrival (ETA) when determined and cost if known.
Block # 14 & 15	Approval: This must be approved by the Logistics Section Chief or Deputy Logistics Section Chief, printed name and signature is required with Date and Time of approval. Bottom Copy (pink) is retained.

FINANCE SECTION: The following blocks are to be filled out be the Procurement Unit (PROC), if applicable.

Block # 16	Indicates who is to place order as necessary.
Block # 17	Comments concerning request from Finance Section Chief or Deputy Finance Section Chief.
Block # 18 & 19	Approval: This must be approved by the Finance Section Chief or Deputy Section Chief, printed name and signature is required with Date and Time of approval. Bottom copy (green) is retained.
FILING	Original blue copy is returned to RESL for tactical/personnel resources ordered, and the requester for non-tactical. RESL will inform requester of status of request when form received. The white copy is sent to DOCL.

Note: Cost associated requests will not be ordered without approval from the Finance Section Chief or Deputy Finance Section Chief.

Form Filing: Blue (Original) – final disposition to RESL or originator for non-tactical resources, White (copy 1) to DOCL, Green (copy 2) to FIN, Pink (copy 3) to LOG, Yellow (copy 4) to Originator

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	**UNIT LOG (CONT.)** **ICS 214-CG**

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	AIR OPERATIONS SUMMARY ICS 220-CG

3. Distribution

☐ Fixed-Wing Bases _____ ☐ Helibase _____

4. Personnel and Communications

	Air Operations Director	Air / Air Frequency	Air / Ground Frequency
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. Location / Function	7. Assignment	8. Fixed-Wing		9. Helicopter		10. Time		11. Aircraft Assigned	12. Operating Base
		NO.	TYPE	NO.	TYPE	Available	Commence		
	13. TOTALS								

14. Air Operation Support Equipment

15. Prepared by **Date / Time**

AIR OPERATIONS SUMMARY (ICS 220-CG)

Purpose. The Air Operations Summary provides the Air Operations Branch with the number, type, location, and specific assignments of aircraft.

Preparation. The Operations Section Chief or the Air Operations Branch Director completes the summary during each Planning Meeting. General air resource assignment information is obtained from the Operational Planning Worksheet (ICS 215-CG). The Air and Fixed-Wing Support Groups provide specific designators of the air resources assigned to the incident.

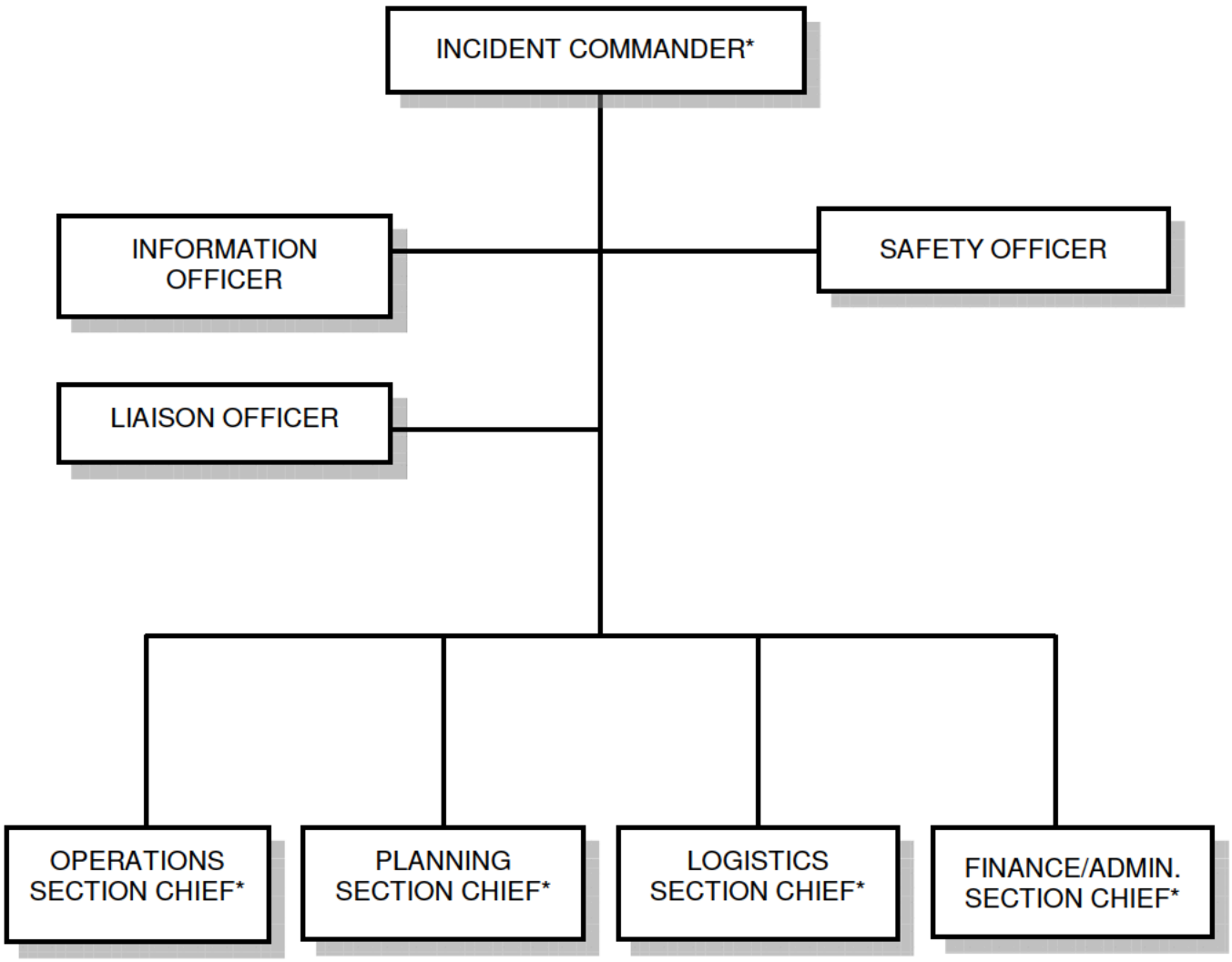
Distribution. After the summary is completed by Air Operations personnel (except item 11), the form is given to the Air Support Group Supervisor, who completes the form by indicating the designators of the helicopters and fixed-wing aircraft assigned missions during the specified operational period. This information is provided to Air Operations personnel who, in turn, give the information to the Resources Unit. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Distribution	Check the block and enter the time and date when ICS 220-CG and attachments were sent to all fixed-wing bases and helibases supporting the incident.
4.	Personnel and Communications	List the names of those assigned to each position, and the air-air and air-ground frequencies to be used.
5.	Remarks	Enter the special instructions or information, including safety notes, hazards, and priorities for Air Operations personnel.
6.	Location/Function	Enter the assigned location and function of the aircraft.
7.	Assignment	Enter the scope of work the aircraft is assigned to complete.
8.	Fixed Wing	Indicate the number and type of fixed-wing aircraft available for this Location / Function.
9.	Helicopters	Indicate the number and type of helicopters available for this Location / Function.
10.	Time	Indicate when aircraft will be available for use and when operations commence (use 24 hour clock).
11.	Aircraft Assigned	Enter the designators of the aircraft assigned. Gather information from Resources Unit, helibases, and fixed-wing bases.
12.	Operating Base	Enter the base (helibase, helispot, fixed-wing base) from which each air resource is expected to initiate operations.
13.	Totals	Enter the total number of fixed-wing and helicopter aircraft assigned to the incident in the Number columns. Enter the total number of each type of aircraft assigned in the Type columns.
14.	Air Operations Support Equipment	List the designators and location of other support resources assigned to Air Operations.
15.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

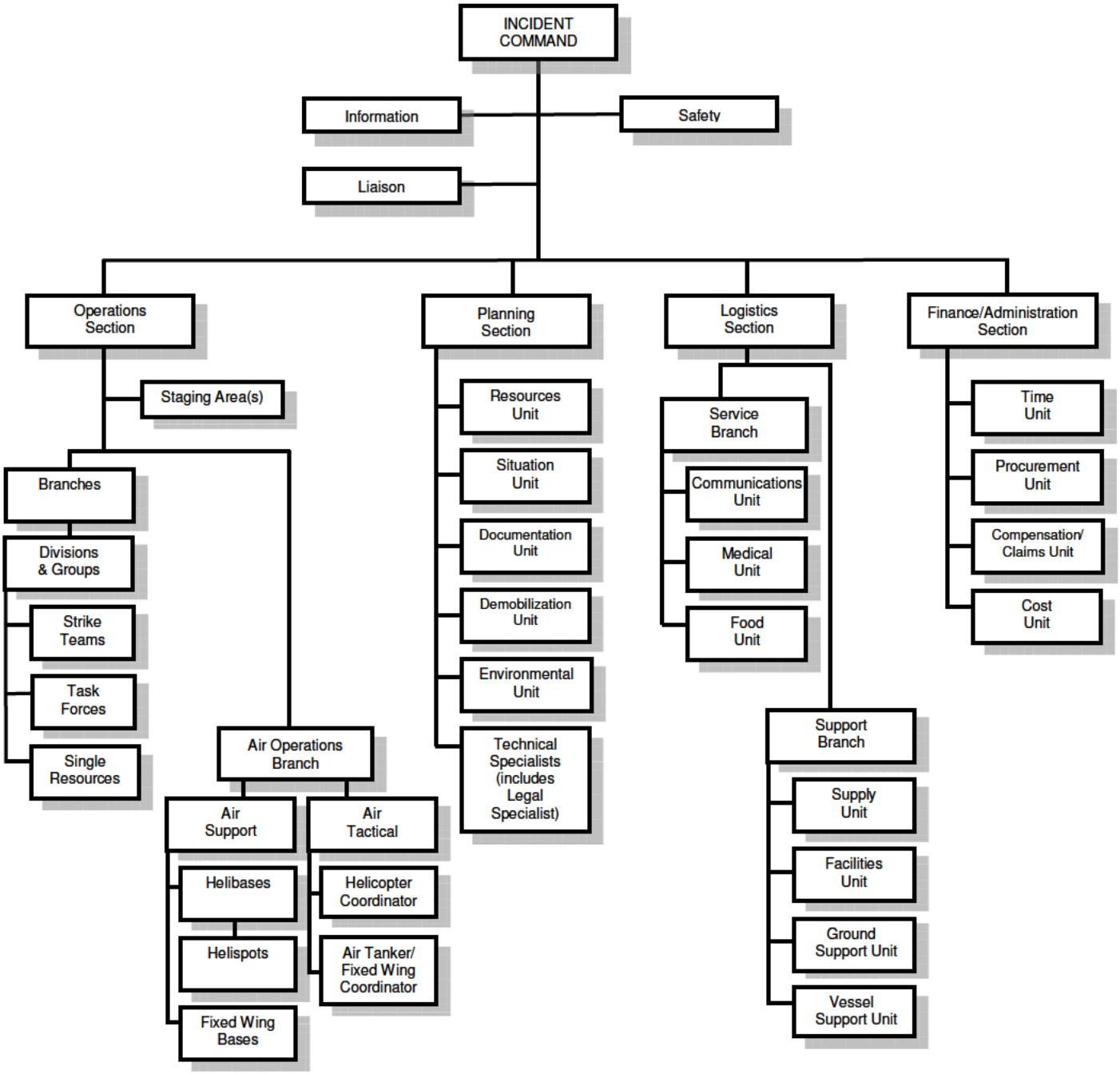


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

FINANCE/ADMINISTRATION

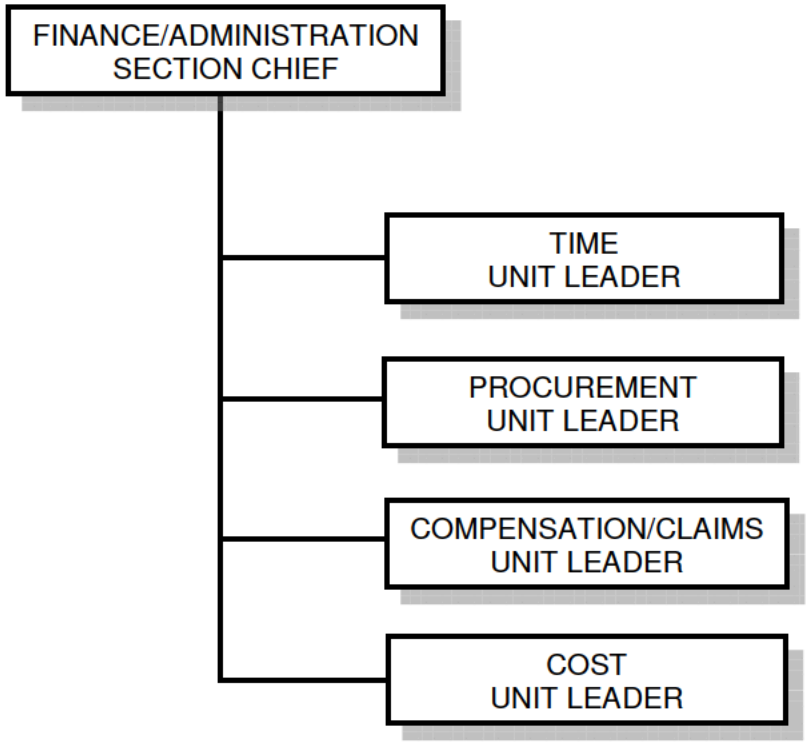
Finance/Administration Section Chief 4-51

Time Unit Leader 4-52

Procurement Unit Leader 4-52

Compensation/Claims Unit Leader 4-53

Cost Unit Leader 4-53



COMPENSATION/CLAIMS UNIT LEADER

The Compensation/Claims Unit Leader is responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims related activities (other than injury) for an incident.

Overall Compensation/Claims Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Establish contact with the incident SO and LO (or Agency Representatives if no LO is assigned).
- Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
- Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
- Review Incident Medical Plan (ICS Form 206).
- Ensure that Compensation/Claims Specialists have adequate workspace and supplies.
- Review and coordinate procedures for handling claims with the Procurement Unit.
- Brief the Compensation/Claims Specialists on incident activity.
- Periodically review logs and forms produced by the Compensation/Claims Specialists to ensure that they are complete, entries are timely and accurate and that they are in compliance with agency requirements and policies.
- Ensure that all Compensation for Injury and Claims logs and forms are complete and routed appropriately for post-incident processing prior to demobilization.
- Keep the Finance/Administration Section Chief briefed on Unit status and activity.
- Demobilize unit in accordance with the Incident Demobilization Plan.

COST UNIT LEADER

The Cost Unit Leader is responsible for collecting all cost data, performing cost effectiveness analyses and providing cost estimates and cost saving recommendations for the incident.

Overall Cost Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Coordinate cost reporting procedures.
- Collect and record all cost data.
- Develop incident cost summaries.
- Prepare resources-use cost estimates for the Planning Section.
- Make cost-saving recommendations to the Finance/Administration Section Chief.
- Ensure all cost documents are accurately prepared.
- Maintain cumulative incident cost records.
- Complete all records prior to demobilization.
- Provide reports to the Finance/Administration Section Chief.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

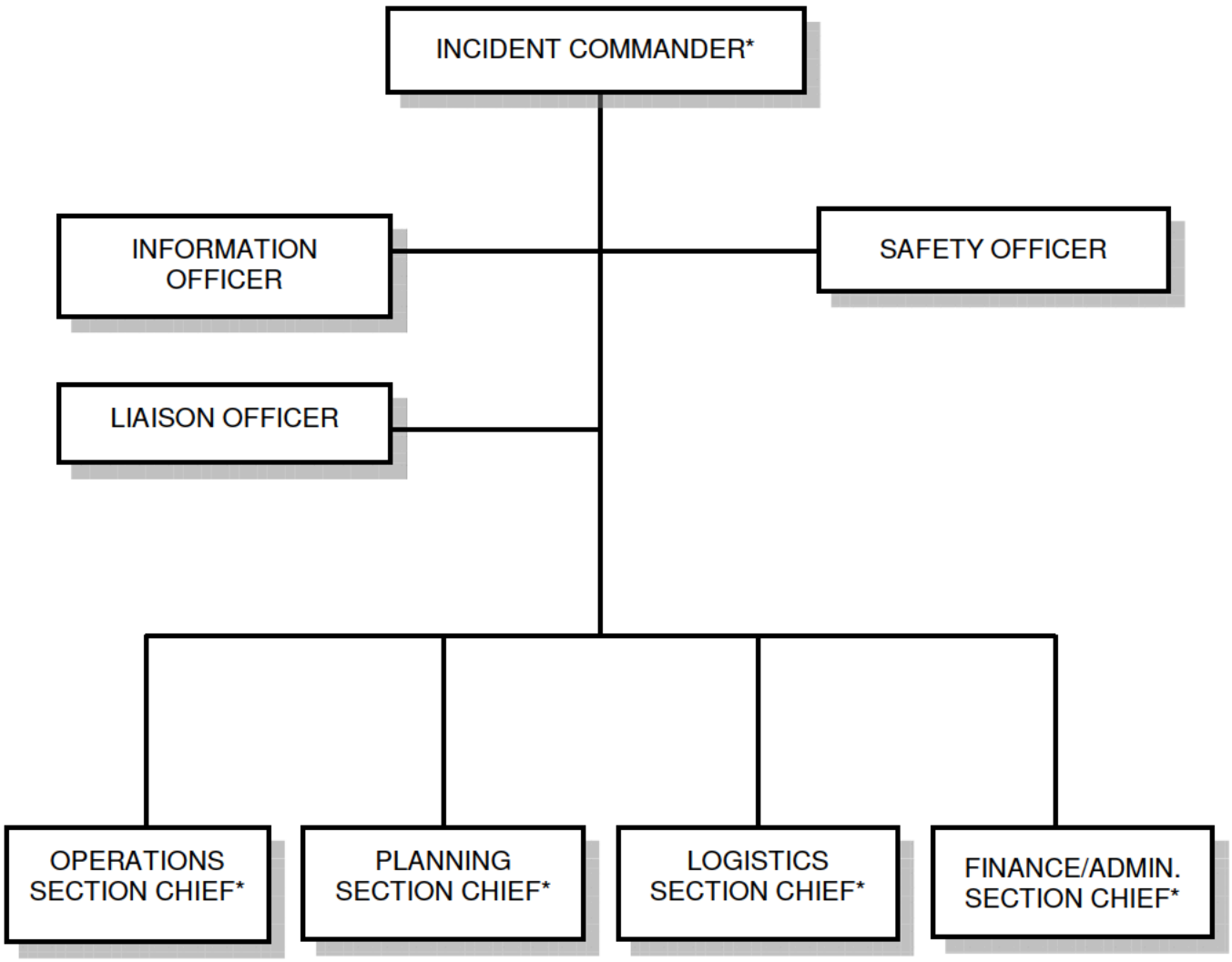
Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

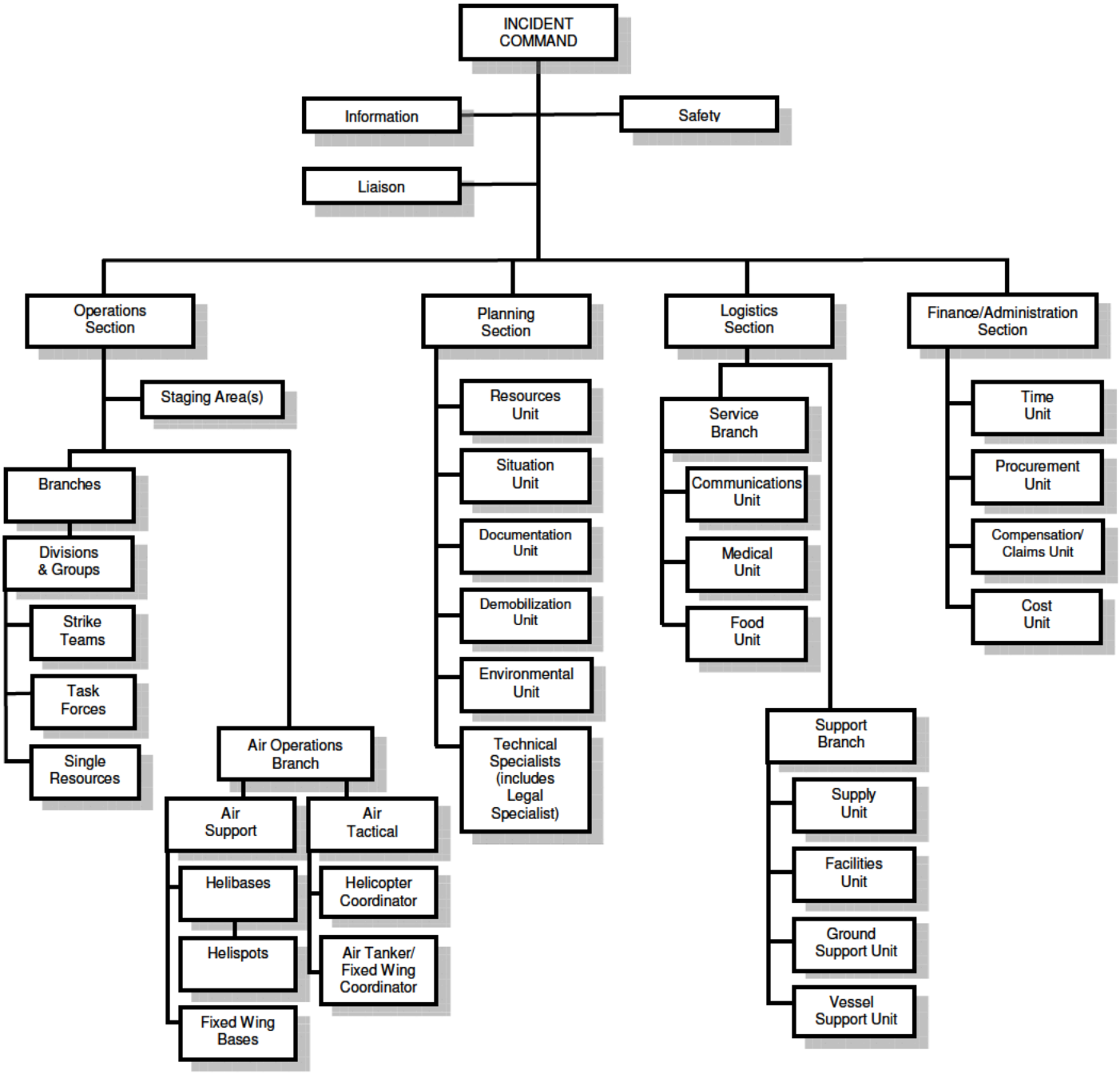


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



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COMMON RESPONSIBILITIES

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  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

FINANCE/ADMINISTRATION

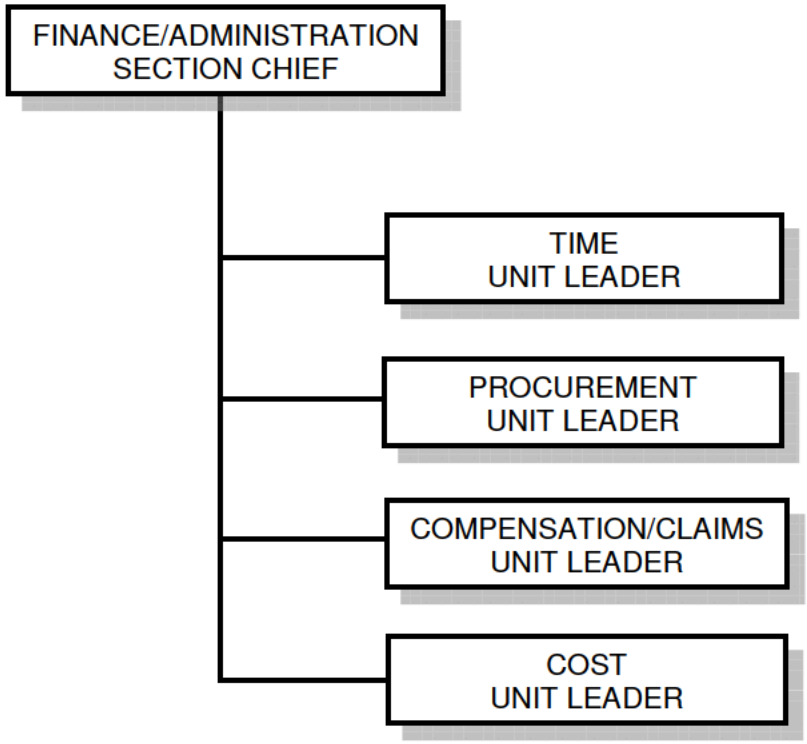
Finance/Administration Section Chief 4-51

Time Unit Leader 4-52

Procurement Unit Leader 4-52

Compensation/Claims Unit Leader 4-53

Cost Unit Leader 4-53



COMPENSATION/CLAIMS UNIT LEADER

The Compensation/Claims Unit Leader is responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims related activities (other than injury) for an incident.

Overall Compensation/Claims Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Establish contact with the incident SO and LO (or Agency Representatives if no LO is assigned).
- Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
- Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
- Review Incident Medical Plan (ICS Form 206).
- Ensure that Compensation/Claims Specialists have adequate workspace and supplies.
- Review and coordinate procedures for handling claims with the Procurement Unit.
- Brief the Compensation/Claims Specialists on incident activity.
- Periodically review logs and forms produced by the Compensation/Claims Specialists to ensure that they are complete, entries are timely and accurate and that they are in compliance with agency requirements and policies.
- Ensure that all Compensation for Injury and Claims logs and forms are complete and routed appropriately for post-incident processing prior to demobilization.
- Keep the Finance/Administration Section Chief briefed on Unit status and activity.
- Demobilize unit in accordance with the Incident Demobilization Plan.

COST UNIT LEADER

The Cost Unit Leader is responsible for collecting all cost data, performing cost effectiveness analyses and providing cost estimates and cost saving recommendations for the incident.

Overall Cost Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Coordinate cost reporting procedures.
- Collect and record all cost data.
- Develop incident cost summaries.
- Prepare resources-use cost estimates for the Planning Section.
- Make cost-saving recommendations to the Finance/Administration Section Chief.
- Ensure all cost documents are accurately prepared.
- Maintain cumulative incident cost records.
- Complete all records prior to demobilization.
- Provide reports to the Finance/Administration Section Chief.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

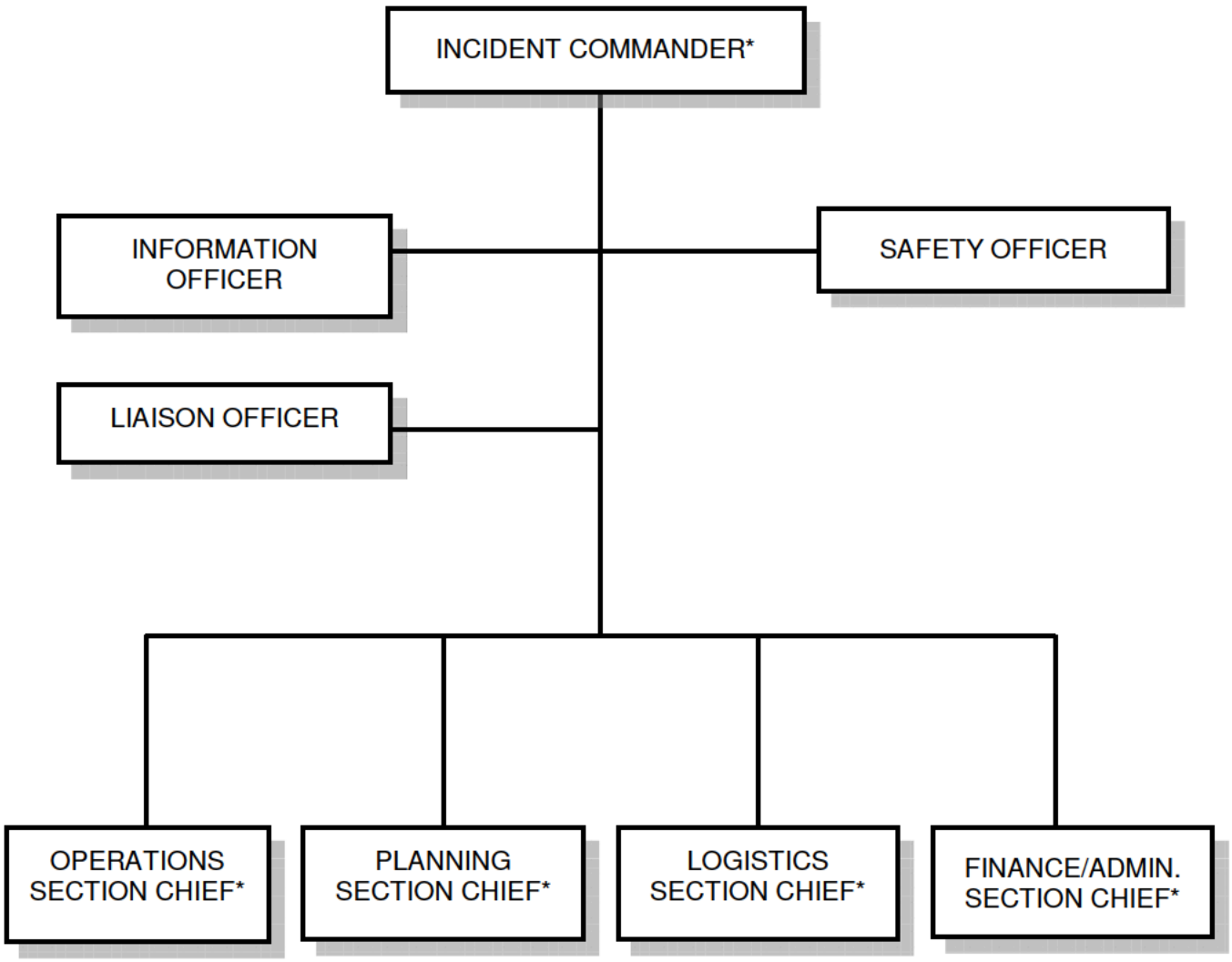
Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

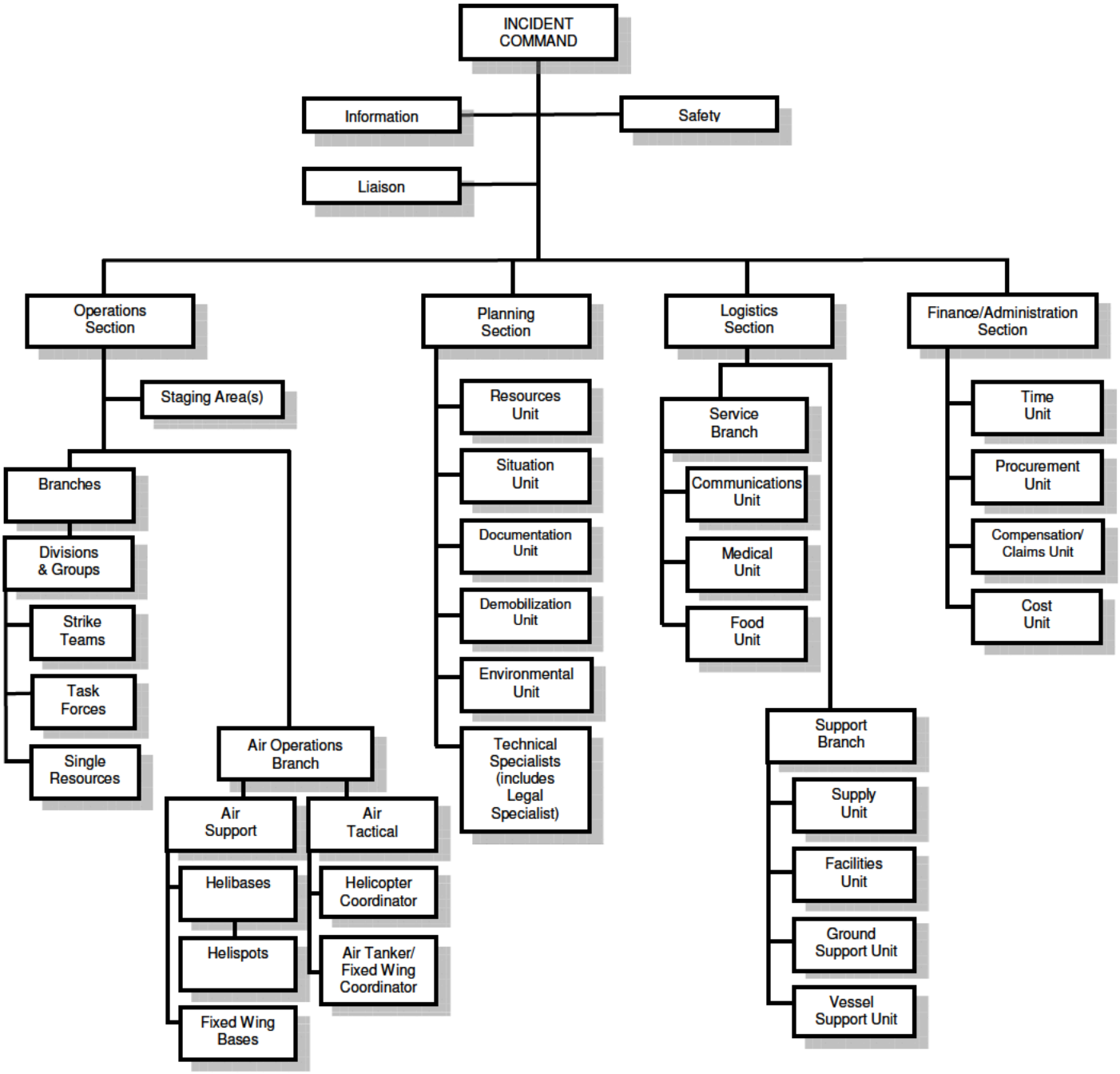


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

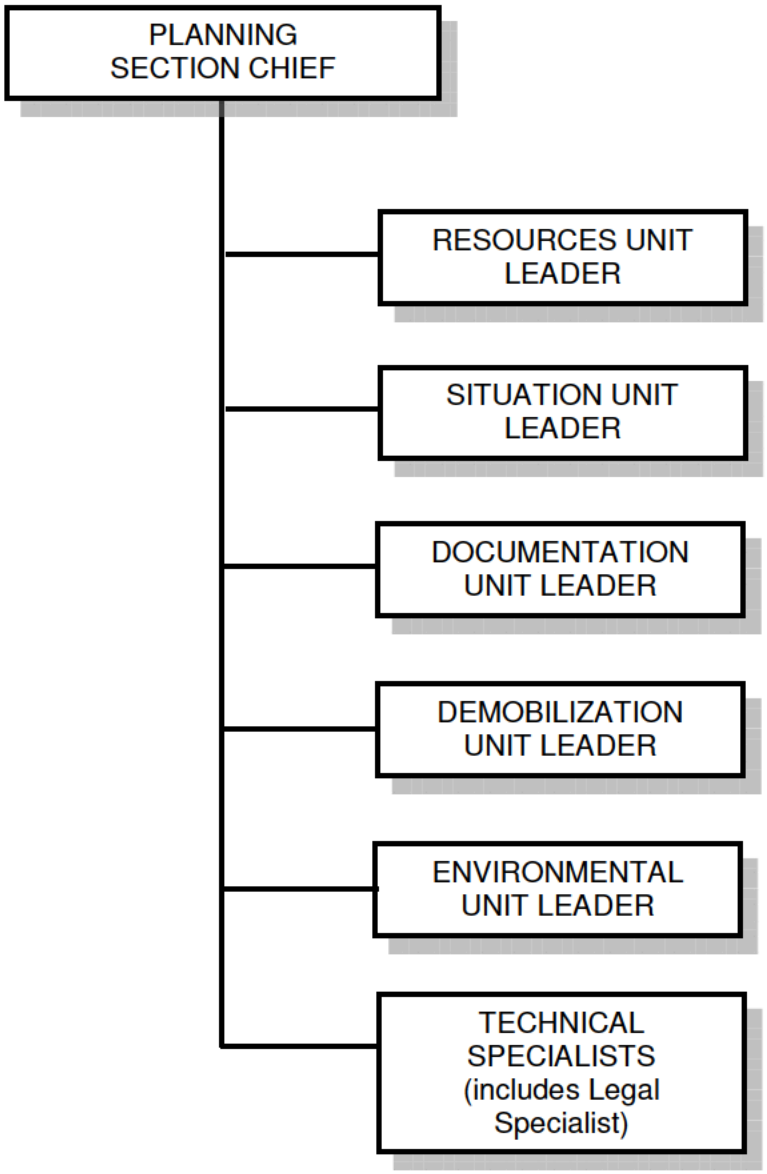
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



DEMOBILIZATION UNIT LEADER

The Demobilization Unit Leader works with the Planning Section and is responsible for developing the Incident Demobilization Plan. This position will be activated in order to ensure that resources are effectively demobilized when they are no longer required.

Overall Demobilization Unit Leader Responsibilities:

- Participate in planning meetings as required.
- Review incident resource records to determine the likely size and extent of demobilization effort.
- Based on the above analysis, add additional personnel, workspace, and supplies as needed.
- Coordinate demobilization with Agency Representatives.
- Monitor the on-going Operations Section resource needs.
- Identify surplus resources and probable release time.
- Develop incident check-out function for all units.
- Evaluate logistics and transportation capabilities to support demobilization.
  Ensure that there is sufficient transportation to effectively demobilize resources.
- Establish communications with off-incident facilities, as necessary.
  Off-incident facilities can include locations where resources will be returned to and off-site locations that are assisting the response (i.e. laboratories, oiled wildlife care facilities, etc.). These facilities will eventually be demobilized as well.
- Develop an Incident Demobilization Plan detailing specific responsibilities and release priorities and procedures.
- Prepare appropriate directories (e.g., maps, instructions, etc.) for inclusion in the demobilization plan.
- Distribute demobilization plan (on and off-site).
- Provide status reports to appropriate requestors.
- Ensure that all Sections/Units understand their specific demobilization responsibilities.
- Supervise execution of the Incident Demobilization Plan.
- Brief the PSC on demobilization progress.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	DEMOB. CHECK-OUT ICS 221-CG
3. Unit / Personnel Released	4. Release Date / Time	

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. Unit Leader "X" appropriate box(es))

Logistics Section

☐ Supply Unit _____

☐ Communications Unit _____

☐ Facilities Unit _____

☐ Ground Unit _____

Planning Section

☐ Documentation Unit _____

Finance / Admin. Section

☐ Time Unit _____

Other

☐ _____ _____

☐ _____ _____

☐ _____ _____

6. Remarks

_____

_____

_____

_____

7. Prepared by: **Date / Time**

DEMOB. CHECK-OUT (ICS 221-CG)

Purpose. This form provides the Planning Section information on resource releases from the incident.

Preparation. The Demobilization Unit Leader or the Planning Section initiates this form. The Demobilization Unit Leader completes the top portion of the form after the resource supervisor has given written notification that the resource is no longer needed.

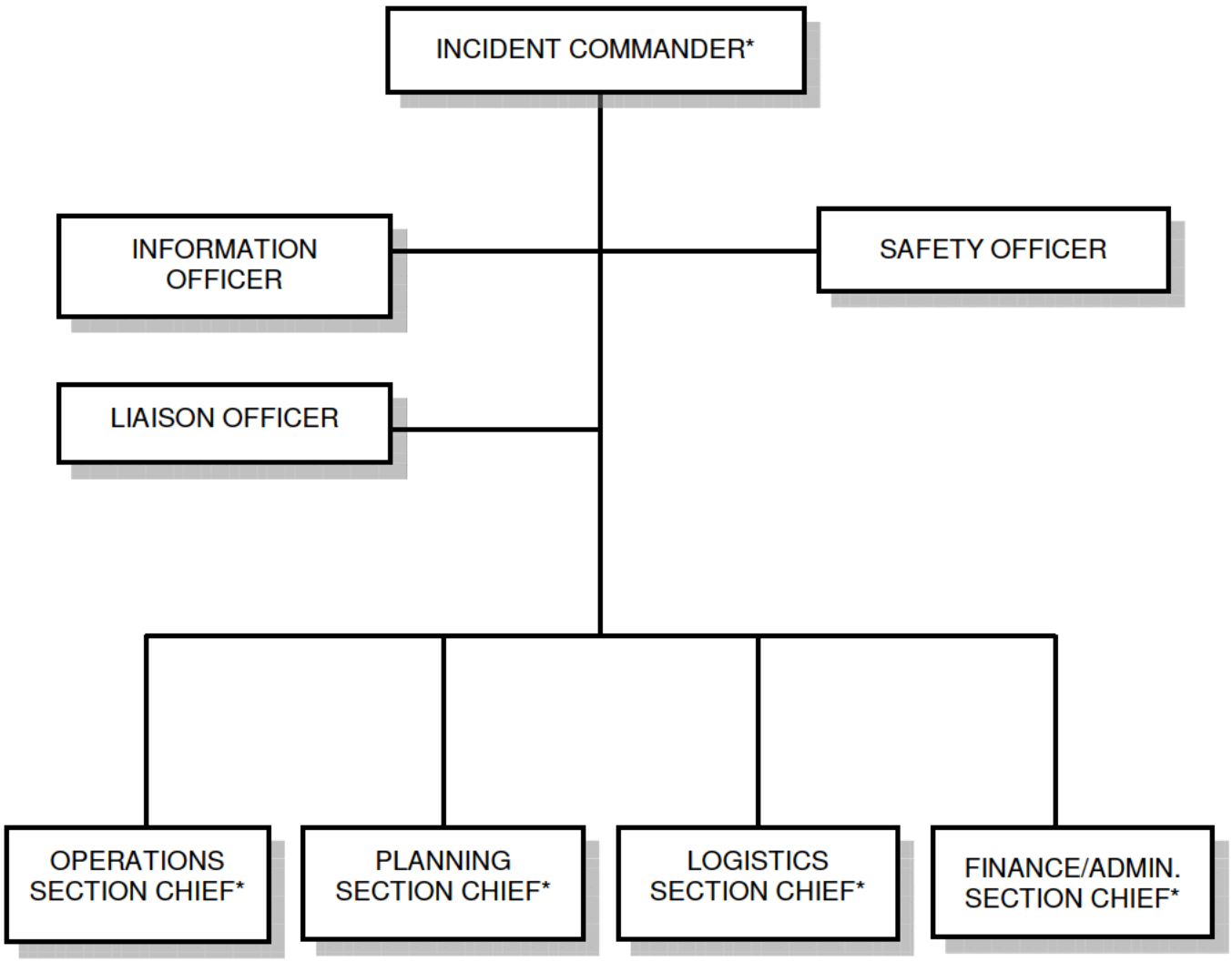
Distribution. The individual resource will have the unit leader initial the appropriate box(es) in item 5 prior to release from the incident. After completion, the form is returned to the Demobilization Unit Leader or the Planning Section. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Strike Team / Unit / Personnel Released	Enter name of Strike Team, Unit or personnel being released.
4.	Release Date/Time	Enter date (month, day, year) and time (24-hour clock) of anticipated release.
5.	Strike Team / Unit / Personnel	Demobilization Unit Leader will enter an "X" in the box to the left of those units requiring check-out. Identified Unit Leaders are to initial to the right to indicate release. NOTE: Blank boxes are provided for any additional unit requirements as needed, (e.g., Safety Officer, Agency Rep., etc.)
6.	Remarks	Enter any additional information pertaining to demobilization or release (e.g., transportation needed, destination, etc.).
7.	Prepared By	Enter name and title of the person preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

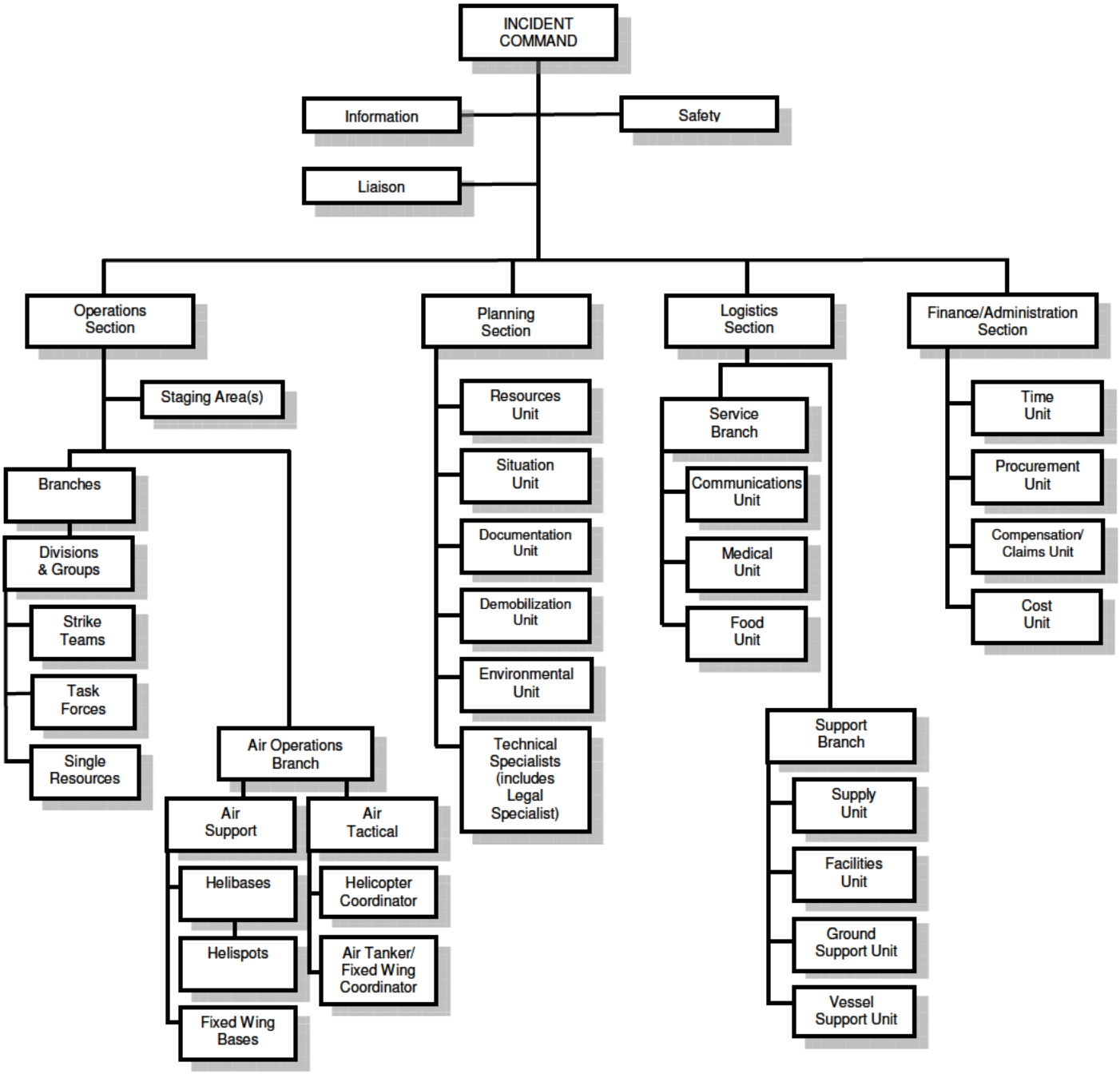


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
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- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

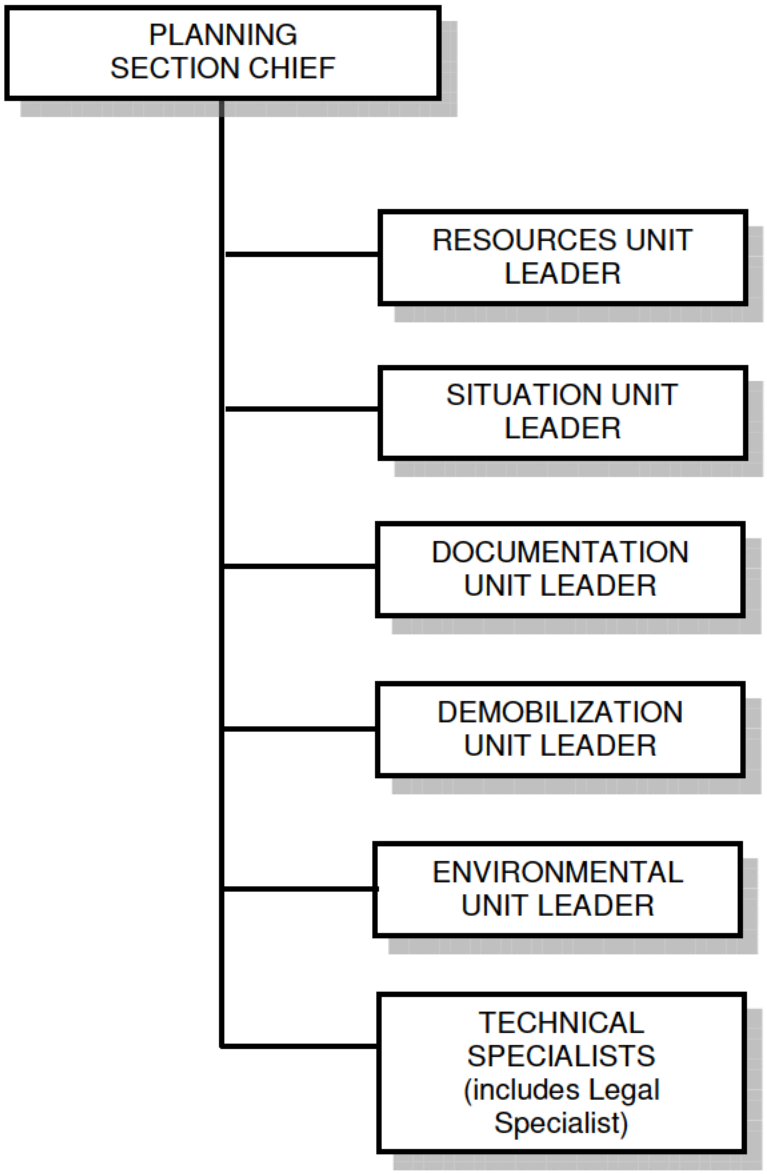
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



SITUATION UNIT LEADER (Cont'd)

Field Observer - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Field Observer Responsibilities:

- Determine:
  - Location of assignment
  - Type of information required
  - Priorities
  - Time limits for completion
  - Method of communication.
  - Method of transportation.
- Obtain a copy of the IAP for the Operational Period.
- Obtain necessary equipment and supplies.
- Perform Field Observer responsibilities to include but not limited to the following:
  - Perimeters of incident
  - Locations of hot spots
  - Unburned islands
  - Rates of spread
  - Weather conditions
  - Hazards including escape routes and safe areas
  - Progress of operations resources
- Be prepared to identify all facility locations (e.g., Helispots, Division and Branch boundaries).
- Report information to the SUL by established procedure.
- Report immediately any condition observed that may cause danger and a safety hazard to personnel.
- Gather intelligence that will lead to accurate predictions.

DOCUMENTATION UNIT LEADER

The Documentation Unit Leader (DUL) works within the Planning Section and is responsible for the maintenance of accurate, up-to-date incident files. The DUL should ensure that each section is maintaining and providing appropriate documents. The DUL will provide duplication and copying services for all other sections. The DUL will store incident files for legal, analytical and historical purposes.

Overall DUL Responsibilities

- Set up work area; begin organization of incident files.
- Establish duplication service; respond to requests.
- File all official forms and reports.
- Review records for accuracy and completeness; inform appropriate units of errors or omissions.
  Ensure ICS forms and documentation are dated and signed, as necessary.
- Provide incident documentation as requested.
- Store files for post-incident use.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	**UNIT LOG (CONT.)** **ICS 214-CG**

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

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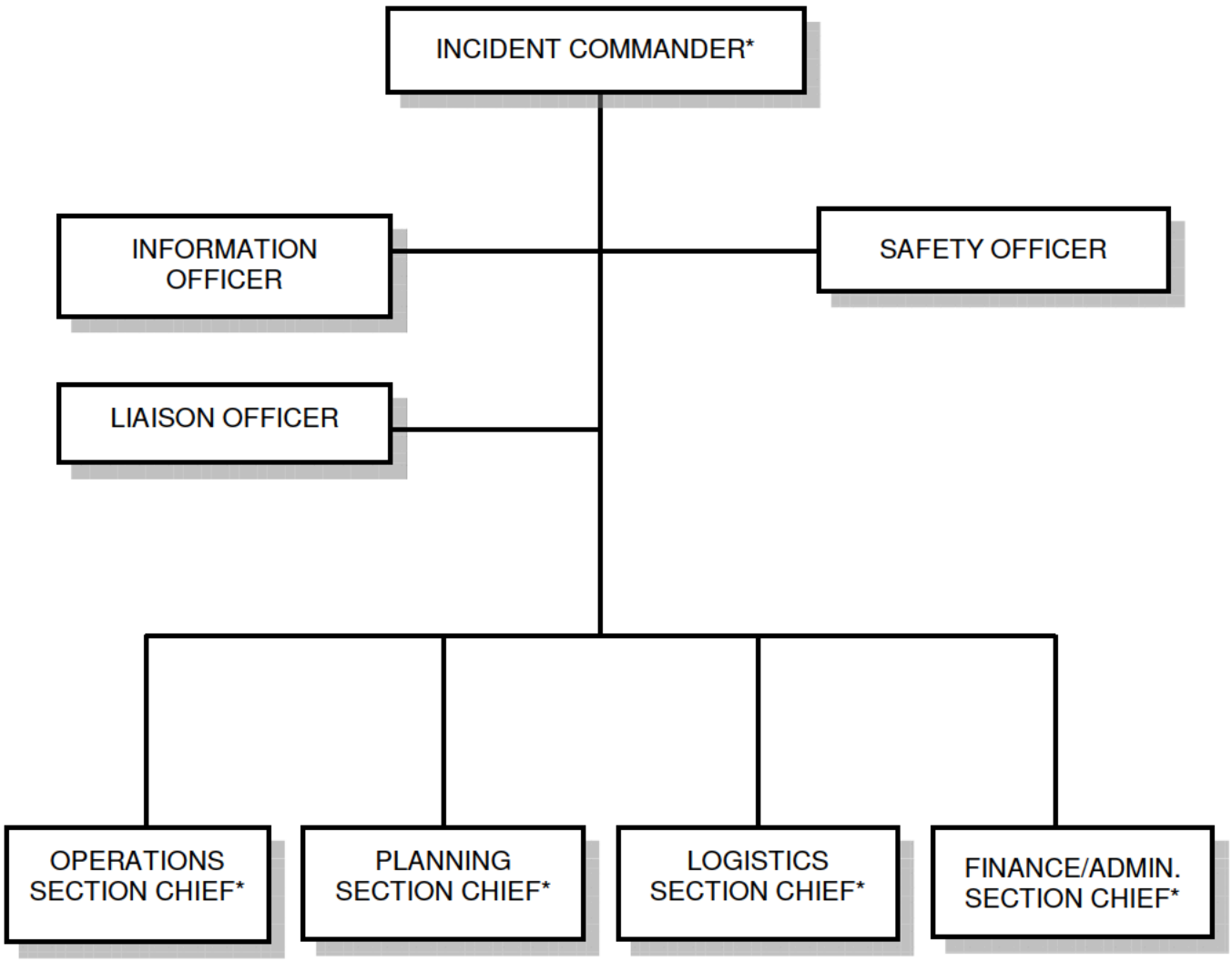
LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

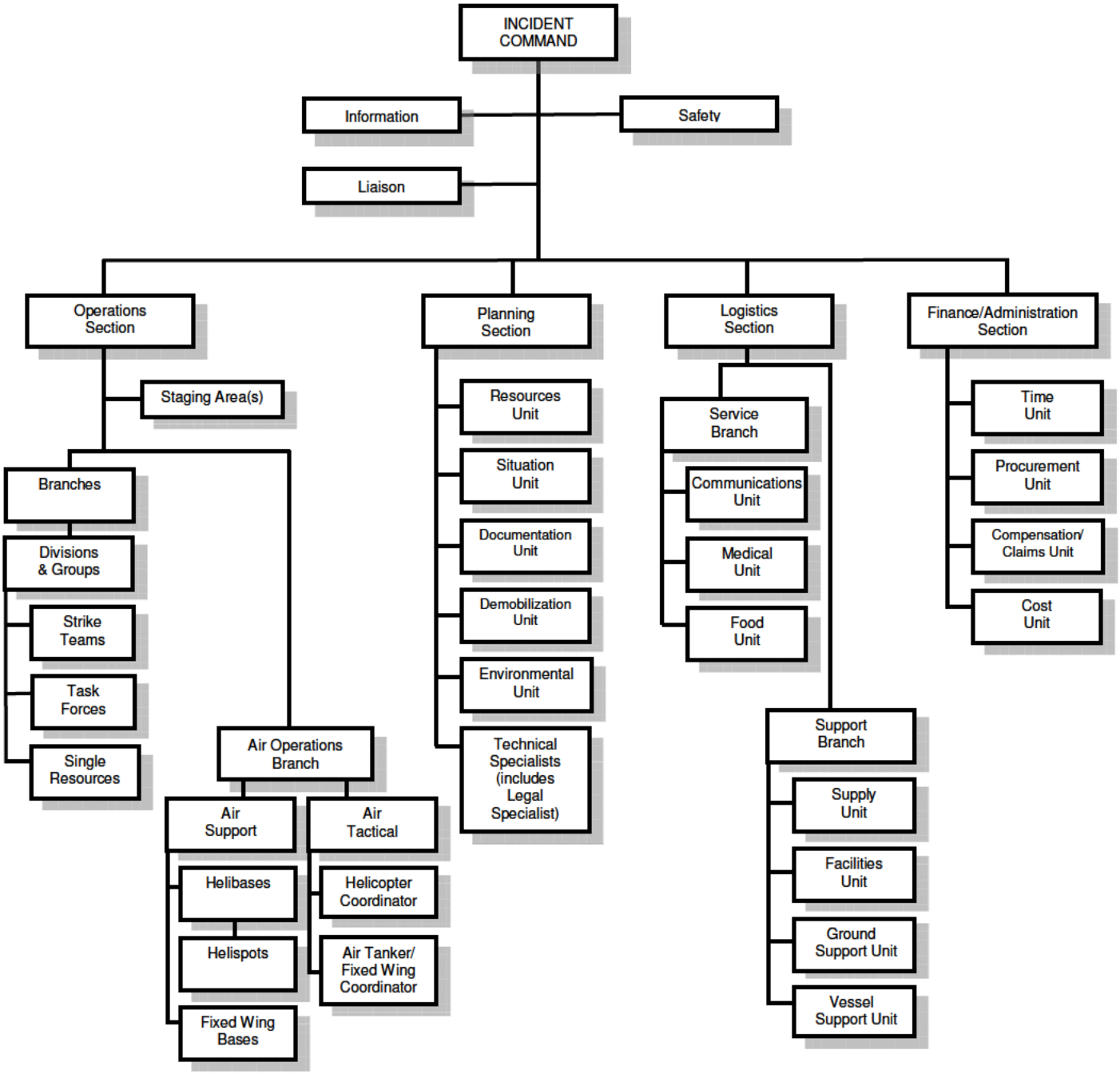


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

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- Assign specific duties to staff; supervise staff.
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PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

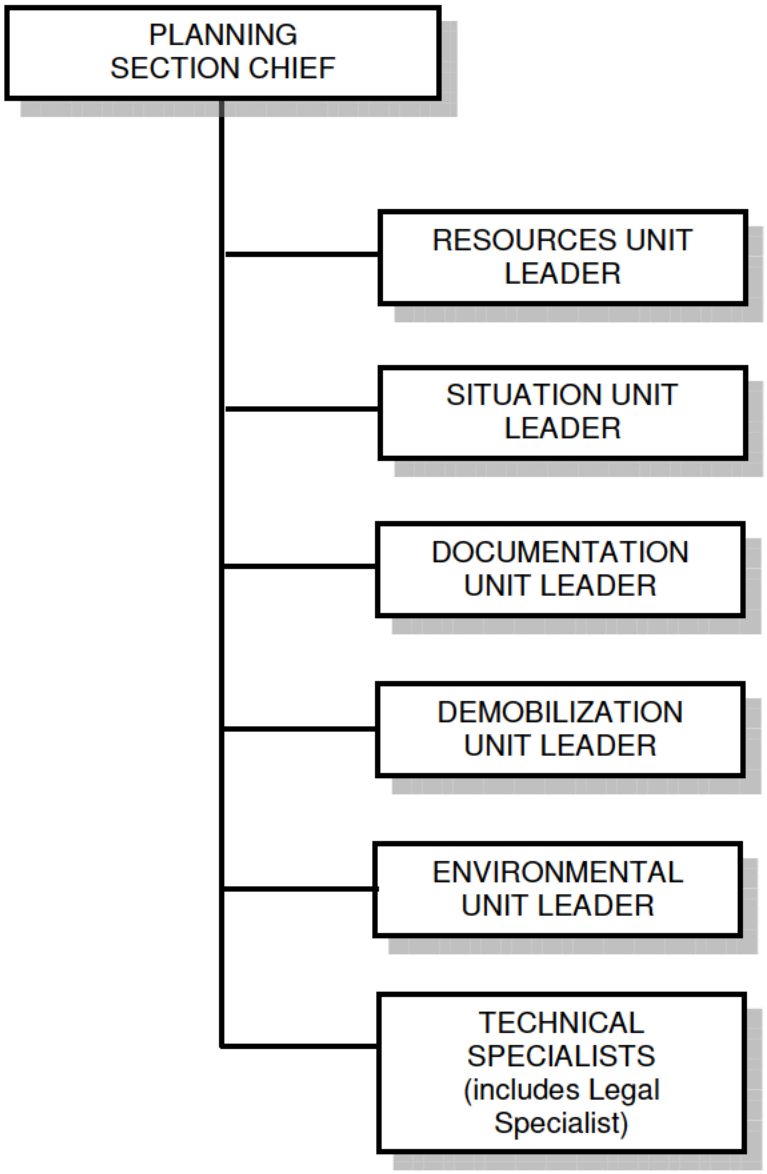
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



ENVIRONMENTAL UNIT LEADER

The Environmental Unit Leader (EUL) works with the Planning Section and is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting . The EUL prepares environmental data for the situation unit.

Overall Environmental Unit Leader Responsibilities:

- Obtain a briefing and special instructions from the PSC.
- Participate in Planning Section meetings.
- Identify sensitive areas and recommend response priorities.
  Utilize ICS Form 232.
- Following consultation with natural resource trustees, provide input on wildlife protection strategies (e.g., removing oiled carcasses, pre-emptive capture, hazing, and/or capture and treatment).
- Determine the extent, fate and effects of contamination.
- Acquire, distribute and provide analysis of weather forecasts.
- Monitor the environmental consequences of cleanup actions.
- Develop shoreline cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
- Identify the need for, and obtain, permits, consultations, and other authorizations including Endangered Species Act (ESA) provisions.
- Following consultation with the FOSC's Historical/Cultural Resources Technical Specialist identify and develop plans for protection of affected historical/cultural resources.
- Evaluate the opportunities to use various response technologies.
- Develop disposal plans.
- Develop a plan for collecting, transporting, and analyzing samples.

TECHNICAL SPECIALISTS

Certain incidents or events may require the use of Technical Specialists who have specialized knowledge and expertise. Technical Specialists may function within the Planning Section, or be assigned wherever their services are required.

An example of a Technical Specialist is:

LEGAL SPECIALIST:

The Legal Specialist will act in an advisory capacity within the Planning Section.

Overall Legal Specialist Responsibilities:

- Participate in planning meetings, if requested.
- Advise on legal issues relating to in-situ burning, use of dispersants, and other alternative response technologies.
- Advise on legal issues relating to differences between Natural Resource Damage Assessment Restoration (NRDAR) and response activities.
- Advise on legal issues relating to investigations.
- Advise on legal issues relating to finance and claims.
- Advise on legal issues relating to response.
- Utilize ICS Form 214.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	**UNIT LOG (CONT.)** **ICS 214-CG**

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	**RESOURCES AT RISK SUMMARY** **ICS 232-CG**

3. Environmentally-Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

5. Prepared by: (Environmental Unit Leader) **Date/Time**

RESOURCES AT RISK SUMMARY (ICS 232-CG)

Purpose. The Resources at Risk Summary provides information about sites in the incident area which are sensitive due to environmental, archaeo-cultural, or socio-economic resources at risk, and identifies incident-specific priorities and issues. The information recorded here may be transferred to ICS 232a-CG, which acts as a key to the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) site numbers shown on the Situation Map.

Preparation. The Environmental Unit Leader, with input from resource trustees, will complete this form for each operational period. It should be updated prior to the Planning Meeting.

Distribution. This form must be forwarded to the Planning Section Chief for possible inclusion in the IAP. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Env- Sensitive Area & Wildlife Issues	
	Site Number	Enter site number. Can come from Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or can be created during an incident.
	Priority	Priority specific to this incident. Can come from an ACP/GRP or can be created during an incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Site Issues	Environmental concerns associated with this site and season.
	Narrative	Use the Narrative section to clarify any issues.
4.	Archaeo-cultural and Socio-economic Issues	
	Site Number	Enter site number. Can come from an ACP/GRP or can be created during an incident.
	Priority	Priority specific to this incident. Can come from an ACP/GRP or can be created during an incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Site Issues	Archaeo-cultural or socio-economic concerns associated with this site and season.
	Narrative	Use the Narrative section to clarify any issues.
5.	Prepared By	Enter name and title of the person preparing the form (normally the Environmental Unit Leader).
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	ACP Site Index ICS 232a-CG

3. Index to ACP/GRP sites shown on Situation Map

Site #	Priority	Site Name and/or Physical Location	Action	Status

Note: This form is designed to be posted next to the situation map. Use additional sheets, as needed.

4. Prepared by: **Date/Time**

ACP SITE INDEX (ICS 232a-CG)

Special Note. This optional form is designed to be a key to the site numbers or site names shown on the Situation Map. The information on priorities for environmentally-sensitive areas and archaeo-cultural and socio-economic issues from the ICS 232-CG may be transferred to ICS 232a-CG, which provides more information on the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) site numbers or names shown on the Situation Map.

Purpose. If used, this form is posted next to the Situation Map, providing a key to the ACP/GRP sites shown on the map.

Preparation. The Situation Unit personnel responsible for the Situation Map prepare this form, using ICS 232-CG prepared by the Environmental Unit.

Distribution. This form is posted next to the Situation Map and copies of this form should accompany any distributed copies of the Situation Map. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Index to ACP/GRP sites	Enter site information from the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or other sources specific to this incident.
	Site Number	Can come from an Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or can be created during an incident.
	Priority	Priority specific to this incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Action	Actions to be taken for designated protection and collection strategies or for other sites identified specifically for this incident.
	Status	Status of site action implementation (e.g., scheduled, in progress, completed).
4.	Prepared By	Enter name and title of the person preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

UNITED STATES COAST GUARD **Finance Section Activities**

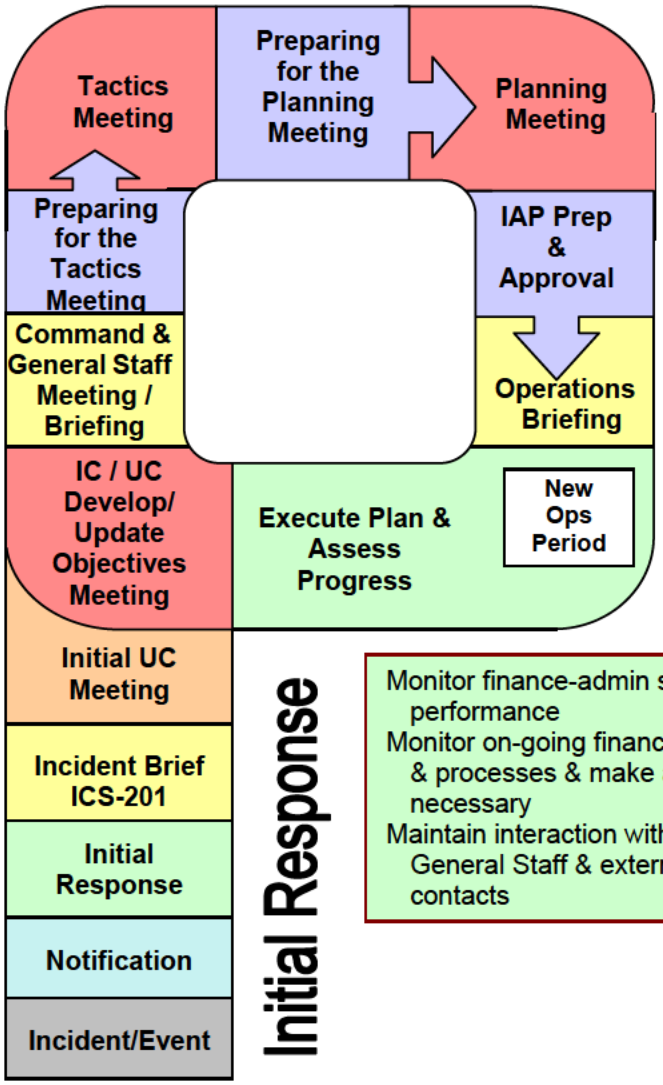
Finance "P"

Review resources assigned/ordered to determine proper use depending on funding source restrictions/regulations
Provide input on resource availability due to contracting/procurement issues
Procure necessary resources
Meet with Unit leaders to determine briefing topics

Verify support for upcoming plan
Brief on
- funding source(s)
- ceilings
- burn rate
- contract issues
- admin services
- claims & claims procedures

Provide estimates of future finance-admin requirements

As Necessary:
- Clarify resource requesting, approval & ordering process, as needed
- Identify contracting / procurement issues to be resolved
- Implement/Review Cost doc process



Receive IC/UC direction
- Priorities, limitations & constraints
- Objectives
- Key decisions

Provide feedback to IC/UC on focus/direction
Discuss interagency issues
Discuss resource requesting, approval, and ordering process
Discuss funding source & ceilings
Discuss Finance Section needs

Brief on funding issues as appropriate

Attend ICS-201 brief
-Current overview
-Anticipated Fin Section activities
-Indication of required support
Determine if funding is required based upon incident/event
Determine funding source (FPN, CPN, DPN, AFC-30) & estimate initial ceiling

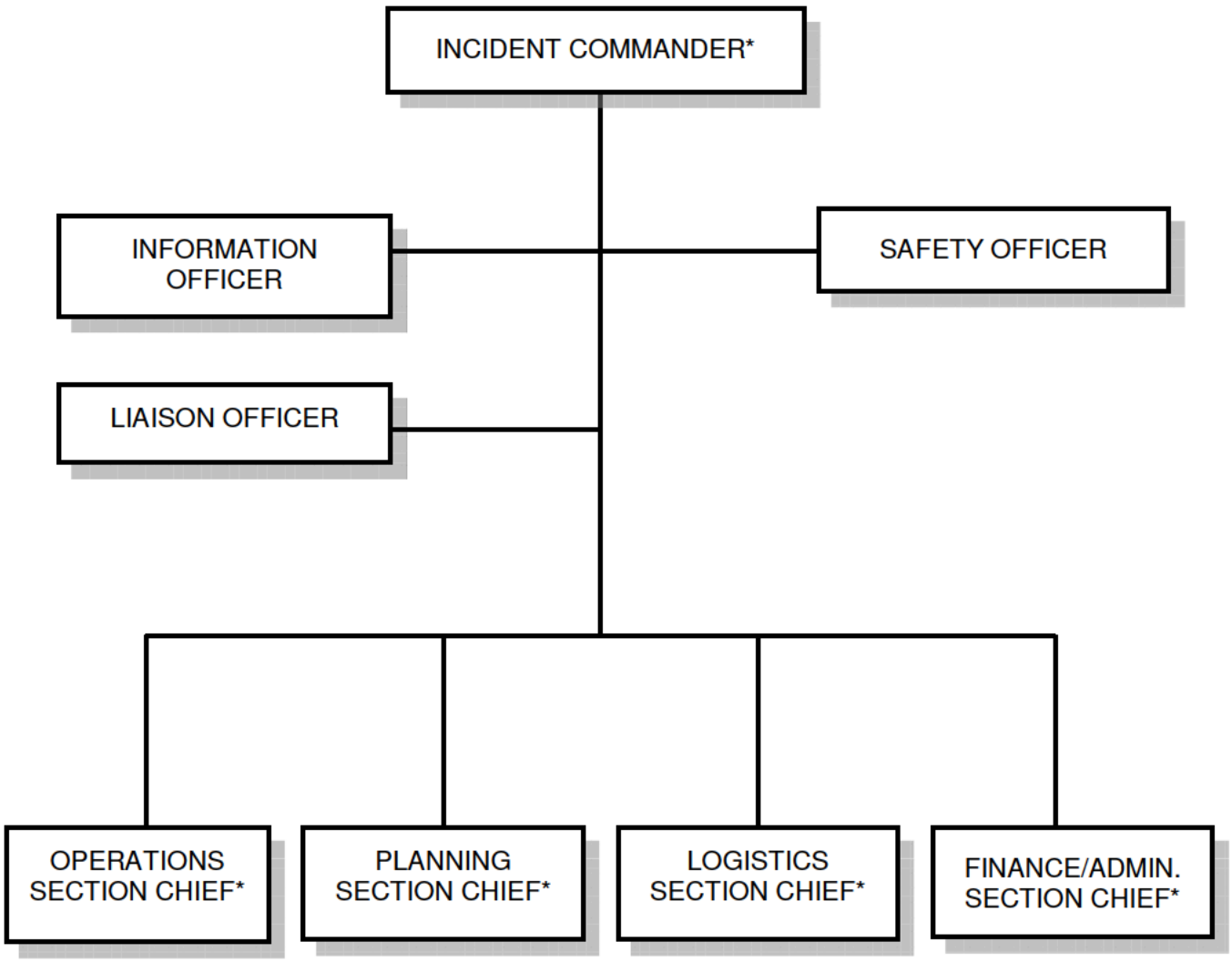
Monitor finance-admin section performance
Monitor on-going finance-admin support & processes & make adjustments as necessary
Maintain interaction with Command & General Staff & external financial contacts

Arrive & Check-in
Assess situation
Receive IC/UC briefing
Activate Finance Section
Organize & brief subordinates
Acquire work materials
Forecast Requirements

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

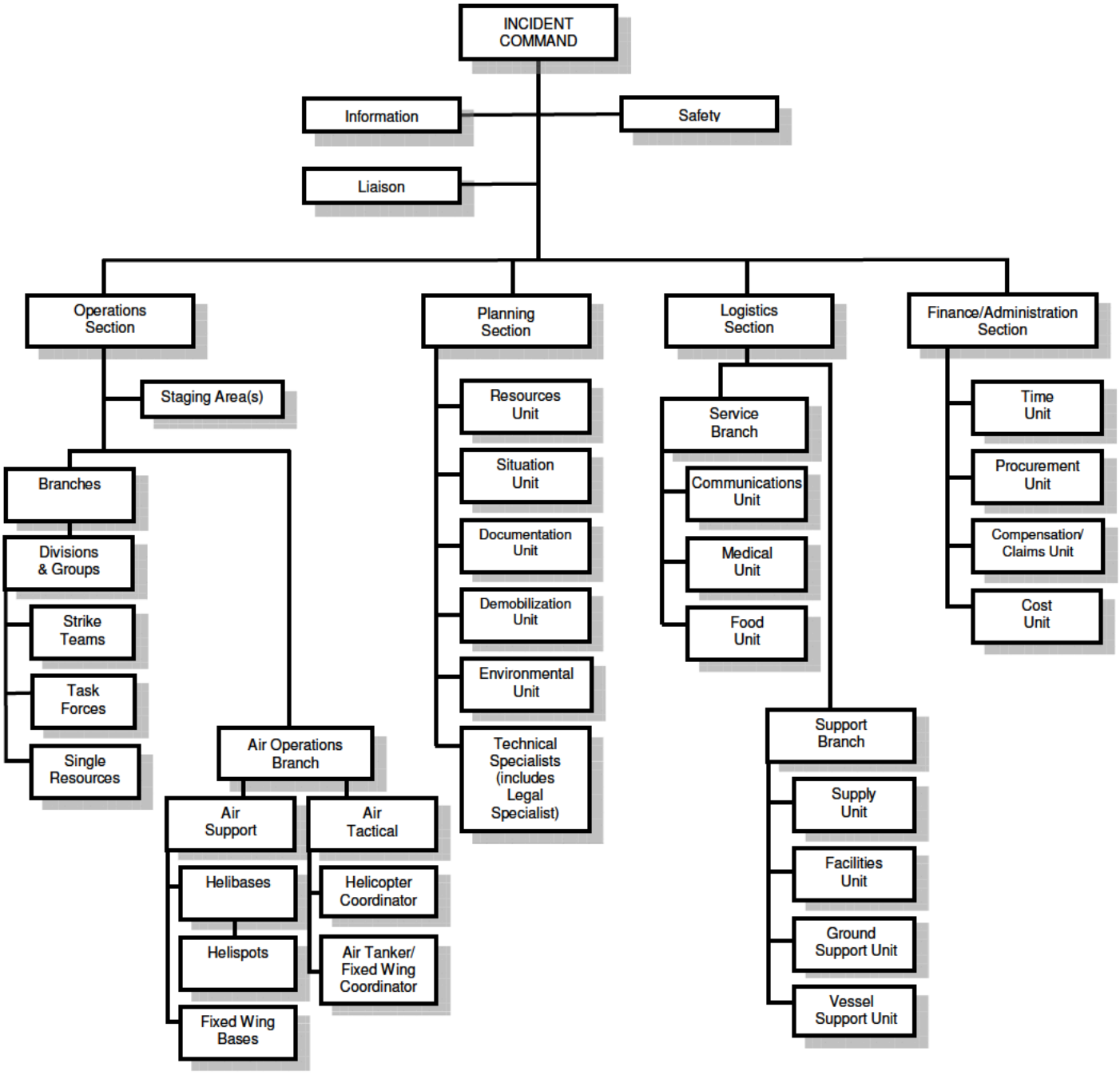


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

FINANCE/ADMINISTRATION

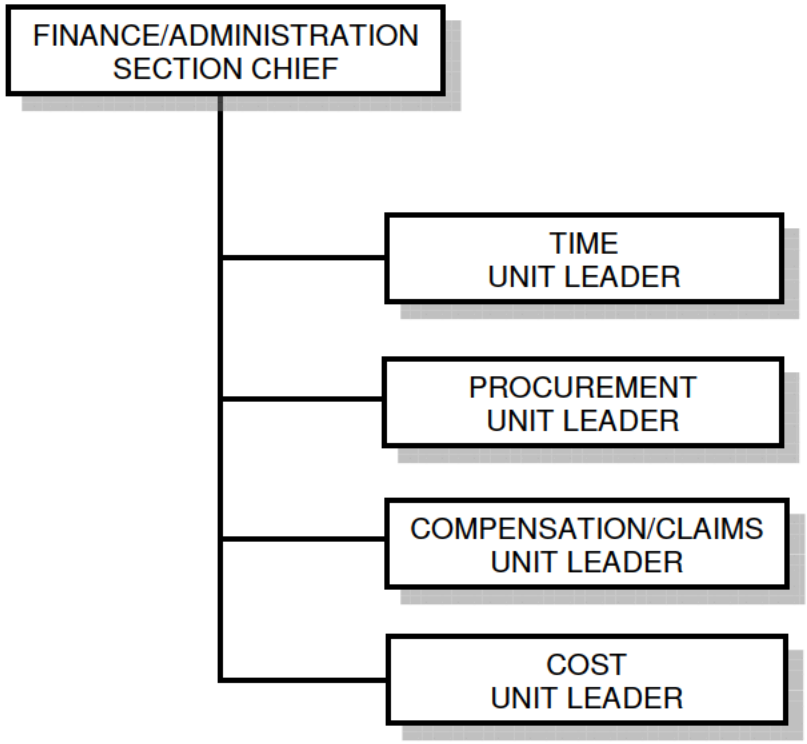
Finance/Administration Section Chief 4-51

Time Unit Leader 4-52

Procurement Unit Leader 4-52

Compensation/Claims Unit Leader 4-53

Cost Unit Leader 4-53



FINANCE/ADMINISTRATION SECTION CHIEF

The Finance/Administration Section Chief (FASC) is responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section. Depending on the incident, the FASC position may or may not be assigned. Agencies within the Unified Command may require and staff the FASC position. In either case, it is always beneficial to establish a system to oversee financial aspects of an incident.

Overall FASC Responsibilities:

- Attend planning meetings as required.
- Manage all financial aspects of an incident.
- Provide financial and cost analysis information as requested.
- Gather pertinent information from briefings with responsible agencies.
- Develop an operating plan for the Finance/Administration Section; fill supply and support needs.
- Determine the need to set up and operate an incident commissary.
- Meet with Assisting and Cooperating Agency Representatives, as needed.
- Maintain daily contact with agency(s) administrative headquarters on Finance/Administration matters.
- Ensure that all personnel time records are accurately completed and transmitted, according to policy.
- Provide financial input to demobilization planning.
- Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- Brief administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.

Additional KM Required FASC Responsibilities:

- Ensure compensation/claims are being managed for the incident.
  If necessary or required by the agencies, establish a claims telephone number.
- Arrange on-site legal counsel.
- Work with insurance adjusters.
- Track and assess charges related to the related effort.
- Coordinating activities with other Section Chiefs
- Providing cost authorization.
- Supervising daily activities of the Finance Section.
- Analyzing contract bids, management and payroll.

The FASC may have a Time Unit Leader, Procurement Unit Leader, Compensation/Claim Unit Leader, and Cost Unit Leader reporting to him/her. However if not assigned, the FASC will be responsible for their functions.

TIME UNIT LEADER

The Time Unit Leader is responsible for equipment and personnel time recording and for managing the commissary operations.

Overall Time Unit Leader Responsibilities:

- Determine incident requirements for time recording function.
- Determine resource needs.
- Contact appropriate agency personnel/representatives.
- Ensure that daily personnel time recording documents are prepared and in compliance with policy.
- Establish time unit objectives.
- Maintain separate logs for overtime hours.
- Establish commissary operation on larger or long-term incidents as needed.
- Submit cost estimate data forms to the Cost Unit, as required.
- Maintain records security.
- Ensure that all records are current and complete prior to demobilization.
- Release time reports from assisting agency personnel to the respective Agency Representatives prior to demobilization.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

PROCUREMENT UNIT LEADER

The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts, leases, and fiscal agreements.

Overall Procurement Unit Leader Responsibilities:

- Review incident needs and any special procedures with Unit Leaders, as needed.
- Coordinate with local jurisdiction on plans and supply sources.
- Obtain the Incident Procurement Plan.
- Prepare and authorize contracts and land-use agreements.
- Draft memoranda of understanding as necessary.
- Establish contracts and agreements with supply vendors.
- Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
- Interpret contracts and agreements; resolve disputes within delegated authority.
- Coordinate with the Compensation/Claims Unit for processing claims.
- Coordinate use of impress funds, as required.
- Complete final processing of contracts and send documents for payment.
- Coordinate cost data in contracts with the Cost Unit Leader.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

COMPENSATION/CLAIMS UNIT LEADER

The Compensation/Claims Unit Leader is responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims related activities (other than injury) for an incident.

Overall Compensation/Claims Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Establish contact with the incident SO and LO (or Agency Representatives if no LO is assigned).
- Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
- Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
- Review Incident Medical Plan (ICS Form 206).
- Ensure that Compensation/Claims Specialists have adequate workspace and supplies.
- Review and coordinate procedures for handling claims with the Procurement Unit.
- Brief the Compensation/Claims Specialists on incident activity.
- Periodically review logs and forms produced by the Compensation/Claims Specialists to ensure that they are complete, entries are timely and accurate and that they are in compliance with agency requirements and policies.
- Ensure that all Compensation for Injury and Claims logs and forms are complete and routed appropriately for post-incident processing prior to demobilization.
- Keep the Finance/Administration Section Chief briefed on Unit status and activity.
- Demobilize unit in accordance with the Incident Demobilization Plan.

COST UNIT LEADER

The Cost Unit Leader is responsible for collecting all cost data, performing cost effectiveness analyses and providing cost estimates and cost saving recommendations for the incident.

Overall Cost Unit Leader Responsibilities:

- Obtain a briefing from the Finance/Administration Section Chief.
- Coordinate cost reporting procedures.
- Collect and record all cost data.
- Develop incident cost summaries.
- Prepare resources-use cost estimates for the Planning Section.
- Make cost-saving recommendations to the Finance/Administration Section Chief.
- Ensure all cost documents are accurately prepared.
- Maintain cumulative incident cost records.
- Complete all records prior to demobilization.
- Provide reports to the Finance/Administration Section Chief.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

UNITED STATES COAST GUARD **Command Activities**

The Operational Planning "P"

During this time period:
- Meet one-on-one with Command & General Staff members for follow up on assignments.
- Prepare further guidance and clarification as needed
- Receive operations briefing

During this time period:
- Agree on who will present UC's response emphasis and motivation remarks
- Review task assignments, objectives, decisions & directions
- Receive operations briefing

Provide opening remarks
Review response plan as presented to ensure that Command's directions and objectives have been properly addressed
Provide further guidance and resolve issues
Give tacit approval of the proposed Plan
Agree when written plan will be ready for review & approval

Review IAP for completion and make changes as necessary
Approve Plan

Meet and brief Command & General Staff on IC/UC direction, objectives & priorities
Assign work tasks
Resolve problems & clarify staff roles and responsibilities

Establish priorities
Identify constraints & limitations
Develop incident objectives
Identify necessary SOP's
Agree on operating policy, procedures and guidelines
Identify staff assignments
Agree on division of UC workload

Finalize UC structure
Determine overall response organization
Identify and select support facilities
Clarify UC roles and responsibilities
Determine Operational period
Select OSC & Deputy OSC
Make key decisions

Determine ICS-201 briefing timeframe & receive briefing
Clarify/request additional information
Determine incident complexity
Provide interim direction
Initiate change of command
Determine UC players
Ensure interagency notifications
Brief superiors

Provide overall guidance and clarification
Provide leadership presence and motivational remarks
Emphasize response philosophy

Monitor on-going operations
Review progress of assigned tasks
Receive periodic situation briefings
Review work progress
Identify changes that need to be made during current and future operations
Prepare for UC Update Objectives Meeting

Ensure that an appropriate initial response is deployed
Provide direction as needed
Monitor initial response operations

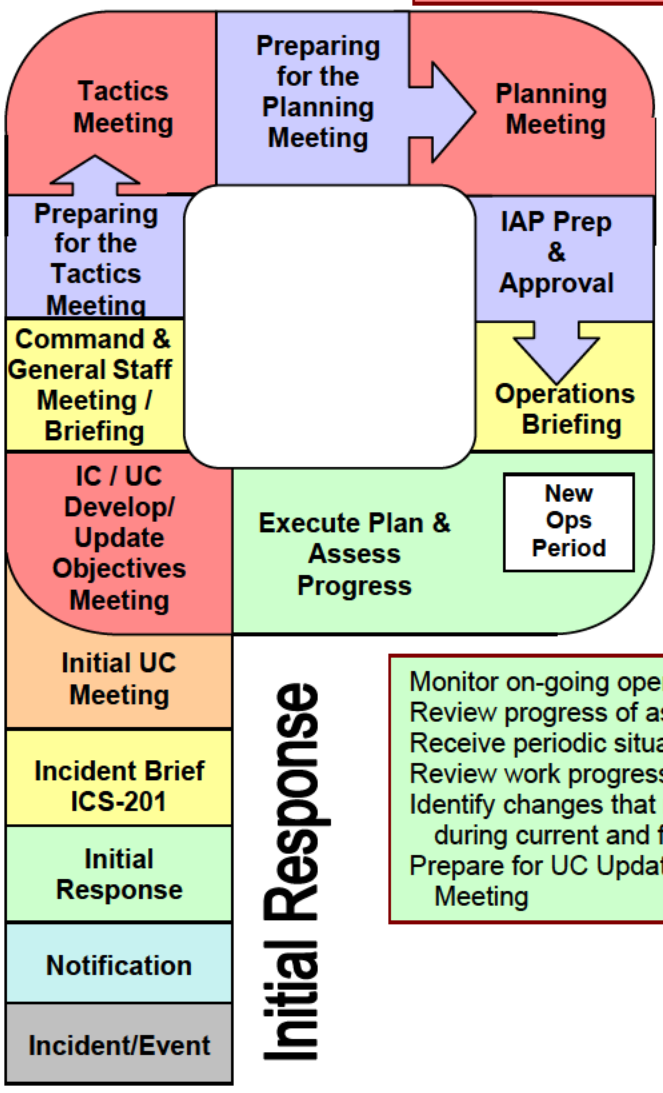
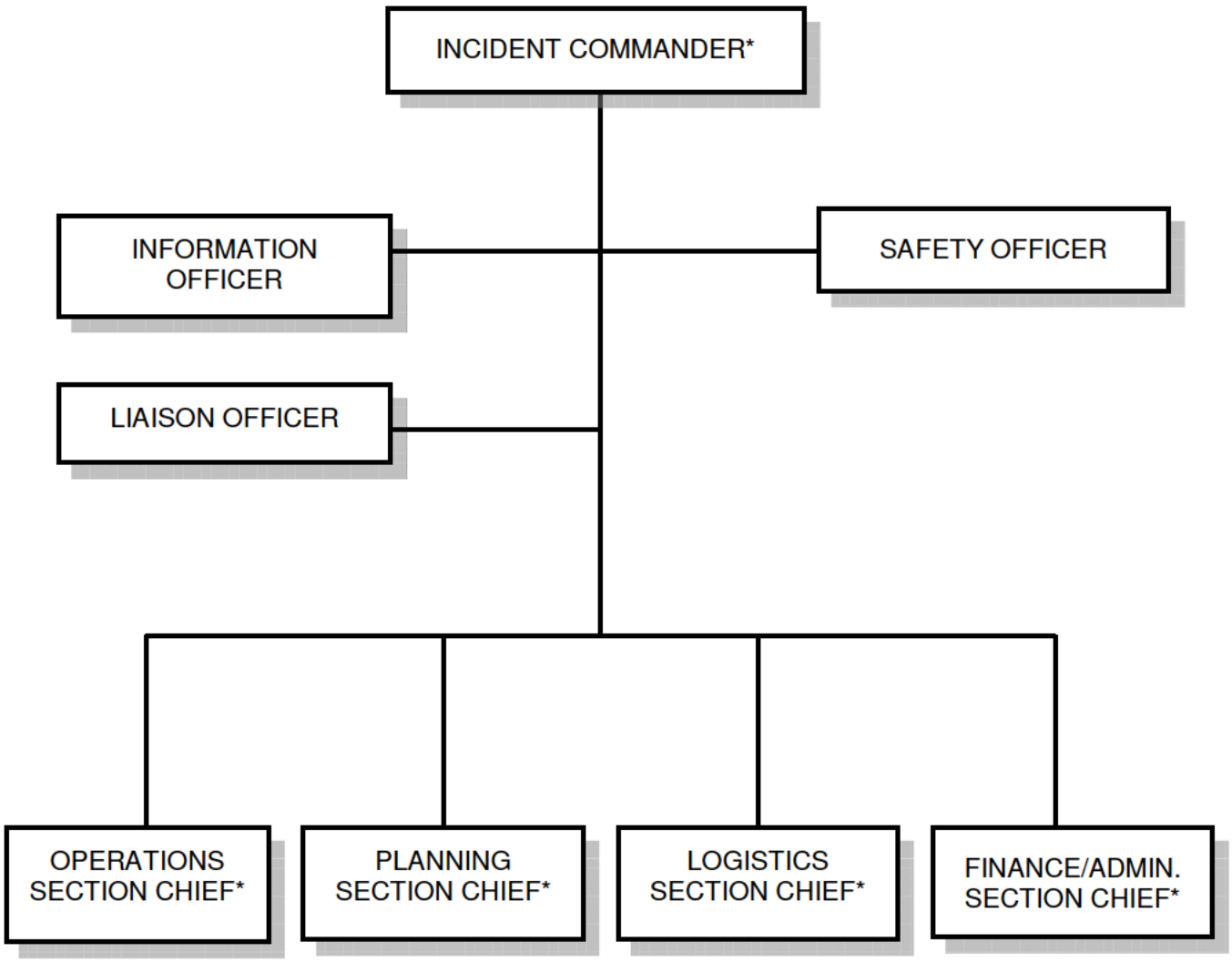


FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

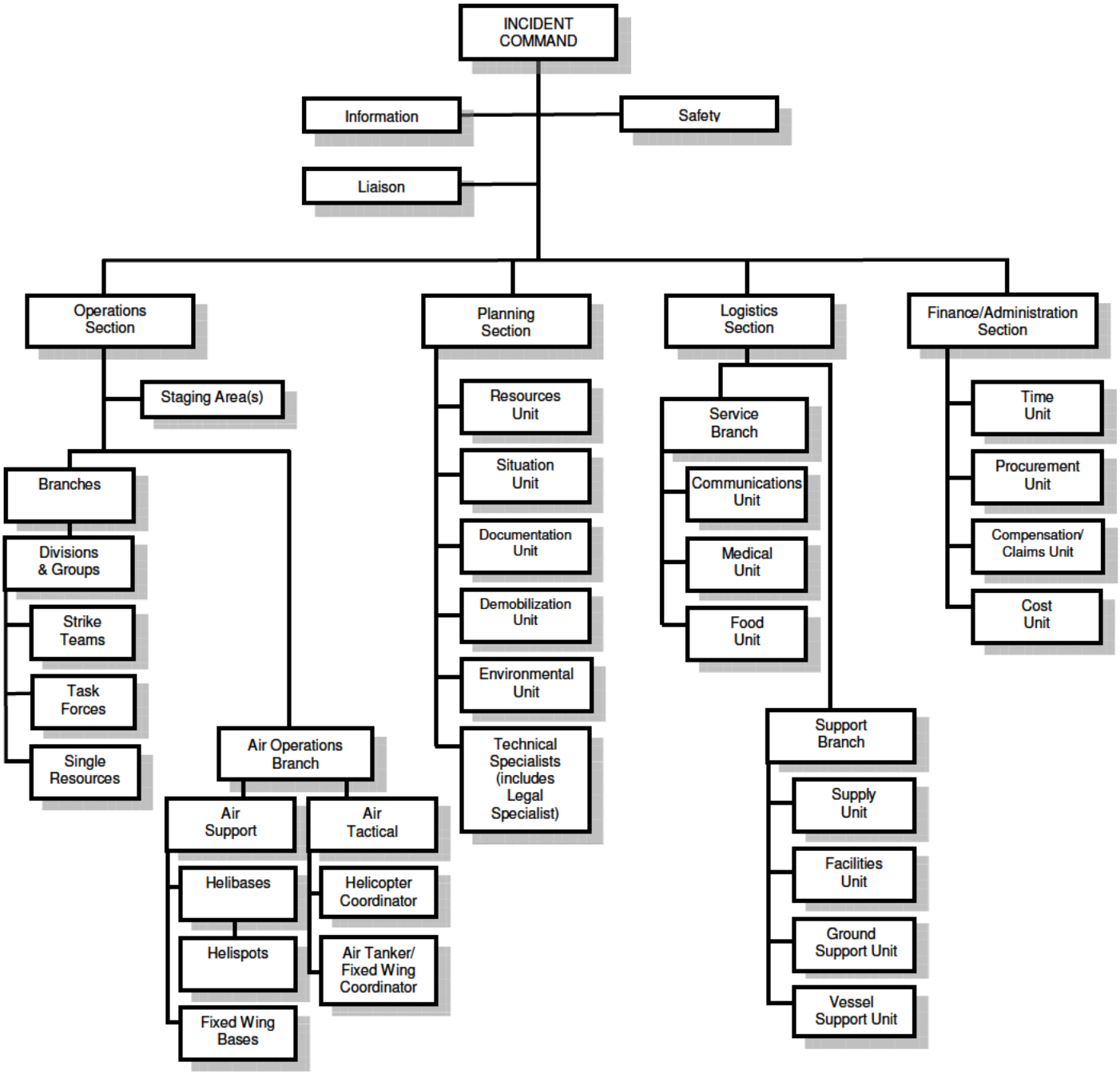


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

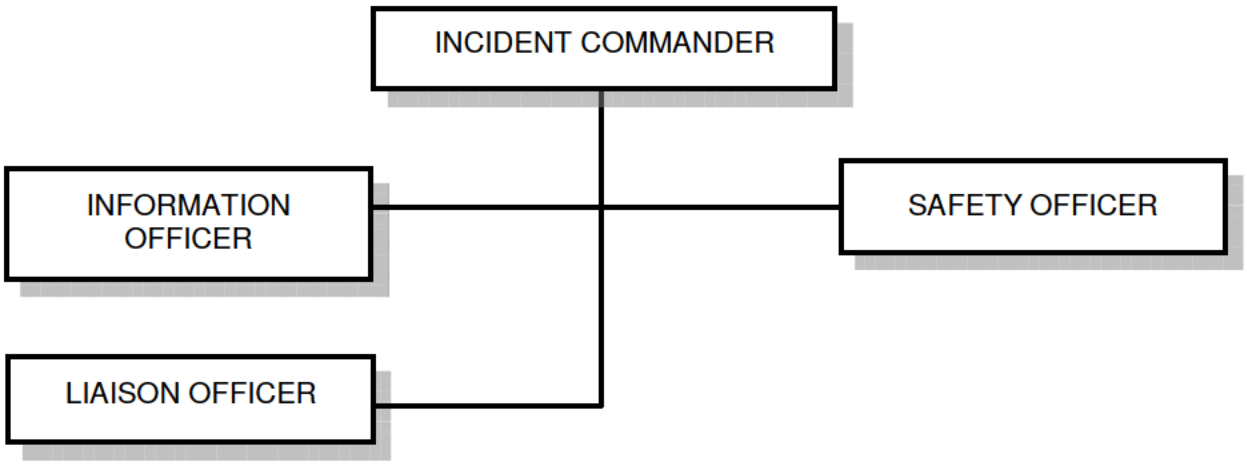
COMMAND

Incident Commander..... 4-12

Safety Officer 4-15

Liaison Officer 4-17

Information Officer 4-18



INCIDENT COMMANDER

The Incident Commander (IC) has responsibility for overall management of the incident. The KM IC has the authority to approve the use of a contractor even if no "open-end" contract exists, as well as the authority to commit monies to initiate response and clean-up activities. The first employee on-site will assume the responsibilities of IC until properly relieved. Generally, the most senior employee on-site will assume the IC position. The IC also has overall responsibility for the health and safety of responders.

KM Initial IC Responsibilities (During the first few hours):

- Make internal Company notifications
- Conduct initial site assessment
- Initiate Incident Command System (assign ICS roles & complete org. chart)
- Ensure Site Specific Health & Safety plan is being developed within the first hour
- Maintain site control (establish hazard zones and appropriate corridors)
- Request Unified Command with lead agencies as appropriate
- Establish immediate priorities (i.e. control the discharge, initiate containment, ensure safety, etc.)

Overall IC Responsibilities:

- Assess the situation and/or obtain a briefing from the prior IC.
- Determine Incident Objectives and strategy.
  Objectives and strategies should be documented on ICS form 201or 202 and used to communicate Unified Command's expectations for the next operational period
- Establish the immediate priorities.
- Establish an Incident Command Post.
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
  The organization should be documented on ICS forms 201, 203 or 207, depending on the level of response.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an IAP.
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
  This is usually accomplished through the approval of the Incident Action Plan.
- Keep corporate offices and agency administrator(s) informed of incident status.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Ensure incident Status Summary (ICS Form 209) is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.

INCIDENT COMMANDER (Cont'd)

OIL SPILL

The IC for oil discharges will, whenever possible and practical, be organized under the Unified Command (UC) Structure that includes, but is not limited to:

- The pre-designated Federal On-Scene Incident Commander (FOSC)
- The pre-designated State On-Scene Incident Commander (SOSC)
- The representative of the Responsible Party (RP) IC

The UC is responsible for the overall management of the incident. The UC directs incident activities including the development and implementation of strategic decisions and approves the ordering and releasing of resources. The UC may assign a Deputy IC to assist in carrying out IC responsibilities. IC tasks specific to oil spill events are:

- Be cognizant of the primary objectives for oil spill response activities.
  - Ensure the safety of citizens and response personnel.
  - Control the source of the spill.
  - Manage a coordinated response effort.
  - Maximize protection of environmentally sensitive areas.
  - Contain and recover spilled material.
  - Recover and rehabilitate injured wildlife.
  - Remove oil from impacted areas.
  - Minimize economic impacts.
  - Keep stakeholders informed of response activities.
  - Keep the public informed of response activities.
  - Ensure that the source of a discharge is designated and that procedures by which claims may be presented are advertised.
  - All removal and damage claims must be handled appropriately.

HAZARDOUS SUBSTANCE RELEASE

Incident Commander and Safety Officer - The IC and SO for a hazardous substance incident will use the following guidance when preparing the Site Safety Plan:

- Assign site safety responsibility.
- Establish perimeter and restrict access.
- Characterize site hazards:
  - Identity pollutant
  - Obtain Material Safety Data Sheets
  - Conduct air monitoring
  - Identify physical and biological hazards i.e., slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants and biological waste
- Establish control zones:
  - Exclusion zone
  - Contamination reduction zone
  - Support zone

INCIDENT COMMANDER (Cont'd)

***HAZARDOUS SUBSTANCE RELEASE** (Cont'd)*

- Assess training requirements:
  - Check HAZWOPER cards
  - Insure safety briefings
- Select personal protective equipment (PPE) Level A, B, C, or D.
- Establish decontamination stations.
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.

TERRORISM INCIDENT

(b) (7)(F), (b) (3)

[redacted]

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

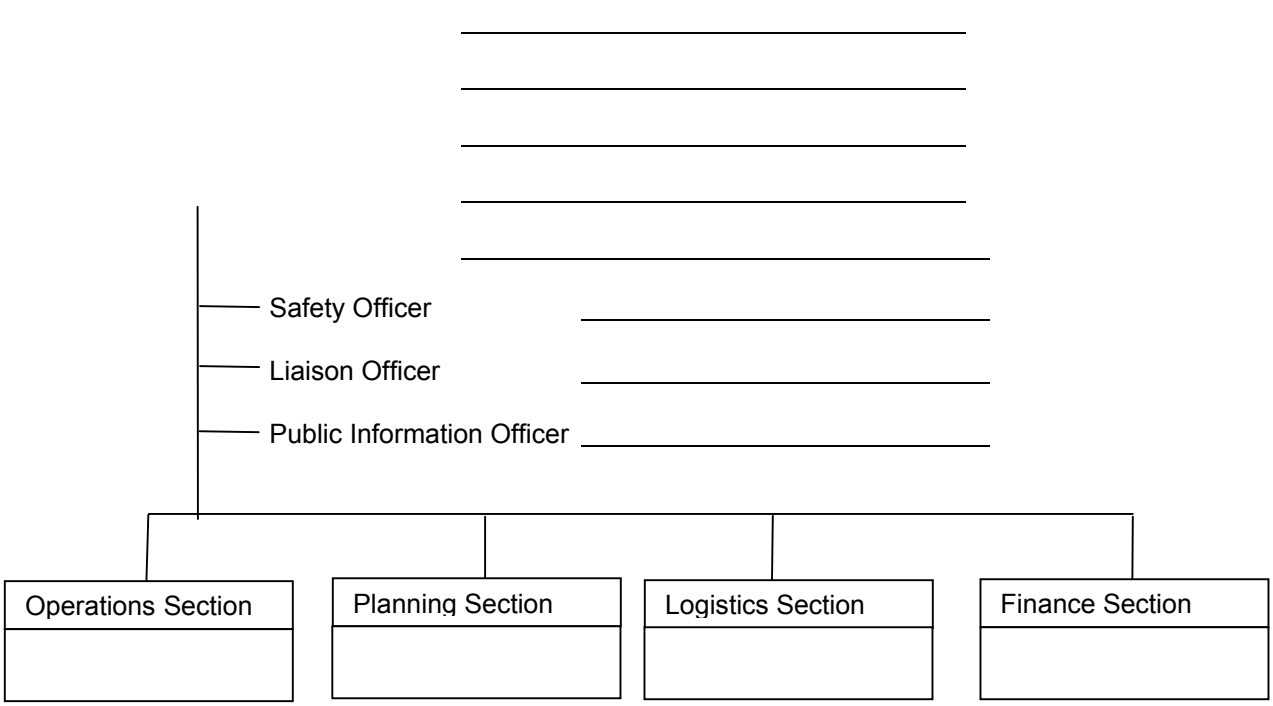
4. Current Situation:

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

5. Initial Response Objectives, Current Actions, Planned Actions

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

6. Current Organization (fill in additional appropriate organization)



1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary

Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT OBJECTIVES ICS 202-CG

3. Objective(s)

Ensure the safety of citizens and response personnel;

Control the source of the spill;

Manage a coordinated response effort;

Maximize protection of environmentally sensitive areas;

Contain and recover spilled material;

Recover and rehabilitate injured wildlife;

Remove oil from impacted areas;

Minimize economic impacts;

Keep stakeholders and public informed of response actions.

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

Approved Site Safety Plan Located at:

5. Prepared by: (Planning Section Chief) **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

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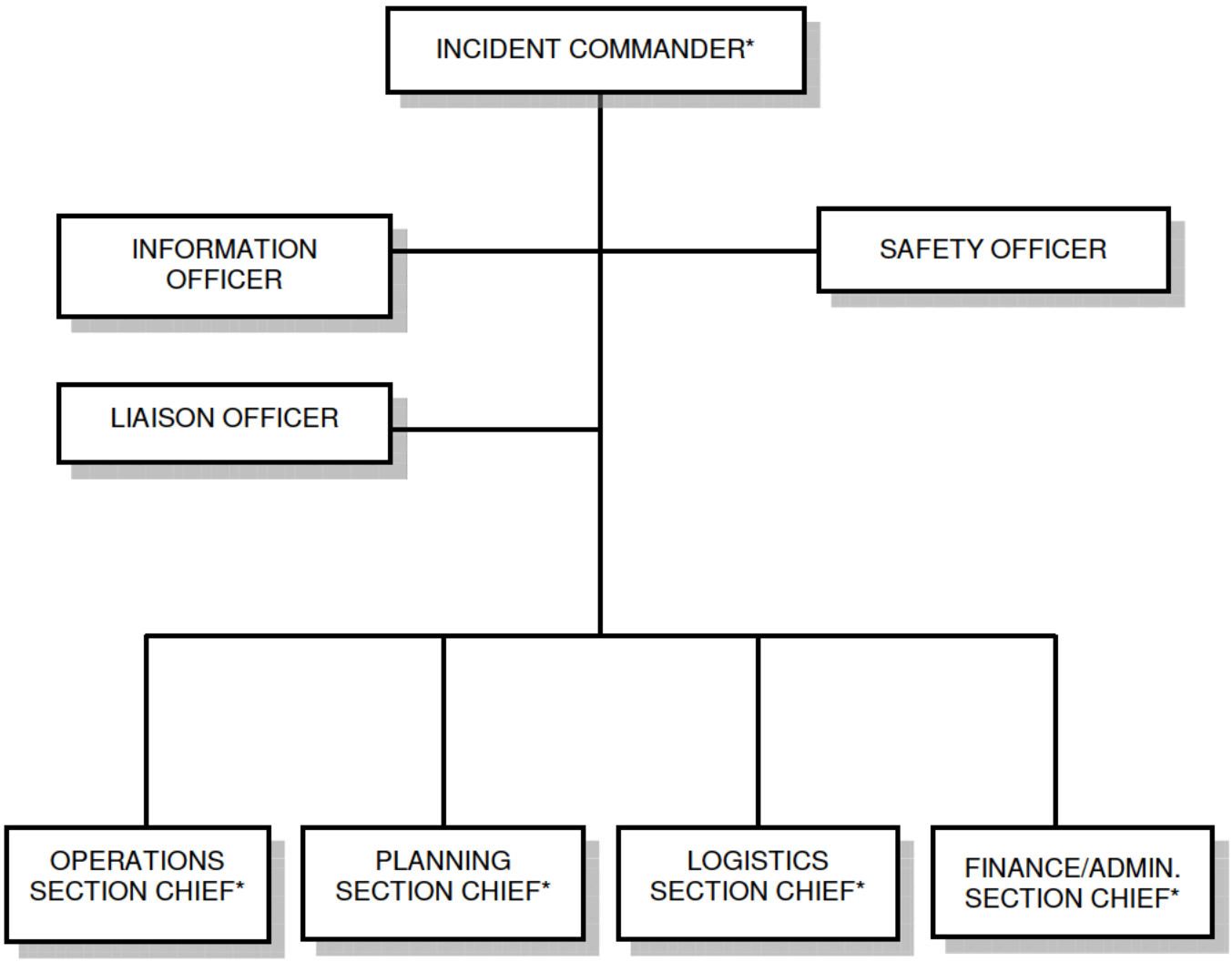
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

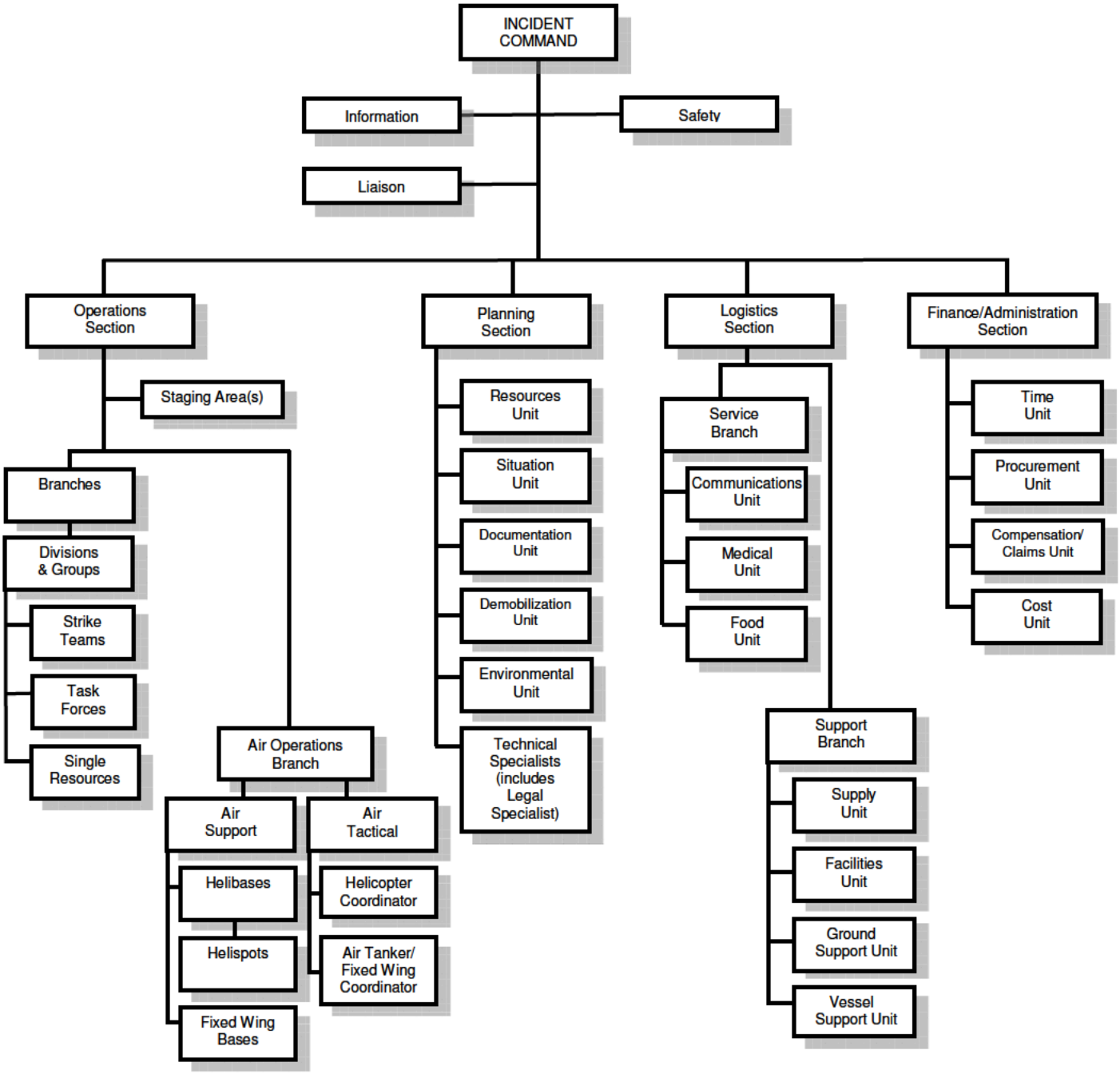


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

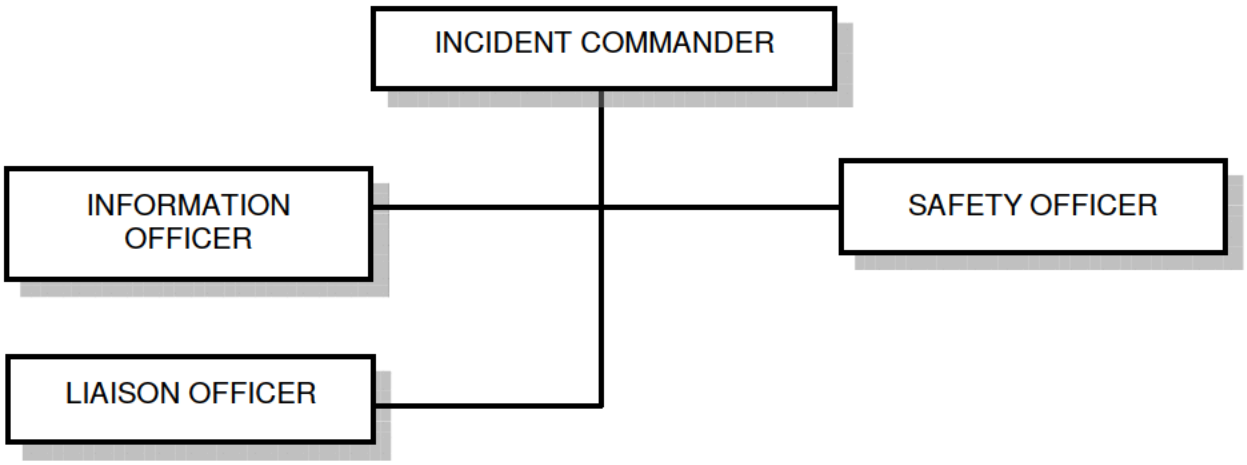
COMMAND

Incident Commander..... 4-12

Safety Officer 4-15

Liaison Officer 4-17

Information Officer 4-18



INFORMATION OFFICER

The Information Officer (IO) is responsible for developing and releasing information about the incident to the news media, incident personnel, and other appropriate agencies and organizations.

Only one IO will be assigned for each incident. The IO may have assistants as necessary. The assistants may represent assisting agencies, companies, or jurisdictions. The IO and assistants will establish a Joint Information Center to assist with developing information releases.

Overall IO Responsibilities:

- Determine from the IC if there are any limits on information release.
- Develop material for use in media briefings.
- Obtain IC approval of media releases.
- Inform media and conduct media briefings.
- Arrange for tours and other interviews or briefings that may be required.
- Obtain media information that may be useful to incident planning.
- Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

Additional KM Required IO Responsibilities:

- Receive briefing of incident
- Anticipate need for and establish a Media Area
- Coordinate with the KMEP Corporate Communications Office for development and release of appropriate media information
- Maintain a log of agency IOs, news media, news releases, etc.

TERRORISM INCIDENT

(b) (7)(F), (b) (2)

[redacted]

INFORMATION OFFICER (Cont'd)

After The Event

(b) (7)(F), (b) (3)

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

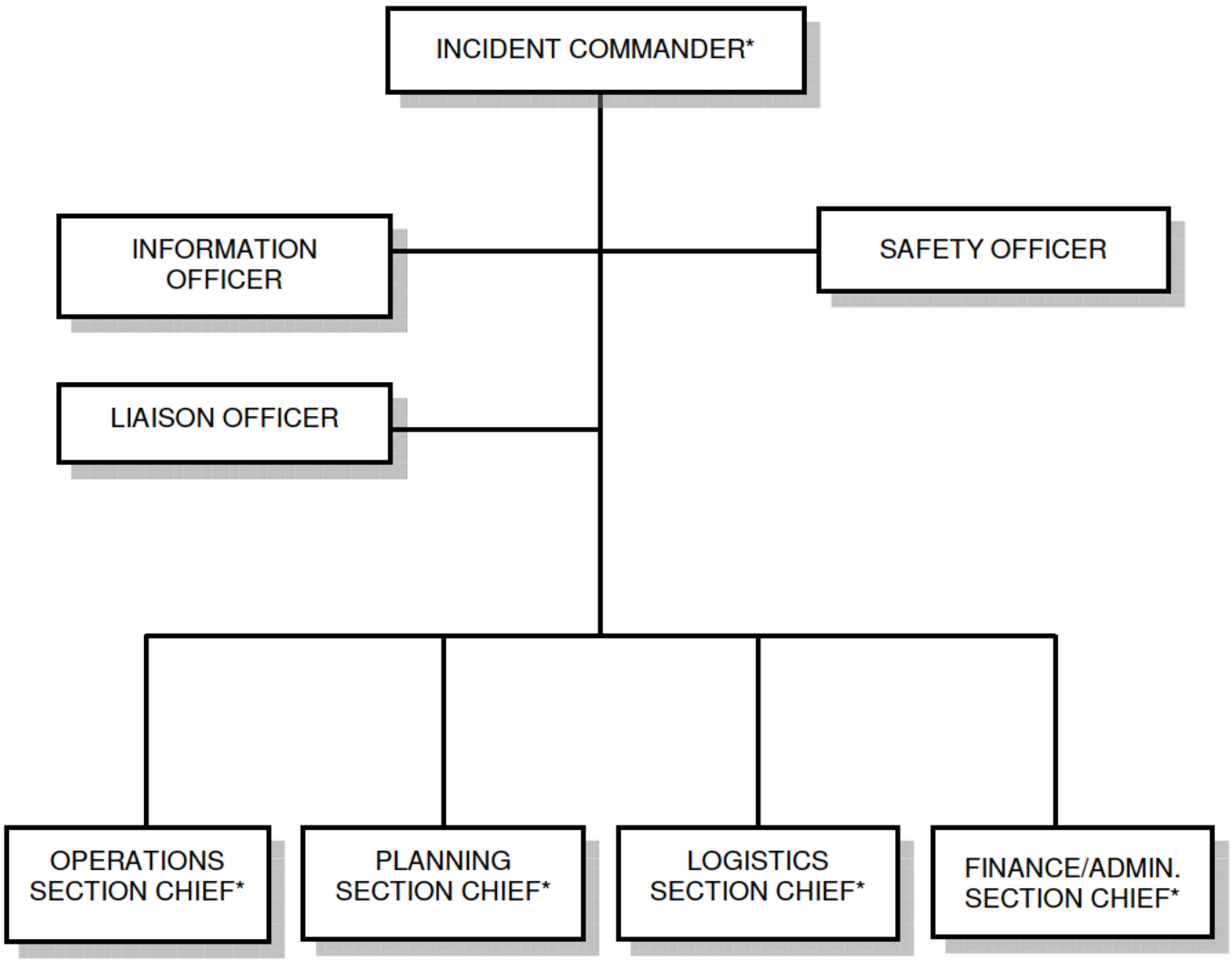
Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

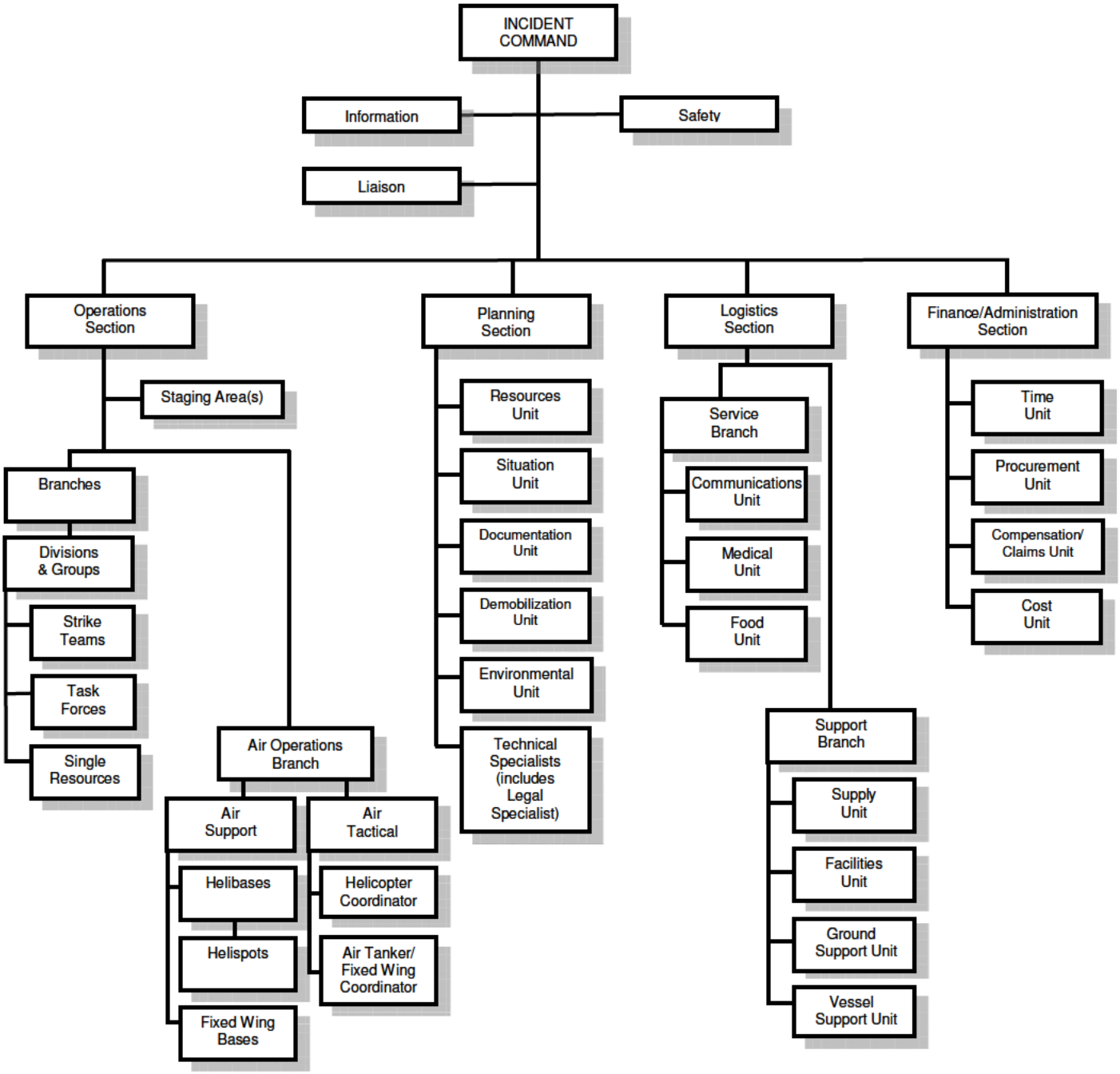


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

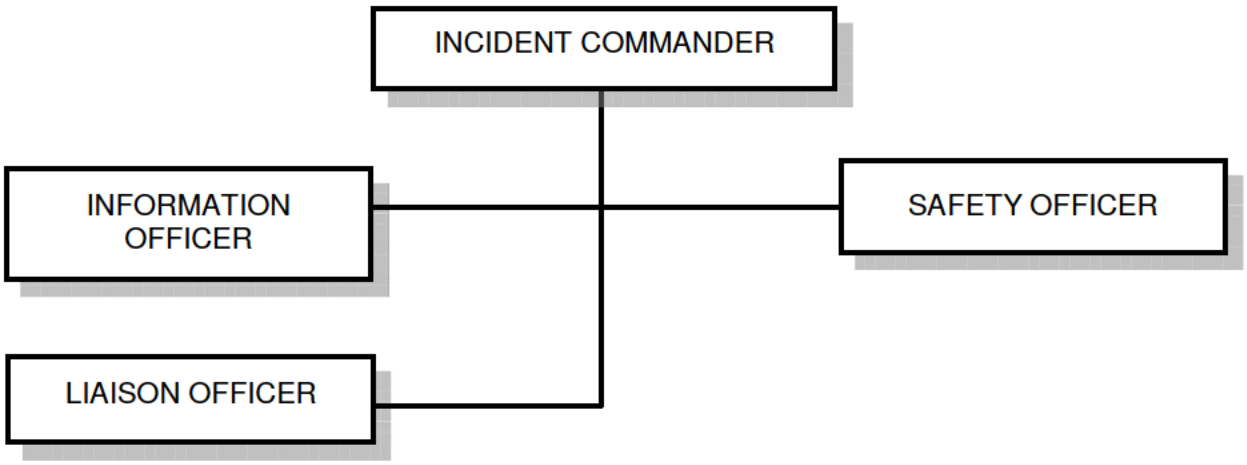
COMMAND

Incident Commander 4-12

Safety Officer 4-15

Liaison Officer 4-17

Information Officer 4-18



LIAISON OFFICER

The Liaison Officer (LO) serves as a "go-between" linking the IC to various agencies. These are agencies that do not have a direct tactical assignment within the Unified Command however, have an interest in the response activities or wish to offer assistance.

The Liaison Officer intercepts, greets and briefs agency representatives as they arrive on scene. It is the responsibility of the Liaison Officer to notify the IC before escorting anyone to the Command Post. A separate Liaison Area may need to be established to accommodate agency representatives not directly involved in the Unified Command.

Overall LO Responsibilities:

- Be a contact point for Agency Representatives.
  Agency Representatives are agency personnel who do not have direct tactical assignment but are present to assist in response efforts and have authority to make decision on matters affecting that agency's participation.

- Maintain a list of assisting and cooperating agencies and Agency Representatives.
  Obtain business cards or any other means of collecting contact information.

- Monitor check-in sheets daily to ensure that all Agency Representatives are identified.

- Assist in establishing and coordinating interagency contacts.
  Determine if there are any agencies that could assist in the response effort. Locate the contact information and make contact with the agencies.

- Keep agencies supporting the incident aware of incident status.

- Monitor incident operations to identify current or potential inter-organizational problems.
  Report any problems/conflicts to the IC.

- Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.

- Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the OPS during oil and HAZMAT responses.
  This generally involves working with agencies to evaluate the impact the incident had on the environment and wildlife.

- Coordinate response resource needs for incident investigation activities with the OPS.

- Ensure that all required agency forms, reports and documents are completed prior to demobilization.

- Coordinate activities of visiting dignitaries.

- Have a debriefing session with the IC prior to departure.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by:	Date/Time:

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

UNITED STATES COAST GUARD — **Logistics Section Activities**

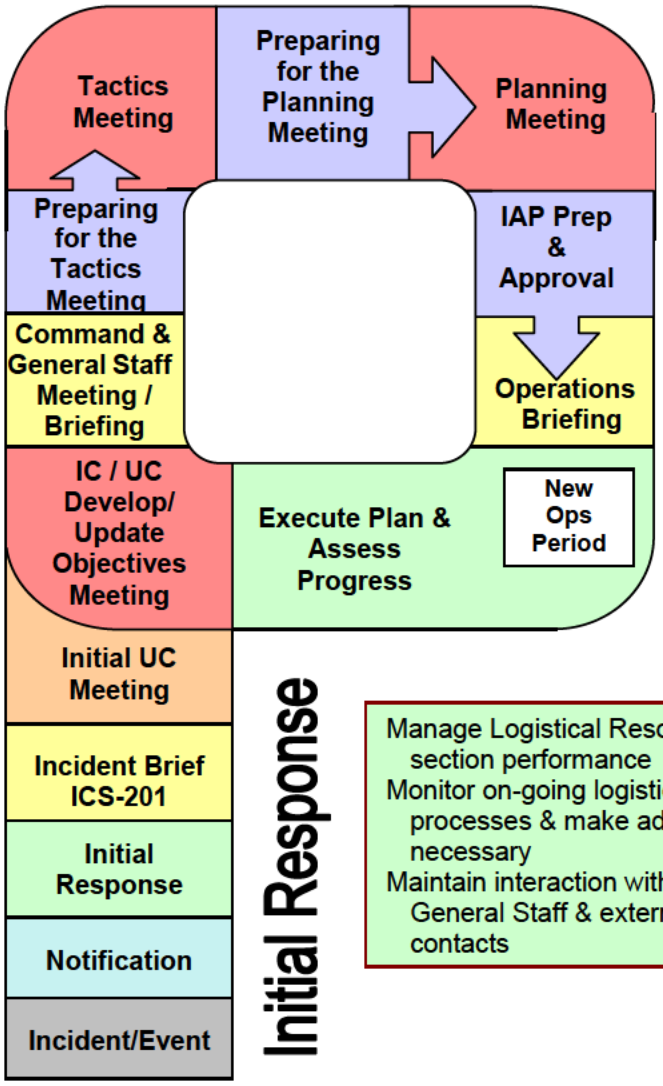
Logistics "P"

Review proposed tactics
Identify resource needs & reporting locations from ICS 215 and 215a
Discuss availability of needed resources
Identify resource shortfalls
Identify resource support requirements

Meet with Log Units to confirm status & availability of required resources
Determine additional resources necessary to support objectives
Order necessary resources
Update Ops on resource non-availability to meet reporting requirements & suggest alternatives if necessary
Order support for resources
Identify contingencies as needed

Confirm availability of required resources and timelines
Determine additional resources necessary to support objectives
Identify any contingencies as needed
Verify support for upcoming plan
Provide estimates of future service and support requirements

Survey availability of tactical resources
Obtain status of ordered resources
Summarize support capabilities, facilities, comms, etc.
If needed clarify resource requesting, approval & ordering process



Provide info for IAP [ICS-205, 206 & Transport Plan

Receive IC/UC direction
- Priorities, limitations & constraints
- Objectives
- Key decisions

Provide feedback to IC/UC on focus/direction
Discuss interagency issues
Discuss resource requesting, approval, and ordering process
Discuss Log Section needs
Discuss support facilities

Provide logistics information briefing to Operations Section personnel
Review Medical & Comms Plan, Transportation Plan, & Other logistical information to support field operations

Attend ICS-201 brief
-Current overview
-Anticipated Log Section activities
-Indication of required support

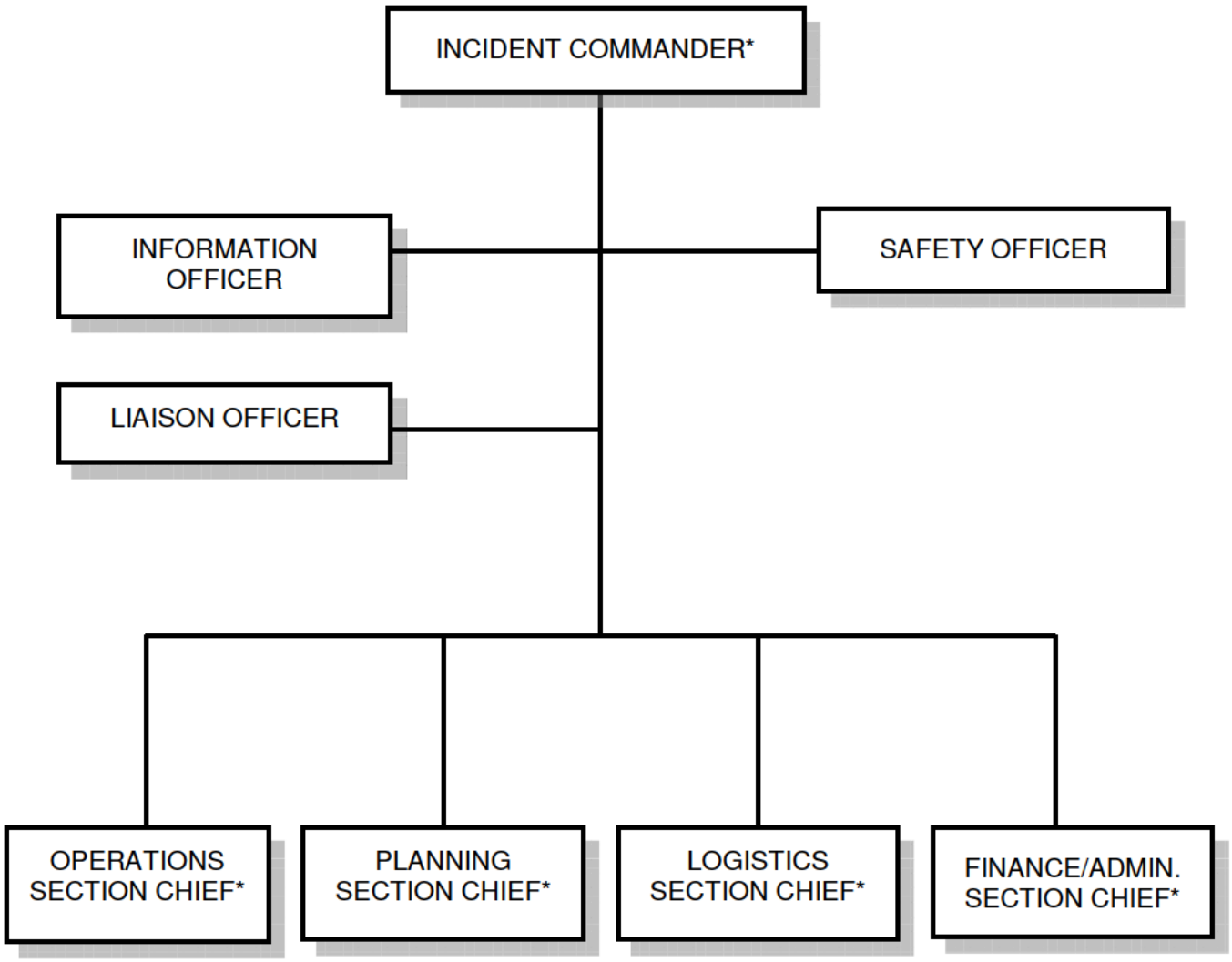
Arrive & Check-in
Assess situation
Receive IC/UC briefing
Activate Log Section
Organize & brief subordinates
Acquire work materials
Forecast Requirements
-transportation
-medical
-resources
-communications
-facilities
-resource requesting
-safety issues
-environmental issues
-food/shelter

Manage Logistical Resources & monitor section performance
Monitor on-going logistical support & processes & make adjustments as necessary
Maintain interaction with Command & General Staff & external logistical contacts

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)



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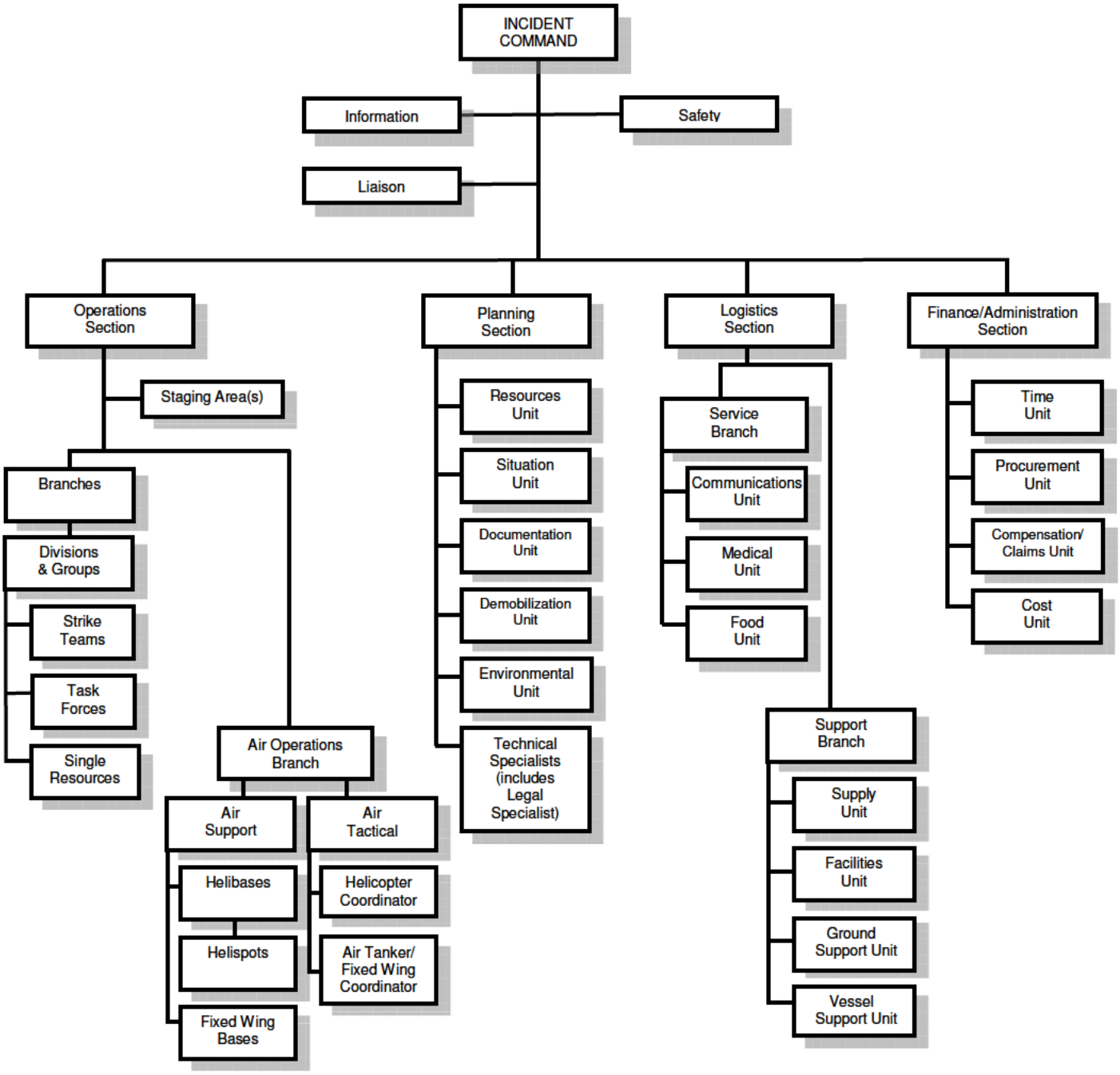
(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

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- Review common responsibilities.
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- Participate in incident planning meetings, as required.
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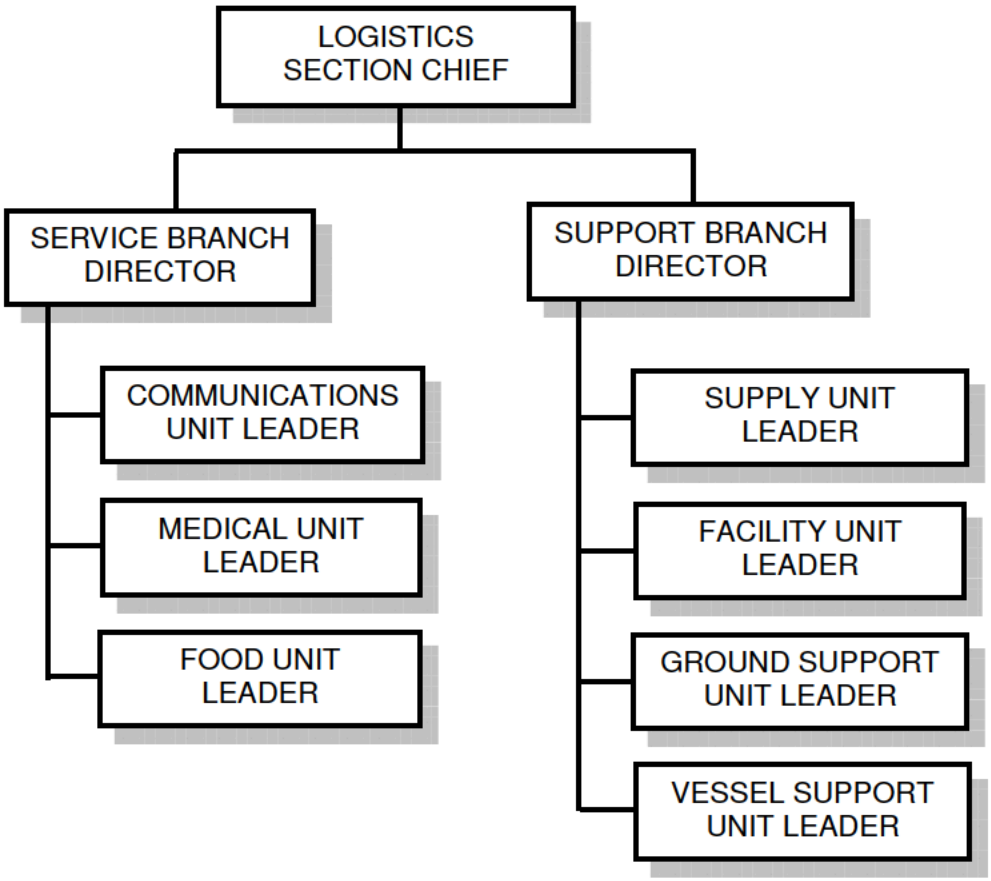
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

LOGISTICS

Logistics Section Chief 4-44

Service Branch Director 4-44
- Communications Unit Leader 4-45
- Medical Unit Leader 4-45
- Food Unit Leader 4-46
- Hospital Coordination Unit 4-46

Support Branch Director 4-47
- Supply Unit Leader 4-47
- Facilities Unit Leader 4-47
- Ground Support Unit Leader 4-48
- Vessel Support Unit Leader 4-49



LOGISTICS SECTION CHIEF

The Logistics Section Chief (LSC) is responsible for providing facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the Incident Action Plan (IAP). The LSC activates and supervises the Branches and Units within the Logistics Section.

Resources are divided into Support and Services. Support resources are used in support of the IAP (i.e. boom, vacuum trucks, skimmers etc.). Service resources include food/water, communication and medical resources.

Overall LSC Responsibilities:

- Plan the organization of the Logistics Section.
- Assign work locations and preliminary work tasks to Section personnel.
- Notify the Resources Unit of the Logistics Section units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input to and review the Communications Plan (ICS Form 205), Medical Plan (ICS Form 206) and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive Incident Demobilization Plan from Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of Logistics Section personnel.

SERVICE BRANCH DIRECTOR

The Service Branch Director, when activated, is under the supervision of the LSC, and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical and Food Units.

Overall Service Branch Director Responsibilities:

- Determine the level of service required to support operations.
- Confirm dispatch of Branch personnel.
- Participate in planning meetings of Logistics Section personnel.
- Review the IAP.
- Organize and prepare assignments for Service Branch personnel.
- Coordinate activities of Branch Units.
- Inform the LSC of Branch activities.
- Resolve Service Branch problems.

1. Incident Name	2. Operational Period (Date / Time) From: To:	INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared by: (Communications Unit) **Date / Time**

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205-CG)

Special Note. This form, ICS 205-CG, is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period; whereas, the Communications List, ICS 205a-CG is used to list methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.).

Purpose. The Incident Radio Communications Plan is a summary of information obtained from the Radio Requirements Worksheet (ICS 216) and the Radio Frequency Assignment Worksheet (ICS 217). Information from the Radio Communications Plan on frequency assignments is normally noted on the appropriate Assignment List (ICS 204-CG).

Preparation. The Incident Radio Communications Plan is prepared by the Communications Unit Leader and given to the Planning Section Chief. Detailed instructions on the preparation of this form may be found in ICS Publication 223-5, Communications Unit Position Manual.

Distribution. The Incident Radio Communications Plan is duplicated and given to all recipients of the Incident Objectives form, including the Incident Communications Center. Information from the plan is placed on Assignment Lists. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Radio Channel	Enter the following information about radio channel use:
	System	Radio cache system(s) assigned and used on the incident.
	Channel	Radio channel numbers assigned.
	Function	Function each channel is assigned (e.g., command, support, division tactical, and ground-to-air).
	Frequency	Radio frequency tone number assigned to each specified function (e.g., 153.400)
	Assignment	ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	**COMMUNICATIONS LIST** **ICS 205A-CG**

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

COMMUNICATIONS LIST (ICS 205a-CG)

Special Note. This optional form is used in conjunction with the Incident Radio Communications Plan, ICS 205-CG. Whereas the ICS 205-CG is used to provide information on all radio frequencies down to the Division/Group level, the Communications List, ICS 205a-CG, lists methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Purpose. The Communications List records methods of contact for personnel on scene.

Preparation. The Communications List can be filled out during check-in and is maintained and distributed by Communications Unit personnel.

Distribution. The Communications List is distributed within the ICS and posted, as necessary. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Local Comms Information	Enter the communications methods assigned and used for each assignment.
	Assignment	Enter the ICS Organizational assignment.
	Name	Enter the name of the contact person for the assignment.
	Method(s) of contact	Enter the radio frequency, telephone number(s), etc. for each assignment.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	**MEDICAL PLAN** **ICS 206-CG**

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared by: (Medical Unit Leader) **Date/Time**	**8. Reviewed by: (Safety Officer)** **Date/Time**

MEDICAL PLAN (ICS 206-CG)

Purpose. The Medical Plan provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

Preparation. The Medical Plan is prepared by the Medical Unit Leader and reviewed by the Safety Officer.
Distribution. The Medical Plan may be attached to the Incident Objectives (ICS 202-CG), or information from the plan pertaining to incident medical aid stations and medical emergency procedures may be taken from the plan and noted on the Assignment List (ICS 204-CG) or on the Assignment List Attachment (ICS 204a-CG). All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Medical Aid Stations	Enter name, location, and telephone number of the medical aid station(s) (e.g., Cajon Staging Area, Cajon Camp Ground) and indicate if paramedics are located at the site.
4.	Transportation	List name and address of ambulance services. Provide phone number and indicate if ambulance company has paramedics.
5.	Hospitals	List hospitals that could serve this incident. Enter hospital name, address, phone number, the travel time by air and ground from the incident to the hospital, and indicate if the hospital has a burn center and/or a helipad.
6.	Medical Emergency Procedures	Note any special emergency instructions for use by incident personnel.
7.	Prepared By Date/Time	Enter the name of the Medical Unit Leader preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
8.	Reviewed By Date/Time	Enter the name of the Safety Officer who must review the plan. Enter date (month, day, year) and time reviewed (24-hour clock).

Resource Request Message

ICS-213 RR CG (05/06)

Requestor

1. Incident Name: | 2. Date/Time: | 3. Resource Request No:

4. ORDER Note: Use additional forms when requesting different resource sources of supply

a. Qty.	b. Kind	c. Type	d. Detailed item description (Vital characteristics, brand, specs, experience, etc. & if applicable describe purpose/use, attach diagrams, & other amplifying info)	e. Requested Reporting Location:	e. Requested Reporting Date/Time:	f. ETA (LSC):	g. Cost (FSC):

5. Suggested source(s) of Supply - POC phone no. if known & suitable subtitutes:

6. Requested by Name/Position/Phone: | 7. Date/Time: | 8. Section Chief Approval: | Date/Time:

☐ 9. Check box if request is for tactical/personnel resources & Submit to RESL, otherwise submit directly to Logistics

10. RESL Review/Signature: ☐ Resources as noted are Available ☐ Resources Not Available

Logistics

11. Logistics Order No.: | 12. Supplier Name/Phone/Fax/Email:

13. Notes:

14. Approval Signature of Auth Logistics Rep: | 15. Date/Time:

16. Order placed by (check box): ☐ SPUL ☐ PROC

Finance

17. Reply/Comments from Finance:

18. Finance Section Signature: | 19. Date/Time:

Full Instructions on back page. Requestor fills out # 1-9 & keeps yellow copy (bottom). If applicable, RESL reviews if resource available & signs # 10. Logistics fills in remainder of # 4 & # 10-15 & keeps pink copy. Finance, if needed fills out appropriate items & keeps green copy. Blue original is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL.

Instructions for filling out the ICS-213RR CG Form (5/06)

REQUESTOR: The requestor must fill in Blocks 1 through 9:

Block # 1	Incident name: This is the same as the name stated on the ICS-201 Form and/or the Incident Action Plan (IAP).
Block # 2	Current date and time when submitting request
Block # 3	Resource Request Number: This is to be assigned by the Section submitting request (i.e. CMD, OPS, PLAN, LOG, FIN)
Block # 4	Fill in blocks 4a through 4e. Items requested: Must include Quantity, Kind and Type (if applicable) and detailed description of requirements. **BE SPECIFIC AS POSSIBLE**. The request should focus on capability rather than naming the brand or specific item (e.g. helicopter capable of carrying 4 personnel from location A to B rather than requesting a Coast Guard H-65 helicopter). This gives the logistics section the ability to find the best resource to meet the need. 4.e Requested Reporting Location/Date/Time: This is self-explanatory and is required for ordering official. Leave blocks 4.f. ETA (LSC) and 4.g. Cost (FSC) blank. These will be filled in later by Logistics and Finance.
Block # 5	Suggested sources of supply and suitable substitutes: Enter applicable information if known.
Block # 6 & 7	Requestor: Print Name and Signature and date/time.
Block # 8	Approval: This must be approved by the Section Chief or Deputy Section Chief.
Block # 9	Check box if request is for tactical or personnel resource(s) and submit request to Resources Unit Leader (RESL) to review and approve since RESL tracks all tactical and personnel resources.

Request goes to RESOURCES UNIT if requesting Tactical/Personnel Resource(s):

Block # 10	Resources reviews request and checks to see if resource is available. If the resource is available, reassigns resource as appropriate and sends request back to requester with information noted as to reporting time, etc. The request form is then sent to Documentation Unit Leader (DOCL) for filing. If the resource is not available, RESL sends request to Logistics.

LOGISTICS SECTION: The following blocks are to be filled out be the Supply Unit (SPUL).

Block # 11	Logistics Order Number: To be assigned by Supply Unit.
Block # 12	Supplier Point of Contact, Phone Number and Fax Number: This information is needed for Credit Card purchases and/or Purchase Orders.
Block # 13	Notes: Enter applicable information as need for request.
Block # 4	ETA and Cost: SPUL or PROC fills in Estimated time of arrival (ETA) when determined and cost if known.
Block # 14 & 15	Approval: This must be approved by the Logistics Section Chief or Deputy Logistics Section Chief, printed name and signature is required with Date and Time of approval. Bottom Copy (pink) is retained.

FINANCE SECTION: The following blocks are to be filled out be the Procurement Unit (PROC), if applicable.

Block # 16	Indicates who is to place order as necessary.
Block # 17	Comments concerning request from Finance Section Chief or Deputy Finance Section Chief.
Block # 18 & 19	Approval: This must be approved by the Finance Section Chief or Deputy Section Chief, printed name and signature is required with Date and Time of approval. Bottom copy (green) is retained.
FILING	Original blue copy is returned to RESL for tactical/personnel resources ordered, and the requester for non-tactical. RESL will inform requester of status of request when form received. The white copy is sent to DOCL.

Note: Cost associated requests will not be ordered without approval from the Finance Section Chief or Deputy Finance Section Chief.

Form Filing: Blue (Original) – final disposition to RESL or originator for non-tactical resources, White (copy 1) to DOCL, Green (copy 2) to FIN, Pink (copy 3) to LOG, Yellow (copy 4) to Originator

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**UNIT LOG (CONT.)** **ICS 214-CG**

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FACILITY NEEDS ASSESSMENT WORKSHEET ICS-235-CG (Rev 5/06)		4. Requirements	# Expected Personnel	Internal/Building Workspace Sq Ft (80 sq ft/pers)	Wall Space Linear Sq Ft	Multi-Purpose Mtg Rm Sq Ft (20 sq ft/pers + display space)	External/Outside Laydown Sq Ft	Parking Space Sq Ft (120 sq ft/vehicle x 1.4 circulation factor)	Climate Control (HVAC) needed -	Toilet Rooms	Work Tables	Conf Table	Chairs	Telephones	Speaker Phone	Fax Machines	Power Outlets	Comp Workstations	Printers	Chart Printer/ChartPro	Video Projectors	Copy Machines	Paper Shredders				
1.INC DENT NAME																											
2. LOCATION	3. FACILITIES																										
ICP	Unified Command	REQ																									
	Liaison Officer & Agency Reps	REQ																									
	Safety Officer	REQ																									
	Public Information Officer	REQ																									
	Planning Section	REQ																									
	Operations Section	REQ																									
	Logistics Section	REQ																									
	Finance/Admin Section	REQ																									
	Common Areas	REQ																									
Base	Base	REQ																									
		REQ																									
JIC	JIC	REQ																									
		REQ																									
Staging		REQ																									
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		REQ																									
		REQ																									
		REQ																									
5. Prepared By:																											
6. Date/Time Prepared																											

UNITED STATES COAST GUARD **Operations Section Activities**

The Operational Planning "P"

Brief on current operations
Divide incident into manageable units
Develop work map
Develop strategy/tactics to deploy
Complete ICS-215
Identify resource needs
Identify contingencies
Develop operations org chart
Continue on-scene operations

Complete 8½" x 11" ICS-215
Continue to update work progress
Continue on-scene operations

Brief on planned strategy/tactics [ICS-215 & work map/chart]
Identify how incident will be subdivided into mgmt/work units
Identify resource needs & reporting locations
Identify any contingencies as needed
Identify organizational requirements

Develop draft strategies & tactics for each assigned objective, including alternative and/or contingency strategies using a Work Analysis Matrix
Outline work assignments and required resources using ICS-215
Develop/outline OPS Section organization for next operational period

Provide information for IAP [ICS-220]
Ensure ICS-204 taskings are clear
Communicate incident status changes
Continue on-scene operations

Receive direction from IC/UC
Clarify objectives & priorities
Clarify organizational issues
Identify any limitations & restrictions
Reach agreement on IC/UC focus and direction
Discuss interagency issues
Prepare for tactics meeting
Continue on-scene operations

Provide operations briefing to Ops Sec Personnel
Ensure support to operations in place
Deploy next operating period resources

Using ICS 201, brief on current operations
Clarify issues & concerns
Discuss planned operations & direction

Monitor on-going operations & make tactical adjustments
Measure/ensure progress against stated objectives
Debrief resources coming off shift
Prepare to brief UC/Planning on accomplishments

Assess situation
Develop ICS-201
- Develop initial tactics & priorities
- Develop sketch map
- Summarize actions
- Develop resource summary
- List current organization

Continue to update response using ICS-201

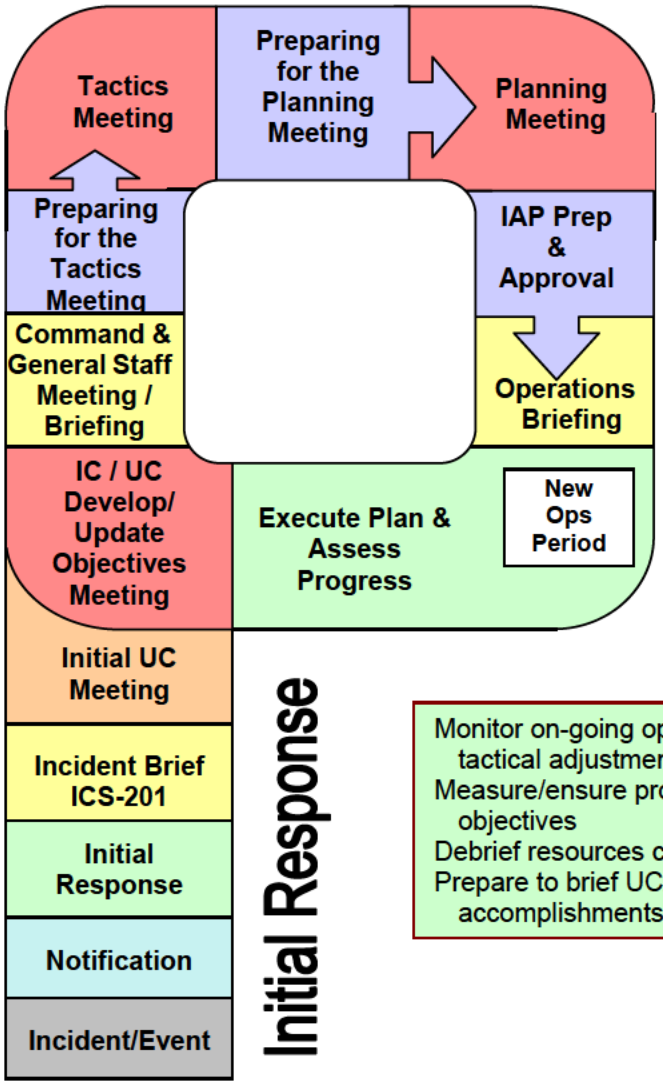
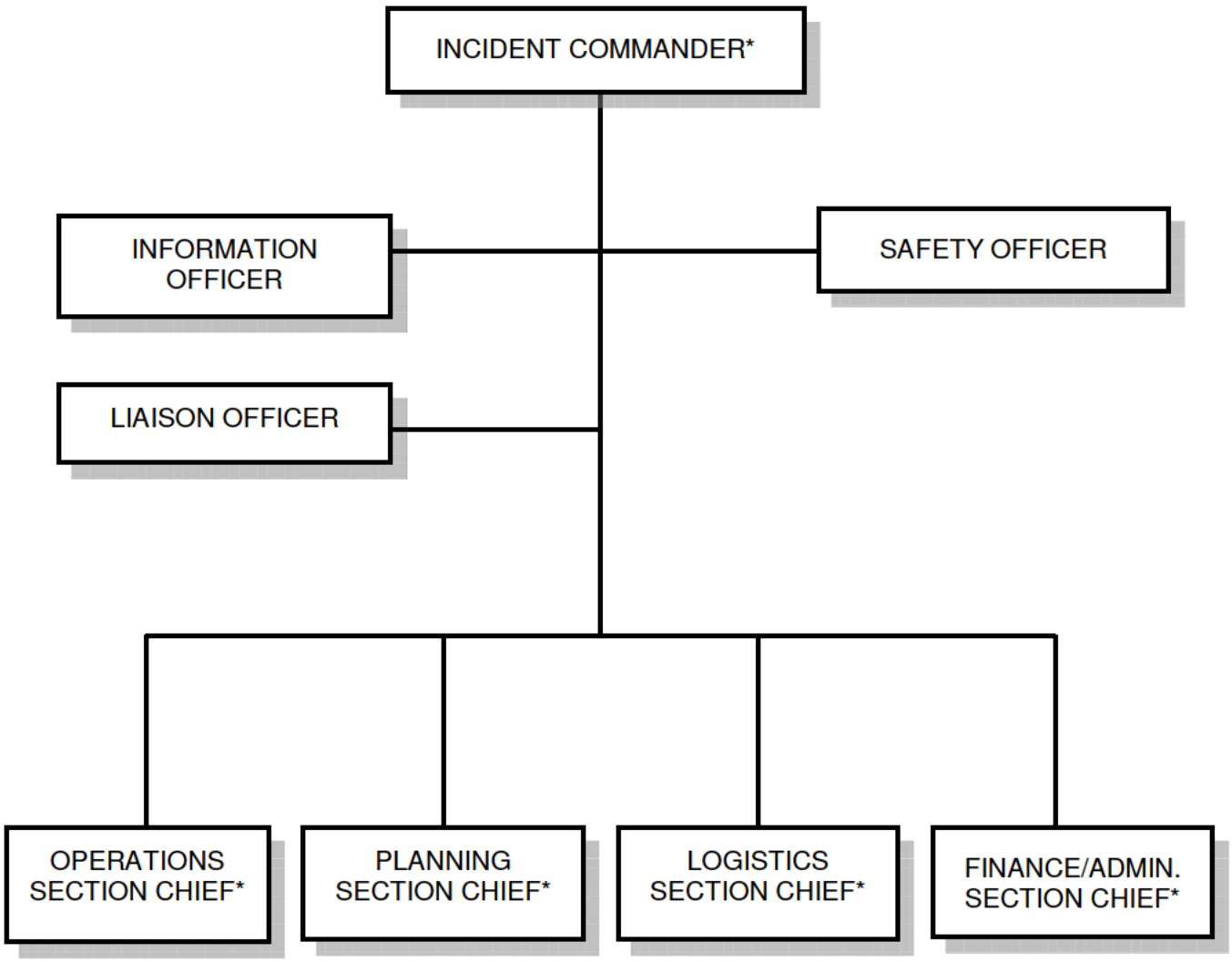


FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

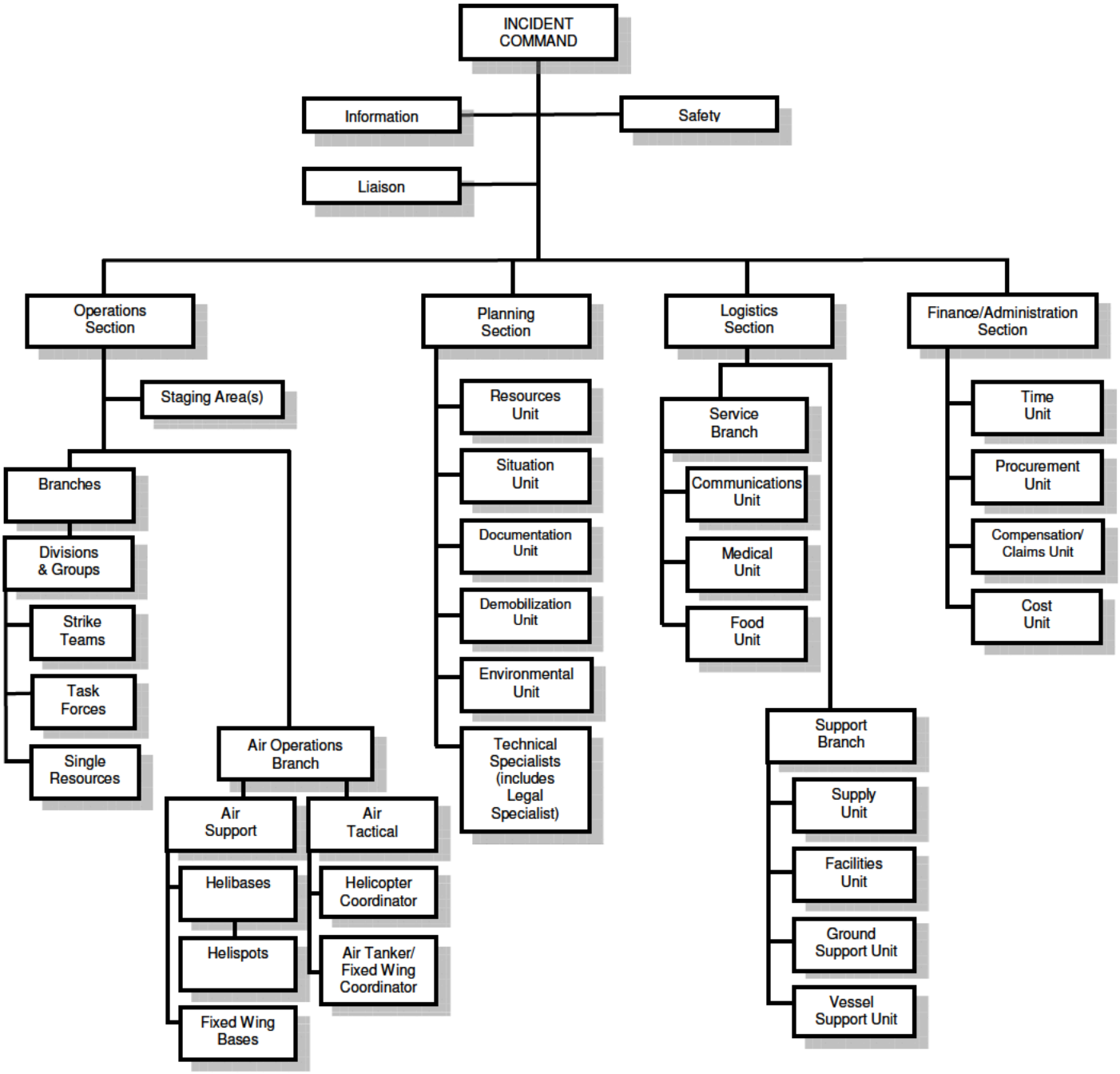


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

OPERATIONS

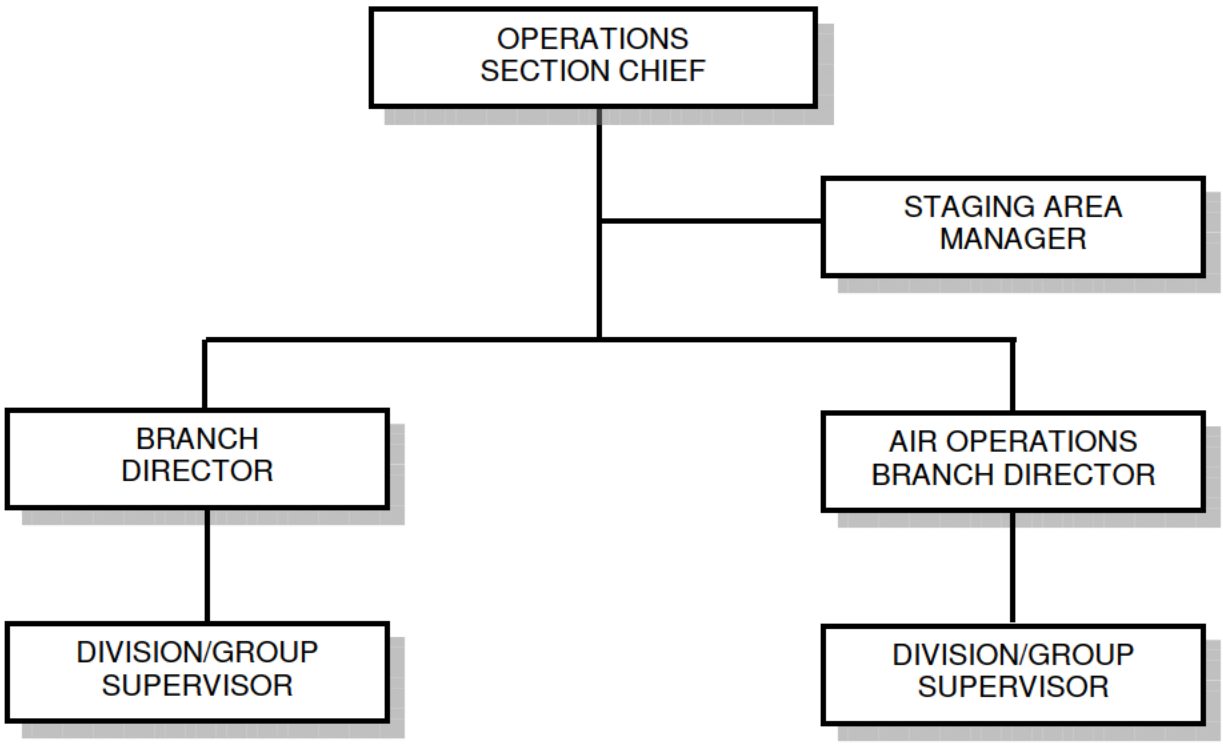
Operations Section Chief 4-21

Air Operations Branch Director 4-21

Staging Area Manager 4-25

Branch Director 4-25

Division/Group Supervisor 4-29



OPERATIONS SECTION CHIEF

The Operations Section Chief (OPS) is responsible for the management of all operations directly applicable to the primary mission (i.e. clean-up, recovery etc.). The OPS activates and supervises tactical response elements in accordance with the Incident Action Plan (IAP) and directs its execution. The OPS also requests or releases resources, makes expedient changes to the IAP, as necessary; and reports these actions to the IC.

Overall OPS Responsibilities

- Develop operations portion of IAP.
  This generally includes the designation of branches, divisions and groups, as well as input on required resources.
- Brief and assign Operations Section personnel in accordance with the IAP.
- Supervise Operations Section.
- Determine need and request additional resources.
- Review suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble strike teams assigned to the Operations Section.
- Report information about special activities, events, and occurrences to the IC.
- Respond to resource requests in support of NRDAR activities.

Additional KM Required OPS Responsibilities

- Directs KM personnel and emergency response contractors performing operations activities
- Review and ensure communication of the Site Specific H&S Plan to KM personnel and emergency response contractors performing operations activities
- Supervise the decontamination system
  - Ensure decontamination system is set-up and functional prior to Hot Zone entry
  - Request input from the Safety Officer, as necessary

AIR OPERATIONS BRANCH DIRECTOR

The Air Operations Branch Director (AIROPS), who is ground-based, is primarily responsible for preparing the air operations portion of the IAP. The plan will reflect agency restrictions that have an impact on the operational capability or utilization of resources (e.g., night flying, hours per pilot). After the plan is approved, the AIROPS is responsible for implementing its strategic aspects, which are those that relate to the overall incident strategy as opposed to those that pertain to tactical operations (specific target selection). Additionally, the AIROPS is responsible for providing logistical support to helicopters operating on the incident. The Air Tactical Group Supervisor, working in conjunction with ground and air resources, normally performs specific tactical activities, such as target selection and suggested modifications to specific tactical actions in the IAP.

Overall AIROPS Responsibilities:

- Organize preliminary air operations.
- Request declaration (or cancellation) of restricted air space
- Participate in preparation of the IAP through the OPS. Insure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
- Perform operational planning for air operations.

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time) From: To:	CG IAP COVER SHEET

3. Approved by Incident Commander(s):

ORG	NAME

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☐ ICS 202-CG (Response Objectives)
- ☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- ☐ ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- ☐ ICS 205-CG (Communications Plan)
- ☐ ICS 206-CG (Medical Plan)
- ☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____
- ☐ Map/Chart
- ☐ Weather forecast / Tides/Currents

Other Attachments

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by: **Date/Time**

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

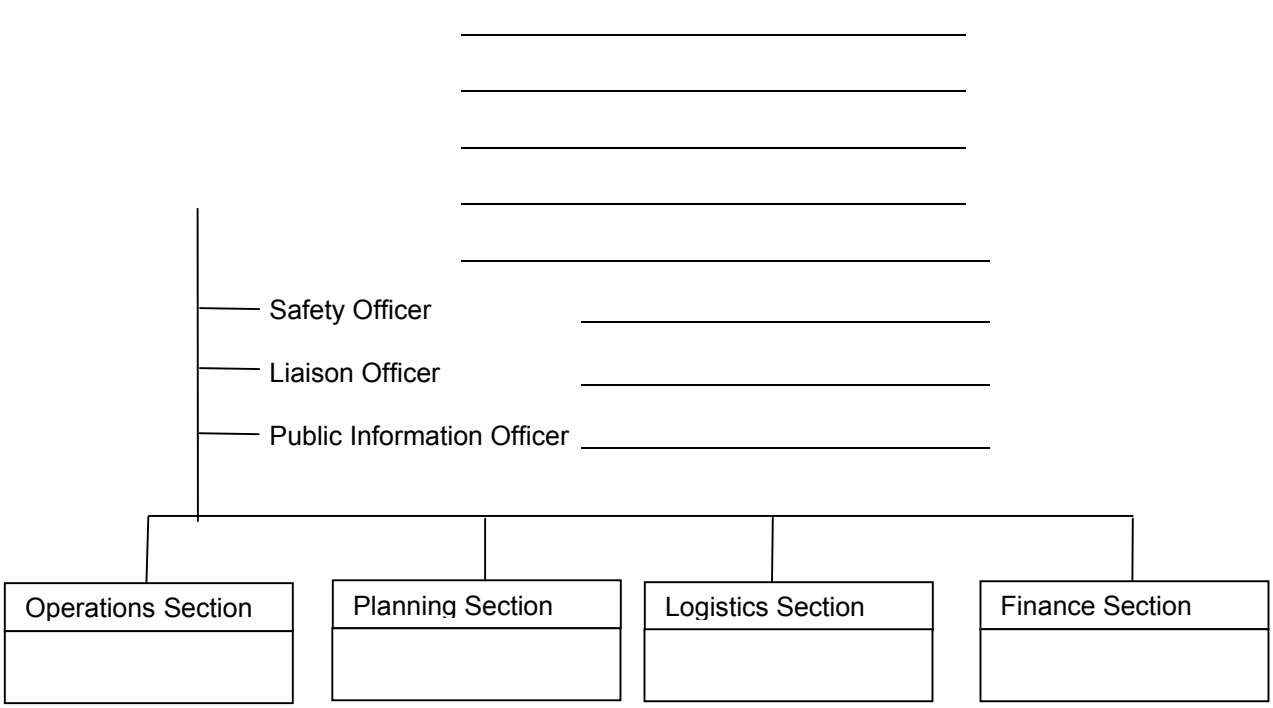
4. Current Situation:

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

5. Initial Response Objectives, Current Actions, Planned Actions

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

6. Current Organization (fill in additional appropriate organization)



1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary

Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

1. Incident Name	2. Operational Period (Date/Time) From: To:	**Assignment List ICS 204-CG**
3. Branch	**4. Division/Group/Staging**	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	▼
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

ASSIGNMENT LIST (ICS 204-CG)

Purpose. The Assignment List(s) informs Division and Group supervisors of incident assignments. Once the Unified Command and General Staff agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The Assignment List is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202-CG), Operational Planning Worksheet (ICS 215-CG), and the Operations Section Chief. The Assignment List must be approved by the Planning Section Chief and Operations Section Chief. When approved, it is included as part of the Incident Action Plan (IAP). Specific instructions for specific resources may be entered on an ICS 204a-CG for dissemination to the field. A separate sheet is used for each Division or Group. The identification letter of the Division is entered in the form title. Also enter the number (roman numeral) assigned to the Branch.

Special Note. The Assignment List, ICS 204-CG submits assignments at the level of Divisions and Groups. The Assignment List Attachment, ICS 204a-CG shows more specific assignment information, if needed. The need for an ICS 204a-CG is determined by the Planning and Operations Section Chiefs during the Operational Planning Worksheet (ICS 215-CG) development.

Distribution. The Assignment List is duplicated and attached to the Incident Objectives and given to all recipients of the Incident Action Plan. In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Branch	Enter the Branch designator.
4.	Division/Group/Staging	Enter the Division/Group/Staging designator.
5.	Operations Personnel	Enter the name of the Operations Chief, applicable Branch Director, and Division Supervisor.
6.	Resources Assigned	Each line in this field may have a separate Assignment List Attachment (ICS 204a-CG). Enter the following information about the resources assigned to Division or Group for this period:
	Identifier	List identifier
	Leader	Leader name
	Contact Information	Primary means of contacting this person (e.g., radio, phone, pager, etc.). Be sure to include area code when listing a phone number.
	# Of Persons	Total number of personnel for the strike team, task force, or single resource assigned.
	Reporting Info/Notes/ Remarks	Special notes or directions, specific to this strike team, task force, or single resource. Enter an "X" check if an Assignment List Attachment (ICS 204a-CG) will be prepared and attached. The Planning and Operations Section Chiefs determine the need for an ICS 204a-CG during the Operational Planning Worksheet (ICS 215-CG) development.
7.	Work Assignment	Provide a statement of the tactical objectives to be achieved within the operational period by personnel assigned to this Division or Group.
8.	Special Instructions	Enter a statement noting any safety problems, specific precautions to be exercised, or other important information.
9.	Communications	Enter specific communications information (including emergency numbers) for this division /group. If radios are being used, enter function (command, tactical, support, etc.), frequency, system, and channel from the Incident Radio Communications Plan (ICS 205-CG). Note: Phone numbers should include area code.
10.	Prepared By	Enter the name of the person completing the form, normally the Resources Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
11.	Reviewed by (PSC)	
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
12.	Reviewed by (OSC)	Enter the name of the operations person reviewing the form, normally the Operations Section Chief.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

9. Other Attachments (as needed)

☐ **Map/Chart** ☐ **Weather Forecast/Tides/Currents** ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

Resource Request Message

ICS-213 RR CG (05/06)

Requestor

1. Incident Name: | 2. Date/Time: | 3. Resource Request No:

4. ORDER Note: Use additional forms when requesting different resource sources of supply

a. Qty.	b. Kind	c. Type	d. Detailed item description (Vital characteristics, brand, specs, experience, etc. & if applicable describe purpose/use, attach diagrams, & other amplifying info)	e. Requested Reporting Location:	e. Requested Reporting Date/Time:	f. ETA (LSC):	g. Cost (FSC):

5. Suggested source(s) of Supply - POC phone no. if known & suitable subtitutes:

6. Requested by Name/Position/Phone: | 7. Date/Time: | 8. Section Chief Approval: | Date/Time:

☐ 9. Check box if request is for tactical/personnel resources & Submit to RESL, otherwise submit directly to Logistics

10. RESL Review/Signature:

☐ Resources as noted are Available ☐ Resources Not Available

Logistics

11. Logistics Order No.: | 12. Supplier Name/Phone/Fax/Email:

13. Notes:

14. Approval Signature of Auth Logistics Rep: | 15. Date/Time:

16. Order placed by (check box): ☐ SPUL ☐ PROC

Finance

17. Reply/Comments from Finance:

18. Finance Section Signature: | 19. Date/Time:

Full Instructions on back page. Requestor fills out # 1-9 & keeps yellow copy (bottom). If applicable, RESL reviews if resource available & signs # 10. Logistics fills in remainder of # 4 & # 10-15 & keeps pink copy. Finance, if needed fills out appropriate items & keeps green copy. Blue original is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL.

Instructions for filling out the ICS-213RR CG Form (5/06)

REQUESTOR: The requestor must fill in Blocks 1 through 9:

Block # 1	Incident name: This is the same as the name stated on the ICS-201 Form and/or the Incident Action Plan (IAP).
Block # 2	Current date and time when submitting request
Block # 3	Resource Request Number: This is to be assigned by the Section submitting request (i.e. CMD, OPS, PLAN, LOG, FIN)
Block # 4	Fill in blocks 4a through 4e. Items requested: Must include Quantity, Kind and Type (if applicable) and detailed description of requirements. **BE SPECIFIC AS POSSIBLE**. The request should focus on capability rather than naming the brand or specific item (e.g. helicopter capable of carrying 4 personnel from location A to B rather than requesting a Coast Guard H-65 helicopter). This gives the logistics section the ability to find the best resource to meet the need. 4.e Requested Reporting Location/Date/Time: This is self-explanatory and is required for ordering official. Leave blocks 4.f. ETA (LSC) and 4.g. Cost (FSC) blank. These will be filled in later by Logistics and Finance.
Block # 5	Suggested sources of supply and suitable substitutes: Enter applicable information if known.
Block # 6 & 7	Requestor: Print Name and Signature and date/time.
Block # 8	Approval: This must be approved by the Section Chief or Deputy Section Chief.
Block # 9	Check box if request is for tactical or personnel resource(s) and submit request to Resources Unit Leader (RESL) to review and approve since RESL tracks all tactical and personnel resources.

Request goes to RESOURCES UNIT if requesting Tactical/Personnel Resource(s):

Block # 10	Resources reviews request and checks to see if resource is available. If the resource is available, reassigns resource as appropriate and sends request back to requester with information noted as to reporting time, etc. The request form is then sent to Documentation Unit Leader (DOCL) for filing. If the resource is not available, RESL sends request to Logistics.

LOGISTICS SECTION: The following blocks are to be filled out be the Supply Unit (SPUL).

Block # 11	Logistics Order Number: To be assigned by Supply Unit.
Block # 12	Supplier Point of Contact, Phone Number and Fax Number: This information is needed for Credit Card purchases and/or Purchase Orders.
Block # 13	Notes: Enter applicable information as need for request.
Block # 4	ETA and Cost: SPUL or PROC fills in Estimated time of arrival (ETA) when determined and cost if known.
Block # 14 & 15	Approval: This must be approved by the Logistics Section Chief or Deputy Logistics Section Chief, printed name and signature is required with Date and Time of approval. Bottom Copy (pink) is retained.

FINANCE SECTION: The following blocks are to be filled out be the Procurement Unit (PROC), if applicable.

Block # 16	Indicates who is to place order as necessary.
Block # 17	Comments concerning request from Finance Section Chief or Deputy Finance Section Chief.
Block # 18 & 19	Approval: This must be approved by the Finance Section Chief or Deputy Section Chief, printed name and signature is required with Date and Time of approval. Bottom copy (green) is retained.
FILING	Original blue copy is returned to RESL for tactical/personnel resources ordered, and the requester for non-tactical. RESL will inform requester of status of request when form received. The white copy is sent to DOCL.

Note: Cost associated requests will not be ordered without approval from the Finance Section Chief or Deputy Finance Section Chief.

Form Filing: Blue (Original) – final disposition to RESL or originator for non-tactical resources, White (copy 1) to DOCL, Green (copy 2) to FIN, Pink (copy 3) to LOG, Yellow (copy 4) to Originator

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**UNIT LOG (CONT.)** **ICS 214-CG**

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

OPERATIONAL PLANNING WORKSHEET

1.INCIDENT NAME

2. DATE & TIME PREPARED

3. OPERATIONAL PERIOD (DATE & T ME)

4. DIVISION/ GROUP/ OTHER LOCATION	5. WORK ASSIGNMENTS	6. KINDS OF RESOURCES																				7. OVERHEAD	8. SPECIAL EQUIPMENT & SUPPL ES	9. REPORTING LOCATION	10. REQUESTED ARRIVAL TIME
		REQ																							
		HAVE																							
		NEED																							
		REQ																							
		HAVE																							
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		NEED																							

ICS 215 USCG 12-02	11. TOTAL RESOURCES REQUIRED																						
	12. TOTAL RESOURCES ON HAND																						
	13. TOTAL RESOURCES NEEDED																						

14. PREPARED BY (NAME & POSITION)

1. Incident Name	2. Operational Period (Date / Time) From: To:	AIR OPERATIONS SUMMARY ICS 220-CG

3. Distribution

☐ Fixed-Wing Bases _____ ☐ Helibase _____

4. Personnel and Communications

	Air Operations Director	Air / Air Frequency	Air / Ground Frequency
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. Location / Function	7. Assignment	8. Fixed-Wing		9. Helicopter		10. Time		11. Aircraft Assigned	12. Operating Base
		NO.	TYPE	NO.	TYPE	Available	Commence		
	13. TOTALS								

14. Air Operation Support Equipment

15. Prepared by **Date / Time**

AIR OPERATIONS SUMMARY (ICS 220-CG)

Purpose. The Air Operations Summary provides the Air Operations Branch with the number, type, location, and specific assignments of aircraft.

Preparation. The Operations Section Chief or the Air Operations Branch Director completes the summary during each Planning Meeting. General air resource assignment information is obtained from the Operational Planning Worksheet (ICS 215-CG). The Air and Fixed-Wing Support Groups provide specific designators of the air resources assigned to the incident.

Distribution. After the summary is completed by Air Operations personnel (except item 11), the form is given to the Air Support Group Supervisor, who completes the form by indicating the designators of the helicopters and fixed-wing aircraft assigned missions during the specified operational period. This information is provided to Air Operations personnel who, in turn, give the information to the Resources Unit. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Distribution	Check the block and enter the time and date when ICS 220-CG and attachments were sent to all fixed-wing bases and helibases supporting the incident.
4.	Personnel and Communications	List the names of those assigned to each position, and the air-air and air-ground frequencies to be used.
5.	Remarks	Enter the special instructions or information, including safety notes, hazards, and priorities for Air Operations personnel.
6.	Location/Function	Enter the assigned location and function of the aircraft.
7.	Assignment	Enter the scope of work the aircraft is assigned to complete.
8.	Fixed Wing	Indicate the number and type of fixed-wing aircraft available for this Location / Function.
9.	Helicopters	Indicate the number and type of helicopters available for this Location / Function.
10.	Time	Indicate when aircraft will be available for use and when operations commence (use 24 hour clock).
11.	Aircraft Assigned	Enter the designators of the aircraft assigned. Gather information from Resources Unit, helibases, and fixed-wing bases.
12.	Operating Base	Enter the base (helibase, helispot, fixed-wing base) from which each air resource is expected to initiate operations.
13.	Totals	Enter the total number of fixed-wing and helicopter aircraft assigned to the incident in the Number columns. Enter the total number of each type of aircraft assigned in the Type columns.
14.	Air Operations Support Equipment	List the designators and location of other support resources assigned to Air Operations.
15.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

UNITED STATES COAST GUARD **Planning Section Activities**

The Operational Planning "P"

Facilitate meeting
Provide Situation Briefing
Review proposed strategy, tactics & resource requirements
Identify resource shortfalls
Assure the strategy & tactics comply with IC/UC objectives
Mitigate Logistics and Safety issues

Clean up ICS-215 & make hard copies for attendees
Notify participants of meeting location & time
Setup meeting room

Facilitate meeting
Provide Situation Briefing
Confirm availability of resources
Verify support for the proposed plan
Document decisions & assigned actions

Meet with Operations to determine strategies, tactics & resource requirements
Complete ICS-215
Notify meeting participants of scheduled meeting
Setup meeting room

Develop components of the IAP
Review completed IAP for correctness
Provide IAP to IC/UC for review and approval
Make copies of IAP for distribution

Setup meeting room
Facilitate meeting
Provide Situation Briefing
Receive work tasks & assignments
Resolve conflicts & clarify roles & responsibilities

Setup briefing area
Provide situation briefing
Distribute copies of IAP
Facilitate briefing
Make adjustments to IAP, if necessary

Setup Meeting Room
Facilitate meeting
Provide recorder to document decisions
Distribute and post decisions

Setup meeting room
Facilitate Meeting
Provide recorder to document discussion points

Monitor progress of implementing the IAP
Measure/ensure progress against stated objectives
Maintain Situation and Resource status
Debrief resources coming off shift
Maintain interaction with Command and General Staff

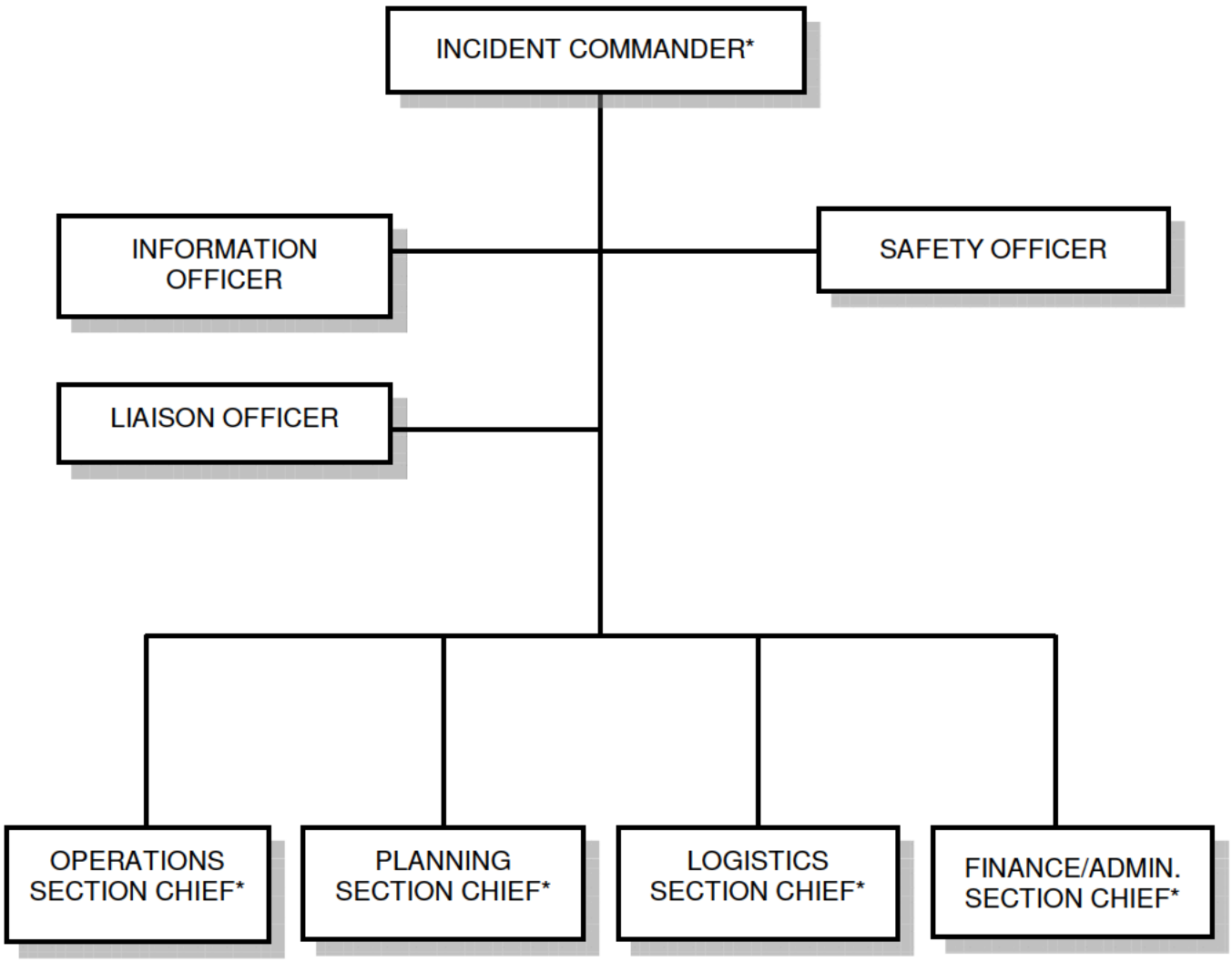
Facilitate ICS-201 brief
Obtain ICS-201 & distribute to RESL & SITL
Document results of ICS-201 briefing

Check-in
Receive IC/UC Briefing
Activate Plans Section
Organize & brief subordinates
Acquire work materials

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

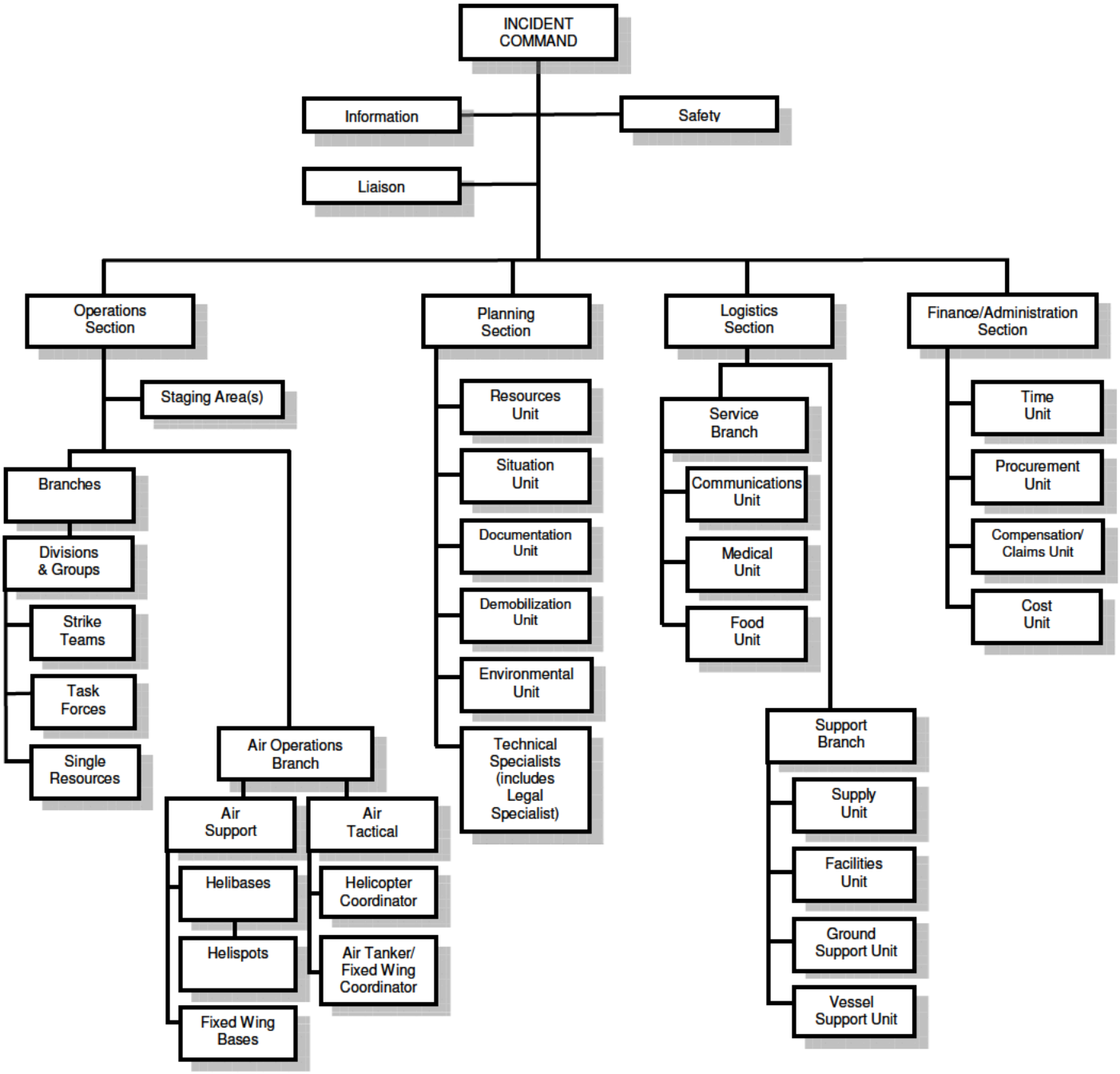


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

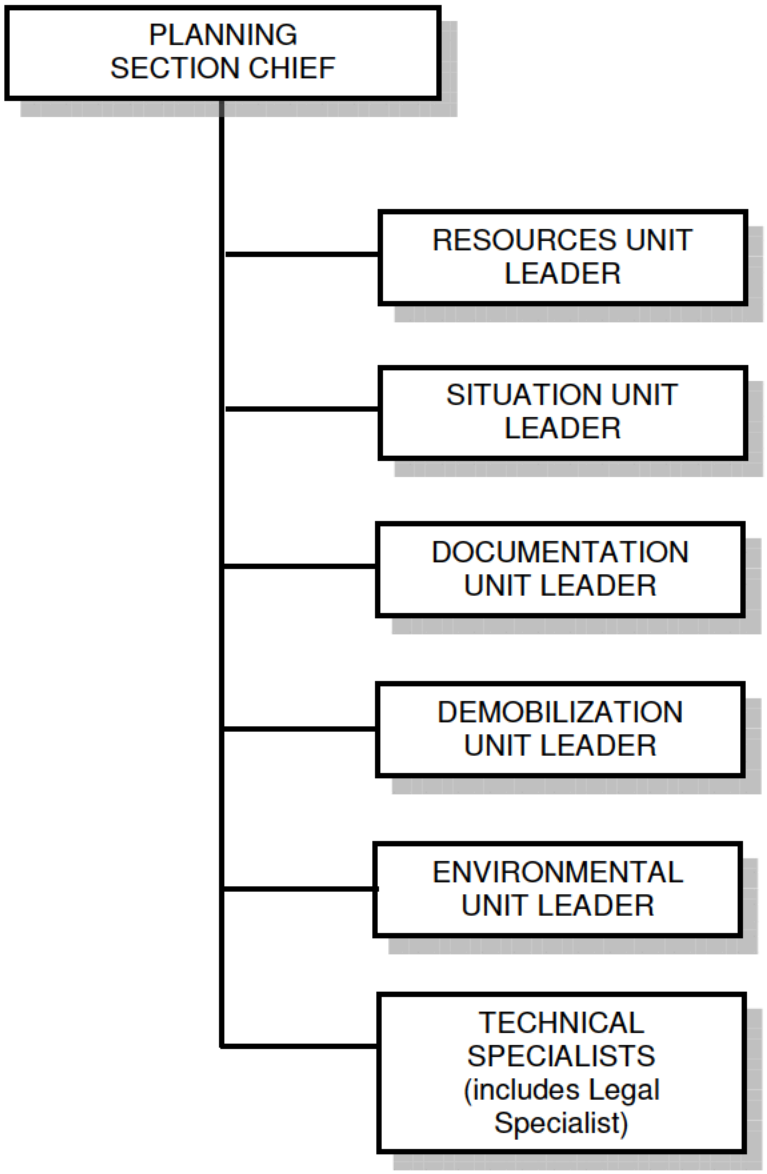
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



PLANNING SECTION CHIEF

The Planning Section Chief (PSC) is responsible for the collection, evaluation, dissemination and use of information; particularly with regard to the development of the incident and the status resources. This information is needed to: 1) understand the current situation, 2) predict the probable course of incident events; and 3) prepare alternative strategies for the incident.

Overall PSC Responsibilities:

- Collect and process situation information about the incident.
- Supervise preparation of the IAP.
- Provide input to the IC and the OPS in preparing the IAP.
- Chair planning meetings and participate in other meetings as required.
- Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.
- Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation Units).
- Determine the need for any specialized resources in support of the incident.
- If requested, assemble and disassemble Strike Teams and Task Forces not assigned to Operations.
- Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report any significant changes in incident status.
- Compile and display incident status information.
- Oversee preparation and implementation of the Incident Demobilization Plan.
- Incorporate plans (e.g., Traffic, Medical, Communications, Site Safety) into the IAP.

RESOURCES UNIT LEADER

The Resource Unit Leader (RUL) works within the Planning Section and is responsible for maintaining the status of all assigned resources (primary and support) at an incident. This is achieved by overseeing the check in/out of all resources, maintaining a status-keeping system indicating current location and status of all resources, and maintenance of a master list of all resources (e.g. key supervisory personnel, primary and support resources, etc.).

Overall RUL Responsibilities:

- Establish the check-in function at incident locations.
  The Staging Area Manager may already be tracking this on ICS Form 211-p and 211-e. However, the RUL should verify that tracking is being conducted and is accurate. Additionally, the RUL should determine how to gather this resource information from Staging Areas.
- Prepare Organization Assignment List (ICS Form 203) and Organization Chart (ICS Form 207).
- Prepare appropriate parts of Division Assignment Lists (ICS Form 204).
- Prepare and maintain the ICP display (to include organization chart and resource allocation and deployment).

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time) From: To:	CG IAP COVER SHEET

3. Approved by Incident Commander(s):

ORG	NAME

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☐ ICS 202-CG (Response Objectives)
- ☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- ☐ ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- ☐ ICS 205-CG (Communications Plan)
- ☐ ICS 206-CG (Medical Plan)
- ☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____
- ☐ Map/Chart
- ☐ Weather forecast / Tides/Currents

Other Attachments

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by: **Date/Time**

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

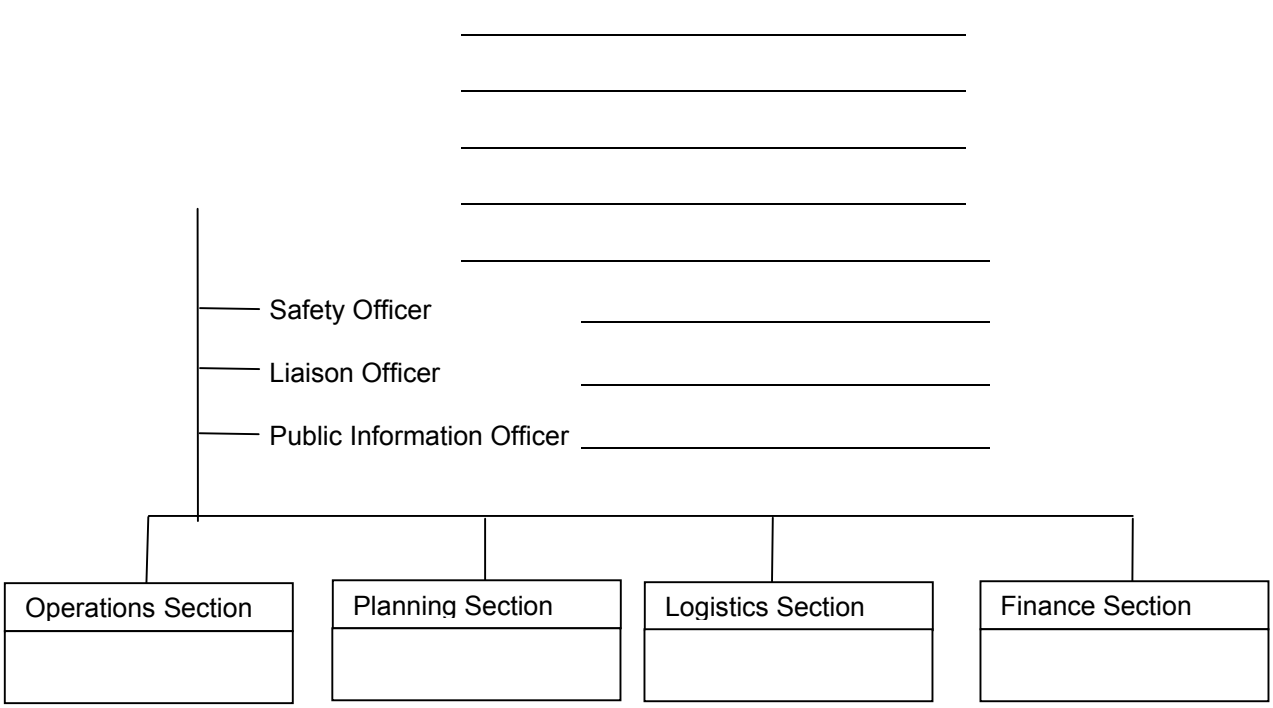
4. Current Situation:

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

5. Initial Response Objectives, Current Actions, Planned Actions

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

6. Current Organization (fill in additional appropriate organization)



1. **Incident Name**	2. **Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary

Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT OBJECTIVES ICS 202-CG

3. Objective(s)

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

Approved Site Safety Plan Located at:

5. Prepared by: (Planning Section Chief) **Date/Time**

INCIDENT OBJECTIVES (ICS 202-CG)

Purpose. The Incident Objectives form describes the basic incident strategy, control objectives, command emphasis/priorities, and safety considerations for use during the next operational period.

Preparation. The Incident Objectives form is completed by the Planning Section following each Command and General Staff Meeting conducted in preparing the Incident Action Plan.

Distribution. The Incident Objectives form will be reproduced with the IAP and given to all supervisory personnel at the Section, Branch, Division/Group, and Unit levels. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Objective(s)	Enter clear, concise statements of the objectives for managing the response. These objectives are for the incident response for this operational period and for the duration of the incident. Include alternatives.
4.	Operational Period Command Emphasis	Enter clear, concise statements for safety message, priorities, and key command emphasis/decisions/directions. Enter information such as known safety hazards and specific precautions to be observed during this operational period. If available, a safety message should be referenced and attached. At the bottom of this box, enter the location where approved Site Safety Plan is available for review.
	Site Safety Plan	Note location of the approved Site Safety Plan.
5.	Prepared By	Enter the name of the Planning Section Chief completing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

NOTE: ICS 202-CG, Incident Objectives, serves as part of the Incident Action Plan (IAP)

1. Incident Name	2. Operational Period (Date/Time) From: To:	ORGANIZATION ASSIGNMENT LIST ICS 203-CG

3. Incident Commander(s) and Staff

Agency	IC	Deputy

Safety Officer:	
Information Officer:	
Liaison Officer:	

4. Agency Representatives

Agency	Name

5. PLANNING/INTEL SECTION

Chief	
Deputy	
Resources Unit	
Situation Unit	
Environmental Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION

Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Vessel Support Unit	
Ground Support Unit	
b. Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION

Chief		
Deputy		
Deputy		
Staging Area Manager		
Staging Area Manager		
Staging Area Manager		
a. Branch – Division Groups		
Branch Director		
Deputy		
Division Group		
Division Group		
Division Group		
Division/Group		
Division/Group		
b. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
c. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
d. Air Operations Branch		
Air Operations Br. Dir		
Helicopter Coordinator		

8. FINANCE/ADMINISTRATION SECTION

Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit) **Date/Time**

ORGANIZATION ASSIGNMENT LIST (ICS 203-CG) Instructions for filling out the form

Purpose. The Organization Assignment List provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit. It is used to complete the Incident Organization Chart (ICS form 207-CG) which is posted on the Incident Command Post display. An actual organization will be event-specific. **Not all positions need to be filled.** The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary.

Preparation. The Resources Unit prepares and maintains this list under the direction of the Planning Section Chief.

Note: Depending on the incident, the Intelligence and Information function may be organized in several ways: 1) within the Command Staff as the Intelligence Officer; 2) As an Intelligence Unit in Planning Section; 3) As an Intelligence Branch or Group in the Operations Section; 4) as a separate General Staff Intelligence Section; and 5) as an Intelligence Technical Specialist. The incident will drive the need for the Intelligence and Information function and where it is located in the ICS organization structure. The Intelligence and information function is described in significant detail in NIMS and in the Coast Guard Incident Management Handbook (IMH).

Distribution. The Organization Assignment List is duplicated and attached to the Incident Objectives form (ICS 202-CG) and given to all recipients of the Incident Action Plan. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Incident Commander and Staff	Enter the names of the Incident Commander and Staff. Use at least the first initial and last name.
4.	Agency Representative	Enter the agency names and the names of their representatives. Use at least the first initial and last name.
5. thru 8.	Section	Enter the name of personnel staffing each of the listed positions. Use at least the first initial and last name. For Units, indicate Unit Leader and for Divisions/ Groups indicate Division/Group Supervisor. Use an additional page if more than three branches are activated. If there is a shift change during the specified operational period, list both names, separated by a slash.
9.	Prepared By	Enter the name and position of the person completing the form
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	**Assignment List ICS 204-CG**
3. Branch	**4. Division/Group/Staging**	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	▼
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by: **Date/Time**	**11. Reviewed by (PSC):** **Date/Time**	**12. Reviewed by (OSC):** **Date/Time**

ASSIGNMENT LIST (ICS 204-CG)

Purpose. The Assignment List(s) informs Division and Group supervisors of incident assignments. Once the Unified Command and General Staff agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The Assignment List is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202-CG), Operational Planning Worksheet (ICS 215-CG), and the Operations Section Chief. The Assignment List must be approved by the Planning Section Chief and Operations Section Chief. When approved, it is included as part of the Incident Action Plan (IAP). Specific instructions for specific resources may be entered on an ICS 204a-CG for dissemination to the field. A separate sheet is used for each Division or Group. The identification letter of the Division is entered in the form title. Also enter the number (roman numeral) assigned to the Branch.

Special Note. The Assignment List, ICS 204-CG submits assignments at the level of Divisions and Groups. The Assignment List Attachment, ICS 204a-CG shows more specific assignment information, if needed. The need for an ICS 204a-CG is determined by the Planning and Operations Section Chiefs during the Operational Planning Worksheet (ICS 215-CG) development.

Distribution. The Assignment List is duplicated and attached to the Incident Objectives and given to all recipients of the Incident Action Plan. In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Branch	Enter the Branch designator.
4.	Division/Group/Staging	Enter the Division/Group/Staging designator.
5.	Operations Personnel	Enter the name of the Operations Chief, applicable Branch Director, and Division Supervisor.
6.	Resources Assigned	Each line in this field may have a separate Assignment List Attachment (ICS 204a-CG). Enter the following information about the resources assigned to Division or Group for this period:
	Identifier	List identifier
	Leader	Leader name
	Contact Information	Primary means of contacting this person (e.g., radio, phone, pager, etc.). Be sure to include area code when listing a phone number.
	# Of Persons	Total number of personnel for the strike team, task force, or single resource assigned.
	Reporting Info/Notes/ Remarks	Special notes or directions, specific to this strike team, task force, or single resource. Enter an "X" check if an Assignment List Attachment (ICS 204a-CG) will be prepared and attached. The Planning and Operations Section Chiefs determine the need for an ICS 204a-CG during the Operational Planning Worksheet (ICS 215-CG) development.
7.	Work Assignment	Provide a statement of the tactical objectives to be achieved within the operational period by personnel assigned to this Division or Group.
8.	Special Instructions	Enter a statement noting any safety problems, specific precautions to be exercised, or other important information.
9.	Communications	Enter specific communications information (including emergency numbers) for this division /group. If radios are being used, enter function (command, tactical, support, etc.), frequency, system, and channel from the Incident Radio Communications Plan (ICS 205-CG). Note: Phone numbers should include area code.
10.	Prepared By	Enter the name of the person completing the form, normally the Resources Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
11.	Reviewed by (PSC)	
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
12.	Reviewed by (OSC)	Enter the name of the operations person reviewing the form, normally the Operations Section Chief.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

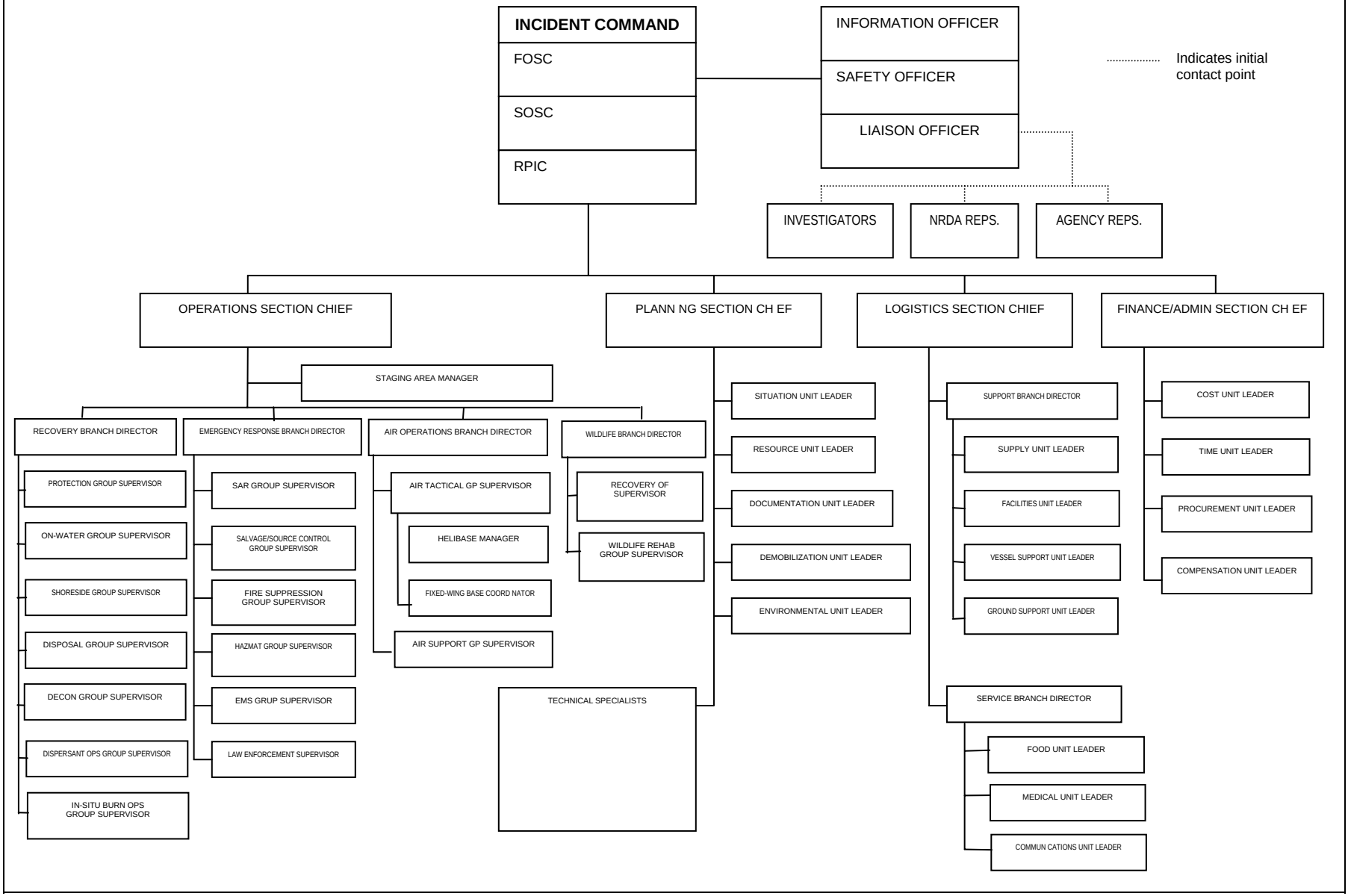
9. Other Attachments (as needed)

☐ **Map/Chart** ☐ **Weather Forecast/Tides/Currents** ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT ORGANIZATION CHART ICS 207-CG



1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	INCIDENT STATUS SUMMARY ICS 209-CG

3. Type of Incident

☐	Oil Spill	☐	HAZMAT	☐	AMIO
☐	SAR/Major SART	☐	SI/Terrorism	☐	Natural Disaster
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload
☐	Planned Event	☐	Maritime HLS/Prevention	☐	

4. Situation Summary as of Time of Report:

5. Future Outlook/Goals/Needs/Issues:

6. Safety Status/Personnel Casualty Summary

	Since Last Report	Adjustments To Previous Op Period	Total
Responder Injury			
Responder Death			
Public Missing (Active Search)			
Public Missing (Presumed Lost)			
Public Uninjured			
Public Injured			
Public Dead			
Total Public Involved			

7. Property Damage Summary

Vessel	$
Cargo	$
Facility	$
Other	$

8. Attachments with clarifying information

☐	Oil/HAZMAT	☐	SAR/LE	☐	
☐		☐		☐	
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload

9. Equipment Resources					
Kind	Notes	# Ordered	# Available	# Assigned	# Out of Service
USCG Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – USCG Cutter					
Vessels – Boat					
Vehicles – Car					
Vehicles – Truck					
Pollution Equip – VOSS/SORS					
Pollution Equip – Portable Storage					
Pollution Equip – Boom					
Non-CG/Other Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – SAR/LE Boat					
Vessels – Work/Crew Boat					
Vessels – Tug/Tow Boat					
Vessels – Pilot Boat					
Vessels – Deck Barge					
Vessels –					
Vehicles – Car					
Vehicles – Ambulance					
Vehicles – Truck					
Vehicles – Fire/Rescue/HAZMAT					
Vehicles – Vac/Tank Truck					
Vehicles –					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/ Barge					
Pollution Equip – Portable Storage					
Pollution Equip – OSRV					
Pollution Equip – Boom					
Pollution Equip –					

10. Personnel Resources	
Agency	**Total # of People**
USCG	
DHS (other than USCG)	
NOAA	
FBI	
DOD (USN Supsalv, CST, etc.)	
DOI (US Fish & Wildlife, Nat Parks, BLM, etc.)	
RP	
State	
Local	
Total Personnel Resources Used From all Organizations:	

11. Prepared by:	Date/Time Prepared:

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	ICS 209-CG OIL/HAZMAT ATTACHMENT

3. HAZMAT/Oil Spill Status (Estimated, in gallons)

Common Name(s):

UN Number:	☐ Secured ☐ Unsecured
CAS Number:	Remaining Potential (bbl):
	Rate of Spillage (bbl/hr):

	Adjustments To Previous Operational Period	Since Last Report	Total
Volume Spilled/Released			
Mass Balance - HAZMAT/Oil Budget			
Recovered HAZMAT/Oil			
Evaporation/Airborne			
Natural Dispersion			
Chemical Dispersion			
Burned			
Floating, Contained			
Floating, Uncontained			
Onshore			
Total HAZMAT/Oil accounted for:	N/A	N/A	

Comments:

4. HAZMAT/Oil Waste Management (Estimated, Since Last Report)

	Recovered	Disposed	Stored
HAZMAT/Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

Comments:

5. HAZMAT/Oil Shoreline Impacts (Estimated in miles)

Degree of Impact	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

Comments:

6. HAZMAT/Oil Wildlife Impacts (Since Last Report)

					Died in Facility	
Type of Wildlife	Captured	Cleaned	Released	DOA	Euthanized	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

Comments:

7. Prepared by:	Date/Time Prepared:

INCIDENT STATUS SUMMARY (ICS FORM 209-CG)

Purpose. The Status Summary:
1. Is used by Situation Unit personnel for posting information on Status Boards or attaching as a file to the MISLE Case.
2. Is duplicated and provided to Command Staff members, giving them basic information for planning for the next operational period.
3. Provides information to the Information Officer for preparing news media releases.
4. Summarizes incident information for local and off-site coordination/operations centers.

Preparation. The Situation Unit prepares the Status Summary. Resources information should be obtained from the Resources Unit. It may be scheduled for presentation to the Planning Section Chief and other General Staff members prior to each Planning Meeting and may be required at more frequent intervals by the Unified Command or Planning Section Chief. Suggested sources of information are noted in brackets.
Note: The values on the ICS form 209-CG are the **best available estimates at the Time of Report** (Item # 2 on form). This form is usually in high demand and should be filled out early and often. A suggested source within the ICS organization is noted in brackets [ ] at the top right of each section of the form. **All fields need not be completed in order to distribute the form**.

Distribution. When completed, the form is duplicated and copies are distributed to the Unified Command and staff, and all Section Chiefs, Planning Section Unit Leaders, and the Joint Information Center. It is also posted on a status board located at the ICP. All completed original forms MUST be given to the Documentation Unit.

How to Save and Use the Word Template Form:
The 209 template (.dot file) can be edited to match most incident situations and can be saved into the Word template directory. Open the blank 209 (ICS 209 CG.dot) – do not add any content. Save the blank in the Templates directory. Create a new 209 from File>new picking the 209 template. Type in the file to add any desired content and use “save as” to save the work using a new file name. The file will automatically become a .doc file.

Comments: Please send comments/corrections about this form to the ICS Program Manager, Ms. Kristy Plourde, email: kplourde@tcyorktown.uscg.mil

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Type of Incident	Indicate (check box) and/or fill-in the type of incident(s).
4.	Situation Summary	Summary of current situation at time of report.
5.	Future Outlook	This section is for the IC/UC to discuss/project their future outlook, goals, requirements, needs and issues.
6.	Safety Status/Personnel Casualty	This information pertains to responders and assisted public personnel. Indicate the number of serious injuries, death, and missing. Values entered in the column labeled since Last Report are from the start of the

		Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Property Damage	Enter estimated dollar values for each item, if known.
8.	Attachments	Indicate (check box) and/or fill-in the attachment(s) the help further clarify the incident status.
9.	Equipment Resources	Indicate the number of each type of resource in each status category. There are blank lines below each general type of resource for additional equipment.
	Ordered	Ordered but not yet arrived/available.
	Available	Arrived on scene, stored in staging, not assigned to any task, available for use.
	Assigned	Assigned to a specific task.
	Out of Service	Not working and not assigned to any task (e.g., skimmer being repaired, boom broken, personnel off-duty for rest).
10.	Personnel Resources	Indicate, by agency, the numbers of personnel assigned. There are blank lines for additional personnel, as needed.
11.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

OIL/HAZMAT ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Spill Status	This information is only tracked if there is spilled HAZMAT or Oil. Enter Common Name(s) of the released substance or spilled oil (i.e. Ethyl Alcohol/Ethanol or No. 2 Fuel Oil/Light Fuel Oil). Enter UN number and CAS Registry number, if known. Indicate whether the spill source is secured or unsecured (check box) and estimate the remaining potential and the rate of spillage discharge or release. Enter the estimated amounts in barrels for each category. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
	Mass Balance	This information is only tracked if there is spilled HAZMAT or Oil whether recovered, evaporated, dispersed, burned, floating, or on shore. The total of these estimates should approximate the total volume spilled, discharged, or released. Values for evaporation, dispersion, etc. can be obtained from the Environmental Unit and/or the Scientific Support Coordinator (SSC).
4.	Waste Management	This information is only tracked if there is spilled HAZMAT or Oil. Enter the estimated amounts in barrels or tons for each category. Total HAZMAT/ Oil (bbl) is the sum of the estimate of HAZMAT/oil in oily

		liquids and HAZAMT/oil in oily solids, and is the value to be entered under "Recovered HAZMAT/Oil" in Item 4.
5.	Shoreline Impacts	This information is only tracked if there is spilled HAZMAT or Oil. Enter the total miles in each category for each degree of oiling. Definitions for Light, Medium, and Heavy oiling can be obtained from the EUL/SSC and should be consistent throughout the incident.
6.	Wildlife Impacts	This information is only tracked after an animal is captured. Indicate the actual number of oiled wildlife in each category. Use numbers in parentheses to indicate the subtotal of threatened / endangered species included in the numbers given.
7.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

SAR/LE ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Evacuation Status	This information is only tracked if the incident involves evacuation of personnel. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
4.	Migrant Interdiction Status	This information is only tracked if the incident involves Migrant Interdiction. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
5.	Sorties/Patrols	This information is only tracked if the incident involves sorties tracked in MISLE Incident Management Activity. List Sorties since last report both Air and Surface. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
6.	Use of Force	This information is only tracked if the incident involves Use of Force activities. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Operational Controls	This information is only tracked if the incident involves Operational Control activities initiated, in force and removed.
8.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

Resource Request Message

ICS-213 RR CG (05/06)

Requestor

1. Incident Name: | 2. Date/Time: | 3. Resource Request No:

4. ORDER Note: Use additional forms when requesting different resource sources of supply

a. Qty.	b. Kind	c. Type	d. Detailed item description (Vital characteristics, brand, specs, experience, etc. & if applicable describe purpose/use, attach diagrams, & other amplifying info)	e. Requested Reporting Location:	e. Requested Reporting Date/Time:	f. ETA (LSC):	g. Cost (FSC):

5. Suggested source(s) of Supply - POC phone no. if known & suitable subtitutes:

6. Requested by Name/Position/Phone: | 7. Date/Time: | 8. Section Chief Approval: | Date/Time:

☐ 9. Check box if request is for tactical/personnel resources & Submit to RESL, otherwise submit directly to Logistics

10. RESL Review/Signature:

☐ Resources as noted are Available ☐ Resources Not Available

Logistics

11. Logistics Order No.: | 12. Supplier Name/Phone/Fax/Email:

13. Notes:

14. Approval Signature of Auth Logistics Rep: | 15. Date/Time:

16. Order placed by (check box): ☐ SPUL ☐ PROC

Finance

17. Reply/Comments from Finance:

18. Finance Section Signature: | 19. Date/Time:

Full Instructions on back page. Requestor fills out # 1-9 & keeps yellow copy (bottom). If applicable, RESL reviews if resource available & signs # 10. Logistics fills in remainder of # 4 & # 10-15 & keeps pink copy. Finance, if needed fills out appropriate items & keeps green copy. Blue original is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL.

Instructions for filling out the ICS-213RR CG Form (5/06)

REQUESTOR: The requestor must fill in Blocks 1 through 9:

Block # 1	Incident name: This is the same as the name stated on the ICS-201 Form and/or the Incident Action Plan (IAP).
Block # 2	Current date and time when submitting request
Block # 3	Resource Request Number: This is to be assigned by the Section submitting request (i.e. CMD, OPS, PLAN, LOG, FIN)
Block # 4	Fill in blocks 4a through 4e. Items requested: Must include Quantity, Kind and Type (if applicable) and detailed description of requirements. **BE SPECIFIC AS POSSIBLE**. The request should focus on capability rather than naming the brand or specific item (e.g. helicopter capable of carrying 4 personnel from location A to B rather than requesting a Coast Guard H-65 helicopter). This gives the logistics section the ability to find the best resource to meet the need. 4.e Requested Reporting Location/Date/Time: This is self-explanatory and is required for ordering official. Leave blocks 4.f. ETA (LSC) and 4.g. Cost (FSC) blank. These will be filled in later by Logistics and Finance.
Block # 5	Suggested sources of supply and suitable substitutes: Enter applicable information if known.
Block # 6 & 7	Requestor: Print Name and Signature and date/time.
Block # 8	Approval: This must be approved by the Section Chief or Deputy Section Chief.
Block # 9	Check box if request is for tactical or personnel resource(s) and submit request to Resources Unit Leader (RESL) to review and approve since RESL tracks all tactical and personnel resources.

Request goes to RESOURCES UNIT if requesting Tactical/Personnel Resource(s):

Block # 10	Resources reviews request and checks to see if resource is available. If the resource is available, reassigns resource as appropriate and sends request back to requester with information noted as to reporting time, etc. The request form is then sent to Documentation Unit Leader (DOCL) for filing. If the resource is not available, RESL sends request to Logistics.

LOGISTICS SECTION: The following blocks are to be filled out be the Supply Unit (SPUL).

Block # 11	Logistics Order Number: To be assigned by Supply Unit.
Block # 12	Supplier Point of Contact, Phone Number and Fax Number: This information is needed for Credit Card purchases and/or Purchase Orders.
Block # 13	Notes: Enter applicable information as need for request.
Block # 4	ETA and Cost: SPUL or PROC fills in Estimated time of arrival (ETA) when determined and cost if known.
Block # 14 & 15	Approval: This must be approved by the Logistics Section Chief or Deputy Logistics Section Chief, printed name and signature is required with Date and Time of approval. Bottom Copy (pink) is retained.

FINANCE SECTION: The following blocks are to be filled out be the Procurement Unit (PROC), if applicable.

Block # 16	Indicates who is to place order as necessary.
Block # 17	Comments concerning request from Finance Section Chief or Deputy Finance Section Chief.
Block # 18 & 19	Approval: This must be approved by the Finance Section Chief or Deputy Section Chief, printed name and signature is required with Date and Time of approval. Bottom copy (green) is retained.
FILING	Original blue copy is returned to RESL for tactical/personnel resources ordered, and the requester for non-tactical. RESL will inform requester of status of request when form received. The white copy is sent to DOCL.

Note: Cost associated requests will not be ordered without approval from the Finance Section Chief or Deputy Finance Section Chief.

Form Filing: Blue (Original) – final disposition to RESL or originator for non-tactical resources, White (copy 1) to DOCL, Green (copy 2) to FIN, Pink (copy 3) to LOG, Yellow (copy 4) to Originator

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	DAILY MEETING SCHEDULE ICS 230-CG

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	
	Command & General Staff Meeting	IC/UC gives direction to Command & General staff including incident objectives and priorities	IC/UC, Command & General Staff	
	Tactics Meeting	Develop/Review primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OSC, LSC, RESL & SITL	
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period.	Determined by the IC/UC	
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command & General Staff, Branch Directors, Div/Gru Sups., Task Force/Strike Team Leaders and Unit Leaders	

4. Prepared by: (Situation Unit Leader) **Date/Time**

DAILY MEETING SCHEDULE (ICS 230-CG)

Purpose. The Daily Meeting Schedule records information about the daily scheduled meeting activities.

Preparation. This form is prepared by the Situation Unit Leader and coordinated through the Unified Command for each operational period or as needed. Commonly-held meetings are already included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of these standard meetings are not scheduled, they should be crossed out on the form.

Distribution. After coordination with the Unified Command, the Situation Unit Leader will duplicate the schedule and post a copy at the Situation Status Board and distribute to the Command Staff, Section Chiefs, and appropriate Unit Leaders. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Meeting Schedule	For each scheduled meeting, enter the date/time, meeting name, purpose, attendees, and location. Note: Commonly-held meetings are included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of the standard meetings are not scheduled, they should be deleted from the form (normally the Situation Unit Leader).
4.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name					**INCIDENT OPEN ACTION TRACKER ICS 233-CG**		
2. No.	3. Item	4. For/POC	5. POC Briefed	6. Start Date	7. Status	8. Target Date	9. Actual Date
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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20							
21							
22							
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24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
37							

Open Actions Tracker (ICS 233-CG)

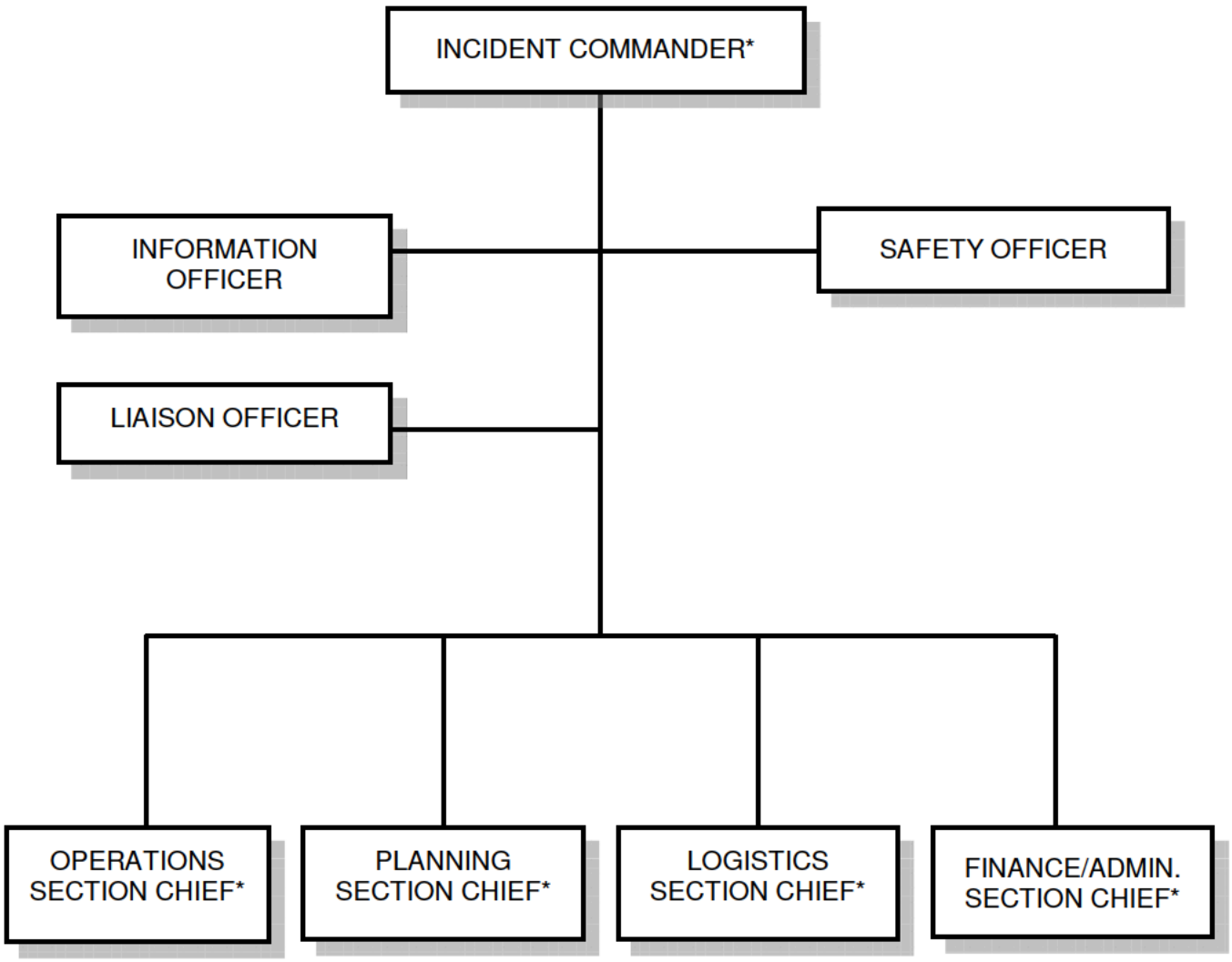
Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	No.	Enter number of task in sequential order (1, 2, 3, …).
3.	Item	Enter short descriptive of the task.
4.	For/POC	Enter responsible section/person.
5.	Briefed to POC	When the tasker has been briefed to the POC after initially assigned, an "X" is placed in the brief column. This was to ensure that taskers identified outsie of the POC's presence (during UC Meeting for example) were assigned the to identified POC.
6.	Start Date	Enter the date the tasker was initially assigned under "Start Date."
7.	Status	Enter status of item. This includes things like: "Awaiting LE Gear", "Update needed", "Awaiting Feedback". When the item is completed, the word "completed" is entered and if working in MS Excel, the task is cut and pasted into the worksheet labeled "COMPLETED."
8.	Target Date	Target date is another way of saying deadline. When the target date is one day away, the block turns yellow. When it is overdue it turns red. When it is yellow, it serves as a reminder to the UC that the target date needs to be changed or the responsible section needs to complete the task.
9.	Actual Date	The block to the right of the Target Date (Actual Date) will always have today's date. It is merely the formula "=today()" inserted into the cell.

NOTE: In order to ensure the red and yellow reminders work for new tasks, the user simply copies a task line, inserts it into the worksheet and overtypes the new task information.

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

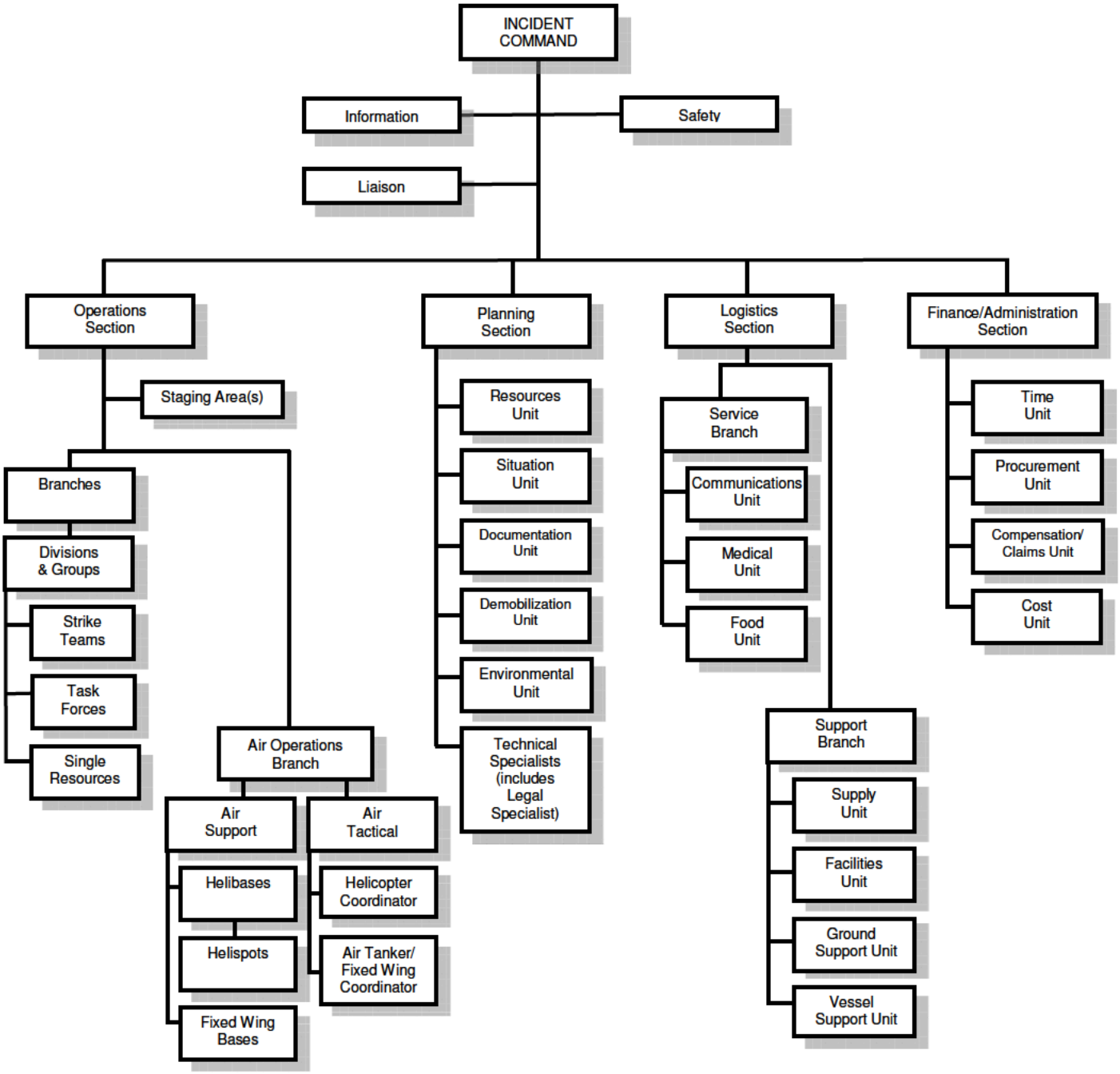


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

FINANCE/ADMINISTRATION

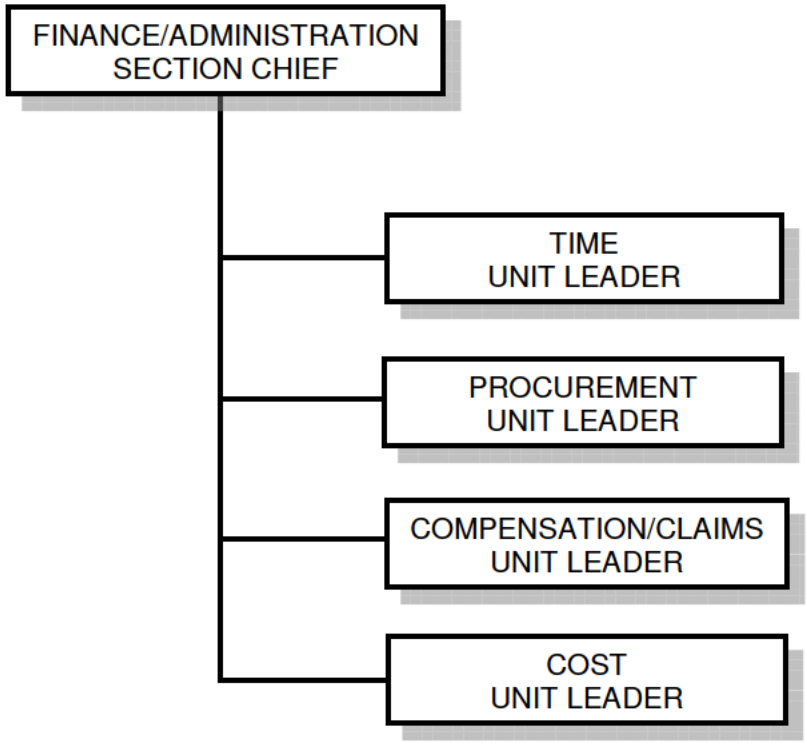
Finance/Administration Section Chief 4-51

Time Unit Leader 4-52

Procurement Unit Leader 4-52

Compensation/Claims Unit Leader 4-53

Cost Unit Leader 4-53



TIME UNIT LEADER

The Time Unit Leader is responsible for equipment and personnel time recording and for managing the commissary operations.

Overall Time Unit Leader Responsibilities:

- Determine incident requirements for time recording function.
- Determine resource needs.
- Contact appropriate agency personnel/representatives.
- Ensure that daily personnel time recording documents are prepared and in compliance with policy.
- Establish time unit objectives.
- Maintain separate logs for overtime hours.
- Establish commissary operation on larger or long-term incidents as needed.
- Submit cost estimate data forms to the Cost Unit, as required.
- Maintain records security.
- Ensure that all records are current and complete prior to demobilization.
- Release time reports from assisting agency personnel to the respective Agency Representatives prior to demobilization.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

PROCUREMENT UNIT LEADER

The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts, leases, and fiscal agreements.

Overall Procurement Unit Leader Responsibilities:

- Review incident needs and any special procedures with Unit Leaders, as needed.
- Coordinate with local jurisdiction on plans and supply sources.
- Obtain the Incident Procurement Plan.
- Prepare and authorize contracts and land-use agreements.
- Draft memoranda of understanding as necessary.
- Establish contracts and agreements with supply vendors.
- Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
- Interpret contracts and agreements; resolve disputes within delegated authority.
- Coordinate with the Compensation/Claims Unit for processing claims.
- Coordinate use of impress funds, as required.
- Complete final processing of contracts and send documents for payment.
- Coordinate cost data in contracts with the Cost Unit Leader.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG
6. Activity Log (Continue on Reverse)		

TIME	MAJOR EVENTS

7. Prepared by:	Date/Time:

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

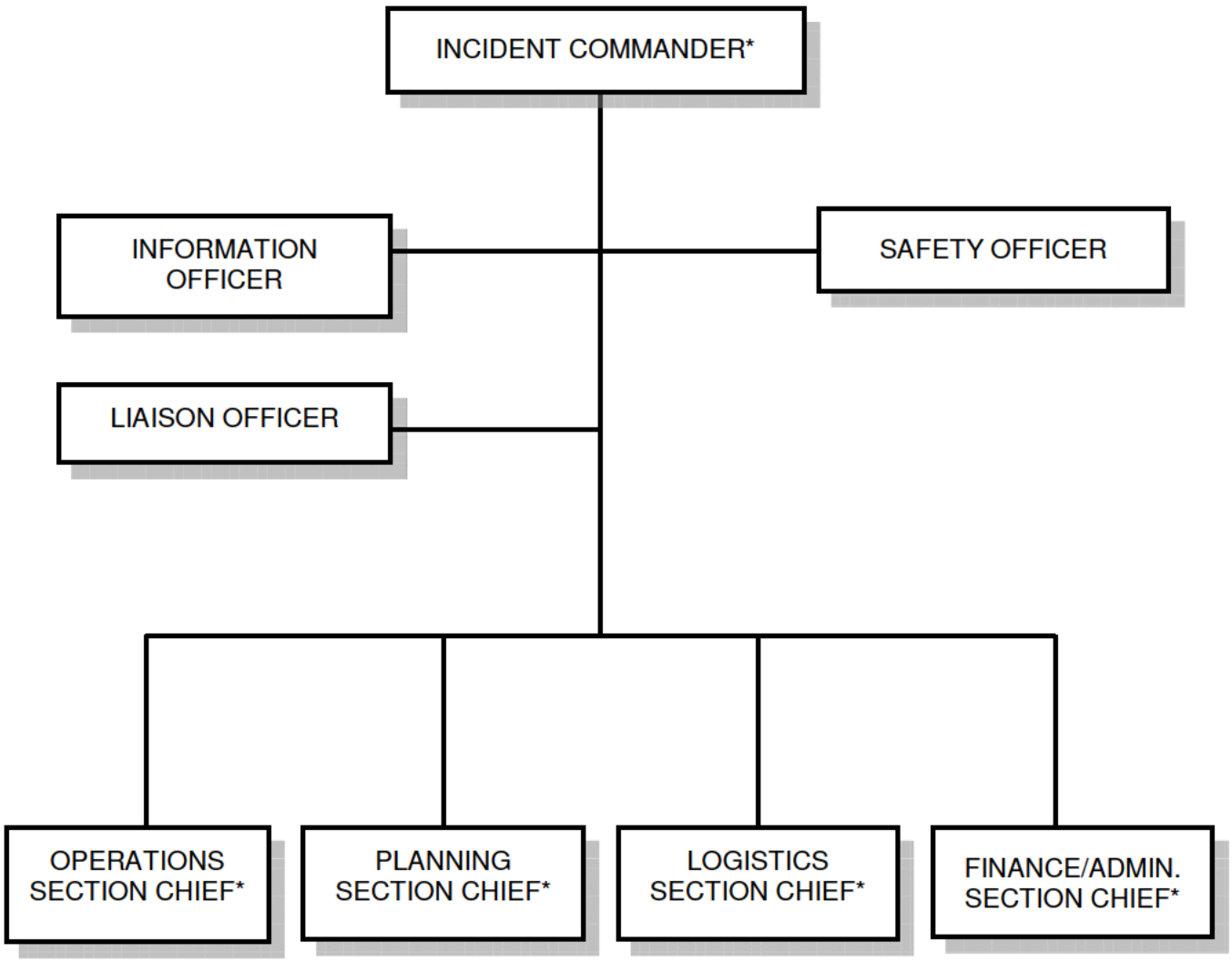
Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

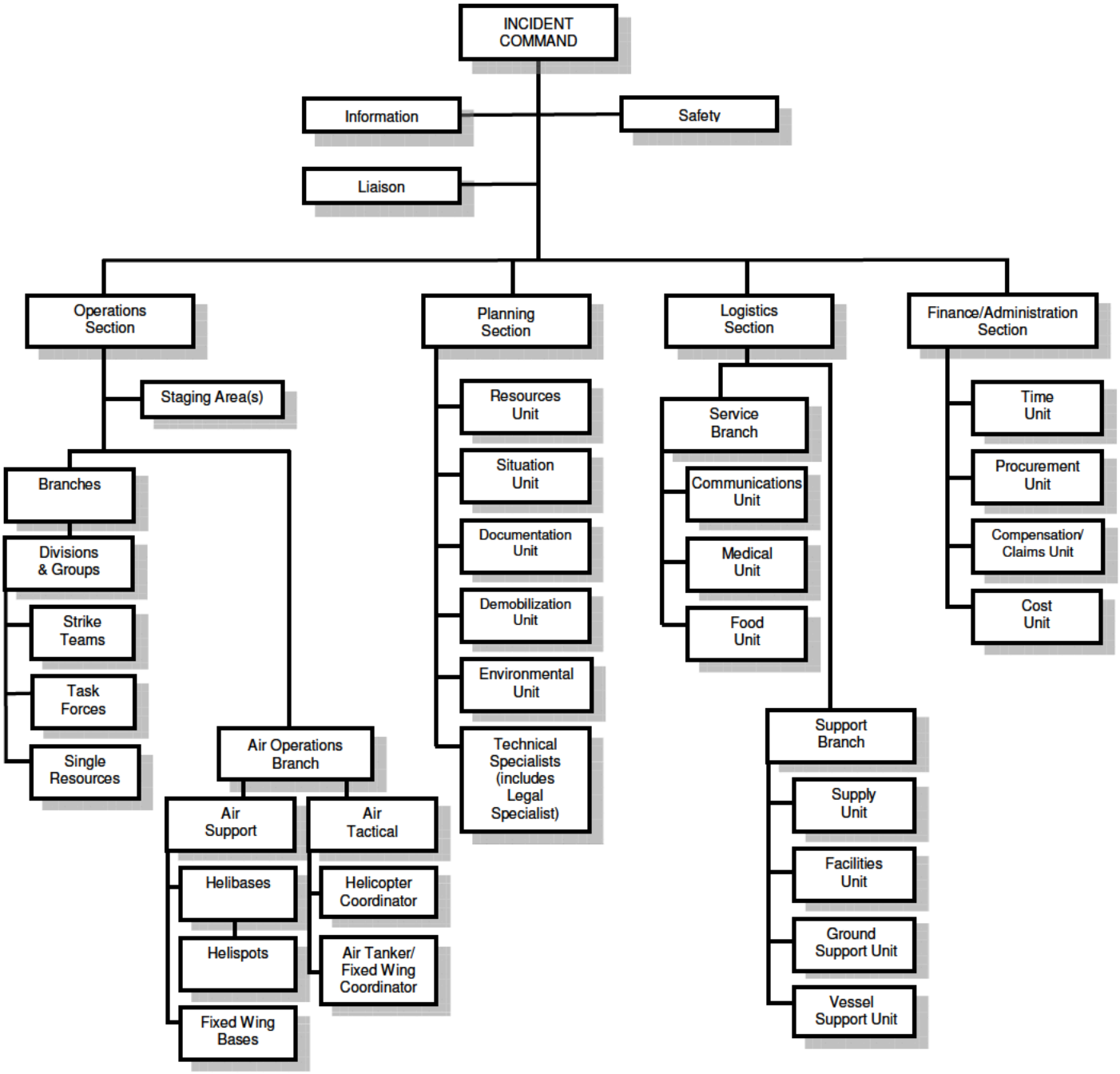


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

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- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

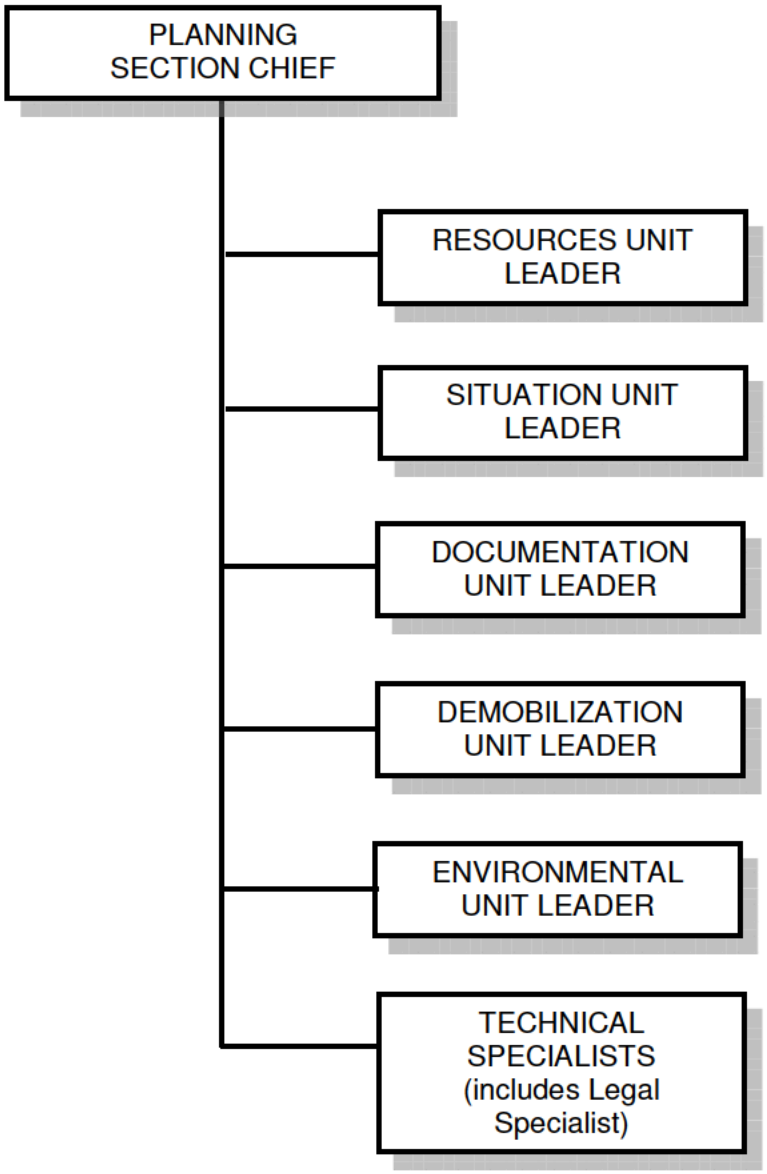
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



PLANNING SECTION CHIEF

The Planning Section Chief (PSC) is responsible for the collection, evaluation, dissemination and use of information; particularly with regard to the development of the incident and the status resources. This information is needed to: 1) understand the current situation, 2) predict the probable course of incident events; and 3) prepare alternative strategies for the incident.

Overall PSC Responsibilities:

- Collect and process situation information about the incident.
- Supervise preparation of the IAP.
- Provide input to the IC and the OPS in preparing the IAP.
- Chair planning meetings and participate in other meetings as required.
- Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.
- Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation Units).
- Determine the need for any specialized resources in support of the incident.
- If requested, assemble and disassemble Strike Teams and Task Forces not assigned to Operations.
- Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report any significant changes in incident status.
- Compile and display incident status information.
- Oversee preparation and implementation of the Incident Demobilization Plan.
- Incorporate plans (e.g., Traffic, Medical, Communications, Site Safety) into the IAP.

RESOURCES UNIT LEADER

The Resource Unit Leader (RUL) works within the Planning Section and is responsible for maintaining the status of all assigned resources (primary and support) at an incident. This is achieved by overseeing the check in/out of all resources, maintaining a status-keeping system indicating current location and status of all resources, and maintenance of a master list of all resources (e.g. key supervisory personnel, primary and support resources, etc.).

Overall RUL Responsibilities:

- Establish the check-in function at incident locations.
  The Staging Area Manager may already be tracking this on ICS Form 211-p and 211-e. However, the RUL should verify that tracking is being conducted and is accurate. Additionally, the RUL should determine how to gather this resource information from Staging Areas.
- Prepare Organization Assignment List (ICS Form 203) and Organization Chart (ICS Form 207).
- Prepare appropriate parts of Division Assignment Lists (ICS Form 204).
- Prepare and maintain the ICP display (to include organization chart and resource allocation and deployment).

RESOURCES UNIT LEADER (Cont'd)

Overall RUL Responsibilities (Cont'd):

- Maintain and post the current status and location of all resources.
  The RUL is responsible for developing a system to best track the resource status. Ensure information is relayed to the Situation Unit Leader in order to update incident status information on the display board (ICS Form 209)
- Maintain master roster of all resources checked in at the incident.
- Assign an additional person to fill the "Check-in/status Recorder" position to assist with the accounting of all resources assigned to the incident.
  If a Check-in/status Recorder is not assigned, the RUL is responsible for all functions.

SITUATION UNIT LEADER

The Situation Unit Leader (SUL) works within the Planning Section and is responsible for collecting, processing and organizing all incident information. The SUL may prepare future projections of incident growth and maps.

Overall SUL Responsibilities:

- Begin collection and analysis of incident data as soon as possible.
- Prepare, post, or disseminate resource and situation status information as required, including special requests.
  Establish location for situation status boards and displays. This is where maps, charts, and other incident information will be posted for responders to view.
- Prepare periodic predictions or as requested by the PSC.
- Prepare the Incident Status Summary Form (ICS Form 209).
  Acquire the information from various Command and General ICS Staff.
- Provide photographic services and maps if required.

The SUL may have a Display Processor and Field Observer reporting to him/her. However, if not assigned, the SUL will be responsible for their functions

Display Processor - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Display Processor Responsibilities:

- Determine:
  - Location of work assignment
  - Numbers, types and locations of displays required
  - Priorities
  - Map requirements for the IAP
  - Time limits for completion
  - Field Observer assignments and communications means
- Obtain necessary equipment and supplies.
- Obtain a copy of the IAP for each operational period.
- Assist SUL in analyzing and evaluating field reports.
- Develop required displays in accordance with time limits for completion.

1. Incident Name	2. Operational Period (Date/Time) From: To:	ORGANIZATION ASSIGNMENT LIST ICS 203-CG

3. Incident Commander(s) and Staff

Agency	IC	Deputy

Safety Officer:	
Information Officer:	
Liaison Officer:	

4. Agency Representatives

Agency	Name

5. PLANNING/INTEL SECTION

Chief	
Deputy	
Resources Unit	
Situation Unit	
Environmental Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION

Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Vessel Support Unit	
Ground Support Unit	
b. Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION

Chief		
Deputy		
Deputy		
Staging Area Manager		
Staging Area Manager		
Staging Area Manager		
a. Branch – Division Groups		
Branch Director		
Deputy		
Division Group		
Division Group		
Division Group		
Division/Group		
Division/Group		
b. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
c. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
d. Air Operations Branch		
Air Operations Br. Dir		
Helicopter Coordinator		

8. FINANCE/ADMINISTRATION SECTION

Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit) **Date/Time**

ORGANIZATION ASSIGNMENT LIST (ICS 203-CG) Instructions for filling out the form

Purpose. The Organization Assignment List provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit. It is used to complete the Incident Organization Chart (ICS form 207-CG) which is posted on the Incident Command Post display. An actual organization will be event-specific. **Not all positions need to be filled.** The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary.

Preparation. The Resources Unit prepares and maintains this list under the direction of the Planning Section Chief.

Note: Depending on the incident, the Intelligence and Information function may be organized in several ways: 1) within the Command Staff as the Intelligence Officer; 2) As an Intelligence Unit in Planning Section; 3) As an Intelligence Branch or Group in the Operations Section; 4) as a separate General Staff Intelligence Section; and 5) as an Intelligence Technical Specialist. The incident will drive the need for the Intelligence and Information function and where it is located in the ICS organization structure. The Intelligence and information function is described in significant detail in NIMS and in the Coast Guard Incident Management Handbook (IMH).

Distribution. The Organization Assignment List is duplicated and attached to the Incident Objectives form (ICS 202-CG) and given to all recipients of the Incident Action Plan. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Incident Commander and Staff	Enter the names of the Incident Commander and Staff. Use at least the first initial and last name.
4.	Agency Representative	Enter the agency names and the names of their representatives. Use at least the first initial and last name.
5. thru 8.	Section	Enter the name of personnel staffing each of the listed positions. Use at least the first initial and last name. For Units, indicate Unit Leader and for Divisions/ Groups indicate Division/Group Supervisor. Use an additional page if more than three branches are activated. If there is a shift change during the specified operational period, list both names, separated by a slash.
9.	Prepared By	Enter the name and position of the person completing the form
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	**Assignment List ICS 204-CG**
3. Branch	**4. Division/Group/Staging**	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	▼
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

ASSIGNMENT LIST (ICS 204-CG)

Purpose. The Assignment List(s) informs Division and Group supervisors of incident assignments. Once the Unified Command and General Staff agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The Assignment List is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202-CG), Operational Planning Worksheet (ICS 215-CG), and the Operations Section Chief. The Assignment List must be approved by the Planning Section Chief and Operations Section Chief. When approved, it is included as part of the Incident Action Plan (IAP). Specific instructions for specific resources may be entered on an ICS 204a-CG for dissemination to the field. A separate sheet is used for each Division or Group. The identification letter of the Division is entered in the form title. Also enter the number (roman numeral) assigned to the Branch.

Special Note. The Assignment List, ICS 204-CG submits assignments at the level of Divisions and Groups. The Assignment List Attachment, ICS 204a-CG shows more specific assignment information, if needed. The need for an ICS 204a-CG is determined by the Planning and Operations Section Chiefs during the Operational Planning Worksheet (ICS 215-CG) development.

Distribution. The Assignment List is duplicated and attached to the Incident Objectives and given to all recipients of the Incident Action Plan. In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Branch	Enter the Branch designator.
4.	Division/Group/Staging	Enter the Division/Group/Staging designator.
5.	Operations Personnel	Enter the name of the Operations Chief, applicable Branch Director, and Division Supervisor.
6.	Resources Assigned	Each line in this field may have a separate Assignment List Attachment (ICS 204a-CG). Enter the following information about the resources assigned to Division or Group for this period:
	Identifier	List identifier
	Leader	Leader name
	Contact Information	Primary means of contacting this person (e.g., radio, phone, pager, etc.). Be sure to include area code when listing a phone number.
	# Of Persons	Total number of personnel for the strike team, task force, or single resource assigned.
	Reporting Info/Notes/ Remarks	Special notes or directions, specific to this strike team, task force, or single resource. Enter an "X" check if an Assignment List Attachment (ICS 204a-CG) will be prepared and attached. The Planning and Operations Section Chiefs determine the need for an ICS 204a-CG during the Operational Planning Worksheet (ICS 215-CG) development.
7.	Work Assignment	Provide a statement of the tactical objectives to be achieved within the operational period by personnel assigned to this Division or Group.
8.	Special Instructions	Enter a statement noting any safety problems, specific precautions to be exercised, or other important information.
9.	Communications	Enter specific communications information (including emergency numbers) for this division /group. If radios are being used, enter function (command, tactical, support, etc.), frequency, system, and channel from the Incident Radio Communications Plan (ICS 205-CG). Note: Phone numbers should include area code.
10.	Prepared By	Enter the name of the person completing the form, normally the Resources Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
11.	Reviewed by (PSC)	
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
12.	Reviewed by (OSC)	Enter the name of the operations person reviewing the form, normally the Operations Section Chief.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

9. Other Attachments (as needed)

☐ **Map/Chart** ☐ **Weather Forecast/Tides/Currents** ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	INCIDENT STATUS SUMMARY ICS 209-CG

3. Type of Incident

☐	Oil Spill	☐	HAZMAT	☐	AMIO
☐	SAR/Major SART	☐	SI/Terrorism	☐	Natural Disaster
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload
☐	Planned Event	☐	Maritime HLS/Prevention	☐	

4. Situation Summary as of Time of Report:

5. Future Outlook/Goals/Needs/Issues:

6. Safety Status/Personnel Casualty Summary

	Since Last Report	Adjustments To Previous Op Period	Total
Responder Injury			
Responder Death			
Public Missing (Active Search)			
Public Missing (Presumed Lost)			
Public Uninjured			
Public Injured			
Public Dead			
Total Public Involved			

7. Property Damage Summary

Vessel	$
Cargo	$
Facility	$
Other	$

8. Attachments with clarifying information

☐	Oil/HAZMAT	☐	SAR/LE	☐	
☐		☐		☐	
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload

9. Equipment Resources					
Kind	Notes	# Ordered	# Available	# Assigned	# Out of Service
USCG Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – USCG Cutter					
Vessels – Boat					
Vehicles – Car					
Vehicles – Truck					
Pollution Equip – VOSS/SORS					
Pollution Equip – Portable Storage					
Pollution Equip – Boom					
Non-CG/Other Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – SAR/LE Boat					
Vessels – Work/Crew Boat					
Vessels – Tug/Tow Boat					
Vessels – Pilot Boat					
Vessels – Deck Barge					
Vessels –					
Vehicles – Car					
Vehicles – Ambulance					
Vehicles – Truck					
Vehicles – Fire/Rescue/HAZMAT					
Vehicles – Vac/Tank Truck					
Vehicles –					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/ Barge					
Pollution Equip – Portable Storage					
Pollution Equip – OSRV					
Pollution Equip – Boom					
Pollution Equip –					

10. Personnel Resources	
Agency	**Total # of People**
USCG	
DHS (other than USCG)	
NOAA	
FBI	
DOD (USN Supsalv, CST, etc.)	
DOI (US Fish & Wildlife, Nat Parks, BLM, etc.)	
RP	
State	
Local	
Total Personnel Resources Used From all Organizations:	

11. Prepared by:	Date/Time Prepared:

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	ICS 209-CG OIL/HAZMAT ATTACHMENT

3. HAZMAT/Oil Spill Status (Estimated, in gallons)

Common Name(s):

UN Number:	☐ Secured ☐ Unsecured
CAS Number:	Remaining Potential (bbl):
	Rate of Spillage (bbl/hr):

	Adjustments To Previous Operational Period	Since Last Report	Total
Volume Spilled/Released			
Mass Balance - HAZMAT/Oil Budget			
Recovered HAZMAT/Oil			
Evaporation/Airborne			
Natural Dispersion			
Chemical Dispersion			
Burned			
Floating, Contained			
Floating, Uncontained			
Onshore			
Total HAZMAT/Oil accounted for:	N/A	N/A	

Comments:

4. HAZMAT/Oil Waste Management (Estimated, Since Last Report)

	Recovered	Disposed	Stored
HAZMAT/Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

Comments:

5. HAZMAT/Oil Shoreline Impacts (Estimated in miles)

Degree of Impact	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

Comments:

6. HAZMAT/Oil Wildlife Impacts (Since Last Report)

					Died in Facility	
Type of Wildlife	Captured	Cleaned	Released	DOA	Euthanized	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

Comments:

7. Prepared by:	Date/Time Prepared:

INCIDENT STATUS SUMMARY (ICS FORM 209-CG)

Purpose. The Status Summary:
1. Is used by Situation Unit personnel for posting information on Status Boards or attaching as a file to the MISLE Case.
2. Is duplicated and provided to Command Staff members, giving them basic information for planning for the next operational period.
3. Provides information to the Information Officer for preparing news media releases.
4. Summarizes incident information for local and off-site coordination/operations centers.

Preparation. The Situation Unit prepares the Status Summary. Resources information should be obtained from the Resources Unit. It may be scheduled for presentation to the Planning Section Chief and other General Staff members prior to each Planning Meeting and may be required at more frequent intervals by the Unified Command or Planning Section Chief. Suggested sources of information are noted in brackets.
Note: The values on the ICS form 209-CG are the **best available estimates at the Time of Report** (Item # 2 on form). This form is usually in high demand and should be filled out early and often. A suggested source within the ICS organization is noted in brackets [ ] at the top right of each section of the form. **All fields need not be completed in order to distribute the form**.

Distribution. When completed, the form is duplicated and copies are distributed to the Unified Command and staff, and all Section Chiefs, Planning Section Unit Leaders, and the Joint Information Center. It is also posted on a status board located at the ICP. All completed original forms MUST be given to the Documentation Unit.

How to Save and Use the Word Template Form:
The 209 template (.dot file) can be edited to match most incident situations and can be saved into the Word template directory. Open the blank 209 (ICS 209 CG.dot) – do not add any content. Save the blank in the Templates directory. Create a new 209 from File>new picking the 209 template. Type in the file to add any desired content and use “save as” to save the work using a new file name. The file will automatically become a .doc file.

Comments: Please send comments/corrections about this form to the ICS Program Manager, Ms. Kristy Plourde, email: kplourde@tcyorktown.uscg.mil

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Type of Incident	Indicate (check box) and/or fill-in the type of incident(s).
4.	Situation Summary	Summary of current situation at time of report.
5.	Future Outlook	This section is for the IC/UC to discuss/project their future outlook, goals, requirements, needs and issues.
6.	Safety Status/Personnel Casualty	This information pertains to responders and assisted public personnel. Indicate the number of serious injuries, death, and missing. Values entered in the column labeled since Last Report are from the start of the

		Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Property Damage	Enter estimated dollar values for each item, if known.
8.	Attachments	Indicate (check box) and/or fill-in the attachment(s) the help further clarify the incident status.
9.	Equipment Resources	Indicate the number of each type of resource in each status category. There are blank lines below each general type of resource for additional equipment.
	Ordered	Ordered but not yet arrived/available.
	Available	Arrived on scene, stored in staging, not assigned to any task, available for use.
	Assigned	Assigned to a specific task.
	Out of Service	Not working and not assigned to any task (e.g., skimmer being repaired, boom broken, personnel off-duty for rest).
10.	Personnel Resources	Indicate, by agency, the numbers of personnel assigned. There are blank lines for additional personnel, as needed.
11.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

OIL/HAZMAT ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Spill Status	This information is only tracked if there is spilled HAZMAT or Oil. Enter Common Name(s) of the released substance or spilled oil (i.e. Ethyl Alcohol/Ethanol or No. 2 Fuel Oil/Light Fuel Oil). Enter UN number and CAS Registry number, if known. Indicate whether the spill source is secured or unsecured (check box) and estimate the remaining potential and the rate of spillage discharge or release. Enter the estimated amounts in barrels for each category. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
	Mass Balance	This information is only tracked if there is spilled HAZMAT or Oil whether recovered, evaporated, dispersed, burned, floating, or on shore. The total of these estimates should approximate the total volume spilled, discharged, or released. Values for evaporation, dispersion, etc. can be obtained from the Environmental Unit and/or the Scientific Support Coordinator (SSC).
4.	Waste Management	This information is only tracked if there is spilled HAZMAT or Oil. Enter the estimated amounts in barrels or tons for each category. Total HAZMAT/ Oil (bbl) is the sum of the estimate of HAZMAT/oil in oily

		liquids and HAZAMT/oil in oily solids, and is the value to be entered under "Recovered HAZMAT/Oil" in Item 4.
5.	Shoreline Impacts	This information is only tracked if there is spilled HAZMAT or Oil. Enter the total miles in each category for each degree of oiling. Definitions for Light, Medium, and Heavy oiling can be obtained from the EUL/SSC and should be consistent throughout the incident.
6.	Wildlife Impacts	This information is only tracked after an animal is captured. Indicate the actual number of oiled wildlife in each category. Use numbers in parentheses to indicate the subtotal of threatened / endangered species included in the numbers given.
7.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

SAR/LE ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Evacuation Status	This information is only tracked if the incident involves evacuation of personnel. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
4.	Migrant Interdiction Status	This information is only tracked if the incident involves Migrant Interdiction. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
5.	Sorties/Patrols	This information is only tracked if the incident involves sorties tracked in MISLE Incident Management Activity. List Sorties since last report both Air and Surface. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
6.	Use of Force	This information is only tracked if the incident involves Use of Force activities. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Operational Controls	This information is only tracked if the incident involves Operational Control activities initiated, in force and removed.
8.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

CHECK-IN LIST	1. INC DENT NAME:	2. CHECK-IN LOCATION:	3. DATE/TIME:

CHECK-IN INFORMATION

4. LIST PERSONNEL (OVERHEAD) BY AGENCY NAME – OR LIST EQUIPEMENT BY THE FOLLOWING FORMAT:
S=Supplies H=Helicopter
O=Overhead VL=Vessels
E=Equipment C=Crew
A=Aircraft VH=Vehicle

AGENCY	**RESOURCE IDENTIFIER**	KIND	5. ORDER/ NUMBER	6. DATE/TIME CHECK-IN	7. LEADER'S NAME	8. TOTAL NO. PERSONNEL	9. INCIDENT CONTACT INFORMATION	10. INCIDENT LODGING INFO/ CONTACT INFO	11. HOME UNIT	12. METHOD OF TRAVEL	13. INCIDENT ASSIGNMENT	14. SENT TO RESTAT TIME/INT

15. ICS 211-CG PAGE _____ of _____

16. PREPARED BY (Name and Position) USE BACK FOR REMARKS OR COMMENTS

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

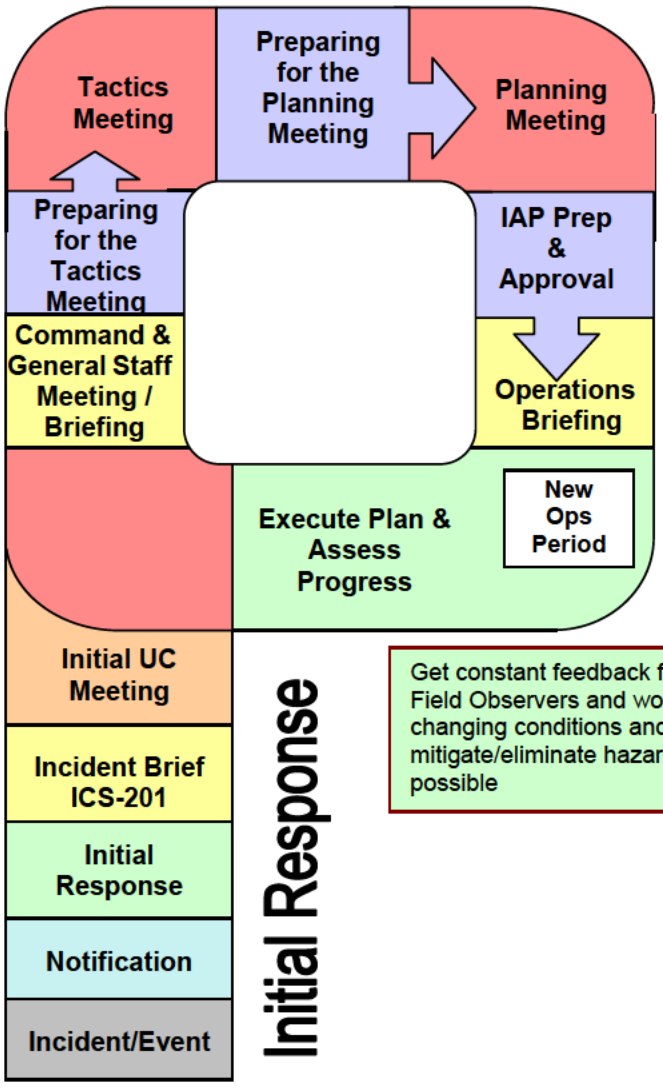
Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

UNITED STATES COAST GUARD **General Activities**

The Safety Planning "P"

Agreement w/ OSC, PSC tactics and plan, enough safety gear being ordered, personnel reliefs are planned.

Takes work assignments and IDs safety measures/ resource types and #s needed to safely accomplish those assignments



Listen and assess
Be concise during safety brief

While OSC and PSC are developing Operational Tactics, SOFR concurrently conducts risk assessment on those tasks

Complete Safety Message on 204s
Site Safety Plan
Medical Plan

Confirm there is a Safety Objective

Keep short and to the point, focus on primary hazards

If invited, make sure there is a Safety Objective!

May not be invited to attend this meeting
Concentrate on "general tasks" for safety

Focus on Safety concerns

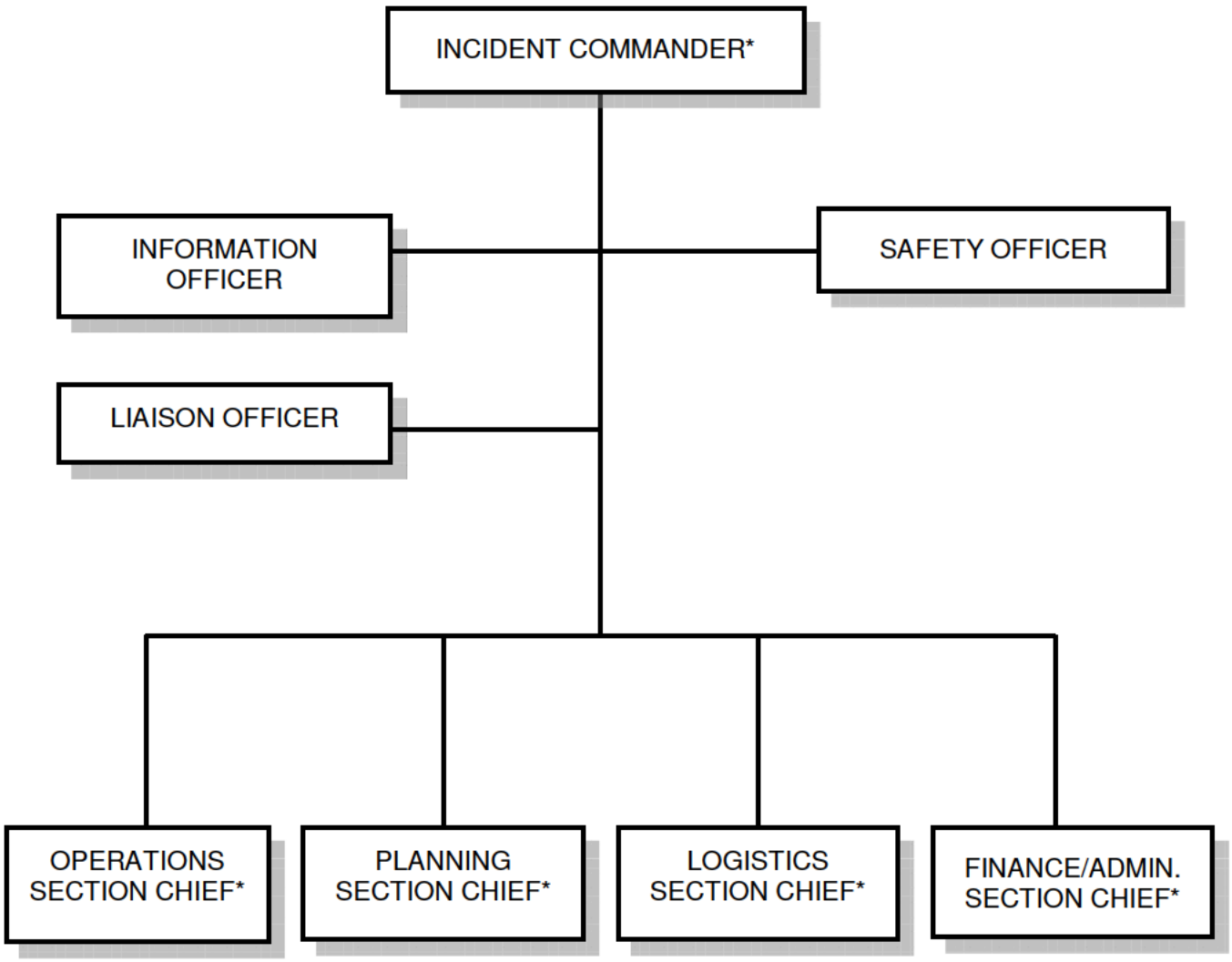
Get constant feedback from Ass't SOFRs, Field Observers and workers; be vigilant on changing conditions and act accordingly to mitigate/eliminate hazards as soon as possible

Check-in
Receive IC/UC Briefing
Organize & brief subordinates
Get asst' SOFRs into the fieldAcquire work materials

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

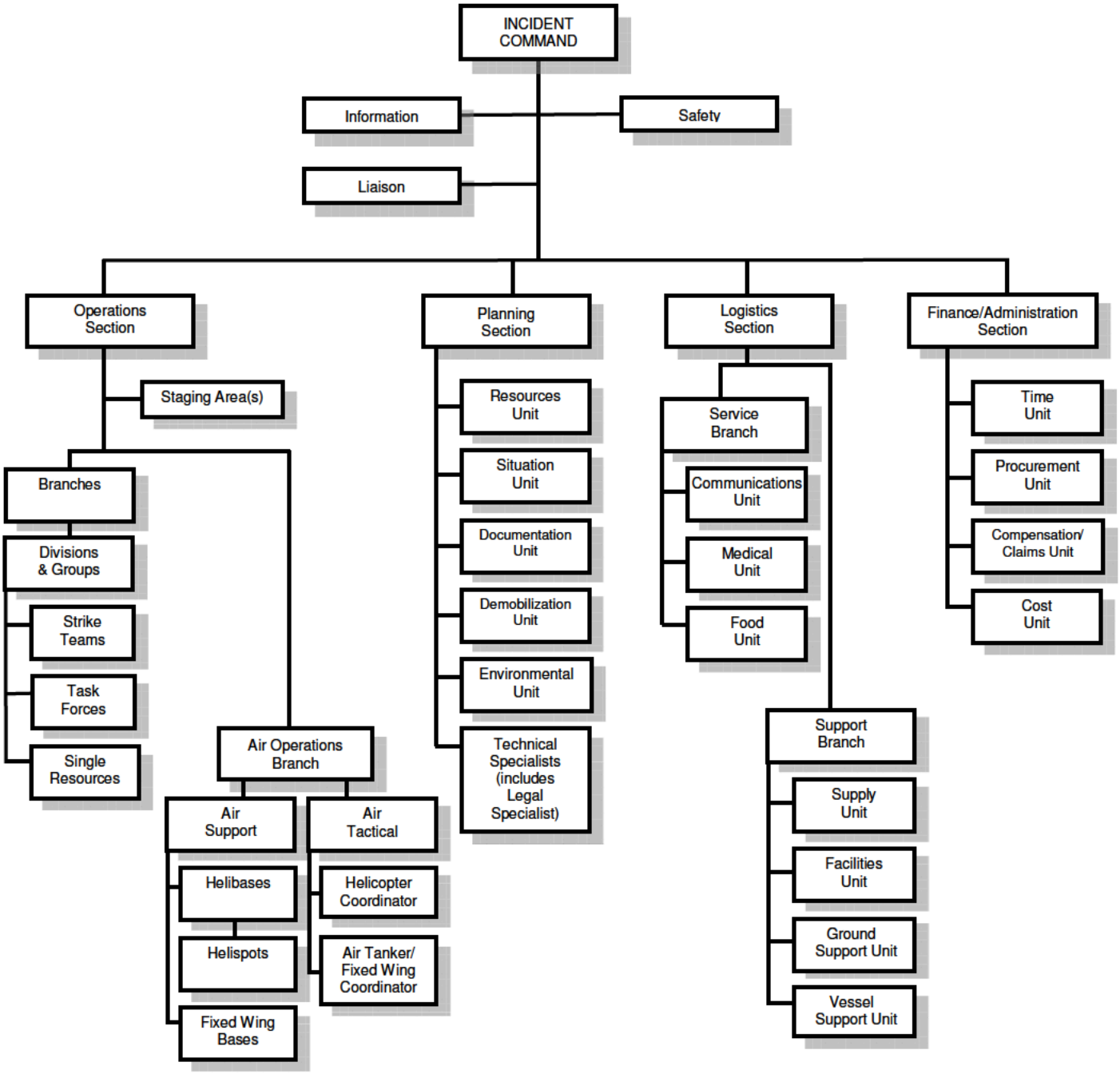


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

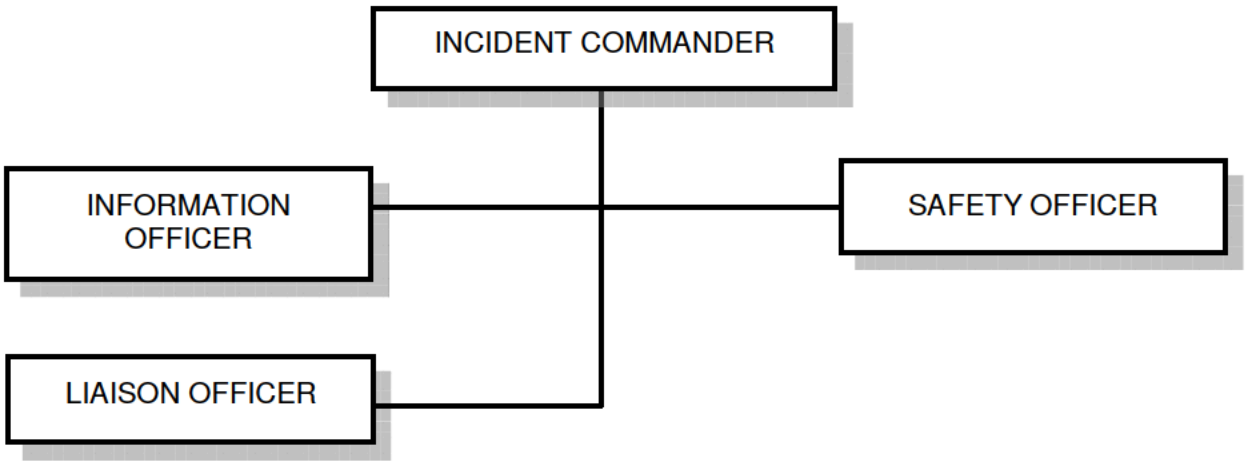
COMMAND

Incident Commander..... 4-12

Safety Officer 4-15

Liaison Officer 4-17

Information Officer 4-18



SAFETY OFFICER

The Safety Officer's (SO) function is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. Only one SO will be assigned for each incident; however, there may be assistants.

Overall SO Responsibilities:

- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the IAP for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
  Ensure information is relayed to the Situation Unit Leader in order to update incident status information (ICS form 209) on the display board.
- Review and approve the medical plan (ICS form 206).
- Develop the Site Safety Plan and publish Site Safety Plan summary (ICS Form 208) as required.
  This plan may be more detailed than the KM Site Specific Health and Safety Plan.

Additional KM Required SO Responsibilities:

- Ensure all initial response personnel are located in a safe location
- Complete the KM Site Specific Health and Safety Plan (**within the first hour**)
- Conduct initial briefing of the KM Site Specific Health and Safety Plan
- Establish regularly scheduled safety meetings
  - Ensure that an "attendance roster" is maintained during these meetings
  - Work with Staging Officer to conduct H&S Plan briefings with arriving response personnel
- Assess need for atmospheric monitoring – coordinate as needed
  - Ensure air monitoring results are accurately documented; use map of area to record results if necessary
- Coordinate with appropriate agencies to assess need for triage; suggest possible locations
- Establish smoking areas; communicate clearly
- Post "Proposition 65" signs (California only)
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.
- Control access to an offsite incident site by working within the Unified Command Structure to effect the necessary control measures for air, (FAA), marine(USCG) and ground (local law enforcement) traffic.
- In the event of a need to control traffic before the arrival of local, state, or federal authorities, the following methods of traffic control may be considered:
  - Vehicular and/or pedestrian access to an offsite incident should be controlled to the extent possible prior to the arrival of local law enforcement or other agency personnel trained to handle traffic control.
  - Until agencies respond to the scene and take control of access and traffic, vehicles can be used to block traffic flow on streets leading to the spill site, if it is safe to do so. Do not operate vehicles at the scene of a gasoline or other light hydrocarbon spill where a flammable vapor cloud may be present.
  - For an on water spill, control of marine traffic may be attempted prior to the arrival of the US Coast Guard response vessel by alerting vessel operators of the spill hazard by radio where possible.
  - Control of air traffic may be necessary due to operations aircraft. The local Federal Aviation Administration (FAA) office can be contacted by the Incident Commander, or coordinated with local authorities, to establish safe operations.

SAFETY OFFICER (Cont'd)

HAZARDOUS SUBSTANCE RELEASE

Incident Commander and Safety Officer - The IC and SO for a hazardous substance incident will use the following guidance when preparing the Site Safety Plan:

- Assign site safety responsibility.
- Establish perimeter and restrict access.
- Characterize site hazards:
  - Identity pollutant
  - Obtain Material Safety Data Sheets
  - Conduct air monitoring
  - Identify physical and biological hazards i.e., slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants and biological waste
- Establish control zones:
  - Exclusion zone
  - Contamination reduction zone
  - Support zone
- Assess training requirements:
  - Check HAZWOPER cards
  - Insure safety briefings
- Select personal protective equipment (PPE) Level A, B, C, or D.
- Establish decontamination stations.
- Establish Emergency Medical Plan Locate hospital, EMT(S) and first-aid stations; and List emergency numbers: fire, police, and ambulance.

FIGURE 3.7

Complete Boxes 1 - 6 First

KINDER MORGAN ENERGY PARTNERS, L.P.

EMERGENCY RESPONSE SITE SPECIFIC HEALTH & SAFETY PLAN

Date / Time:_____/_____

1. Incident Information:

Incident Type:

- ❑ **Fire / Explosion**
- ❑ **Spill / Release**
- ❑ **Rescue**
- ❑ **Injury**

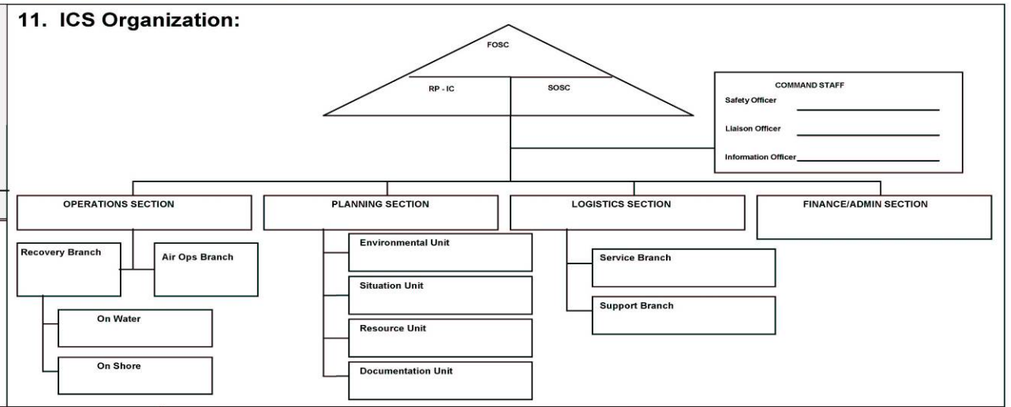
Date: _____
Location: _____
_____
Time of Incident: _____
Incident Name: _____
_____

2. Products / Chemical Involved:

❑ Gasoline ❑ Diesel ❑ Jet Fuel ❑ Methanol ❑ DRA
❑ Fuel Additive ❑ Ethanol ❑ Ethane ❑ Butane
❑ Natural Gas ❑ Isobutane ❑ MCC Lubricity
❑ Crude Oil ❑ Propane ❑ Ethyl Mercaptan
❑ Other _____
(see Table 1 on back for chemical & physical properties)

MSDS available and reviewed: ❑ Yes

11. ICS Organization:



3. Primary Hazards:

❑ Fire ❑ Vapor ❑ Respiratory ❑ Skin

4. Personal Protective Equipment:

Cold Zone / Staging - ❑ Hardhat ❑ Safety Boots ❑ Traffic Vest
Warm Zone / Decon - Level ❑ A ❑ B ❑ C ❑ D
Hot Zone - Level ❑ A ❑ B ❑ C ❑ D
(see Table 2 on back for description of PPE by Level)

Incident Priority Checklist:

- ❑ 1. Evacuate self and others
- ❑ 2. Secure area/restrict access
- ❑ 3. Notification: Internal/External
- ❑ 4. Eliminate ignition sources
- ❑ 5. Initiate ICS
- ❑ 6. Conduct Site Assessment (H&S Plan)
- ❑ 7. Meet with arriving authorities
- ❑ 8. Mobilize response resources

5. Hot Zone Authorized Entrants:

❑ Fire Dept. ❑ KM
❑ Agency Reps. ❑ Contractors

6. Site Map:

Wind Direction (out of the ___)

❑ Weather Conditions: _____ ❑ Wind Direction ❑ Hazard Zones ❑ Staging
❑ Command Post ❑ Decon ❑ Cross streets ❑ Sensitive receptors (drainage, roadways, environmental sensitivity)

7. Secondary Hazards:

- ❑ Fire
- ❑ Heavy Equipment
- ❑ Excavations
- ❑ Noise
- ❑ Confined Spaces
- ❑ Heat Stress
- ❑ Cold Stress
- ❑ Rain/Lightning
- ❑ General (slip, trip, fall, established smoking area)
- ❑ Other: _____

(see Table 3 on back for secondary hazard precautions)

8. Evacuation Plan:

Evacuation signal : _____
Primary Evac. Area: _____
Secondary Evac. Area: _____

9. Nearest Hospital:

Notified: ❑ Yes ❑ No
Address: _____
_____
Phone #: _____
Directions: _____
_____

10. PROP 65 Notices: (California only)

- ❑ Incident is within Terminal or Station; notice(s) are posted at facility entrance(s).
- ❑ Incident of outside KM property; notice(s) are posted along incident site boundaries.

12. Enforcement / Regulatory Agencies (On Site):

Agency (Fed/State/Local)	Name	Contact Number	Time of Arrival

13. Contractors (On Site):

❑ Environ. _____ ❑ Clean up _____
❑ Repair _____ ❑ Consultant _____

14. Hot Zone Entry Objectives:

Objectives:
Why are people entering the Hot Zone? What is their objective?
_____
_____
_____

15. Decon Checklist:

- ❑ Establish and communicate location
- ❑ Plastic tarps and trash bags provided
- ❑ Supervision of decon provided
- ❑ Entrant log maintained
- ❑ Container of absorbent material provided
- ❑ Boot brush provided
- ❑ Folding chairs provided
- ❑ Lighting provided (if needed)

16. Atmospheric Monitoring:

Completed by - ❑ KM ❑ Fire Dept. ❑ Contractor ❑ Other: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____

17. Authorization Signatures:

Incident Commander: Safety Officer:

INCIDENT COMMANDER PRIORITIES - SAFETY of ❑ KMEP PERSONNEL ❑ SURROUNDING COMMUNITY ❑ ENVIRONMENT

Table 1. Chemical & Physical Properties

Chemical Hazards	Flammability Range		Toxicity	Chemical / Physical Properties				NFPA 704 Health/Flammable/Reactive
	LEL	UEL	PEL[a]/TLV[b]	Flash Pt.	Vapor Pressure	Vapor Density	Specific Gravity	
❑ Gasoline	1.3%	7.6%	300 ppm[a]	-45°F	~300 mmHg	5	0.74	1 / 3 / 0
❑ Diesel	0.9%	7.0%	NA	~150°F	~1 mmHg	>5	0.86	1 / 2 / 0
❑ Jet Fuel	~0.8%	~6.0%	500 ppm[a]	~110°F	5	>5	0.81	1 / 2 / 0
❑ Ethanol	3.3%	19.0%	1,000 ppm[b]	48°F	44 mmHg	>1	0.79	0 / 3 / 0
❑ Fuel Additive*								
❑ Drag Reducing Agent (DRA)*								2 / 2 / 0
❑ MCC Lubricity	Not Available	Not Available		>140°F	1.37 mmHg	>1	.93 - .94	2 / 2 / 0
❑ Natural Gasoline	1.4%	7.6%	--	-50°F	12-26 psi	2.7	0.66-0.75	1 / 3 / 0
❑ Butane	1.6%	8.4%	800 ppm[a]	-101°F	43 psi	2.05	.58	1 / 4 / 0
❑ Ethane	2.9%	13.0%	not established	-275°F	800 psi	1.1	0.36	
❑ Isobutane	1.8%	8.4%	800 ppm[a]	-126°F	62 psi	2.0	0.563	1 / 4 / 0
❑ Propane	2.1%	9.5%	1000 ppm[a]	-156°F	288 psi	1.53	0.51	1 / 4 / 0
❑ Crude Oil								
❑ Methanol	6.0%	36%	200 ppm	52°F	96 mm HG	1.1	.792	1 / 3 / 0
❑ Ethyl Mercaptan	2.8%	18%	10 ppm[a]/ .5 ppm[b]	-55°F	16.2 psi	2.1	.845	2 / 4 / 0
❑ Other*								

* Describe:

1 atm = 760 mmHg = 14.7 psi

Table 2. PPE Levels

LEVEL A	LEVEL B	LEVEL C	LEVEL D
Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Totally encapsulating, gas tight chemical resistant suit ❑ Inner chemical resistant gloves ❑ Chemical resistant safety boots Optional Equipment ❑ Hearing protection ❑ Hard Hat ❑ Disposable glove & boot covers	Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Non-encapsulating chemical resistant suit (Tyvek/Nomex) ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ Full / Half Face respirator w/: ❑ cartridge (gas/vapor): _____ ❑ filter (particulate): _____ Required Equipment ❑ Non-encapsulating chemical resistant suit ❑ Tyvek ❑ Nomex ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ None Required Equipment ❑ Coveralls ❑ Safety Boots ❑ Safety Glasses ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Gloves ❑ Face shield/safety glasses

Table 3. Secondary Hazards

Hazards	Recommended Precaution(s)
❑ Fire (potential)	• Remain safe distance away • Eliminate ignition sources • Keep upwind of vapor/smoke • Provide vapor suppression (if safe) • Do not impede Fire Dept. efforts
❑ Heavy Equipment	• Qualified operators only • Hardhats and safety boots needed around heavy equip. • Minimum 10ft. clearance from power lines • Make "one call" if excavating • Proper machine guarding in place
❑ Excavations	• Trenches/excavations equal to or greater than 5ft. deep must meet OSHA requirements • No one allowed to enter excavation > 5ft. unless shored, sloped or protected • Excavations < 5ft. and judged by competent person as cave-in hazard must also follow OSHA requirements
❑ Noise	• Portable generators & heavy equip. can generate potentially high noise levels • Hearing protection available to workers • Hearing protection must be worn in area with noise levels above 85dBA.
❑ Confined Spaces	• Site Safety Officer will determine whether confined space will be entered • All confined space entries must meet OSHA requirements (permits, atmospheric monitoring, attendants, etc.)
❑ Heat Stress	• Potential hazard when temp >80°F • Workers should take more breaks and drink plenty of appropriate liquids • More PPE = higher risk • Be aware of heat cramps (stomach cramps), heat exhaustion (excessive sweating, flushed/clammy skin) – treat with rest and liquids. Heat stroke (dry, hot, pale skin; no sweating) can be deadly – get medical help immediately, reduce core body temp by applying cold water to body & fanning.
❑ Cold Stress	• Skin takes on gray-glossy look • Appendages become non-responsive • Blisters or sores may appear • Do not rub • Submerse affected areas in warm water or wrap in warm cloth.
❑ Rain / Lightning	• Stop excavation activities during excessive rainfall • Avoid shock hazards by stopping work during thunderstorm or lightening • Prevent & control erosion & transport of soils out of incident area.
❑ General	• Slip, trip & fall hazards • Keep work area clear of debris • Smoking not permitted in work areas • Use hand tools safely
❑ Other:	

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS

KMEP employees who have received HAZWOPER training are familiar with how to complete and implement the H&S Plan. The following instructions are provided for those persons who have not received the same level of training.

The first 6 boxes of the H&S Plan are priority for filling out during the initial stages of an emergency.

BOX #1: Incident Information

This section is intended to provide general information about the incident.

Location can be a KMEP facility name, pipeline section, address with cross streets, etc.

Note the **date** (including year) and **approximate time** the incident occurred.

The "**Incident Name**" can be left blank until an appropriate name has been determined. Generally the name refers to the piece of equipment involved, location along the pipeline or some other way which will allow for easy recognition in the future. Fire Department responders may refer to the incident as the "Kinder Morgan Incident". However, avoid using this as the incident name because it is too generic and will not provide KMEP with adequate detail for future reference.

A description of **weather conditions** should be provided. Use simple and straightforward language (e.g. light rain, strong winds, sunny, etc.)

Check the appropriate "Incident Type" based on what has occurred. Some emergencies may involve one or more incident types. Check all that apply.

BOX #2: Chemical Hazards Involved

Most emergencies will involve the release of product. This section is intended to communicate what product involved in the particular incident. Most of the products KMEP handles or transports are listed. Place a check next to the products involved. Check "Other" if additional, unlisted chemicals are involved. In general, refined products pose a very low health risk. The first concern should be physical hazards (flash/fire/explosions).

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

There is a note referring to Table 1: Chemical & Physical Properties provided on the backside of the H&S Plan. This table lists the chemical and physical properties for several of KMEP products. Properties for some chemicals, such as fuel additive or DRA, are not provided because the products vary significantly in composition. In these cases, refer to the products Material Safety Data Sheet (MSDS).

Material Safety Data Sheet

A Material Safety Data Sheet (MSDS) is required for each chemical involved in the incident. Ensure that a copy of the MSDS is readily available. Later in the response effort, the MSDS can be attached to the H&S Plan. Check "Yes" once a MSDS has been made available.

Note: Table 1: Chemical & Physical Properties is intended as a reference but does not replace the need for a Material Safety Data Sheet (MSDS).

BOX #3: Physical / Health Hazards

The section is intended to inform responders or visitors of the **primary** physical or health hazards posed by the emergency situation. In general, refined products pose a very low health risk. The first concern should be physical hazards (flash/fire/explosions). Secondary hazards will be address in another part of the H&S Plan.

Physical Hazards	
Fire -	Check if the incident actually entails a fully involved fire.
Vapor -	Check if incident involves or has the likely potential to involve a vapor release and potential fire flashback.

Health Hazards	
Respiratory -	Check if incident involves a vapor release or if chemical involved poses specific inhalation hazard.
Skin -	Check if incident involves a splash hazard or if chemical involved poses specific skin hazard.

BOX #4: Personal Protective Equipment

The section is intended to designate what personal protective equipment (PPE) or what levels of PPE will be required within the various defined areas ("hazard zones") of the emergency site. It is important that the hazards zones are communicated to all responders so they understand the PPE requirements.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

There is a note referring to Table 2: PPE Classes provided on the backside of the H&S Plan. This table describes the various levels of PPE. It should be used as a guideline when choosing PPE for personnel based on where they will be responding. KMEP's policy is that company employees may only respond in Level C or Level D. Mutual aid responders or emergency response contractors are permitted to don Level B or higher, according to their own SOP's.

All contractors shall wear the level of PPE required by the H&S Plan. It is the responsibility of the contractor to supply their personnel with the required PPE and ensure they are knowledgeable and skilled in its use. KMEP has the right to request proof of training, if deemed necessary.

The Table 2: PPE Classes is based on Appendix "B" of the HAZWOPER Standard. Therefore, it should be used as a guideline. All the pieces of PPE listed under a particular level may not be required (e.g. inner chemical resistant gloves, chemical resistant safety boots, etc.). However, the proper choice of respiratory protection is essential and should be used as a deciding factor when choosing between the different levels of PPE.

The following discussion will describe the different levels of PPE in greater detail:

Level A

KMEP personnel do not respond in Level A.

Level A is intended to provide the highest level of skin, eye and respiratory protection. It requires the use of a totally encapsulating chemical suit and SCBA. The product KMEP transports do not warrant the use of Level A. Should an incident involve such chemicals (e.g. train derailment), KMEP personnel are to remove themselves from the immediate area and assist in a defensive mode only.

Level B

KMEP personnel do not respond in Level B.

Level B is intended to provide the highest level of respiratory protection but a lower level of skin and eye protection than Level A. Respiratory protection can include an SCBA or airline. Skin protection will normally include fire resistant (Nomex) or Tyvex (splash resistant) coveralls. Nomex should be worn if the potential for ignition is greater than the potential for splashes. Tyvex, or equivalent, should be worn if the potential for splashes is greater than the potential for ignition. It is not recommended to wear both Nomex and Tyvex coveralls together.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

Level B may also include the following PPE, as needed:

- Inner gloves and outer, chemical resistant (nitrile) gloves
- Safety boots (possibly chemical resistant)
- Hard hat
- Face shield / safety glasses
- Hearing Protection

Level C

Level C is the highest level of PPE KMEP personnel are permitted to wear.

Level C is a significant reduction in respiratory protection. Full- or half-face respirators should be selected when the type and concentration of the chemical(s) involved are known. Air monitoring is required to determine the amount of airborne chemical responders may be exposed to.

Once air monitoring is conducted, the appropriate respirator must be chosen. If the chemical hazard is in a gas/vapor form, the proper respirator cartridge must be identified. If the chemical poses a particulate/dust hazard, then a high efficiency particulate air (HEPA) filter is recommended. Cartridges and filters are universally color-coded:

Chemical Hazard	Universal Color Code
Organic vapors (petroleum products)	Black
Acid gases	Yellow
Particulate / dust (HEPA rated)	Bright Pink

If fitted properly, most full- and half-face respirators will provide protection up to 10 times (10x) the permissible exposure limit (PEL).

No person shall be required to wear a respirator or other PPE without proper training in its use and limitations. In the case of respiratory equipment, personnel must have:

Completed an annual, qualitative fit test (e.g. with irritant smoke)

Been trained on how to properly put on a respirator (e.g. field fit check)

Complete a medical evaluation form

Access to a new or properly cleaned and inspected respirator.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

Level C skin protection may include fire resistant (Nomex) or Tyvex (splash resistant) coveralls. Do not enter Flash Area

Level C may also include the following PPE, as needed:

- Inner gloves and outer, chemical resistant (nitrile) gloves
- Safety boots (possibly chemical resistant)
- Hard hat
- Face shield / safety glasses
- Hearing Protection

BOX #5: Hot Zone Authorized Entrants

The intent of this section is to determine who is permitted to enter the Hot Zone. All other responders are not allowed to enter the Hot Zone without express permission from the Incident Commander. Place a check next to the responders permitted to enter the Hot Zone.

BOX #6: Site Map

The Site Map plays a key role in communicating essential incident information set forth in the H&S Plan. The open space in the center of the H&S Plan is intended for a hand-drawn version of the incident area. In the event the emergency occurs at a facility, a pre-printed facility plot plan can be used.

At a minimum, a Site Map should include:

Wind direction – Draw an arrow indicating wind direction. Include the actual bearing of the wind (N, S, E or W) and speed, if available

Hazard Zones

Hazard zones include the hot, warm and cold zones. These zones are utilized during an emergency to:

Outline the location of the greatest hazards, as well as, areas considered safe.

Communicate areas where certain personnel are (and are not) permitted to respond.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- Communicate areas where visitors are (and are not) permitted to access.
- Provide a means to control the "flow" of response personnel into and out of the hot zone.
- Contain the released product within the smallest area possible.

In the initial stages of an emergency, the hazard zones may only be established through the use of landmarks (e.g. trees, fences, roads, etc.). However, this process is important because it creates a visual "foot print" of the hazardous areas, which can be communicated to responding agencies or personnel.

Hot Zone

Only personnel with proper HAZWOPER training are allowed to enter the hot zone. The Hot zone is an established area that encircles the released product or primary hazard of emergency. The size of the hot zone will depend on product involved, wind direction, terrain, etc. During early stages of an emergency, the hot zone will be an estimate. When doing so, estimate a much larger are to include a margin of safety. You can always move closer, but it is difficult to pull responders back. Upon arrival at the scene, Fire Departments will often consider an entire facility as the hot zone. This is to ensure all personnel are evacuated and site reconnaissance can begin.

Warm Zone

Only personnel who have been HAZWOPER train are allowed to enter the warm zone. The warm zone is the area between the hot and cold zones. Like the hot zone, the size on the area depends on product involved, wind direction, terrain, etc. The warm zone should completely surround the hot zone. It acts as a buffer and transition area from the cold zone into the hot zone and visa versa. Whenever possible, the warm zone should be delineated with tape or barrier.

Cold Zone

The cold zone is a non-hazardous area where emergency management and support services are stationed. It is located beyond the Warm zone and does necessarily need to be delineated with tape or signs. The cold zone generally contains the Staging area and the Command Post. If the emergency warrants, the cold zone will also support a liaison area and a media area.

- **Staging** - The Staging Area is located within the cold zone and will serve as the first control point into the emergency. Although the Staging Area may not be established in the initial phase of the response, it is important for it to be included on the Site Map once it is established. Indicate the location of the Staging Area on the Site Map.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- **Command Post** - The Command Post is also located within the cold zone. It will serve as the main communication and action planning post for the duration of the emergency. Although the Command Post may not be established in the initial phase of the response, it is important for it to be included on the Site Map once it is established. More details regarding the Command Post and its role in the Incident Command System are provided. Indicate the location of the Command Post on the Site Map.

- **Decon** - A decontamination corridor ("decon area") is established at the edge of the hot zones and extends into the warm zone. Whenever possible, the decon area should be located upwind of the incident. Decontamination will be discussed further.

- **Cross Streets** - Identification of cross streets will provide a point of reference, particularly if the incident occurs along the pipeline.

- **Sensitive Receptors** - Sensitive receptors include creeks, storm channels, schools or any vulnerable conditions that could be impacted by the incident. Include the location of any sensitive receptors on the Site Map.

BOX #7: Secondary Hazards

This section is intended to communicate possible hazards that are secondary to the hazards directly posed by the incident. There is a note referring to Table 3: Secondary Hazards provided on the backside of the H&S Plan. This table lists possible secondary hazards that may deserve additional attention by the KMEP Safety Officer and provides some recommended precautions. Put a check next to all the secondary hazards that apply. Take the necessary precautions as they apply to each hazard. Use the "Other" box to describe additional secondary hazards, as necessary.

BOX #8: Evacuation Plan

This section is intended to clearly communicate where responders and/or visitors are to assemble in the event of an unexpected emergency or evacuation occurred during the response. The evacuation signal may be an existing facility alarm, three blasts of an air horn or any other easily identifiable and audible signal.

If the incident occurred at a facility and the existing evacuation areas are safe and appropriate (based on the established hazard zones), indicate these primary and secondary evacuation areas on the H&S Plan.

If the incident occurred outside a facility or along the pipeline, designate primary and secondary evacuation areas on the H&S Plan. These areas may be a simple as the Staging area or the corner of an intersection.

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

BOX #9: Nearest Hospital

Provide the address, phone number and driving directions for the hospital nearest to the incident area. It is advisable to contact the hospital and ask if they have an emergency room.

BOX #10: PROP 65 Notices

This section applies to incident occurring in California only. PROP 65 notices are required to warn people of potential toxicological effects of released products. At a minimum, PROP 65 notices are to be posted at the entrance to the incident (e.g. facility entrance or Staging area). PROP 65 notices do not need to be posted if they are already posted at facility entrances. Efforts also should be made to post them along the incident perimeter.

Check to appropriate box according to the incident location and posting needs.

BOX #11: KMEP ICS Organization

Fill-in and update the KMEP organization chart as responders arrive at the scene and assume ICS positions. See Section 4.0 for more details on ICS.

BOX #12: Enforcement / Regulatory Agencies (On-Site)

This section is intended to communicate what enforcement / regulatory agencies are on the scene. Include type of agency, representative's name and time of arrival. The KMEP Safety Officer may wish to coordinate with the KMEP Liaison Officer to complete and update this section.

BOX #13: Contractors (On Site)

This section is intended to keep track of the various contractors on site. The KMEP Safety Officer may wish to coordinate with the KMEP Operations and/or Logistics Officer(s) to complete and update this section. Check the type of contractor and fill-in the company name.

BOX #14: Hot Zone Entry Objectives

This section is intended to answer the following questions:

Why are "Hot Zone Authorized Entrants" (Box # 5) entering the Hot Zone?

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

- What are they planning to do?
- Are the benefits of accomplishing objectives worth the risk of entering the Hot Zone?

Write the answer to the questions in the space provided. Use simple, straightforward language.

BOX #15: Decon Procedures

This section is to be used to develop decontamination procedures. Procedures need to be appropriate for the hazard involved.

During a response to a release, personnel and equipment may come into contact with the product. The purpose of decontamination is to minimize the spread of product. In order to accomplish this, it is important to practice effective decontamination that is appropriate to the hazards of the product. Decontamination includes the removal or neutralization of product from personnel and response equipment. The following are consideration for establishing an in-the-field decon system:

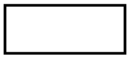
- Decon systems should be located up-wind of the Hot Zone. The decon system should extend from the edge of the Hot Zone into the Warm Zone.
- The decon system should be considered the entrance and exit (control point for personnel) into the Hot Zone.
- A secondary decon system should be considered for response equipment such as backhoes, vacuum trucks etc. Likewise, the "equipment" decon system should be used as the control point for response equipment.
- Design decon systems appropriate for the hazards involved. Refined petroleum products present a low health hazard. The approved Company decon system for refined petroleum products consists of the following components:

FIGURE 3.7 (Cont'd)

SITE SPECIFIC HEALTH & SAFETY PLAN INSTRUCTIONS (Cont'd)

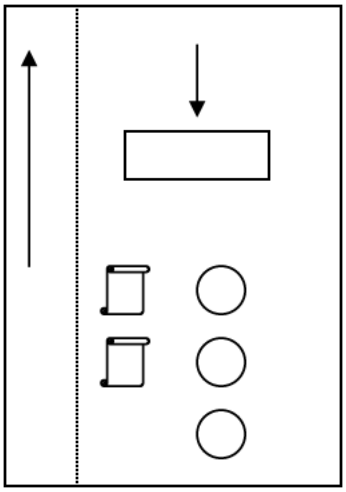
- Plastic tarp floor to contain product
- Tub of kitty litter absorbent
- Boot brush
- Folding chairs
- Large plastic trash bags
- Entrant log and supervision

A sample decon system includes:



= Container with 4" of absorbent material (i.e. kitty litter) and a boot brush.

= Several folding chairs lined up with trash bags in front.



BOX #16: Atmospheric Monitoring

Air monitoring should be conducted to ensure that appropriate hazard zone areas have been designed. KMEP, fire department or contractor personnel may perform air monitoring to establish levels where appropriate. These times include:

- Ensure warm/cold zones free of vapor
- Need for respiratory protection
- Determine safe levels for confined space entry and hot work

Air monitoring to establish the hot zone perimeter should be delegated to the lead agencies (Fire Dept., HazMat teams, etc).

BOX # 17: Authorization Signatures

Once completed, have the KMEP Incident Commander and Safety Officer sign the H&S Plan.

1. Incident Name	2. Operational Period (Date / Time) From: To:	**MEDICAL PLAN** **ICS 206-CG**

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared by: (Medical Unit Leader) Date/Time	8. Reviewed by: (Safety Officer) Date/Time

MEDICAL PLAN (ICS 206-CG)

Purpose. The Medical Plan provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

Preparation. The Medical Plan is prepared by the Medical Unit Leader and reviewed by the Safety Officer.
Distribution. The Medical Plan may be attached to the Incident Objectives (ICS 202-CG), or information from the plan pertaining to incident medical aid stations and medical emergency procedures may be taken from the plan and noted on the Assignment List (ICS 204-CG) or on the Assignment List Attachment (ICS 204a-CG). All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Medical Aid Stations	Enter name, location, and telephone number of the medical aid station(s) (e.g., Cajon Staging Area, Cajon Camp Ground) and indicate if paramedics are located at the site.
4.	Transportation	List name and address of ambulance services. Provide phone number and indicate if ambulance company has paramedics.
5.	Hospitals	List hospitals that could serve this incident. Enter hospital name, address, phone number, the travel time by air and ground from the incident to the hospital, and indicate if the hospital has a burn center and/or a helipad.
6.	Medical Emergency Procedures	Note any special emergency instructions for use by incident personnel.
7.	Prepared By Date/Time	Enter the name of the Medical Unit Leader preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
8.	Reviewed By Date/Time	Enter the name of the Safety Officer who must review the plan. Enter date (month, day, year) and time reviewed (24-hour clock).

Site Safety and Health Plan ICS-208-CG (rev 9/06)

Incident Name: _____ Date/Time Prepared: _____ Operational Period: _____

Purpose. The ICS Compatible Site Safety and Health Plan is designed for safety and health personnel that use the Incident Command System (ICS). It is compatible with ICS and is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response regulation (Title 29, Code of Federal Regulations, Part 1910.120). The plan avoids the duplication found between many other site safety plans and certain ICS forms. It is also in a format familiar to users of ICS. Although primarily designed for oil and chemical spills, the plan can be used for all hazard situations.

Questions on the document should be addressed to the Coast Guard Office of Incident Management and Preparedness (G-RPP).

Table of Forms

FORM NAME	FORM #	USE	REQUIRED	OPTIONAL	ATTACHED
Emergency Safety and Response Plan	A	Emergency response phase (uncontrolled)	X		
Site Safety Plan	B	Post-emergency phase (stabilized, cleanup)	X		
Site Map	C	Post-emergency phase map of site and hazards	X		
Emergency Response Plan	D	Part of Form B, to address emergencies	X		
Exposure Monitoring Plan	E	Exposure monitoring Plan to monitor exposure	X		
Air Monitoring Log	E-1	To log air monitoring data	X*		
Personal Protective Equipment	F	To document PPE equipment and procedures	X*		
Decontamination	G	To document decon equipment and procedures	X*		
Site Safety Enforcement Log	H	To use in enforcing safety on site		X	
Worker Acknowledgement Form	I	To document workers receiving briefings		X	
Form A Compliance Checklist	J	To assist in ensuring HAZWOPER compliance		X	
Form B Compliance Checklist	K	To assist in ensuring HAZWOPER compliance		X	
Drum Compliance Checklist	L	To assist in ensuring HAZWOPER compliance		X	
Other:					

** Required only if function or equipment is used during a response*

EMERGENCY SAFETY and RESPONSE PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Attachments: **Attach MSDS for each Chemical:**
5. Organization IC/UC:	Safety: Div/Group Supv:	Entry Team:	Backup Team:	Decon Team:
6.a. Physical Hazards and Protection	6.b. Confined Space ☐ Noise ☐ Heat Stress ☐ Cold Stress ☐ Electrical ☐ Animal/Plant/Insect ☐ Ergonomic ☐ Ionizing Rad ☐ Slips/Trips/Falls ☐ Struck by ☐ Water ☐ Violence ☐ Excavation ☐ Biomedical waste and/or needles ☐ Fatigue ☐ Other (specify)			

6.c. Tasks & Controls	6d Entry Permit	6.e. Ventilate	6f. Hearing Protection	6g. Shoes (type)	6.h. Hard Hats	6i. Clothing (cold wx)	6j. Life Jacket	6l. Work/ Rest (hrs)	6.m. Fluids (amt/time)	6.n. Signs & Barricade	6.p. Fall Protect	6.q. Post Guards	6.r. Flash Protect	6.s. Work Gloves	6.t. Other

7.a. Agent	7.b. Hazards		7.c. Target Organs	7.d. Exposure Routes	7.f. PPE	7.g. Type of PPE
	Explosive ☐ Flammable ☐ Reactive ☐ Biomedical ☐ Toxic ☐	Radioactive ☐ Carcinogen ☐ Oxidizer ☐ Corrosive ☐ Specify Other: ☐	Eyes ☐ Nose ☐ Skin ☐ Ears ☐ Central Nervous System ☐ Respiratory ☐ Throat ☐ Lungs ☐ Heart ☐ Liver ☐ Kidney ☐ Blood ☐ Lungs ☐ Circulatory ☐ Gastrointestinal ☐ Bone ☐ Other Specify: ☐	Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	Face Shield ☐ Eyes ☐ Gloves ☐ Inner Suit ☐ Splash Suit ☐ Level A Suit ☐ SCBA ☐ APR ☐ SAR ☐ Cartridges ☐ Fire Resistance ☐	

8. Instruments:	8.a. Action Levels	8.b. Chemical Name(s):	8.c. LEL/UEL %	8.d. Odor Thresh Ppm	8.e. Ceiling/ IDLH	8.f. STEL/TLV	8.g. Flash Pt/ Ignition Pt (F or C)	8.h. Vapor Pressure (mm)	8.i. Vapor Density	8.j. Specific Gravity	8.l. Boiling Pt F or C
O2 ☐											
CGI ☐											
Radiation ☐											
Total HCs ☐											
Colorimetric ☐											
Thermal ☐											
Other ☐											

EMERGENCY SAFETY and RESPONSE PLAN (Cont)	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Attachments: **Attach MSDS for each Chemical**

9. Decontamination:				
Instrument Drop Off ☐	Suit Wash ☐	Bottle Exchange ☐	SCBA/Mask Rinse ☐	Intervening Steps ☐ Specify:
Outer Boots/Glove Removal ☐	Decon Agent: Water ☐	Outer Suit Removal ☐	Inner Glove Removal ☐	
Suit/Gloves/Boot Disposal ☐	Other ☐	Inner Suit Removal ☐	Work Clothes Removal ☐	
	Specify:	SCBA/Mask Removal ☐	Body Shower ☐	

10. Site Map. Include: Work Zones, Locations of Hazards, Security Perimeter, Places of Refuge, Decontamination Line, Evacuation Routes, Assembly Point, Direction of North
☐ Attached, ☐ Drawn Below:

11.a. Potential Emergencies:	11.b. Evacuation Alarms:	11.c Emergency Prevention and Evacuation Procedures:
Fire ☐	Horn ☐ # Blasts ☐	Safe Distance:
Explosion ☐	Bells ☐ #Rings ☐	
Other ☐	Radio Code ☐	
	Other:	

12. a. Communications: Radio ☐ Phone ☐ Other ☐	12.b. Command #:	12.c. Tactical #:	12.d. Entry #:

13.a. Site Security: Personnel Assigned	13.b. Procedures:	13.c. Equipment:
14.a. Emergency Medical: Personnel Assigned	14.b. Procedures:	14.c Equipment:
15. Prepared by:	16. Date/Time Briefed:	**ICS-208-CG SSP-A Page 2. (rev 9/06):** Page _____ of _____

EMERGENCY SAFETY AND RESPONSE PLAN (ICS-208-CG SSP-A)

Purpose: The Emergency Safety and Response Plan provides the Safety Officer and ICS personnel a plan for safeguarding personnel during the initial emergency phase of the response. *It is only used during the emergency phase of the response, which is defined as a situation involving an uncontrolled release.* It is also intended to meet the requirements of the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation, Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Safety Officer or his/her designated staff starts the Emergency Site Safety and Response Plan. They initially address the hazards common to all operations involved in the response (initial site characterization). Outside support organizations must be contacted to ensure the plan is consistent with other plans (local, state, other federal plans). Form ICS-208-CG SSP-G need not be completed if this form is used. When the operation proceeds into the post-emergency phase (site stabilized and cleanup operations begun) forms ICS-208-CG SSP-B and ICS-208-CG SSP-G should be used. For large incidents, the Emergency Site Safety and Response Plan complements the Incident Action Plan. For smaller incidents, the Emergency Site Safety and Response Plan complements ICS-201.

Distribution: The Emergency Safety and Response Plan completed by the Safety Officer is forwarded to the Planning Section Chief. Copies are made and attached to the Assignment List(s) (ICS Form 204). The Operations Section Chief, Directors, Supervisors or Leaders get a copy of the plan. They must ensure it is available on site for all personnel to review. The Safety Officer is responsible for ensuring that the Emergency Site Safety and Response Plan properly addresses the hazards of the operation. The Safety Officer accomplishes this through on site enforcement and feedback to the operational units.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Attachments	Enter attachments. Material Safety Data Sheets are mandatory under 1910.120. Safe Work Practices may also be attached.
5	Organization	List the personnel responsible for these positions. IC and Safety Officer are mandatory.
6	Physical Hazards & Protection	Check off the physical hazards at the site. Identify the major tasks involved in the response (skimming, lightering, overpacking, etc.). Check off the controls that would be used to safeguard workers from the physical hazards for each major task.
7	Chemical/Agent	List the chemicals involved in the response. Chemicals may be listed numerically. Check off the hazards, potential health effects, pathway of dispersion, and exposure route of the chemical. Numbers corresponding to the chemical may be entered into the check blocks to differentiate. Check off the PPE to be used. Identify the type of PPE selected (for example: gloves: butyl rubber).
8	Instruments	Indicate the instruments being used for monitoring. List the action levels adjacent to the instruments being used. Identify the chemicals being monitored (2). List the physical parameters of the chemicals. Use a separate form for additional chemicals monitored.

EMERGENCY SAFETY AND RESPONSE PLAN (FORM ICS-208-CG SSP-A) (Instructions Continued)

9	Decontamination	Check off the decontamination steps to be used. Numbers may be entered to indicate the preferred sequence. Identify any intervening steps necessary on the form or in a separate attachment.
10	Site Map	Draw a rough site map. Ensure all the information listed is identified on the map.
11	Potential Emergencies	Identify any potential emergencies that may occur. If none, so state. Check off the appropriate alarms that may be used. Identify emergency prevention and evacuation procedures in the space provided or on a separate attached sheet.
12	Communications	Indicate type of site communications (phone, radio). Indicate phone numbers or frequencies for the command, tactical and entry functions.
13	Site Security	Identify the personnel assigned. Identify security procedures in the space provided or on a separate attached sheet. Identify the equipment needed to support security operations.
14.	Emergency Medical	Identify the personnel assigned. Identify emergency medical procedures in the space provided or on a separate attached sheet. Identify the equipment needed to support security operations.
15.	Prepared by:	Enter the name and position of the person completing the worksheet.
16.	Date/time briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SITE SAFETY PLAN (SSP) HAZARD ID/EVAL/CONTROL	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility Land☐ Water☐ Air ☐ Comments:	8. For Emergencies Contact:	9. Attachments: **Attach MSDS for each Chemical**

10.a. Job Task/Activity	10.b. Hazards***** ⇨	10.c. Potential Injury & Health Effects	10.d. Exposure Routes	10.e. Controls: Engineering, Administrative, PPE
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	

11. Prepared By:	12. Date/Time Briefed:	***HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	**ICS-208-CG SSP-B (rev 9/06):** Page _____ of _____

SITE SAFETY PLAN (FORM ICS-208-CG SSP-B)

Purpose: The Site Safety Plan provides the Safety Officer and ICS personnel a plan for safeguarding personnel during the post-emergency phase of an incident. The post-emergency phase is when the situation is stabilized and cleanup operations have begun. ICS-208-CG SSP-B is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation, Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Safety Officer or his/her designated staff starts the Site Safety Plan. They initially address the hazards common to all operations involved in the response (initial site characterization). The plan is then reproduced and as a minimum sent to ICS Group/Division Supervisors. They amend it according to unique job or on-scene hazards with support from the Safety Officer and/or his/her staff (detailed site characterization). The plan is continuously updated to address changing conditions. During the first hours of the response, where most response functions are in the emergency phase, the Safety Officer may chose to use the Emergency Safety and Response Plan (ICS-208-CG SSP-A) in place of the Site Safety Plan. For large incidents, ICS-208-CG SSP-B compliments the Incident Action Plan (IAP). For smaller incidents, ICS-208-CG SSP-B compliments ICS Form 201. The Safety Officer is encouraged to use the HAZWOPER Compliance Checklist (Form ICS-208-CG SSP-K) to ensure the IAP and the 201 address the requirements and all other pertinent ICS forms (203, 205, 206, etc.) are completed.

Distribution: The initial Site Safety Plan completed by the Safety Officer is forwarded to the Planning Section Chief. Copies are made and attached to the Assignment List(s) (ICS Form 204). The Operations Section Chief, Directors, Supervisors or Leaders get a copy and make on site amendments specific to their operation. They must also ensure it is available on site for all personnel to review. The Safety Officer provides personnel from his/her staff to assist in the detailed site characterization. The Safety Officer is responsible for ensuring that the Site Safety Plan for each assignment properly addresses the hazards of the assignment. The Safety Officer must ensure that the safety plans on site are consistent. The Safety Officer accomplishes this through on site enforcement and feedback to the operational units.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Group/Division Supv Strike Team/TF Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	Site Accessibility	Check the block(s) if the site is accessible by land, water, air, etc.
8	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
9	Attachments	Enter attachments. Material Safety Data Sheets are mandatory under 1910.120. Safe Work Practices may also be attached.
10	Job/Task Activity	Enter Job/Task & Activities, list hazards, list potential injury and health effects, check exposure routes and identify controls. If more detail is needed for controls, provided attachments.
11	Prepared by	Enter the name and position of the person completing the worksheet.
12	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: SITE MAP	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility Land☐ Water☐ Air ☐ Comments:	8. For Emergencies Contact:	9. Include: - Work Zones - Locations of Hazards - Security Perimeter - Places of Refuge - Decontamination Line - Evacuation Routes
10. Sketch of Site: ☐ Attached. ☐ Drawn Here				
11. Prepared By:	12. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving		**ICS-208-CG SSP-C (rev 9/06):** Page _____ of _____

SITE MAP FOR SITE SAFETY PLAN (ICS-208-CG SSP-C)

Purpose: The Site Map for the Site Safety Plan is required by Title 29 Code of Federal Regulations Part 1910.120. It provides in 1 place a visual description of the site which can help ICS personnel locate hazards, identify evacuation routes and places of refuge.

Preparation: The Site Map for the Site Safety Plan can be completed by the Safety Officer, his/her staff or by ICS field personnel (Group Supervisors, Task Force/Strike Team Leaders) working at a site with unique and specific hazards. One or several maps may be developed, depending on the size of the incident and the uniqueness of the hazards. The key is to ensure that the workers using the map(s) can clearly identify the work zones, locations of hazards, evacuation routes and places of refuge.

Distribution: This form must be located with the Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	Site Accessibility	Check the block(s) if the site is accessible by land, water, air, etc.
8	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
9	Include	Ensure the map includes the listed items provided in this block.
10	Sketch of Site	Sketch of site for work. May attach map or chart.
10	Prepared by	Enter the name and position of the person completing the worksheet.
11	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: EMERGENCY RESPONSE PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Attachments: **INCLUDE ICS FORM 206 and EMT Medical Response Procedures**
9. Emergency Alarm (sound and location)	10. Backup Alarm (sound and location)	11. Emergency Hand Signals	12. Emergency Personal Protective Equipment Required:	

13. Emergency Notification Procedures	14. Places of Refuge (also see site map form 208B)	15. Emergency Decon and Evacuation Steps	16. Site Security Measures

17. Prepared By:	18. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	**ICS-208-CG SSP-D (rev 9/06)** Page _____ of _____

EMERGENCY RESPONSE PLAN (ICS-208-CG SSP-D)

Purpose: The Emergency Response Plan provides information on measures to be taken in the event of an emergency. It is used in conjunction with the Site Safety Plan (Form ICS-208-CG SSP-B). It is also required by Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Safety Officer, his/her staff member or the Site Supervisor/Leader prepares the Emergency Response Plan. A copy of the Medical Plan (ICS Form 206) must always be attached to this form.

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
8	Attachments	Enter attachments. ICS Form 206 must be included.
9	Emergency Alarm	Enter a description of the sound of the emergency alarm and it's location.
10	Backup Alarm	Enter a description of the sound of the emergency alarm and it's location.
11	Emergency Hand Signals	Enter the emergency hand signals to be used.
12	Emergency Personal Protective Equipment Required	Enter the emergency personal protective equipment that may be needed in the event of an emergency.
13	Emergency Notification Procedures	Enter the procedures for notifying the appropriate personnel and organizations in the event of an emergency.
14	Places of Refuge	Enter by name the place of refuge personnel can go to in the event of an emergency.
15	Emergency Decon & Evacuation Steps	Enter emergency decontamination steps and evacuation procedures.
16	Site Security Measures	Enter site security measures needed for emergencies.
17	Prepared by	Enter the name and position of the person completing the worksheet.
18	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: Exposure Monitoring Plan	1. Incident Name	2. Date/Time Prepared:	3. Operational Period:	4. Safety Officer (Method of Contact):

5. Specific Task/Operation	6. Survey Location	7. Survey Date/Time	8. Monitoring Methodology	9. Direct-Reading Instrument	10. Air Sampling	11. Hazard(s) to Monitor	12. Monitoring Duration	13. Reasons to Monitor	14. Laboratory Support for Analysis
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	

15. Prepared By:	16. Date/Time Briefed:	**HAZARD LIST**: Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning
18. Safety Officer Review:	Reporting: Monitoring results shall be logged in the ICS-208-CG SSP-E-1 form (Air Monitoring Log) and attached as part of a current Site Safety Plan and Incident Action Plan. Significant Exposures shall be immediately addressed to the IC and General Staff for immediate correction.	**ICS-208-CG SSP-E (rev 9/06)** Page _____ of _____

EXPOSURE MONITORING PLAN (FORM ICS-208-CG SSP-E)

Purpose: The Exposure Monitoring Plan provides plan of monitoring conducted during an incident. The plan is a supplement to the Site Safety Plan (ICS-208-CG SSP-B). It is only required when performing monitoring operations.

Preparation: The Safety Officer, his/her staff member or the Site Supervisor/Leader prepares the Exposure Monitoring Plan. If there is a decision not to monitor during a response, the reasons must be stated clearly in the Site Safety Plan (ICS-208-CG SSP-B).

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Specific Task / Operation	Enter specific task or operation.
6	Survey Location	Enter the location to be monitored.
7	Survey Date/Time	Enter the date/time for the monitoring teams to survey.
8	Monitoring Methodology	Enter/Check the monitoring method to be used.
9	Direct-Reading Instrument	Enter the instrument model, manufacturer, last calibration date.
10	Air Sampling	Enter Air Sampling analysis method
11	Hazards to Monitor	Enter the hazards to monitor
12	Monitoring Duration	Enter duration of monitoring
13	Reasons to Monitor	Enter Reasons to Monitor
14	Laboratory Support for Analysis	Enter Laboratory Support needed for analysis of samples
15	Prepared by	Enter the name and position of the person completing the worksheet.
16	Date/Time Briefed	Enter the date/time the document was briefed to the appropriate workers and by whom.
17	Safety Officer Review	The Safety Officer must review and sign the form.

CG ICS SSP: AIR MONITORING LOG	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)	
5. Site Location	6. Hazards of Concern	7. Action Levels (include references):		8. Weather: Temperature: Precipitation: Wind: Relative Humidity: Cloud Cover:	
9.a. Instrument, ID Number Calibrated? Indicate below.	9.b. Monitoring Person Name(s)	9.c. Results (units)	9.d. Location	9 f. Time	9.g. Interferences and Comments
10. Safety Officer Review:		Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning			**ICS-208-CG SSP-E-1 (rev 9/06):** Page _____ of _____

DAILY AIR MONITORING LOG (FORM ICS-208-CG SSP-E-1)

Purpose: The Exposure Monitoring Log provides documentation of air monitoring conducted during a spill. The log is a supplement to the Site Safety Plan (ICS-208-CG SSP-B). It is only required when performing air monitoring operations. The information used from the log can help update the Site Safety Plan.

Preparation: Persons conducting monitoring complete the Daily Air Monitoring Log. Normally these are air monitoring units under the Site Safety Officer. If there is a decision not to monitor during a spill, the reasons must be stated clearly in the Site Safety Plan (ICS-208-CG SSP-B).

Distribution: The Daily Air Monitoring Log when completed is copied and forwarded to the Site Safety Officer who must review and sign the form. The original form must be available on site, readily available and briefed to all impacted ICS personnel.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Location & size of site	Enter the geographical location of the site and the approximate square area.
6	Hazards of Concern	Enter the hazards being monitored.
7	Action Levels	Enter the action levels/readings for the monitoring teams.
8	Weather	Enter weather information. Ensure units of measure are listed.
9	Air Monitoring Data	Enter the instrument type and number, persons monitoring, results with appropriate units, location of reading, time of reading and interferences and comments.
10	Safety Officer Review	The Safety Officer must review and sign the form.

CG ICS SSP: PERSONAL PROTECTIVE EQUIPMENT	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Hazards Addressed:		8. For Emergencies Contact:

9. Equipment:				10. References Consulted:

11. Inspection Procedures:	12. Donning Procedures:	13. Doffing Procedures:	14. Limitations and Precautions (include maximum stay time in PPE):

15. Prepared By:	16. Date/Time Briefed:	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, Eye Burning	**ICS-208-CG SSP-F: (Rev 9/06)** Page _____ of _____

PERSONAL PROTECTIVE EQUIPMENT (ICS-208-CG SSP-F)

Purpose: The Personal Protective Equipment form is a list of personal protective equipment to be used in operations. The listing of personal protective equipment is required by Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Personal Protective Equipment form is completed by the Site Safety Officer, or his/her staff. Personal protective equipment common to all ICS Operations personnel is addressed first. Jobs with unique personal protective equipment requirements (fall protection) are addressed next. When the form is delivered on site, the ICS Director, Supervisor, or Leader may amend the list to ensure personnel are adequately protected from job hazards. It must be completed prior to the onset of any operations, unless addressed elsewhere by Standard Operating Procedures.

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	Hazard(s) Addressed:	Enter the hazards that need to be safeguarded.
8	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
9	Equipment	List the equipment needed to address the hazards. If pre-designed Safe Work Practices are used, indicate here and attach to form.
10	References consulted	List the references used in making the selection for PPE.
11	Inspection Procedures	Enter the procedures for inspecting the Personal Protective Equipment prior to donning. If pre-designed Safe Work Practices are used, indicate here and attach to form.
12	Donning Procedures	Enter the procedures for putting on the PPE. If pre-designed Safe Work Practices are used, indicate here and attach to form.
13	Doffing Procedures	Enter the information for removing the PPE. If pre-designed Safe Work Practices are used, indicate here and attach to form.
14	Limitations and Precautions	List the limitations and precautions when using PPE. Include the maximum time to be inside the PPE, Heat Stress concerns, psychomotor skill detraction and other factors.
15	Prepared by	Enter the name and position of the person completing the worksheet.
16	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: DECONTAMINATION	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Hazard(s) Addressed:

9. Equipment:				10. References Consulted:

11. Contamination Avoidance Practices:	12. Decon Diagram: ☐ Attached, ☐ Drawn below	13. Decon Steps

14. Prepared By:	15. Date/Time Briefed:	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, Eye Burning	**ICS-208-CG SSP-G (rev 9/06):** Page _____ of _____

DECONTAMINATION (ICS-208-CG SSP-G)

Purpose: The Decontamination form provides information on how workers can avoid contamination and how to get decontaminated. It is a supplemental form to the Site Safety Plan.

Preparation: The Decontamination Form can be completed by the Site Safety Officer, a member of his/her staff or by the Group/Division Supervisor, Task Force/Strike Team Leader on the site

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
8	Hazard(s) Addressed:	Enter the hazards that need to be safeguarded.
9	Equipment	Enter the decontamination equipment needed for the site. If pre-designed Safe Work Practices are used, indicate here and attach to this form.
10	References consulted	List the references used in making the selection for PPE.
11	Contamination Avoidance Practices	Enter procedures for personnel to avoid contamination. If pre-designed Safe Work Practices are used, indicate here and attach to form.
12	Decon Diagram	Draw a diagram for the decontamination operation. If pre-designed Safe Work Practices are used, indicate here and attach to form.
13	Decon Steps	List the decontamination steps.
14	Prepared by	Enter the name and position of the person completing the worksheet.
15	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

INCIDENT ACTION PLAN SAFETY ANALYSIS

1. Incident Name | 2. Date/Time Prepared

3. DIVISION/ GROUP/ OTHER LOCATION	4. Work Assignments	5. Gain	6. HAZARDS												7. CONTROLS										8. ORM			
																									SEVERITY	PROBABILITY	EXPOSURE	GAR
		Human Health	Check													Check												
		Security																										
		Environment																										
		Economy																										
		Human Health	Check													Check												
		Security																										
		Environment																										
		Economy																										
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		Economy																										
		Human Health	Check													Check												
		Security																										
		Environment																										
		Economy																										

ICS-215A-CG (rev 6/06)

Operational Risk Management Key

Scale	1	2	3	4	5
Severity	Slight	Minimal	Signif-icant	Major	Catas-trophic
Probability	Remote	Un-likely	50/50	>50	Very Likely
Exposure	Below Avg	Avg	Above Avg	Great	N/A

Gar Scale

#	1-19	20-39	40-59	60-79	80-100
Risk	Slight	Possible	Substantial	High	Very High
Color	Green	Amber	Red	Red	Red
Action	Possibly Acceptable	Attention Needed	Correction Required	Immediate Correction	Discontinue/ Stop

9. Prepared by (Name and Position)

INCIDENT ACTION PLAN SAFETY ANALYSIS (ICS-215A-CG (rev 6/06))
Instructions for filling out the form

Purpose: The purpose of this worksheet is to aid the Safety Officer in completing an operational risk assessment to prioritize hazards and develop appropriate controls.

Preparation: During the Incident Action Planning cycle where the Operations Section Chief (OSC) is preparing for the tactics meeting, the Safety Officer works alongside the OSC and completes the Incident Action Plan Safety Analysis. This sheet mirrors the ICS 215 form. Work assignments are listed along with associated hazards. A calculation is made that determines what level of risk each work assignment poses. For those assignments having significant risk, controls are developed for safeguarding responders. The net risk is evaluated against the gain. The Incident Commander should be alerted to all safety hazards that receive an amber or red GAR rating after controls have been established.

Distribution: The Operational Hazard Worksheet is attached to the Incident Site Safety Plan and is distributed according to the instruction for Site Safety Plans.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) and time prepared.
3	Division/Group	Enter the Branch, Division or Group title in abbreviated form.
4	Work Assignment	List the work assignment for each Branch, Division or Group.
5	Gain	Check the gain that is achieved when the work assignment is accomplished.
6	Hazards	Using the IAP Safety Analysis Aid (page 2), list the type of hazards likely to be encountered for the work assignment. Place a check mark in the box below the hazard.
7	Controls	Using the IAP Safety Analysis Aid (page 2), list the type of controls likely to be used for addressing the hazards listed. Place a check mark in the box below the control.
8	GAR	Using the "Key", assign a number from 1 to 5 based on the level of severity, probability and exposure. Multiply all numbers together to get a total. Enter this number into the total column. Gar means **G**reen, **A**mber, **R**ed. Using the GAR scale on the bottom of the sheet, assign a color, risk level or action phrase in this block.
9	Prepared by	Enter the name of the person who completed this worksheet.

ICS-215A-CG INCIDENT ACTION PLAN SAFETY ANALYSIS AID

HAZARDS:

Physical	Chemical/Biological	Human
• Slipping	• Explosion	• Violence
• Tripping	• Flammable	• Poor Lifting
• Fall	• Air Reactive	• Repetition
• Overhead	• Water Reactive	• Excessive Force
• Heat Stress	• Chem Reactive	• Poor posture
• Cold Stress	• Alpha Rad	• Awkward motion
• Electrical	• Beta Rad	• Fatigue
• Blunt Objects	• Gamma Rad	• Poor hygiene
• Sharp Objects	• X Rad	• Illness
• Noise	• Bio-weapon	• Alcohol/Drugs
• Vehicle	• Chem-weapon	• Over crowding
• Fire	• Irritant	• Poor comms
• Sun/UV Glare	• Asphyxiant	• Noise interference
• Sun Burn	• Oxidizer	• Smoking
• Moving Pinch Points	• Carcinogen	• Driving
• Unguarded Machinery	• Corrosive	**Animal/Plant**
• Lightning	• Cryogenic	• Bites/Stings
• Drowning	• Toxic	• Poison
• Engulfment	• Biomed/pathogen	• Thorns/burrs
• Limited Egress/Access	• Particulates	• Swarms
	• Fumes (weld etc.)	• Disease
	• O2 Deficiency	• Feces/Coliforms

CONTROLS:

Types of Engineering Controls:

• Barriers	• Shields	• Dams
• Capping	• Covering	• Fencing
• Terminating	• Shutting	• Blocking
• Chocks	• Enclosures	• Diverters
• Flanging	• Guarding	• Substitution
• Anchoring	• Ventilation	• Blowing
• Scaffolding	• Grounding	• Substitution
• Bonding	• Insulation	• Lighting
• Locks, Tags	• Kill-switches	• Shut-off valves
• Taglines	• Circuit Breakers	• Process change
• Plugging, patching	• Sealing	• Absorbers

Types of Administrative Controls:

• Reduced work duration	• Worker rotation	• Safety plans
• Training	• Safety briefs	• Relief personnel
• Maintenance	• Drinking fluids	• Work/rest periods
• Good housekeeping	• Roving security	• Signs
• Warning lights	• Alarms	• Break areas
• Pre-inspections	• Field checks	• Buddy system
• Line of sight comms	• Comms schedule	• Equipt staging
• Load shifting	• Hazard marking	• Placarding
• Labeling	• Hand signals	• Safety observers
• Fendering	• Work plans	• Replenish fluids
• Handcarts/trolleys	• Fire extinguishers	• Drum bulking
• Eye Wash Station	• Hand washers	• Showers

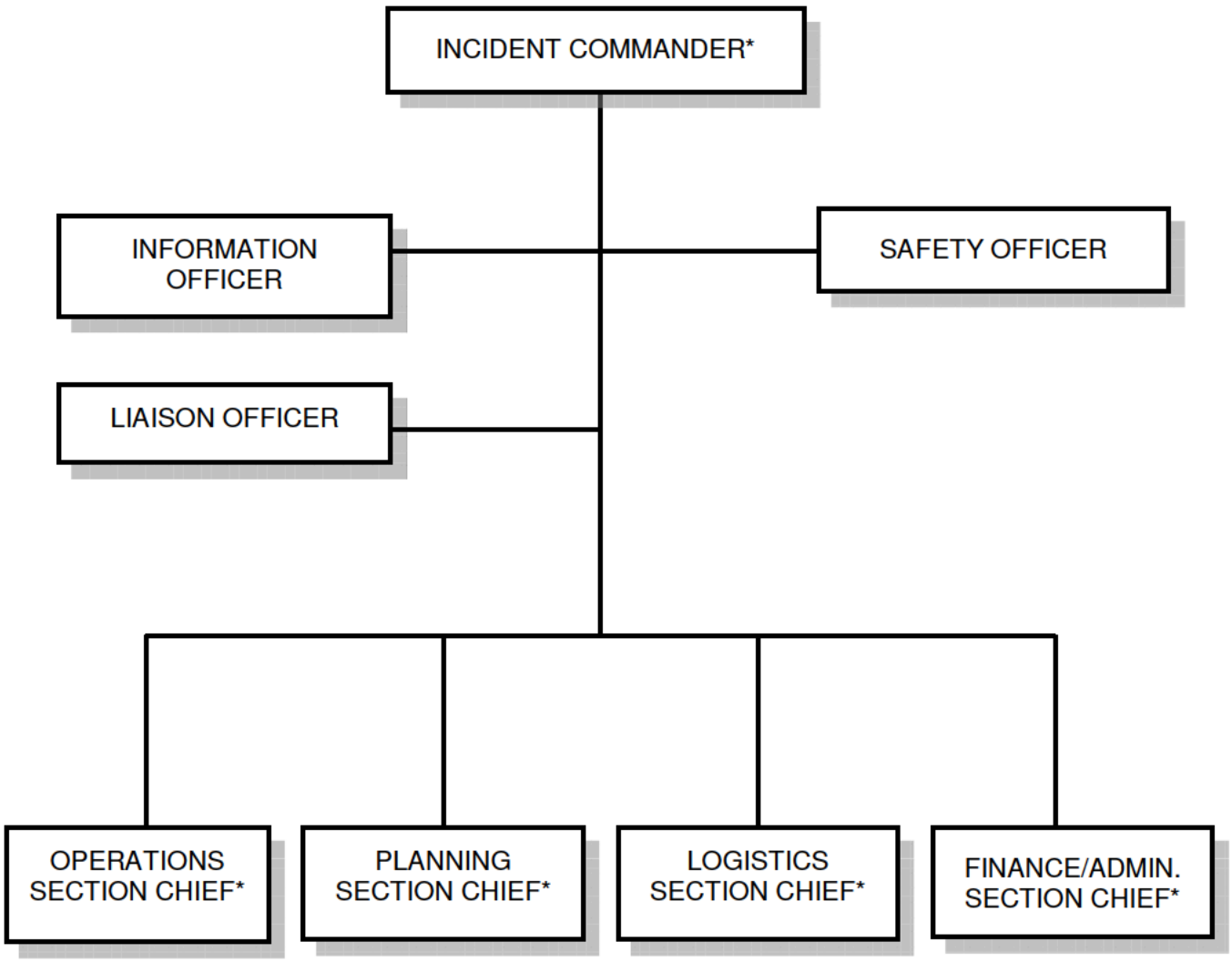
Types of Personal Protective Equipment Controls:

• Hard hats	• Steel-toed shoes	• Safety glasses
• Safety goggles	• Face shields	• Hearing Protection
• Life jacket	• Fall arrests	• SCBA
• APRs	• Chemical suits	• Flash suits
• Fire resistant suits	• Work gloves	• Chemical gloves
• Sun glasses	• Sun-block	• Life rings
• Eye wash stations	• Night vision	• Thermal protection
• Dry/wet suits	• Hand warmers	• Wind breaker coat
• Knee pads	• Over garments	• Coveralls
• Booties	• Cooling vests	• Chap lip protection
• Hats for warming	• Gloves (warmth)	• Clothing (warmth)

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

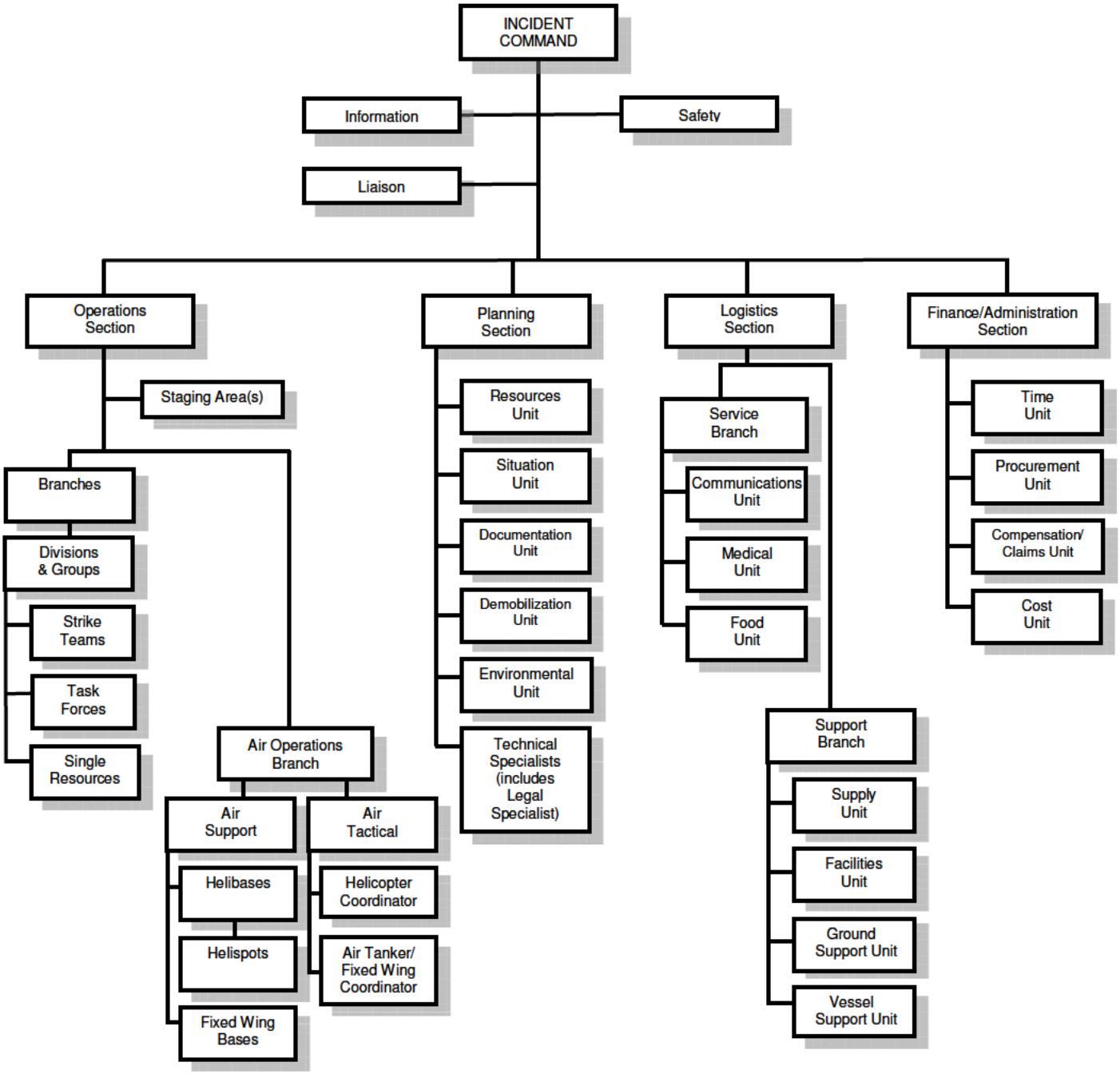


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

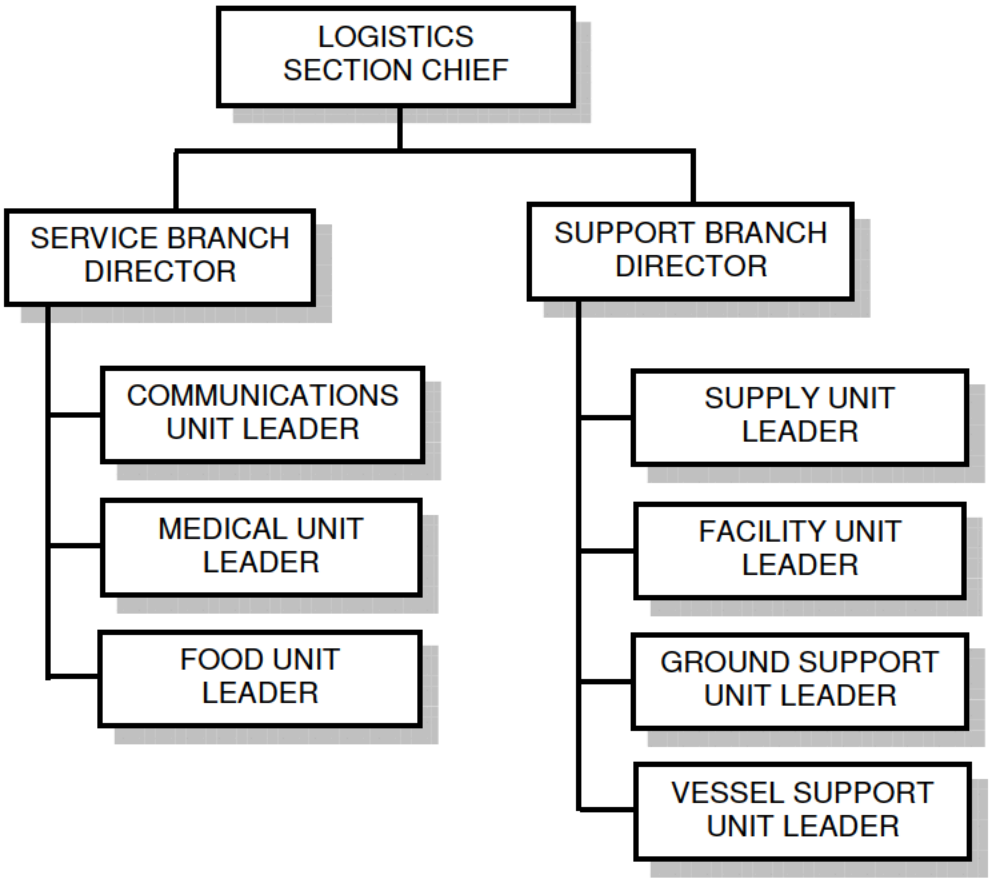
- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

LOGISTICS

Logistics Section Chief 4-44

Service Branch Director 4-44
- Communications Unit Leader 4-45
- Medical Unit Leader 4-45
- Food Unit Leader 4-46
- Hospital Coordination Unit 4-46

Support Branch Director 4-47
- Supply Unit Leader 4-47
- Facilities Unit Leader 4-47
- Ground Support Unit Leader 4-48
- Vessel Support Unit Leader 4-49



LOGISTICS SECTION CHIEF

The Logistics Section Chief (LSC) is responsible for providing facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the Incident Action Plan (IAP). The LSC activates and supervises the Branches and Units within the Logistics Section.

Resources are divided into Support and Services. Support resources are used in support of the IAP (i.e. boom, vacuum trucks, skimmers etc.). Service resources include food/water, communication and medical resources.

Overall LSC Responsibilities:

- Plan the organization of the Logistics Section.
- Assign work locations and preliminary work tasks to Section personnel.
- Notify the Resources Unit of the Logistics Section units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input to and review the Communications Plan (ICS Form 205), Medical Plan (ICS Form 206) and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive Incident Demobilization Plan from Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of Logistics Section personnel.

SERVICE BRANCH DIRECTOR

The Service Branch Director, when activated, is under the supervision of the LSC, and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical and Food Units.

Overall Service Branch Director Responsibilities:

- Determine the level of service required to support operations.
- Confirm dispatch of Branch personnel.
- Participate in planning meetings of Logistics Section personnel.
- Review the IAP.
- Organize and prepare assignments for Service Branch personnel.
- Coordinate activities of Branch Units.
- Inform the LSC of Branch activities.
- Resolve Service Branch problems.

SERVICE BRANCH DIRECTOR (Cont'd)

Communications Unit Leader – The Communications Unit Leader is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.

Overall Communications Unit Leader Responsibilities:

- Prepare and implement the Incident Radio Communications Plan (ICS Form 205).
- Ensure the Incident Communications Center and the Message Center is established.
- Establish appropriate communications distribution/maintenance locations within the Base/Camp(s).
- Ensure communications systems are installed and tested.
- Ensure an equipment accountability system is established.
- Ensure personal portable radio equipment from cache is distributed per Incident Radio Communications Plan.
- Provide technical information as required on:
  - Adequacy of communications systems currently in operation.
  - Geographic limitation on communications systems.
  - Equipment capabilities/limitations.
  - Amount and types of equipment available.
  - Anticipated problems in the use of communications equipment.
- Supervise Communications Unit activities.
- Maintain records on all communications equipment as appropriate.
- Ensure equipment is tested and repaired.
- Recover equipment from Units being demobilized.

Medical Unit Leader - The Medical Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for the development of the Medical Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparation of reports and records.

Overall Medical Unit Leader Responsibilities:

- Participate in Logistics Section/Service Branch planning activities.
- Prepare the Medical Plan (ICS Form 206).
- Prepare procedures for major medical emergency.
- Declare major emergency as appropriate.
- Respond to requests for medical aid, medical transportation, and medical supplies.
- Prepare and submit necessary documentation.

SERVICE BRANCH DIRECTOR (Cont'd)

Food Unit Leader - The Food Unit Leader is responsible for supplying the food needs for the entire incident, including all remote locations (e.g., Camps, Staging Areas), as well as providing food for personnel unable to leave tactical field assignments.

Overall Food Unit Leader Responsibilities:

- Determine food and water requirements.
- Determine the method of feeding to best fit each facility or situation.
- Obtain necessary equipment and supplies and establish cooking facilities.
- Ensure that well-balanced menus are provided.
- Order sufficient food and potable water from the Supply Unit.
- Maintain an inventory of food and water.
- Maintain food service areas, ensuring that all appropriate health and safety measures are being followed.
- Supervise caterers, cooks, and other Food Unit personnel as appropriate.

TERRORISM INCIDENT

(b) (7)(F), (b) (3)

[redacted]

1. Incident Name	2. Operational Period (Date / Time) From: To:	INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared by: (Communications Unit) **Date / Time**

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205-CG)

Special Note. This form, ICS 205-CG, is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period; whereas, the Communications List, ICS 205a-CG is used to list methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.).

Purpose. The Incident Radio Communications Plan is a summary of information obtained from the Radio Requirements Worksheet (ICS 216) and the Radio Frequency Assignment Worksheet (ICS 217). Information from the Radio Communications Plan on frequency assignments is normally noted on the appropriate Assignment List (ICS 204-CG).

Preparation. The Incident Radio Communications Plan is prepared by the Communications Unit Leader and given to the Planning Section Chief. Detailed instructions on the preparation of this form may be found in ICS Publication 223-5, Communications Unit Position Manual.

Distribution. The Incident Radio Communications Plan is duplicated and given to all recipients of the Incident Objectives form, including the Incident Communications Center. Information from the plan is placed on Assignment Lists. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Radio Channel	Enter the following information about radio channel use:
	System	Radio cache system(s) assigned and used on the incident.
	Channel	Radio channel numbers assigned.
	Function	Function each channel is assigned (e.g., command, support, division tactical, and ground-to-air).
	Frequency	Radio frequency tone number assigned to each specified function (e.g., 153.400)
	Assignment	ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	**COMMUNICATIONS LIST** **ICS 205A-CG**

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

COMMUNICATIONS LIST (ICS 205a-CG)

Special Note. This optional form is used in conjunction with the Incident Radio Communications Plan, ICS 205-CG. Whereas the ICS 205-CG is used to provide information on all radio frequencies down to the Division/Group level, the Communications List, ICS 205a-CG, lists methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Purpose. The Communications List records methods of contact for personnel on scene.

Preparation. The Communications List can be filled out during check-in and is maintained and distributed by Communications Unit personnel.

Distribution. The Communications List is distributed within the ICS and posted, as necessary. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Local Comms Information	Enter the communications methods assigned and used for each assignment.
	Assignment	Enter the ICS Organizational assignment.
	Name	Enter the name of the contact person for the assignment.
	Method(s) of contact	Enter the radio frequency, telephone number(s), etc. for each assignment.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	**MEDICAL PLAN** **ICS 206-CG**

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared by: (Medical Unit Leader) **Date/Time**	**8. Reviewed by: (Safety Officer)** **Date/Time**

MEDICAL PLAN (ICS 206-CG)

Purpose. The Medical Plan provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

Preparation. The Medical Plan is prepared by the Medical Unit Leader and reviewed by the Safety Officer.
Distribution. The Medical Plan may be attached to the Incident Objectives (ICS 202-CG), or information from the plan pertaining to incident medical aid stations and medical emergency procedures may be taken from the plan and noted on the Assignment List (ICS 204-CG) or on the Assignment List Attachment (ICS 204a-CG). All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Medical Aid Stations	Enter name, location, and telephone number of the medical aid station(s) (e.g., Cajon Staging Area, Cajon Camp Ground) and indicate if paramedics are located at the site.
4.	Transportation	List name and address of ambulance services. Provide phone number and indicate if ambulance company has paramedics.
5.	Hospitals	List hospitals that could serve this incident. Enter hospital name, address, phone number, the travel time by air and ground from the incident to the hospital, and indicate if the hospital has a burn center and/or a helipad.
6.	Medical Emergency Procedures	Note any special emergency instructions for use by incident personnel.
7.	Prepared By Date/Time	Enter the name of the Medical Unit Leader preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
8.	Reviewed By Date/Time	Enter the name of the Safety Officer who must review the plan. Enter date (month, day, year) and time reviewed (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	**2. Operational Period (Date/Time)** From: To:	**UNIT LOG (CONT.)** **ICS 214-CG**

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	DEMOB. CHECK-OUT ICS 221-CG
3. Unit / Personnel Released	4. Release Date / Time	

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. Unit Leader "X" appropriate box(es))

Logistics Section

☐ Supply Unit _____

☐ Communications Unit _____

☐ Facilities Unit _____

☐ Ground Unit _____

Planning Section

☐ Documentation Unit _____

Finance / Admin. Section

☐ Time Unit _____

Other

☐ _____ _____

☐ _____ _____

☐ _____ _____

6. Remarks

_____

_____

_____

_____

7. Prepared by: **Date / Time**

DEMOB. CHECK-OUT (ICS 221-CG)

Purpose. This form provides the Planning Section information on resource releases from the incident.

Preparation. The Demobilization Unit Leader or the Planning Section initiates this form. The Demobilization Unit Leader completes the top portion of the form after the resource supervisor has given written notification that the resource is no longer needed.

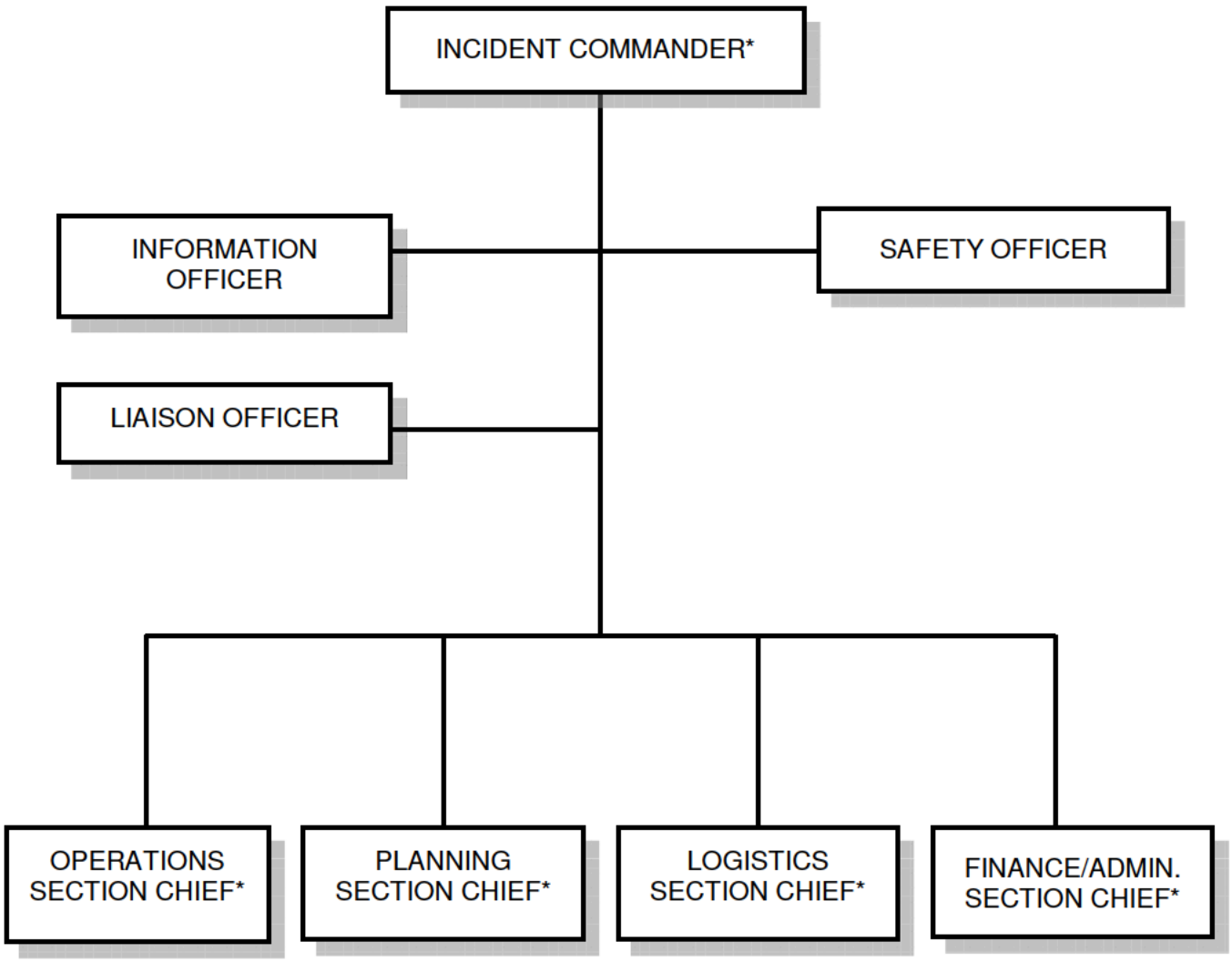
Distribution. The individual resource will have the unit leader initial the appropriate box(es) in item 5 prior to release from the incident. After completion, the form is returned to the Demobilization Unit Leader or the Planning Section. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Strike Team / Unit / Personnel Released	Enter name of Strike Team, Unit or personnel being released.
4.	Release Date/Time	Enter date (month, day, year) and time (24-hour clock) of anticipated release.
5.	Strike Team / Unit / Personnel	Demobilization Unit Leader will enter an "X" in the box to the left of those units requiring check-out. Identified Unit Leaders are to initial to the right to indicate release. NOTE: Blank boxes are provided for any additional unit requirements as needed, (e.g., Safety Officer, Agency Rep., etc.)
6.	Remarks	Enter any additional information pertaining to demobilization or release (e.g., transportation needed, destination, etc.).
7.	Prepared By	Enter name and title of the person preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

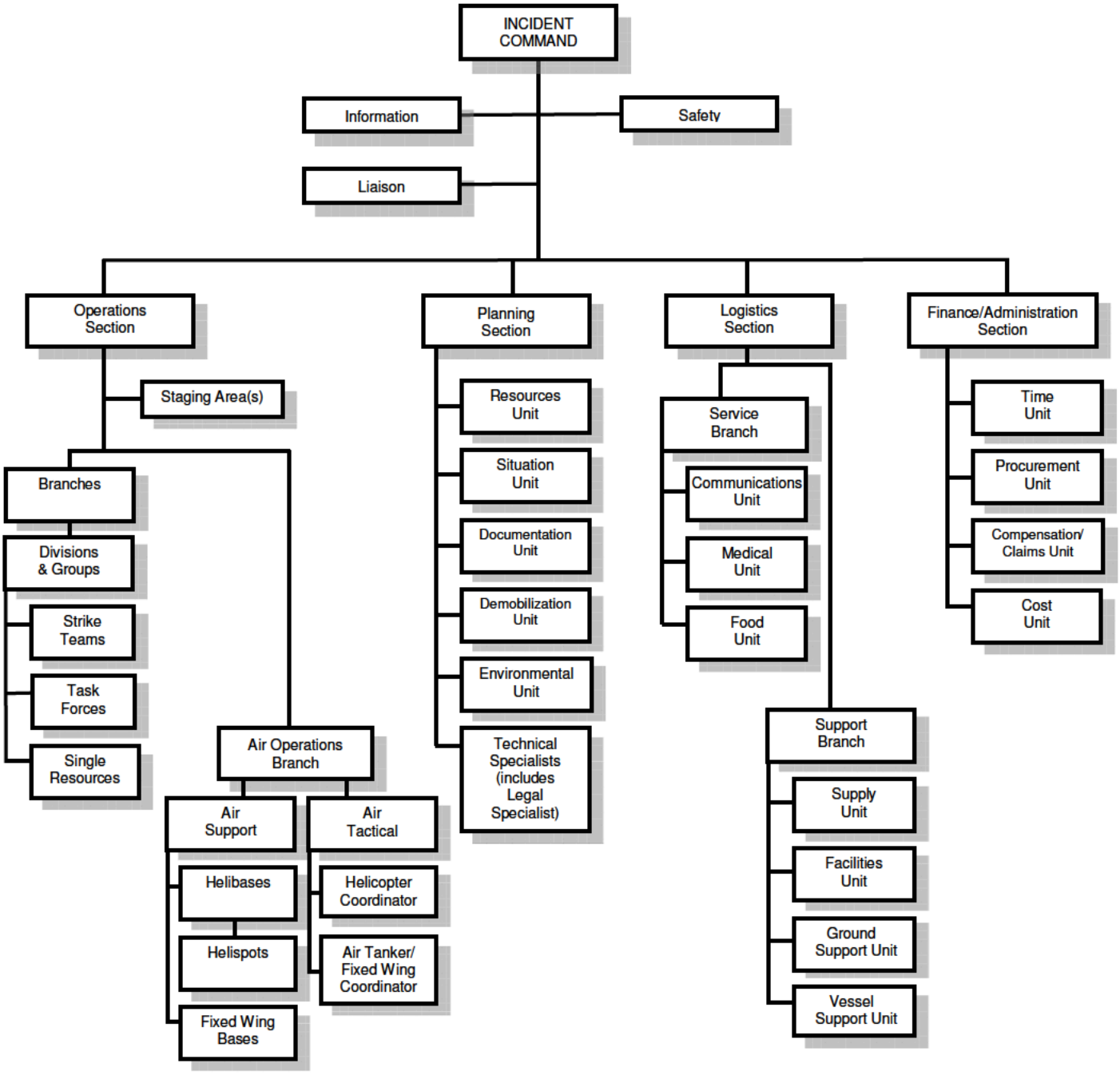


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

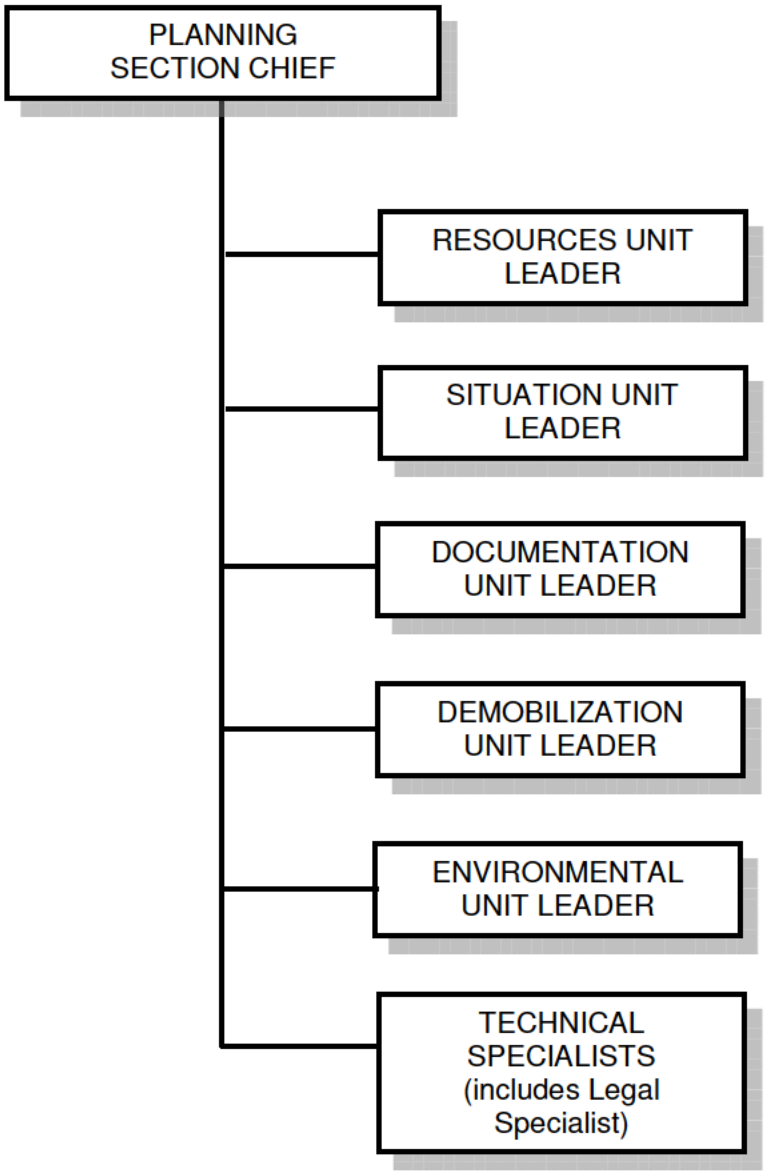
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



RESOURCES UNIT LEADER (Cont'd)

Overall RUL Responsibilities (Cont'd):

- Maintain and post the current status and location of all resources.
  The RUL is responsible for developing a system to best track the resource status. Ensure information is relayed to the Situation Unit Leader in order to update incident status information on the display board (ICS Form 209)
- Maintain master roster of all resources checked in at the incident.
- Assign an additional person to fill the "Check-in/status Recorder" position to assist with the accounting of all resources assigned to the incident.
  If a Check-in/status Recorder is not assigned, the RUL is responsible for all functions.

SITUATION UNIT LEADER

The Situation Unit Leader (SUL) works within the Planning Section and is responsible for collecting, processing and organizing all incident information. The SUL may prepare future projections of incident growth and maps.

Overall SUL Responsibilities:

- Begin collection and analysis of incident data as soon as possible.
- Prepare, post, or disseminate resource and situation status information as required, including special requests.
  Establish location for situation status boards and displays. This is where maps, charts, and other incident information will be posted for responders to view.
- Prepare periodic predictions or as requested by the PSC.
- Prepare the Incident Status Summary Form (ICS Form 209).
  Acquire the information from various Command and General ICS Staff.
- Provide photographic services and maps if required.

The SUL may have a Display Processor and Field Observer reporting to him/her. However, if not assigned, the SUL will be responsible for their functions

Display Processor - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Display Processor Responsibilities:

- Determine:
  - Location of work assignment
  - Numbers, types and locations of displays required
  - Priorities
  - Map requirements for the IAP
  - Time limits for completion
  - Field Observer assignments and communications means
- Obtain necessary equipment and supplies.
- Obtain a copy of the IAP for each operational period.
- Assist SUL in analyzing and evaluating field reports.
- Develop required displays in accordance with time limits for completion.

SITUATION UNIT LEADER (Cont'd)

Field Observer - The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs, and infrared data.

Overall Field Observer Responsibilities:

- Determine:
  - Location of assignment
  - Type of information required
  - Priorities
  - Time limits for completion
  - Method of communication.
  - Method of transportation.
- Obtain a copy of the IAP for the Operational Period.
- Obtain necessary equipment and supplies.
- Perform Field Observer responsibilities to include but not limited to the following:
  - Perimeters of incident
  - Locations of hot spots
  - Unburned islands
  - Rates of spread
  - Weather conditions
  - Hazards including escape routes and safe areas
  - Progress of operations resources
- Be prepared to identify all facility locations (e.g., Helispots, Division and Branch boundaries).
- Report information to the SUL by established procedure.
- Report immediately any condition observed that may cause danger and a safety hazard to personnel.
- Gather intelligence that will lead to accurate predictions.

DOCUMENTATION UNIT LEADER

The Documentation Unit Leader (DUL) works within the Planning Section and is responsible for the maintenance of accurate, up-to-date incident files. The DUL should ensure that each section is maintaining and providing appropriate documents. The DUL will provide duplication and copying services for all other sections. The DUL will store incident files for legal, analytical and historical purposes.

Overall DUL Responsibilities

- Set up work area; begin organization of incident files.
- Establish duplication service; respond to requests.
- File all official forms and reports.
- Review records for accuracy and completeness; inform appropriate units of errors or omissions.
  Ensure ICS forms and documentation are dated and signed, as necessary.
- Provide incident documentation as requested.
- Store files for post-incident use.

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	INCIDENT STATUS SUMMARY ICS 209-CG

3. Type of Incident

☐	Oil Spill	☐	HAZMAT	☐	AMIO
☐	SAR/Major SART	☐	SI/Terrorism	☐	Natural Disaster
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload
☐	Planned Event	☐	Maritime HLS/Prevention	☐	

4. Situation Summary as of Time of Report:

5. Future Outlook/Goals/Needs/Issues:

6. Safety Status/Personnel Casualty Summary

	Since Last Report	Adjustments To Previous Op Period	Total
Responder Injury			
Responder Death			
Public Missing (Active Search)			
Public Missing (Presumed Lost)			
Public Uninjured			
Public Injured			
Public Dead			
Total Public Involved			

7. Property Damage Summary

Vessel	$
Cargo	$
Facility	$
Other	$

8. Attachments with clarifying information

☐	Oil/HAZMAT	☐	SAR/LE	☐	
☐		☐		☐	
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload

9. Equipment Resources					
Kind	Notes	# Ordered	# Available	# Assigned	# Out of Service
USCG Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – USCG Cutter					
Vessels – Boat					
Vehicles – Car					
Vehicles – Truck					
Pollution Equip – VOSS/SORS					
Pollution Equip – Portable Storage					
Pollution Equip – Boom					
Non-CG/Other Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – SAR/LE Boat					
Vessels – Work/Crew Boat					
Vessels – Tug/Tow Boat					
Vessels – Pilot Boat					
Vessels – Deck Barge					
Vessels –					
Vehicles – Car					
Vehicles – Ambulance					
Vehicles – Truck					
Vehicles – Fire/Rescue/HAZMAT					
Vehicles – Vac/Tank Truck					
Vehicles –					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/ Barge					
Pollution Equip – Portable Storage					
Pollution Equip – OSRV					
Pollution Equip – Boom					
Pollution Equip –					

10. Personnel Resources	
Agency	**Total # of People**
USCG	
DHS (other than USCG)	
NOAA	
FBI	
DOD (USN Supsalv, CST, etc.)	
DOI (US Fish & Wildlife, Nat Parks, BLM, etc.)	
RP	
State	
Local	
Total Personnel Resources Used From all Organizations:	

11. Prepared by:	Date/Time Prepared:

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	ICS 209-CG OIL/HAZMAT ATTACHMENT

3. HAZMAT/Oil Spill Status (Estimated, in gallons)

Common Name(s):

UN Number:	☐ Secured ☐ Unsecured
CAS Number:	Remaining Potential (bbl):
	Rate of Spillage (bbl/hr):

	Adjustments To Previous Operational Period	Since Last Report	Total
Volume Spilled/Released			
Mass Balance - HAZMAT/Oil Budget			
Recovered HAZMAT/Oil			
Evaporation/Airborne			
Natural Dispersion			
Chemical Dispersion			
Burned			
Floating, Contained			
Floating, Uncontained			
Onshore			
Total HAZMAT/Oil accounted for:	N/A	N/A	

Comments:

4. HAZMAT/Oil Waste Management (Estimated, Since Last Report)

	Recovered	Disposed	Stored
HAZMAT/Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

Comments:

5. HAZMAT/Oil Shoreline Impacts (Estimated in miles)

Degree of Impact	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

Comments:

6. HAZMAT/Oil Wildlife Impacts (Since Last Report)

					Died in Facility	
Type of Wildlife	Captured	Cleaned	Released	DOA	Euthanized	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

Comments:

7. Prepared by:	Date/Time Prepared:

INCIDENT STATUS SUMMARY (ICS FORM 209-CG)

Purpose. The Status Summary:
1. Is used by Situation Unit personnel for posting information on Status Boards or attaching as a file to the MISLE Case.
2. Is duplicated and provided to Command Staff members, giving them basic information for planning for the next operational period.
3. Provides information to the Information Officer for preparing news media releases.
4. Summarizes incident information for local and off-site coordination/operations centers.

Preparation. The Situation Unit prepares the Status Summary. Resources information should be obtained from the Resources Unit. It may be scheduled for presentation to the Planning Section Chief and other General Staff members prior to each Planning Meeting and may be required at more frequent intervals by the Unified Command or Planning Section Chief. Suggested sources of information are noted in brackets.
Note: The values on the ICS form 209-CG are the **best available estimates at the Time of Report** (Item # 2 on form). This form is usually in high demand and should be filled out early and often. A suggested source within the ICS organization is noted in brackets [ ] at the top right of each section of the form. **All fields need not be completed in order to distribute the form**.

Distribution. When completed, the form is duplicated and copies are distributed to the Unified Command and staff, and all Section Chiefs, Planning Section Unit Leaders, and the Joint Information Center. It is also posted on a status board located at the ICP. All completed original forms MUST be given to the Documentation Unit.

How to Save and Use the Word Template Form:
The 209 template (.dot file) can be edited to match most incident situations and can be saved into the Word template directory. Open the blank 209 (ICS 209 CG.dot) – do not add any content. Save the blank in the Templates directory. Create a new 209 from File>new picking the 209 template. Type in the file to add any desired content and use “save as” to save the work using a new file name. The file will automatically become a .doc file.

Comments: Please send comments/corrections about this form to the ICS Program Manager, Ms. Kristy Plourde, email: kplourde@tcyorktown.uscg.mil

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Type of Incident	Indicate (check box) and/or fill-in the type of incident(s).
4.	Situation Summary	Summary of current situation at time of report.
5.	Future Outlook	This section is for the IC/UC to discuss/project their future outlook, goals, requirements, needs and issues.
6.	Safety Status/Personnel Casualty	This information pertains to responders and assisted public personnel. Indicate the number of serious injuries, death, and missing. Values entered in the column labeled since Last Report are from the start of the

		Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Property Damage	Enter estimated dollar values for each item, if known.
8.	Attachments	Indicate (check box) and/or fill-in the attachment(s) the help further clarify the incident status.
9.	Equipment Resources	Indicate the number of each type of resource in each status category. There are blank lines below each general type of resource for additional equipment.
	Ordered	Ordered but not yet arrived/available.
	Available	Arrived on scene, stored in staging, not assigned to any task, available for use.
	Assigned	Assigned to a specific task.
	Out of Service	Not working and not assigned to any task (e.g., skimmer being repaired, boom broken, personnel off-duty for rest).
10.	Personnel Resources	Indicate, by agency, the numbers of personnel assigned. There are blank lines for additional personnel, as needed.
11.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

OIL/HAZMAT ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Spill Status	This information is only tracked if there is spilled HAZMAT or Oil. Enter Common Name(s) of the released substance or spilled oil (i.e. Ethyl Alcohol/Ethanol or No. 2 Fuel Oil/Light Fuel Oil). Enter UN number and CAS Registry number, if known. Indicate whether the spill source is secured or unsecured (check box) and estimate the remaining potential and the rate of spillage discharge or release. Enter the estimated amounts in barrels for each category. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
	Mass Balance	This information is only tracked if there is spilled HAZMAT or Oil whether recovered, evaporated, dispersed, burned, floating, or on shore. The total of these estimates should approximate the total volume spilled, discharged, or released. Values for evaporation, dispersion, etc. can be obtained from the Environmental Unit and/or the Scientific Support Coordinator (SSC).
4.	Waste Management	This information is only tracked if there is spilled HAZMAT or Oil. Enter the estimated amounts in barrels or tons for each category. Total HAZMAT/ Oil (bbl) is the sum of the estimate of HAZMAT/oil in oily

		liquids and HAZAMT/oil in oily solids, and is the value to be entered under "Recovered HAZMAT/Oil" in Item 4.
5.	Shoreline Impacts	This information is only tracked if there is spilled HAZMAT or Oil. Enter the total miles in each category for each degree of oiling. Definitions for Light, Medium, and Heavy oiling can be obtained from the EUL/SSC and should be consistent throughout the incident.
6.	Wildlife Impacts	This information is only tracked after an animal is captured. Indicate the actual number of oiled wildlife in each category. Use numbers in parentheses to indicate the subtotal of threatened / endangered species included in the numbers given.
7.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

SAR/LE ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Evacuation Status	This information is only tracked if the incident involves evacuation of personnel. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
4.	Migrant Interdiction Status	This information is only tracked if the incident involves Migrant Interdiction. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
5.	Sorties/Patrols	This information is only tracked if the incident involves sorties tracked in MISLE Incident Management Activity. List Sorties since last report both Air and Surface. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
6.	Use of Force	This information is only tracked if the incident involves Use of Force activities. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Operational Controls	This information is only tracked if the incident involves Operational Control activities initiated, in force and removed.
8.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name					**INCIDENT OPEN ACTION TRACKER ICS 233-CG**		
2. No.	3. Item	4. For/POC	5. POC Briefed	6. Start Date	7. Status	8. Target Date	9. Actual Date
1							
2							
3							
4							
5							
6							
7							
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Open Actions Tracker (ICS 233-CG)

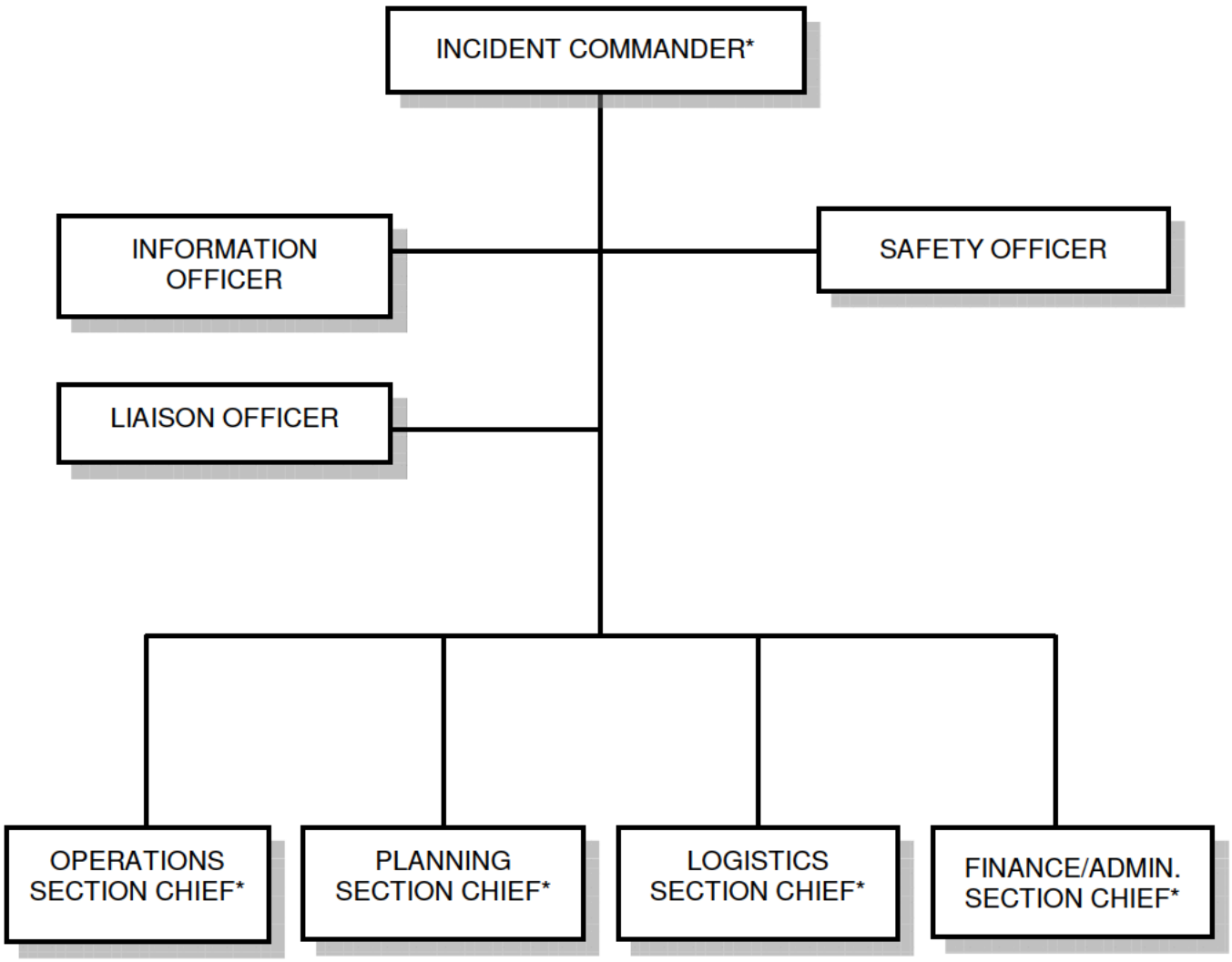
Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	No.	Enter number of task in sequential order (1, 2, 3, …).
3.	Item	Enter short descriptive of the task.
4.	For/POC	Enter responsible section/person.
5.	Briefed to POC	When the tasker has been briefed to the POC after initially assigned, an "X" is placed in the brief column. This was to ensure that taskers identified outsie of the POC's presence (during UC Meeting for example) were assigned the to identified POC.
6.	Start Date	Enter the date the tasker was initially assigned under "Start Date."
7.	Status	Enter status of item. This includes things like: "Awaiting LE Gear", "Update needed", "Awaiting Feedback". When the item is completed, the word "completed" is entered and if working in MS Excel, the task is cut and pasted into the worksheet labeled "COMPLETED."
8.	Target Date	Target date is another way of saying deadline. When the target date is one day away, the block turns yellow. When it is overdue it turns red. When it is yellow, it serves as a reminder to the UC that the target date needs to be changed or the responsible section needs to complete the task.
9.	Actual Date	The block to the right of the Target Date (Actual Date) will always have today's date. It is merely the formula "=today()" inserted into the cell.

NOTE: In order to ensure the red and yellow reminders work for new tasks, the user simply copies a task line, inserts it into the worksheet and overtypes the new task information.

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

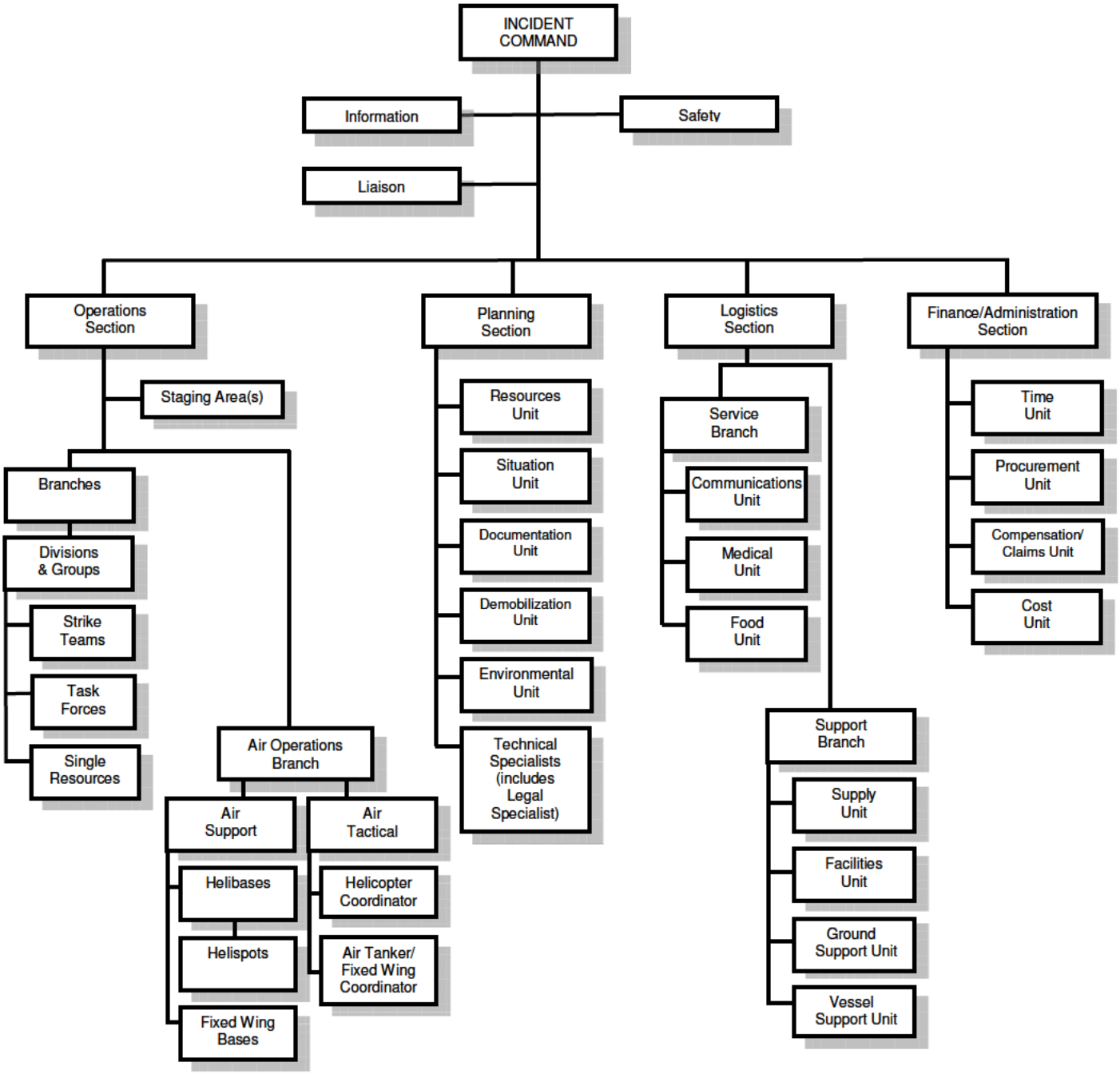


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

STAGING AREA MANAGER

The Staging Area Manager works for the Operations Section Chief and is responsible for managing all activities within a Staging Area or areas. Since there may be more than one Staging Area for an incident, all personnel and equipment should check-in at one of these Staging Areas (sometimes referred to as a "base camp").

Overall Staging Area Manager Responsibilities:

- Proceed to Staging Area.
- Establish Staging Area layout.
- Consider assigning Assistant Staging Managers at each area.
- Determine any support needs for equipment, feeding, sanitation and security.
- Establish check-in function as appropriate.
- Post areas for identification and traffic control.
- Request maintenance service for equipment at Staging Area as appropriate.
- Respond to request for resource assignments.
  (Utilize ICS Forms 211, 211p, 211e)
- Obtain and issue receipts for radio equipment and other supplies distributed and received at Staging Area.
- Track resources distributed from the Staging Area(s) and resources received at the Staging Area(s).
- Determine required resource levels from the OPS.
- Advise the OPS when reserve levels reach minimums.
- Maintain and provide status to Resource Unit of all resources in Staging Area.
- Demobilize Staging Area in accordance with the Incident Demobilization Plan.

Additional KM Required Staging Area Manager Responsibilities:

- Determine whether multiple Staging Areas will be required
- Consider assigning Assistant Staging Managers at each area
- Ensure Staging Area(s) are maintained in orderly condition.
- Work with KM Safety Officer to conduct H&S Plan briefings with arriving response personnel.

BRANCH DIRECTOR

The Branch Directors when activated, are under the direction of the OPS, and are responsible for the implementation of the portion of the IAP appropriate to the Branches.

Overall Branch Director Responsibilities:

- Develop with subordinates alternatives for Branch control operations.
- Attend planning meetings at the request of the OPS.
- Review Division/Group Assignment Lists (ICS Form 204) for Divisions/Groups within the Branch. Modify lists based on effectiveness of current operations.
- Assign specific work tasks to Division/Group Supervisors.
- Supervise Branch operations.
- Resolve logistic problems reported by subordinates.

CHECK-IN LIST	1. INC DENT NAME:	2. CHECK-IN LOCATION:	3. DATE/TIME:

CHECK-IN INFORMATION

4. LIST PERSONNEL (OVERHEAD) BY AGENCY NAME – OR LIST EQUIPEMENT BY THE FOLLOWING FORMAT: S=Supplies H=Helicopter O=Overhead VL=Vessels E=Equipment C=Crew A=Aircraft VH=Vehicle			5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
AGENCY	**RESOURCE IDENTIFIER**	KIND	ORDER/ NUMBER	DATE/TIME CHECK-IN	LEADER'S NAME	TOTAL NO. PERSONNEL	INCIDENT CONTACT INFORMATION	INCIDENT LODGING INFO/ CONTACT INFO	HOME UNIT	METHOD OF TRAVEL	INCIDENT ASSIGNMENT	SENT TO RESTAT TIME/INT
15. ICS 211-CG PAGE _____ of _____			16. PREPARED BY (Name and Position) USE BACK FOR REMARKS OR COMMENTS									

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

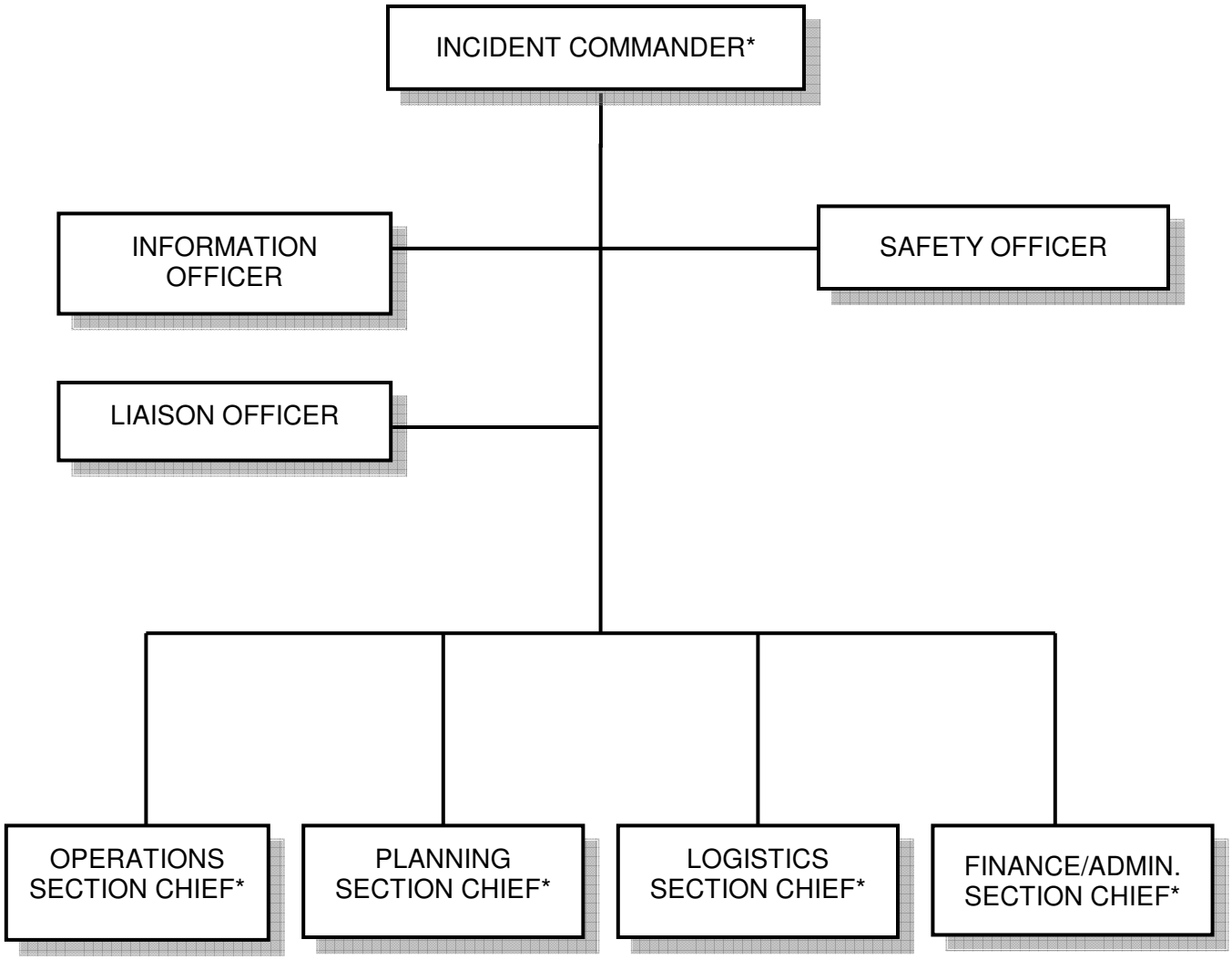
Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

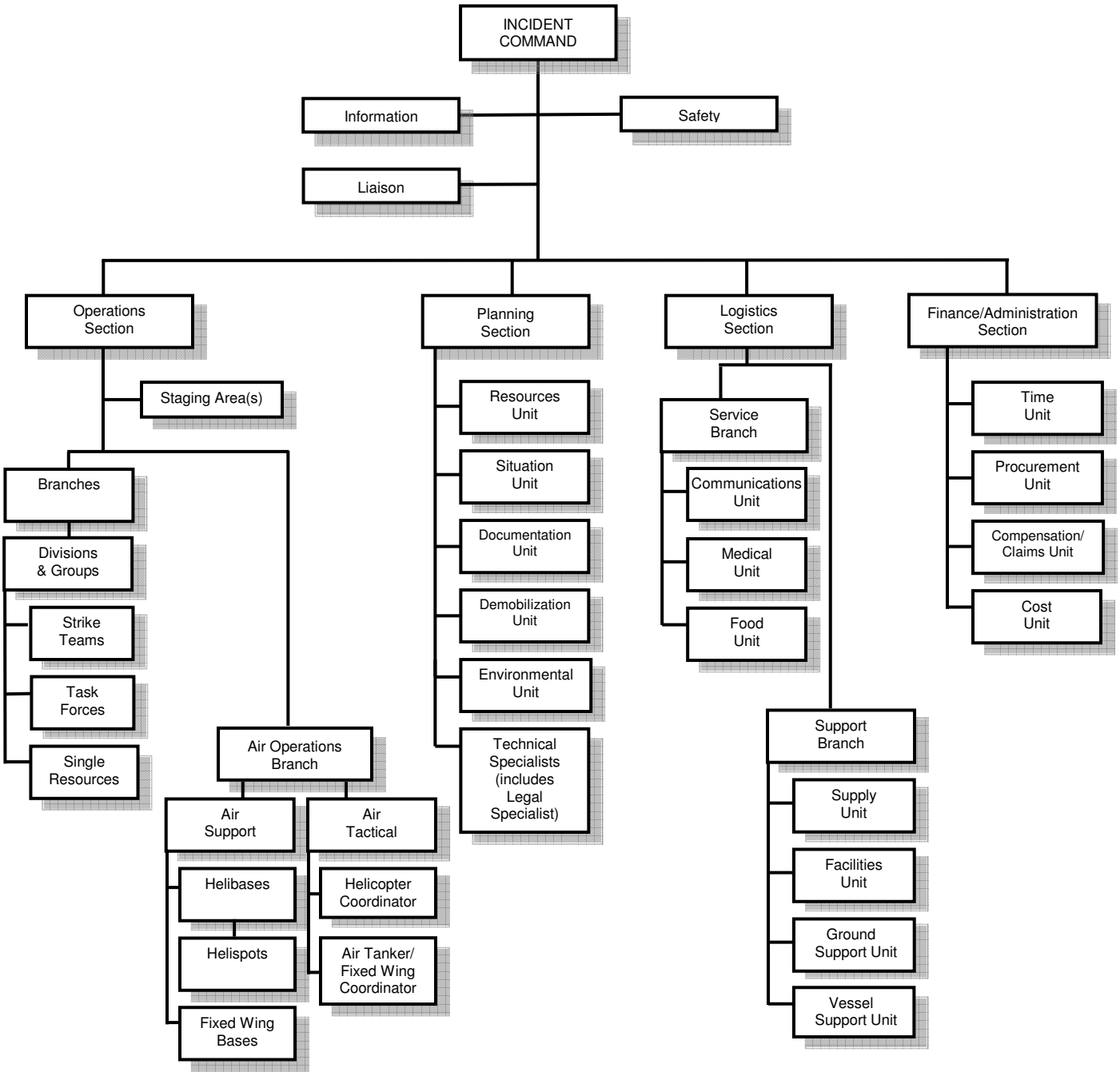


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

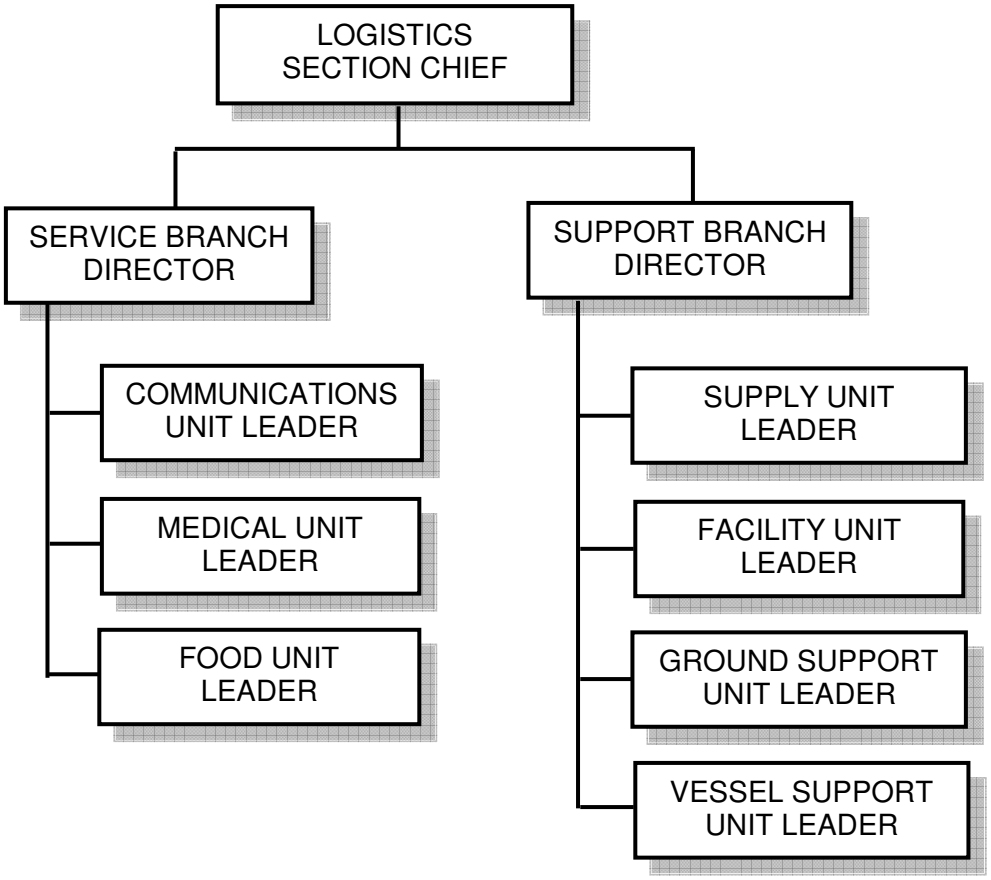
- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

LOGISTICS

Logistics Section Chief 4-44

Service Branch Director 4-44
- Communications Unit Leader 4-45
- Medical Unit Leader 4-45
- Food Unit Leader 4-46
- Hospital Coordination Unit 4-46

Support Branch Director 4-47
- Supply Unit Leader 4-47
- Facilities Unit Leader 4-47
- Ground Support Unit Leader 4-48
- Vessel Support Unit Leader 4-49



SUPPORT BRANCH DIRECTOR

The Support Branch Director, when activated, is under the direction of the LSC, and is responsible for the development and implementation of logistics plans in support of the Incident Action Plan. The Support Branch Director supervises the operations of the Supply, Facilities and Ground Support Units.

Overall Support Branch Director Responsibilities:

- Obtain work materials.
- Identify Support Branch personnel dispatched to the incident.
- Determine initial support operations in coordination with the LSC and Service Branch Director.
- Prepare initial organization and assignments for support operations.
- Assemble and brief Support Branch personnel.
- Determine if assigned Branch resources are sufficient.
- Maintain surveillance of assigned units work progress and inform the LSC of their activities.
- Resolve problems associated with requests from the Operations Section.

Supply Unit Leader - The Supply Unit Leader is primarily responsible for ordering personnel, equipment and supplies; receiving and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.

Overall Supply Unit Leader Responsibilities:

- Participate in Logistics Section/Support Branch planning activities.
- Determine the type and amount of supplies en route.
- Review the IAP for information on operations of the Supply Unit.
- Develop and implement safety and security requirements.
- Order, receive, distribute, and store supplies and equipment.
- Receive and respond to requests for personnel, supplies, and equipment.
- Maintain an inventory of supplies and equipment.
- Service reusable equipment.
- Submit reports to the Support Branch Director.

Facilities Unit Leader - The Facilities Unit Leader is primarily responsible for the layout and activation of incident facilities, (e.g., Base, Camp(s), and ICP). The Facilities Unit Leader provides sleeping and sanitation facilities for incident personnel and manages Base and Camp(s) operations. Each facility (Base, Camp) is assigned a manager who reports to the Facilities Unit Leader and is responsible for managing the operation of the facility. The basic functions or activities of the Base and Camp Managers are to provide security service and general maintenance. The Facility Unit Leader reports to the Support Branch Director.

SUPPORT BRANCH DIRECTOR (Cont'd)

Overall Facilities Unit Leader Responsibilities:

- Obtain a briefing from the Support Branch Director or the LSC.
- Receive and review a copy of the IAP.
- Participate in Logistics Section/Support Branch planning activities.
- Determine requirements for each facility, including the ICP.
- Prepare layouts of incident facilities.
- Notify Unit Leaders of facility layout.
- Activate incident facilities.
- Provide Base and Camp Managers and personnel to operate facilities.
- Provide sleeping facilities.
- Provide security services.
- Provide facility maintenance services (e.g., sanitation, lighting, clean up).
- Demobilize Base and Camp facilities.
- Maintain facility records

Ground Support Unit Leader - The Ground Support Unit Leader is primarily responsible for: 1) support out-of-service resources; 2) transportation of personnel, supplies, food, and equipment 3) fueling, service, maintenance, and repair of vehicles and other ground support equipment; and 4) implementing the Traffic Plan for the incident.

Overall Ground Support Unit Leader Responsibilities:

- Participate in Support Branch/Logistics Section planning activities.
- Develop and implement the Traffic Plan.
- Support out-of-service resources.
- Notify the Resources Unit of all status changes on support and transportation vehicles.
- Arrange for and activate fueling, maintenance, and repair of ground resources.
- Maintain Support Vehicle Inventory and transportation vehicles (ICS Form 218).
- Provide transportation services, IAW requests from the LSC or Support Branch Director.
- Collect information on rented equipment.
- Requisition maintenance and repair supplies (e.g., fuel, spare parts).
- Maintain incident roads.
- Submit reports to Support Branch Director as directed.

SUPPORT BRANCH DIRECTOR (Cont'd)

Vessel Support Unit Leader - The Vessel Support Unit Leader is responsible for implementing the Vessel Routing Plan for the incident and coordinating transportation on the water and between shore resources. Since most vessels will be supported by their own infrastructure, the Vessel Support Unit may be requested to arrange fueling, dockage, maintenance, and repair of vessels on a case-by-case basis.

Overall Vessel Support Unit Leader Responsibilities:

- Obtain a briefing from the Support Branch Director or the LSC.
- Participate in Support Branch/Logistics Section planning activities.
- Coordinate development of the Vessel Routing Plan.
- Coordinate vessel transportation assignments with the Protection and Recovery Branch or other sources of vessel transportation.
- Coordinate water-to-land transportation with the Ground Support Unit, as necessary.
- Maintain a prioritized list of transportation requirements that need to be scheduled with the transportation source.
- Support out-of-service vessel resources, as requested.
- Arrange for fueling, dockage, maintenance and repair of vessel resources, as requested.
- Maintain inventory of support and transportation vessels.

Resource Request Message

ICS-213 RR CG (05/06)

Requestor

1. Incident Name: | 2. Date/Time: | 3. Resource Request No:

4. ORDER Note: Use additional forms when requesting different resource sources of supply

a. Qty.	b. Kind	c. Type	d. Detailed item description (Vital characteristics, brand, specs, experience, etc. & if applicable describe purpose/use, attach diagrams, & other amplifying info)	e. Requested Reporting Location:	e. Requested Reporting Date/Time:	f. ETA (LSC):	g. Cost (FSC):

5. Suggested source(s) of Supply - POC phone no. if known & suitable subtitutes:

6. Requested by Name/Position/Phone: | 7. Date/Time: | 8. Section Chief Approval: | Date/Time:

☐ 9. Check box if request is for tactical/personnel resources & Submit to RESL, otherwise submit directly to Logistics

10. RESL Review/Signature:

☐ Resources as noted are Available ☐ Resources Not Available

Logistics

11. Logistics Order No.: | 12. Supplier Name/Phone/Fax/Email:

13. Notes:

14. Approval Signature of Auth Logistics Rep: | 15. Date/Time:

16. Order placed by (check box): ☐ SPUL ☐ PROC

Finance

17. Reply/Comments from Finance:

18. Finance Section Signature: | 19. Date/Time:

Full Instructions on back page. Requestor fills out # 1-9 & keeps yellow copy (bottom). If applicable, RESL reviews if resource available & signs # 10. Logistics fills in remainder of # 4 & # 10-15 & keeps pink copy. Finance, if needed fills out appropriate items & keeps green copy. Blue original is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL.

Instructions for filling out the ICS-213RR CG Form (5/06)

REQUESTOR: The requestor must fill in Blocks 1 through 9:

Block # 1	Incident name: This is the same as the name stated on the ICS-201 Form and/or the Incident Action Plan (IAP).
Block # 2	Current date and time when submitting request
Block # 3	Resource Request Number: This is to be assigned by the Section submitting request (i.e. CMD, OPS, PLAN, LOG, FIN)
Block # 4	Fill in blocks 4a through 4e. Items requested: Must include Quantity, Kind and Type (if applicable) and detailed description of requirements. **BE SPECIFIC AS POSSIBLE**. The request should focus on capability rather than naming the brand or specific item (e.g. helicopter capable of carrying 4 personnel from location A to B rather than requesting a Coast Guard H-65 helicopter). This gives the logistics section the ability to find the best resource to meet the need. 4.e Requested Reporting Location/Date/Time: This is self-explanatory and is required for ordering official. Leave blocks 4.f. ETA (LSC) and 4.g. Cost (FSC) blank. These will be filled in later by Logistics and Finance.
Block # 5	Suggested sources of supply and suitable substitutes: Enter applicable information if known.
Block # 6 & 7	Requestor: Print Name and Signature and date/time.
Block # 8	Approval: This must be approved by the Section Chief or Deputy Section Chief.
Block # 9	Check box if request is for tactical or personnel resource(s) and submit request to Resources Unit Leader (RESL) to review and approve since RESL tracks all tactical and personnel resources.

Request goes to RESOURCES UNIT if requesting Tactical/Personnel Resource(s):

Block # 10	Resources reviews request and checks to see if resource is available. If the resource is available, reassigns resource as appropriate and sends request back to requester with information noted as to reporting time, etc. The request form is then sent to Documentation Unit Leader (DOCL) for filing. If the resource is not available, RESL sends request to Logistics.

LOGISTICS SECTION: The following blocks are to be filled out be the Supply Unit (SPUL).

Block # 11	Logistics Order Number: To be assigned by Supply Unit.
Block # 12	Supplier Point of Contact, Phone Number and Fax Number: This information is needed for Credit Card purchases and/or Purchase Orders.
Block # 13	Notes: Enter applicable information as need for request.
Block # 4	ETA and Cost: SPUL or PROC fills in Estimated time of arrival (ETA) when determined and cost if known.
Block # 14 & 15	Approval: This must be approved by the Logistics Section Chief or Deputy Logistics Section Chief, printed name and signature is required with Date and Time of approval. Bottom Copy (pink) is retained.

FINANCE SECTION: The following blocks are to be filled out be the Procurement Unit (PROC), if applicable.

Block # 16	Indicates who is to place order as necessary.
Block # 17	Comments concerning request from Finance Section Chief or Deputy Finance Section Chief.
Block # 18 & 19	Approval: This must be approved by the Finance Section Chief or Deputy Section Chief, printed name and signature is required with Date and Time of approval. Bottom copy (green) is retained.
FILING	Original blue copy is returned to RESL for tactical/personnel resources ordered, and the requester for non-tactical. RESL will inform requester of status of request when form received. The white copy is sent to DOCL.

Note: Cost associated requests will not be ordered without approval from the Finance Section Chief or Deputy Finance Section Chief.

Form Filing: Blue (Original) – final disposition to RESL or originator for non-tactical resources, White (copy 1) to DOCL, Green (copy 2) to FIN, Pink (copy 3) to LOG, Yellow (copy 4) to Originator

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	DEMOB. CHECK-OUT ICS 221-CG
3. Unit / Personnel Released	4. Release Date / Time	

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. Unit Leader "X" appropriate box(es))

Logistics Section

☐ Supply Unit _____

☐ Communications Unit _____

☐ Facilities Unit _____

☐ Ground Unit _____

Planning Section

☐ Documentation Unit _____

Finance / Admin. Section

☐ Time Unit _____

Other

☐ _____ _____

☐ _____ _____

☐ _____ _____

6. Remarks

_____

_____

_____

_____

7. Prepared by: **Date / Time**

DEMOB. CHECK-OUT (ICS 221-CG)

Purpose. This form provides the Planning Section information on resource releases from the incident.

Preparation. The Demobilization Unit Leader or the Planning Section initiates this form. The Demobilization Unit Leader completes the top portion of the form after the resource supervisor has given written notification that the resource is no longer needed.

Distribution. The individual resource will have the unit leader initial the appropriate box(es) in item 5 prior to release from the incident. After completion, the form is returned to the Demobilization Unit Leader or the Planning Section. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Strike Team / Unit / Personnel Released	Enter name of Strike Team, Unit or personnel being released.
4.	Release Date/Time	Enter date (month, day, year) and time (24-hour clock) of anticipated release.
5.	Strike Team / Unit / Personnel	Demobilization Unit Leader will enter an "X" in the box to the left of those units requiring check-out. Identified Unit Leaders are to initial to the right to indicate release. NOTE: Blank boxes are provided for any additional unit requirements as needed, (e.g., Safety Officer, Agency Rep., etc.)
6.	Remarks	Enter any additional information pertaining to demobilization or release (e.g., transportation needed, destination, etc.).
7.	Prepared By	Enter name and title of the person preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FACILITY NEEDS ASSESSMENT WORKSHEET ICS-235-CG (Rev 5/06)

1.INC DENT NAME

2. LOCATION	3. FACILITIES	4. Requirements	# Expected Personnel	Internal/Building Workspace Sq Ft (80 sq ft/pers)	Wall Space Linear Sq Ft	Multi-Purpose Mtg Rm Sq Ft (20 sq ft/pers + display space)	External/Outside Laydown Sq Ft	Parking Space Sq Ft (120 sq ft/vehicle x 1.4 circulation factor)	Climate Control (HVAC) needed -	Toilet Rooms	Work Tables	Conf Table	Chairs	Telephones	Speaker Phone	Fax Machines	Power Outlets	Comp Workstations	Printers	Chart Printer/ChartPro	Video Projectors	Copy Machines	Paper Shredders				
ICP	Unified Command	REQ																									
	Liaison Officer & Agency Reps	REQ																									
	Safety Officer	REQ																									
	Public Information Officer	REQ																									
	Planning Section	REQ																									
	Operations Section	REQ																									
	Logistics Section	REQ																									
	Finance/Admin Section	REQ																									
	Common Areas	REQ																									
Base	Base	REQ																									
		REQ																									
JIC	JIC	REQ																									
		REQ																									
Staging		REQ																									
		REQ																									
		REQ																									
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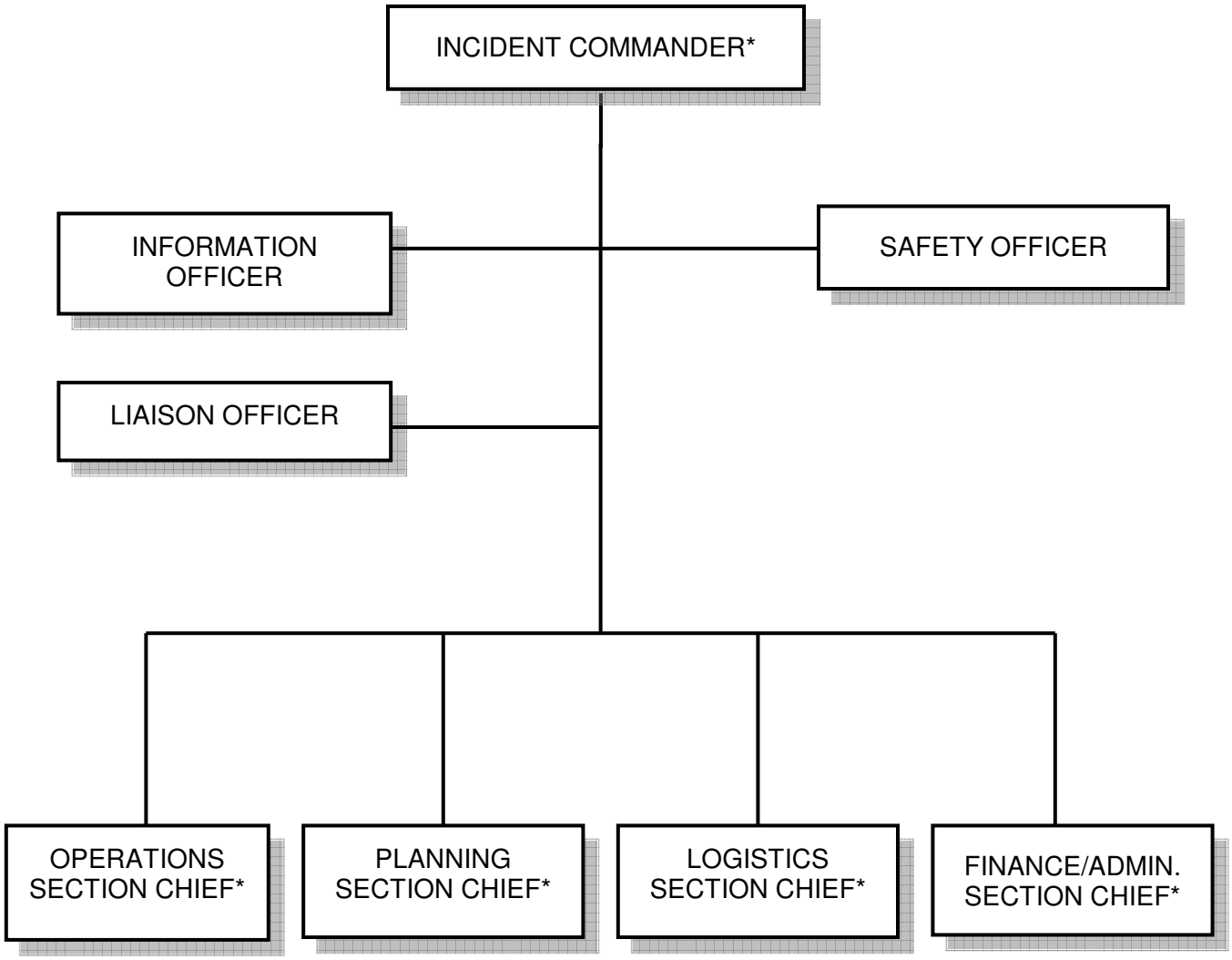
		REQ																									
		REQ																									
		REQ																									
		REQ																									
		REQ																									
5. Prepared By:																											
6. Date/Time Prepared																											

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

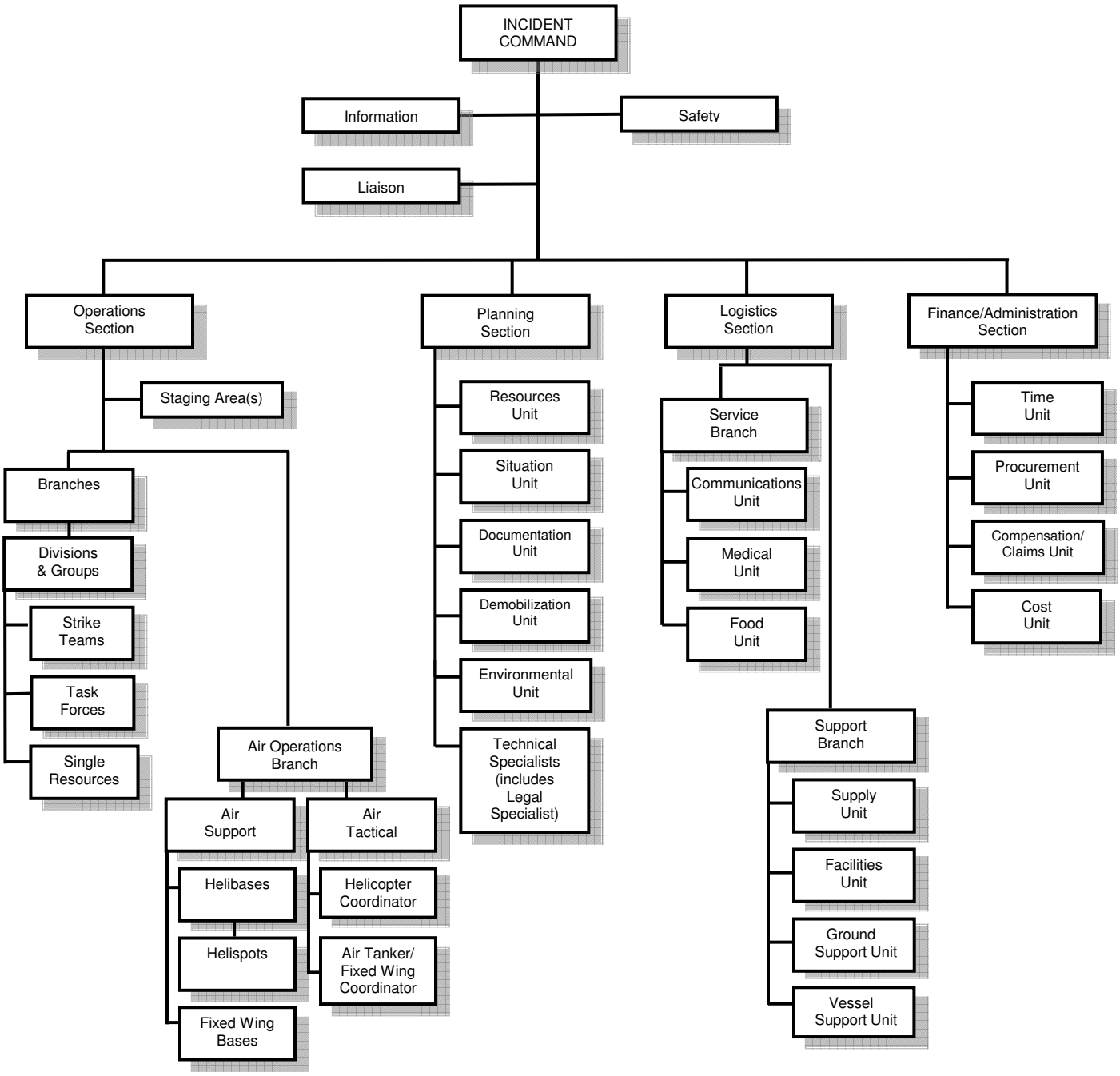


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

PLANNING

Planning Section Chief 4-38

Resources Unit Leader 4-38

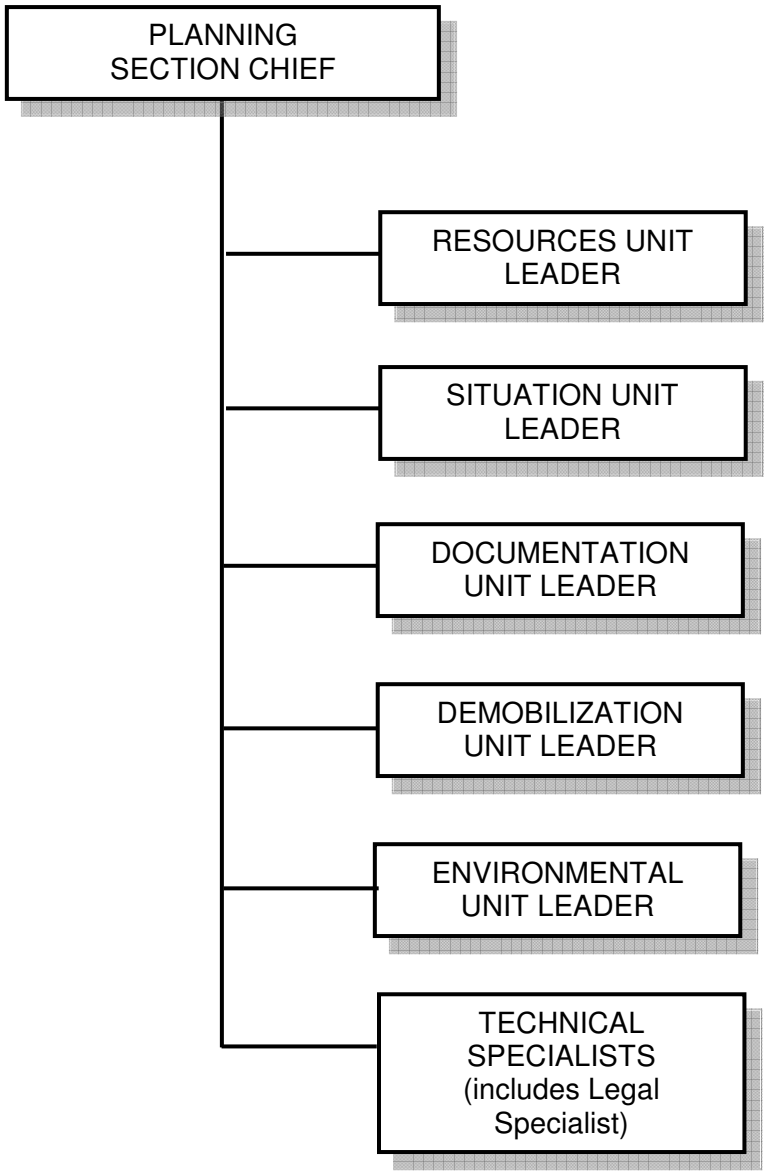
Situation Unit Leader 4-39

Documentation Unit Leader 4-40

Demobilization Unit Leader 4-41

Environmental Unit Leader 4-42

Technical Specialists 4-42



ENVIRONMENTAL UNIT LEADER

The Environmental Unit Leader (EUL) works with the Planning Section and is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting . The EUL prepares environmental data for the situation unit.

Overall Environmental Unit Leader Responsibilities:

- Obtain a briefing and special instructions from the PSC.
- Participate in Planning Section meetings.
- Identify sensitive areas and recommend response priorities.
  Utilize ICS Form 232.
- Following consultation with natural resource trustees, provide input on wildlife protection strategies (e.g., removing oiled carcasses, pre-emptive capture, hazing, and/or capture and treatment).
- Determine the extent, fate and effects of contamination.
- Acquire, distribute and provide analysis of weather forecasts.
- Monitor the environmental consequences of cleanup actions.
- Develop shoreline cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
- Identify the need for, and obtain, permits, consultations, and other authorizations including Endangered Species Act (ESA) provisions.
- Following consultation with the FOSC's Historical/Cultural Resources Technical Specialist identify and develop plans for protection of affected historical/cultural resources.
- Evaluate the opportunities to use various response technologies.
- Develop disposal plans.
- Develop a plan for collecting, transporting, and analyzing samples.

TECHNICAL SPECIALISTS

Certain incidents or events may require the use of Technical Specialists who have specialized knowledge and expertise. Technical Specialists may function within the Planning Section, or be assigned wherever their services are required.

An example of a Technical Specialist is:

LEGAL SPECIALIST:

The Legal Specialist will act in an advisory capacity within the Planning Section.

Overall Legal Specialist Responsibilities:

- Participate in planning meetings, if requested.
- Advise on legal issues relating to in-situ burning, use of dispersants, and other alternative response technologies.
- Advise on legal issues relating to differences between Natural Resource Damage Assessment Restoration (NRDAR) and response activities.
- Advise on legal issues relating to investigations.
- Advise on legal issues relating to finance and claims.
- Advise on legal issues relating to response.
- Utilize ICS Form 214.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

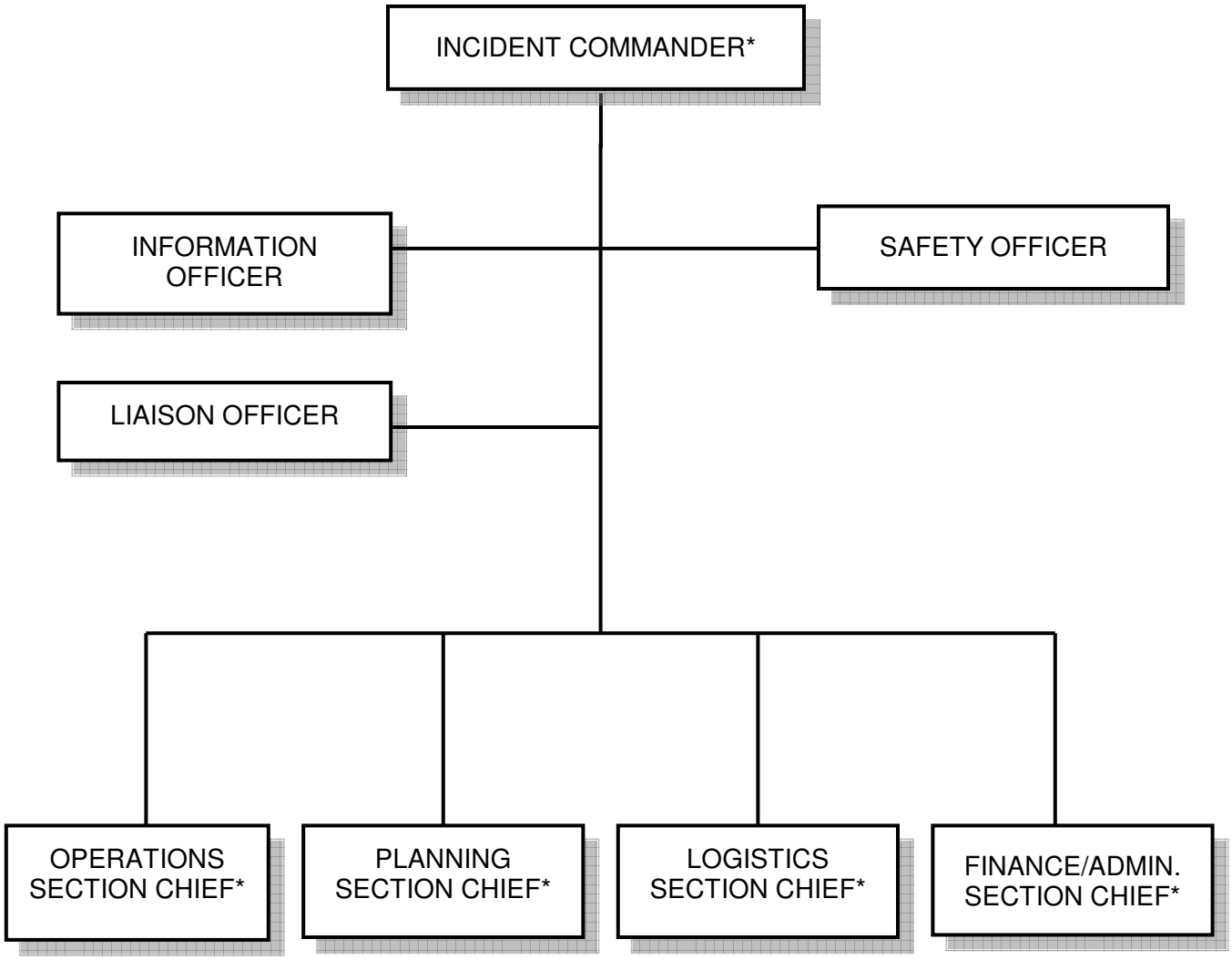
Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

FIGURE 4.1

LOCAL RESPONSE TEAM

(For Initial Response and Tier I & II Incidents)

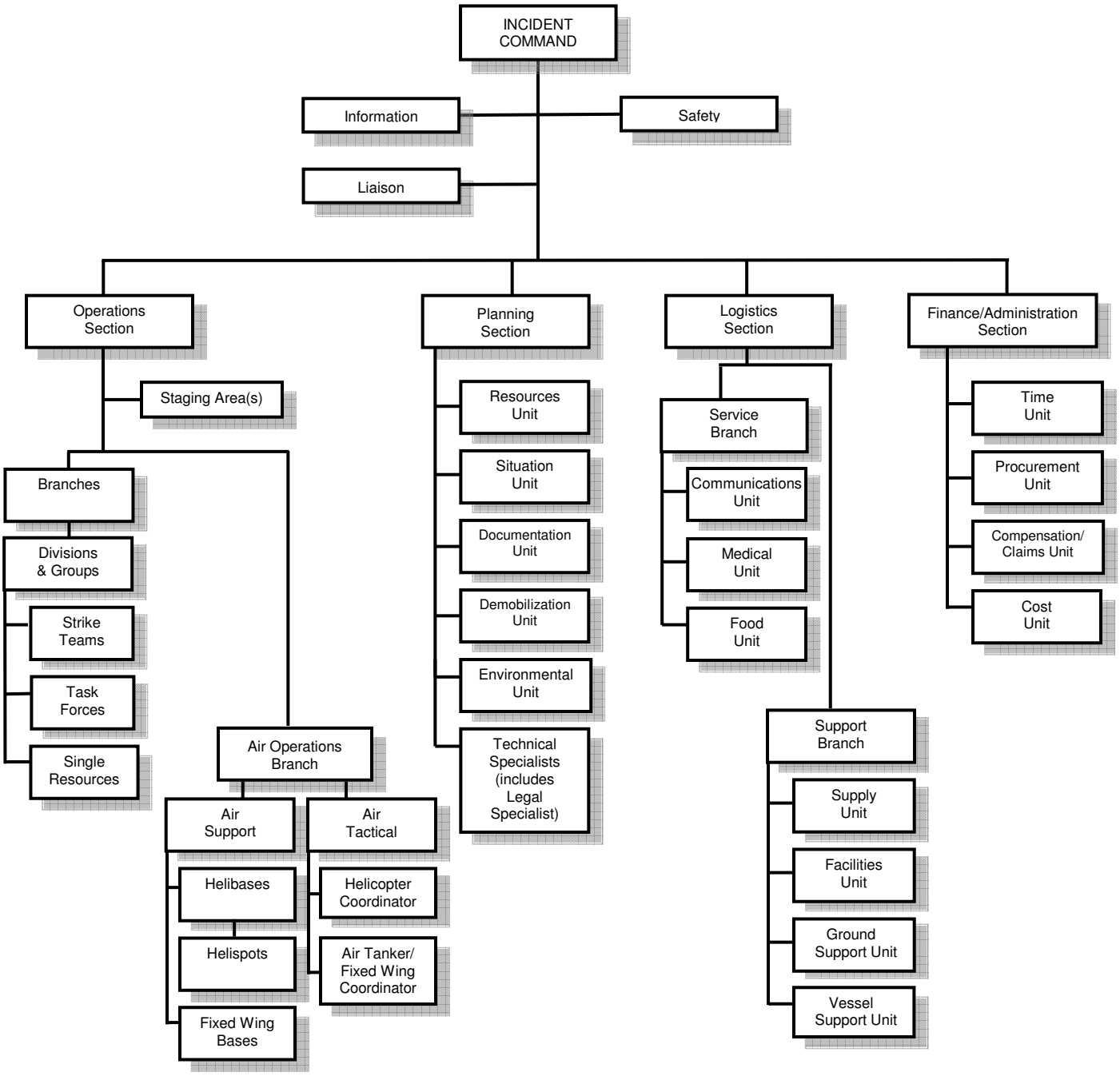


* NOTE: Local Response Team (LRT) personnel can assume any of these positions as necessary.

FIGURE 4.2

INCIDENT MANAGEMENT TEAM

(For incidents beyond the response capability of the Local Response Team)



4.9 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

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- Receive assignment, including:
  - Job assignment
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  - Reporting time
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- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Response to demobilization orders and brief subordinates regarding demobilization.

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In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

FINANCE/ADMINISTRATION

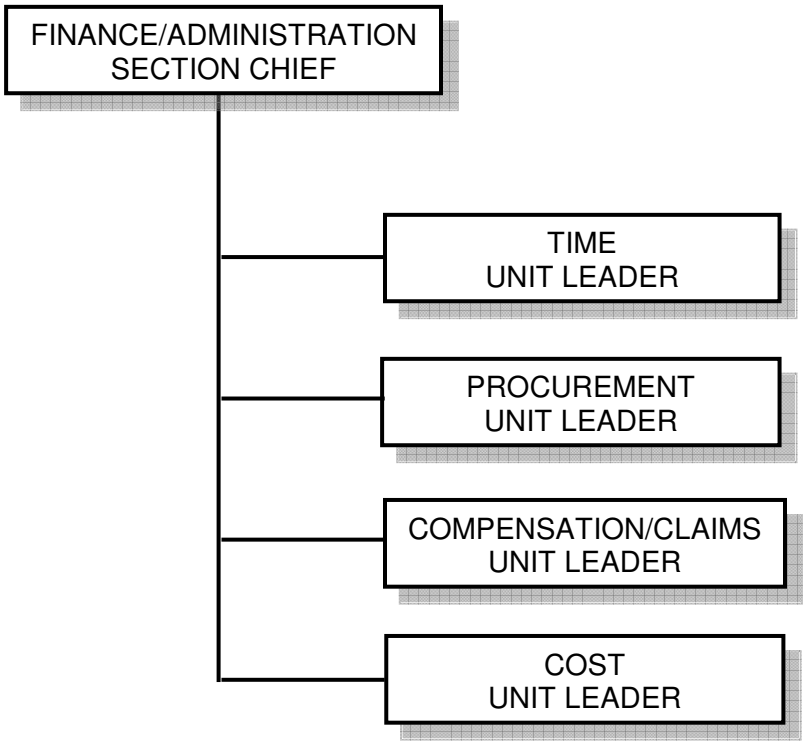
Finance/Administration Section Chief 4-51

Time Unit Leader 4-52

Procurement Unit Leader 4-52

Compensation/Claims Unit Leader 4-53

Cost Unit Leader 4-53



TIME UNIT LEADER

The Time Unit Leader is responsible for equipment and personnel time recording and for managing the commissary operations.

Overall Time Unit Leader Responsibilities:

- Determine incident requirements for time recording function.
- Determine resource needs.
- Contact appropriate agency personnel/representatives.
- Ensure that daily personnel time recording documents are prepared and in compliance with policy.
- Establish time unit objectives.
- Maintain separate logs for overtime hours.
- Establish commissary operation on larger or long-term incidents as needed.
- Submit cost estimate data forms to the Cost Unit, as required.
- Maintain records security.
- Ensure that all records are current and complete prior to demobilization.
- Release time reports from assisting agency personnel to the respective Agency Representatives prior to demobilization.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

PROCUREMENT UNIT LEADER

The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts, leases, and fiscal agreements.

Overall Procurement Unit Leader Responsibilities:

- Review incident needs and any special procedures with Unit Leaders, as needed.
- Coordinate with local jurisdiction on plans and supply sources.
- Obtain the Incident Procurement Plan.
- Prepare and authorize contracts and land-use agreements.
- Draft memoranda of understanding as necessary.
- Establish contracts and agreements with supply vendors.
- Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
- Interpret contracts and agreements; resolve disputes within delegated authority.
- Coordinate with the Compensation/Claims Unit for processing claims.
- Coordinate use of impress funds, as required.
- Complete final processing of contracts and send documents for payment.
- Coordinate cost data in contracts with the Cost Unit Leader.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

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5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
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7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

Minimum Annual FRP/ICP Review Checklist

- For all Facilities – a review must be conducted each calendar year, not to exceed 15 months.
- For U.S. Coast Guard Jurisdictional Facilities – a review must be conducted annually within 30 days of the plan approval date.
- Federal and State Agency requirements for revisions and time line requirements for completing revisions are outlined in Section 1 of each FRP/ICP.

Review Date: _____

☐ **Operating Assets:** Review, confirm and update as needed operating assets (tanks added or removed, pipelines added or removed, truck racks added or removed, changes to dock operations, changes to products handled) covered by this plan. Any changes will also impact the facility Spill Prevention, Countermeasure, and Control Plan (SPCC) and Dock Operations Manual if applicable.

☐ **Qualified Individual:** Review, confirm and update as needed Qualified Individual and Alternate Qualified Individual name and contact information.

☐ **Notification Information:** Review, confirm by telephone call and update as needed telephone numbers for State, County, LEPC, and local contacts.

☐ **Company Owned Response Equipment:** Review, confirm and update as needed specific Kinder Morgan owned spill response equipment listed in the Plan (fire extinguishers, boom, sorbent pads, portable pumps, etc). Verify existence and location of response trailers and contents of those trailers.

☐ **Response Contractor Information:** Review, confirm and update as needed response contractors listed. Confirm by telephone call contact information for each response contractor listed. Note additional/new contract resources, if any.

☐ **Pipeline Information:** Review, confirm and update as needed applicable area pipeline information. Note any changes in line locations, flow rates, operating pressures, and/or products handled.

☐ **Breakout Tank/Pipeline Station Information:** Review, confirm and update as needed applicable breakout tankage and pipeline station information. Note any changes in tank configuration, capacity, and/or product service. Note any changes in station function, configuration and/or status. Any changes may also impact the facility Spill Prevention, Countermeasure, and Control Plan (SPCC) if applicable.

☐ **Storage Tank Information:** Review, confirm and update as needed applicable EPA jurisdictional tank information. Note any changes in tank configuration, capacity, and/or product service. Any changes will also impact the facility Spill Prevention, Countermeasure, and Control Plan (SPCC).

☐ **Products Handled:** Review, confirm and update as needed products handled. Any changes will also impact the facility Spill Prevention, Countermeasure, and Control Plan (SPCC) and Dock Operations Manual if applicable.

☐ **Evacuation Procedures:** Review, confirm and update as needed evacuation procedures, routes and muster locations.

☐ **Maps and Diagrams:** Review all maps and diagrams for accuracy.

Minimum Annual FRP/ICP Review Checklist (Cont'd)

Review Completed by Area Manager/Terminal Supervisor:

☐ I have reviewed the applicable FRP/ICP and no changes are needed.

☐ I have reviewed the applicable FRP/ICP and exceptions are noted on the attached pages.

Signature: _____ **Date:** _____

Name (printed): _____

Title: _____

Review Completed by Operations Manager:

Signature: _____ **Date:** _____

Name (printed): _____

Title: _____

Review Completed by Director of Operations:

Signature: _____ **Date:** _____

Name (printed): _____

Title: _____

Forward a copy of the completed checklist to Manager - Emergency Response Programs.
Retain completed Checklist for five (5) years.

EPA Unannounced Exercise Review Checklist

Records Review:

☐ Confirm most recent ICP revision date with Manager – Emergency Response Programs. Revision Date: _____ [1)]

☐ Confirm that Quarterly QI Notification Exercise records are available for the previous five (5) years. Backup copies are maintained by Manager – Emergency Response Programs and Region Offices.

☐ Confirm that Unannounced Exercise records[2)] are available for the previous five (5) years.

☐ Confirm that Spill Management Team Tabletop Exercise records are available for the previous five (5) years. Backup copies are maintained by Manager – Emergency Response Programs and TRC.

☐ Confirm that Facility Owned Response Equipment Deployment Exercise records are available for the previous five (5) years.

☐ Confirm that Personnel Response Training records are available for the previous five (5) years. HAZWOPER Training records are maintained by TRC. CBT records are maintained online.

☐ Confirm that Facility Owned Response Equipment Inspection records are available for the previous five (5) years.

☐ Confirm that Tank & Secondary Containment Inspection records are available for the previous five (5) years.

☐ Confirm that Discharge Prevention Meeting records are available for the previous five (5) years.

Notes:

1) ICP revisions dated after the date noted in the notification letter will be ignored by the EPA Inspectors.
2) Generally all our Tabletop Exercises are classified as Unannounced so these records are not maintained separately.

Exercise Preparations:

☐ Review Initial Notification requirements and contact information (Volume 1, Section 2 and Volume 2, Section 2). EPA Inspectors expect that required initial notifications will be completed within 30 minutes. Confirm with the Inspector which notifications may be simulated and which must be actually made.

☐ Review the Tactical Plans in Volume 2 Section 8.4 Figure 8.9 with your response contractor. The EPA Inspectors will expect that response equipment identified in Volume 2 Section 3 Figure 3.3 will be deployed within two (2) hours of the start of the exercise.

☐ Note that the EPA scenario may involve a pipeline related discharge some distance from the facility.

☐ Document notifications and initial response actions using the appropriate ICS forms from the ICP.

Exercise Follow-up:

☐ Forward copies of all exercise documentation to the Manager – Emergency Response Programs. Include EPA evaluation and note any recommendations for improvement or needed ICP revisions resulting from the exercise.

U.S. DEPARTMENT OF HOMELAND SECURITY

U.S. COAST GUARD

INCIDENT MANAGEMENT HANDBOOK

U.S. COAST GUARD
COMDTPUB P3120.17A

AUGUST 2006

USCG PHONE NUMBERS FOR DISTRICT/AREA COMMAND CENTERS

CG CRITICAL INCIDENT COMMS	800-323-7233
FIRST DISTRICT	617-223-8555
ATLANTIC AREA / FIFTH DISTRICT	757-398-6391
SEVENTH DISTRICT	305-415-6800
EIGHTH DISTRICT	504-589-6225
NINTH DISTRICT	216-902-6117
PACIFIC AREA / ELEVENTH DISTRICT	510-437-3701
THIRTEENTH DISTRICT	206-220-7001
FOURTEENTH DISTRICT	808-541-2500
SEVENTEENTH DISTRICT	907-463-2000
CG COMMAND CENTER	800-323-7233
NATIONAL RESPONSE CENTER	800-424-8802

U.S. Department of Homeland Security

United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-RPP
Phone: (202) 267-0518
Fax: (202) 267-4085
Email: ctantillo@comdt.uscg.mil

COMDTPUB P3120.17A

AUG 1 8 2006

COMMANDANT PUBLICATION P3120.17A

Subj: U.S. COAST GUARD INCIDENT MANAGEMENT HANDBOOK

Ref:
(a) Homeland Security Presidential Directive Five (HSPD-5)
(b) National Incident Management System (NIMS), March 2004
(c) National Response Plan (NRP), December 2005
(d) Coast Guard NIMS-NRP Implementation Plan, Dec 2004
(e) Alignment with the National Incident Management System and National Response Plan, COMDTINST 16000.27 (series)
(f) Incident Command System, COMDTINST 3120.14 (series)
(g) Coast Guard Incident Command System Implementation Plan, COMDTINST M3120.15 (series)

1. PURPOSE. The Coast Guard Incident Management Handbook (IMH) is designed to assist Coast Guard personnel in the use of the National Incident Management System (NIMS) Incident Command System (ICS) during multi-contingency response operations and planned events. The Incident Management Handbook is an easy reference job aid for responders. It is not a policy document, but rather guidance for response personnel.

2. ACTION. Area, district, maintenance and logistics commanders, commanding officers of headquarters units, assistant commandants for directorates, and commanding officers of all Coast Guard units should disseminate this as widely as possible to all Coast Guard personnel involved in response operations.

3. DIRECTIVES AFFECTED. U.S. Coast Guard Incident Management Handbook, COMDTPUB P3120.17, dated April 11, 2001 is cancelled.

4. BACKGROUND.

DISTRIBUTION – SDL No. 145

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A																										
B	500	750	750		525									*												
C	25				50									50		25									50	
D		500		50																						
E																										
F																										
G																										
H																										

NON-STANDARD DISTRIBUTION: B:n 1500 copies

a. The Homeland Security Act of 2002 and Homeland Security Presidential Directive Five (HSPD-5), "Management of Domestic Incidents," fundamentally changed how the U.S. prepares for and responds to domestic incidents. As the primary documents for implementing HSPD-5, the NIMS and the National Response Plan (NRP) established a comprehensive approach to incident management and instituted a new national policy and procedures for response. The NIMS ICS is a standardized, all hazard – all risk approach to managing crisis response operations as well as non-crisis events whose principles can be applied to all types of incidents. The Department of Homeland Security (DHS) required all Federal departments and agencies to adopt and fully implement the NIMS ICS by September 2005 as outlined in references (a) through (d).

b. The IMH was revised to include information related to references (a) through (e) as well as small improvements and new tools for the user. The IMH is organized so that the generic information applicable to all types of responses is at the front of the document. For example, the duties and responsibilities of a Planning Section Chief are found in the generic planning section chapter since a Planning Section Chief's job description under ICS does not change from one type of incident to another. The remainder of the IMH is divided into supplements tailored to eight types of incidents the Coast Guard is likely to respond: Terrorism, Search and Rescue; Law Enforcement; Oil Spills; Hazardous Substance Releases (chemical, biological, radiological, and nuclear); Marine Fire; Multi-Casualty and Incidents of National Significance under the NRP.

5. JOB AID AVAILABILITY. USCG NIMS ICS job aids noted in the Handbook and can be found on the Internet at http://homeport.uscg.mil. Coast Guard training courses, if needed, will incorporate the USCG NIMS ICS standard forms since they can be used for the full range of contingencies.

6. FORMS AVAILABILITY. USCG NIMS ICS standard forms included in the Handbook and can be found on the Internet at http://homeport.uscg.mil. Coast Guard training courses, if needed, will incorporate the USCG NIMS ICS standard forms since they can be used for the full range of contingencies.

WAYNE E. JUSTICE
Rear Admiral, U.S. Coast Guard
Director of Enforcement and Incident Management

U.S. COAST GUARD
INCIDENT MANAGEMENT HANDBOOK

INCIDENT COMMAND SYSTEM
(ICS)

PREPARED BY U.S. COAST GUARD
WASHINGTON, D.C. 20593

2006 EDITION

Comments
Please provide comments on this manual to the Coast Guard Headquarters Office of Response, Incident Management and Preparedness:

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CHAPTER 1

INTRODUCTION

The U.S. Coast Guard Incident Management Handbook (IMH) is designed to assist Coast Guard personnel in the use of the National Incident Management System (NIMS) Incident Command System (ICS) during response operations. The IMH is intended to be used as an easy reference job aid for responders. It is not a policy document, but rather guidance for response personnel. During development of the IMH, it was recognized that eighty-percent of all response operations share common principles, procedures and processes. The other twenty-percent of response operations are unique to the type of incident, such as a search and rescue case or an oil spill. The handbook is laid out so that the generic information applicable to all responses is presented up-front. For example, the duties and responsibilities of the Planning Section Chief (PSC) are found in the generic section since a PSC's job description under ICS does not change from one type of incident to another. The remainder of the IMH is divided into eight types of incidents the Coast Guard is most likely to respond to. They are:

- Terrorism
- Search and Rescue
- Law Enforcement
- Oil Spills
- Hazardous Substance (Chemical, Biological, Radiological, Nuclear)
- Marine Fire Fighting and Salvage
- Event Management and National Special Security Event (NSSE)
- Multi-Casualty

Each of the scenario chapters pertain to a specific type of incident provides a situation from which to illustrate how an incident starts off with first responders and escalates to a large multi-agency response organization. The organizational charts in each chapter are only intended as **examples** of how an ICS organization may be developed to respond to that type of incident. Additionally, in each chapter are incident-specific job descriptions that have proven valuable in past response operations. An example of an incident-specific position would be the Vessel Disposition Group Supervisor located in the Law Enforcement chapter.

Coast Guard response personnel may come from any component of the Coast Guard (Active Duty, Reserve, Auxiliary, or Civilian Employees). Responders should have a basic understanding of NIMS and NIMS ICS to ensure they can effectively operate within the ICS organization and properly use and understand this IMH. Please note that acronyms are used extensively throughout this handbook and will not necessarily be identified when first used, however, an acronym list can be found in chapter 25.

CHAPTER 2

COMMON RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following checklist is applicable to all personnel in an ICS organization:

a. Receive assignment from your agency, including:
   - Job assignment (e.g. designation, position, etc.).
   - Brief overview of type and magnitude of incident.
   - Resource order number and request number/Travel Orders (TONO).
   - Travel instructions including reporting location and reporting time.
   - Any special communications instructions (e.g. travel, radio frequency).
   - Monitor incident related information from media, internet, etc., if available.
   - Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.). Maintain a checklist of items and possibly a personal Go-Kit.
   - Inform others as to where you are going and how to contact you.
   - Review Coast Guard Incident Management Handbook.
   - Take advantage of available travel to rest prior to arrival.

b. Upon arrival at the incident, check in at the designated check-in location. Check-in may be found at any of the following locations:
   - Incident Command Post (ICP).
   - Base.
   - Staging Areas.

- Helibases.

Note: If you are instructed to report directly to an on-scene assignment, check in with the Division/Group Supervisor or the Operations Section Chief.

c. Receive briefing from immediate supervisor.
d. Agency representatives from assisting or cooperating agencies report to the Liaison Officer (LNO) at the ICP after check-in.
e. Acquire work materials.
f. Abide by organizational code of ethics.
g. Participate in IMT meetings and briefings as appropriate.
h. Ensure compliance with all safety practices and procedures. Report unsafe conditions to the Safety Officer.
i. Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s), personal safety, and welfare at all times, especially when working in or around incident operations.
j. Organize and brief subordinates.
k. Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
l. Use clear text and ICS terminology (no codes) in all radio communications.
m. Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit.
n. Ensure all equipment is operational prior to each work period.
o. Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or

coworkers to your supervisor.

p. Brief shift replacement on ongoing operations when relieved at operational periods or rotation out.
q. Respond to demobilization orders and brief subordinates regarding demobilization.
r. Prepare personal belongings for demobilization.
s. Return all assigned equipment to appropriate location.
t. Complete Demobilization Check-out process before returning to home base.
u. Participate in After-Action activities as directed.
v. Carry out all assignments as directed.
w. Upon demobilization, notify RESL at incident site and home unit of your safe return.

UNIT LEADER RESPONSIBILITIES

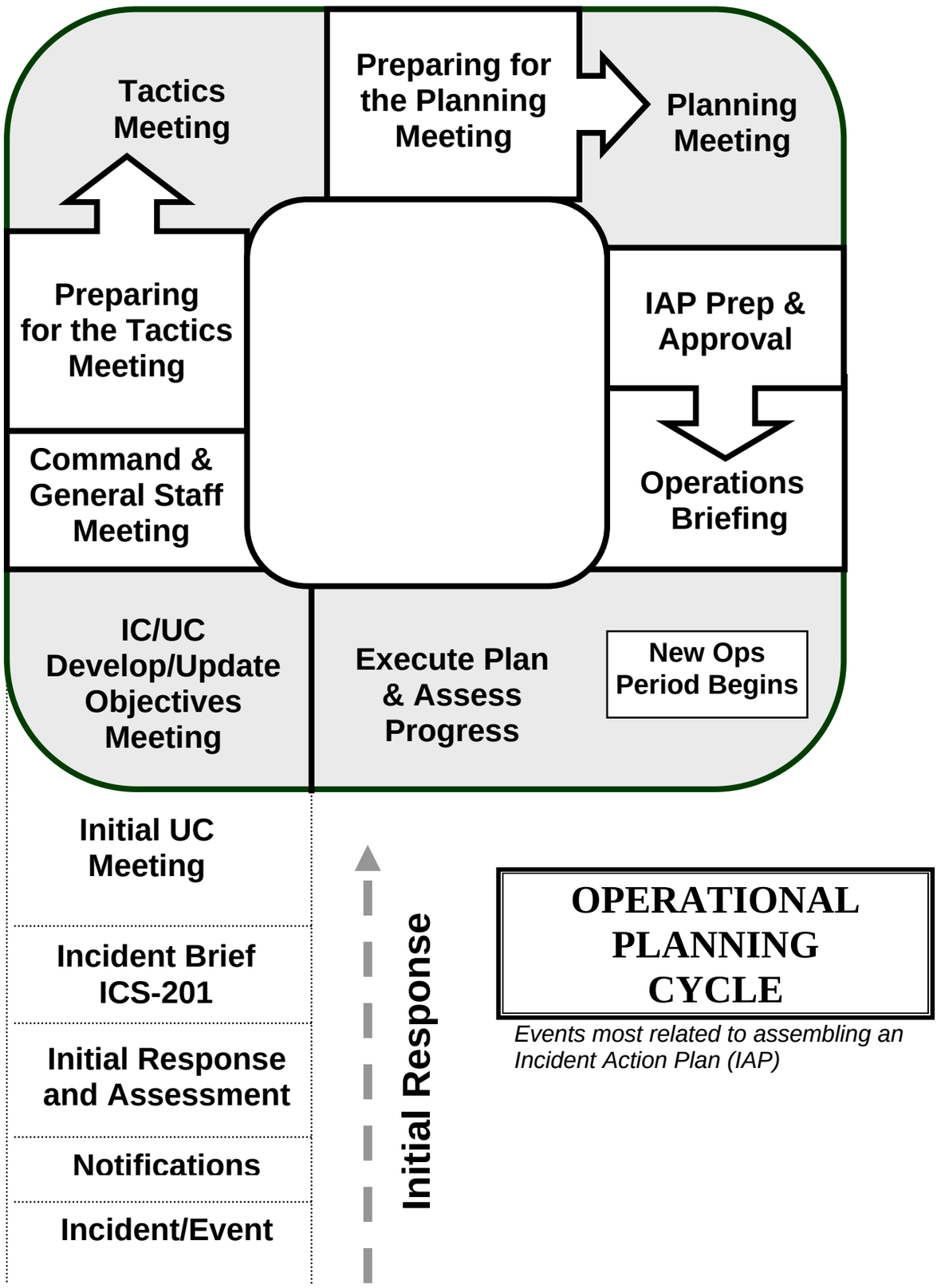
In NIMS ICS, a number of the Unit Leader's responsibilities are common to all functions within the ICS organization. Common responsibilities of Unit Leaders are listed below. These will not be repeated in Unit Leader Position Checklists in subsequent chapters.

a. Review Common Responsibilities in Chapter 2.
b. Upon check-in, receive briefing from Incident Commander, Section Chief, Unit Leader or Branch Director as appropriate.
c. Participate in incident meetings and briefings, as required.
d. Determine current status of unit activities.
e. Determine resource needs.
f. Order additional unit staff, as appropriate.
g. Confirm dispatch and estimated time of arrival of staff and supplies.
h. Assign specific duties to staff and supervise staff.
i. Develop and implement accountability, safety and security measures for personnel and resources.

j. Supervise demobilization of unit, including storage of supplies.
k. Provide Supply Unit Leader with a list of supplies to be replenished.
l. Maintain unit records, including Unit Log (ICS 214-CG).
m. Individual responders may want to maintain personal log of actions, decisions and events.
n. Carry out all assignments as directed.

CHAPTER 3

OPERATIONAL PLANNING CYCLE, MEETINGS, BRIEFINGS, AND THE ACTION PLANNING PROCESS



INITIAL RESPONSE AND ASSESSMENT - The period of Initial Response and Assessment occurs in all incidents. Short-term responses, which are small in scope and/or duration (e.g., a few resources working one operational period), can often be coordinated using only ICS-201-CG (Incident Briefing Form).

INCIDENT BRIEFING (ICS-201) - During the transfer-of-command process, an ICS-201-formatted briefing provides the incoming Incident Commander (IC)/Unified Command (UC) with basic information regarding the incident situation and the resources allotted to the incident. Most importantly it functions as the Incident Action Plan (IAP) for the initial response and remains in force and continues to develop (updated) until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to the Command and General Staff, incoming tactical resources, as well as needed assessment briefings for the staff.

ICS-201-CG facilitates documentation of the current situation, initial response objectives, current and planned actions, resources assigned and requested, on-scene organization structure and incident potential. This form is essential for future planning and the effective management of initial response activities.

When:	New IC/UC; staff briefing as required
Facilitator:	Current IC/UC or (PSC if available)
Attendees:	Prospective IC/UC; Command and General Staff, as available

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General Tasks

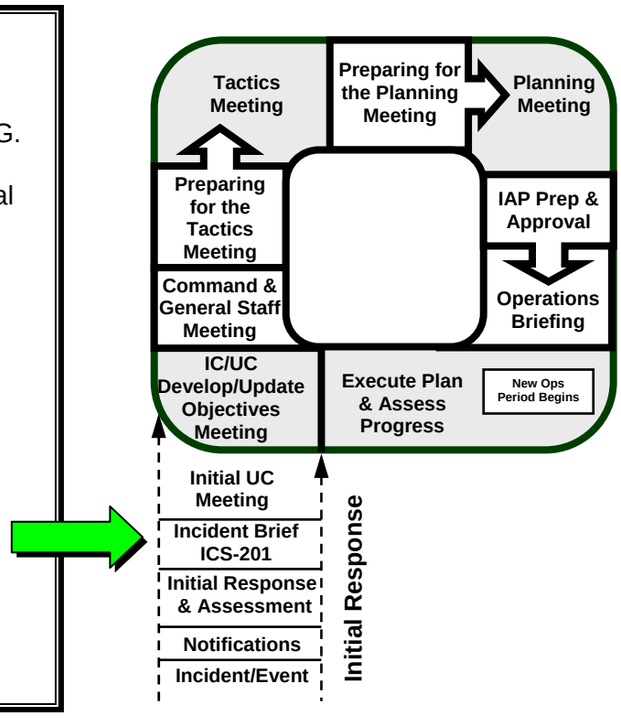
Incident Commander
- Obtains incident brief using ICS-201-CG.
- Assesses operational requirements.
- Determines current/future organizational and response requirements and objectives.

Operations
- Obtains briefing from IC.
- Considers available Contingency Plan.
- Develops strategies and tactics.
- Assembles additional resources.
- Manages response using ICS-201-CG.

Planning
- If available, facilitates briefing.
- If/when activated, orders staff.

Logistics
- If/when activated, orders staff.

Finance/Admin
- If/when activated, orders staff.



Incident Briefing (ICS-201) Agenda:

Using ICS-201-CG as an outline, include:

1. Current situation (note territory, exposures, safety concerns, etc.; use map/charts).
2. Initial objectives and priorities.
3. Current and planned actions.
4. Current on-scene organization.
5. Resource assignments.
6. Resources en-route and/or ordered.
7. Facilities established.
8. Incident potential.

INITIAL UNIFIED COMMAND MEETING - Provides UC officials with an opportunity to discuss and concur on important issues prior to the Unified Command Objectives Meeting. The meeting should be brief and all important decisions and direction documented. Prior to the meeting, IC's should have an opportunity to review and prepare to address the agenda items. The results of this meeting will help to guide the overall response efforts.

When: The UC is formed prior to the first meeting.
Facilitator: UC member or PSC (if available).
Attendees: Only ICs that will comprise the UC, DOCL.

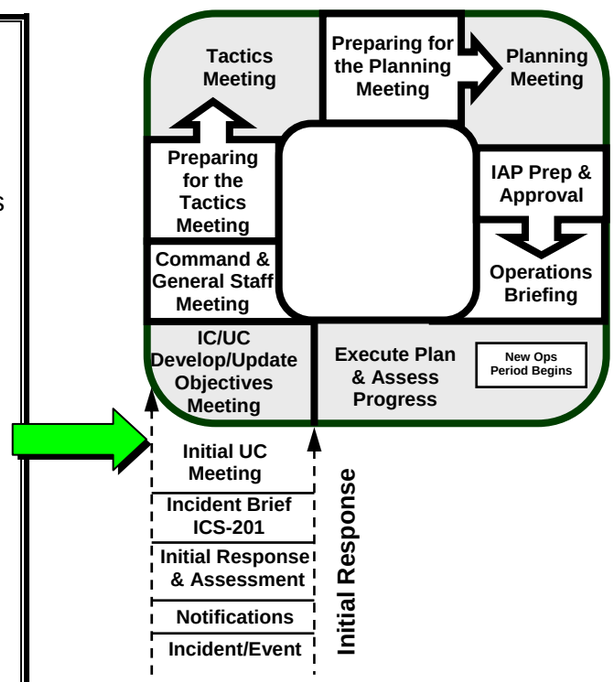
General Tasks

Incident Commander.
- Negotiates UC participation.
- Clarifies UC roles & responsibilities.
- Negotiates and agrees on key decisions including:
- AOR of Incident.
- Name of the incident.
- Overall response organization,
- Location of ICP, facilities, and support.
- Op Period length/start time and work shifts hours.
- OSC and Deputy OSC and
- other key Command and General staff and technical support as needed

Operations
- Briefs UC members on current operations.

Planning
- If available, facilitates and documents meeting.

Logistics & Finance/Admin
- May not be activated at this time.



Initial Unified Command Meeting Agenda:

1. Meeting brought to order, cover ground rules and reviews agenda.
2. Validate makeup of newly formed UC, based on Chapter 5 criteria.
3. Clarify UC Roles and Responsibilities.
4. Review agency policies.
5. Negotiate and agree on Key Decisions which may

include:

a. UC jurisdictional boundaries and focus (Area of Responsibility (AOR)).
b. Name of incident.
c. Overall response organization, including integration of assisting and cooperating agencies.
d. Location of Incident Command Post (if not already identified) and other critical facilities, as appropriate.
e. Operational period length/start time and work shift hours.
f. Best-qualified Operations Section Chief and Deputy.
g. Other key Command and General staff assignments and technical support as needed.

6. Summarize and document key decisions.

UNIFIED COMMAND OBJECTIVES MEETING (Sometimes called STRATEGY MEETING) - The UC will set response priorities, identify any limitations and constraints, develop incident objectives and establish guidelines for the IMT to follow. For reoccurring meetings, all products will be reviewed and updated as needed. Products resulting from this meeting along with decisions and direction from the Initial UC meeting will be presented at the Command and General Staff Meeting.

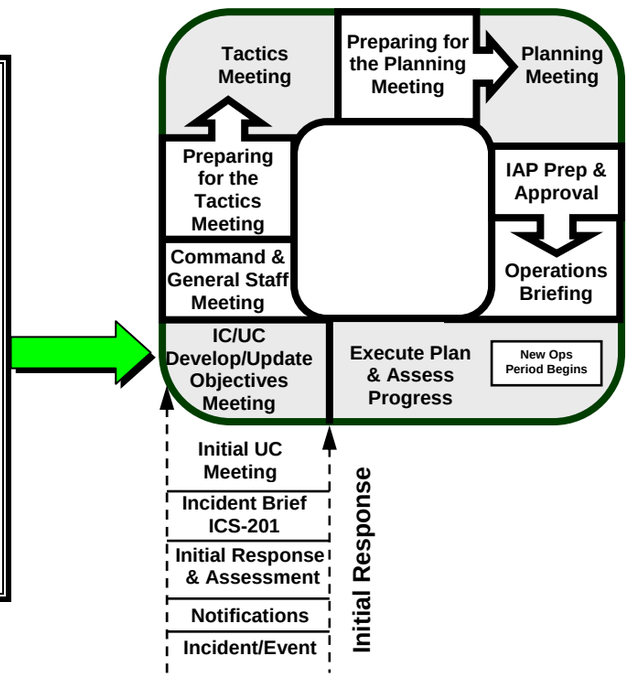
When:	Prior to Command and General Staff Meeting.
Facilitator:	IC/UC Member or PSC (if available).
Attendees:	IC/UC Members; Selected Command and General Staff as appropriate, DOCL.

General Tasks

Command
- Develops incident priorities
- Identifies Limitations and Constraints
- Develops Incident Objectives.
- Identifies Key Procedures
- Develops tasks for Command and General Staff.
- Agree on division of of UC workload

Operations
- May be present if required.

Planning
- Facilitates and documents meeting.
- Proposes draft objectives to Command.



Unified Command Objectives Meeting Agenda:

1. PSC brings meeting to order, conducts roll call, covers ground rules and reviews agenda.
2. Review and/or update key decisions.
3. Develop or review/update response Priorities, Limitations and Constraints.
4. Develop or review Incident Objectives.
5. Develop or review/update Key Procedures which may include:
   a. Managing sensitive information,
   b. Information flow
   c. Resource ordering,
   d. Cost sharing and cost accounting, and
   e. Operational security issues.
6. Develop or review/update tasks for Command and General Staff to accomplish (ICS-233-CG).
7. Review, document and/or resolve status of any open actions (ICS-233-CG).
8. Agree on division of UC workload.
9. Prepare for the Command and General Staff Meeting.

COMMAND AND GENERAL STAFF MEETING –
At the Command and General Staff Meeting, IC/UC will present their decisions and management direction to the Command and General Staff Members. This meeting should clarify and help to ensure understanding among the core IMT members on the decisions, objectives, priorities, procedures and functional assignments (tasks) that the UC has discussed and reached agreement on. Ensuing Command and General Staff Meetings will cover any changes in Command direction, review Open Actions and status of assigned tasks (ICS-233-CG).

When: Prior to Tactics Meeting.
Facilitator: PSC.
Attendees: IC/UC Members, Command and General Staff, SITL, and DOCL

General Tasks

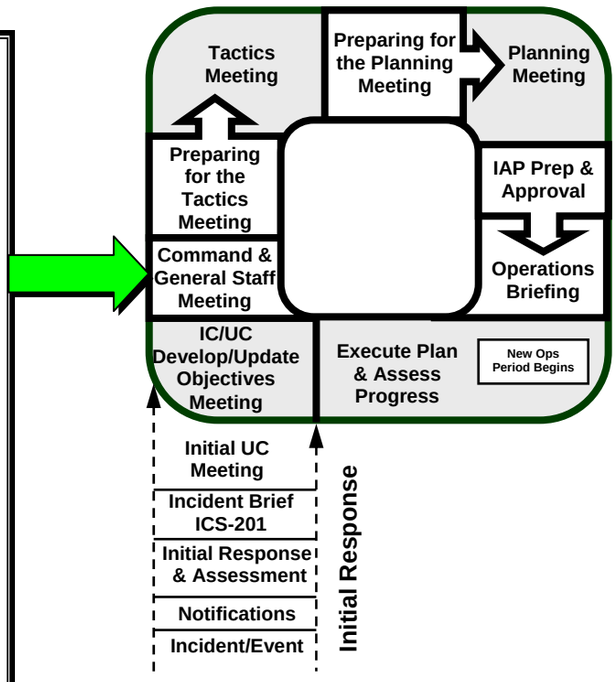
Command
- Reviews key decisions, priorities, constraints, limitations, objectives and procedures.
- Presents/reviews functional work assignments (tasks) to the Command and General Staff members.
- Reviews status of Open Actions, work assignments (tasks) from previous meetings.

Operations
- Provides update on current operations.

Planning
- Facilitates and documents meeting.
- Sets up meeting room.

Situation Unit Leader
- Provides update on current situation and projections if available.

Documentation Unit Leader
- Documents meeting and distributes meeting materials.



Command and General Staff Meeting Agenda:

1. PSC brings meeting to order, conducts roll call, covers ground rules and reviews agenda.
2. SITL conducts situation status briefing.
3. IC/UC
   a. Provides comments.

   b. Reviews key decisions, priorities, constraints and limitations (if new or changed).
   c. Discusses incident objectives,
   d. Reviews key procedures (if new or changed), and
   e. Assigns or reviews functional tasks/open actions (ICS-233-CG).
4. PSC facilitates open discussion to clarify priorities, objectives, assignments, issues, concerns and open actions/tasks.
5. IC/UC provides closing comments.

PREPARING FOR THE TACTICS MEETING – During this phase of the Operational Planning Cycle, the OSC/PSC begin the work of preparing for the upcoming Tactics Meeting. They review incident objectives to determine those that are OSC responsibility and consider Command priorities. They may draft a Work Analysis Matrix (ICS-334-CG) which helps document strategies and tactics to meet those objectives assigned, and should draft an Operational Planning Worksheet (ICS-215-CG) and an Operations Section organization chart for the next operational period. Also, the SOFR should begin to develop the Hazard Risk Analysis Worksheet (ICS-215a-CG). The PSC should facilitate/support this process to the greatest extent possible to ensure that the material, information, resources, etc. to be presented in the Tactics Meeting is organized and accurate.

When: Prior to Tactics Meeting.
Facilitator: PSC facilitates process.
Attendees: None. This is <u>not</u> a meeting but a period of time.

General Tasks

Operations

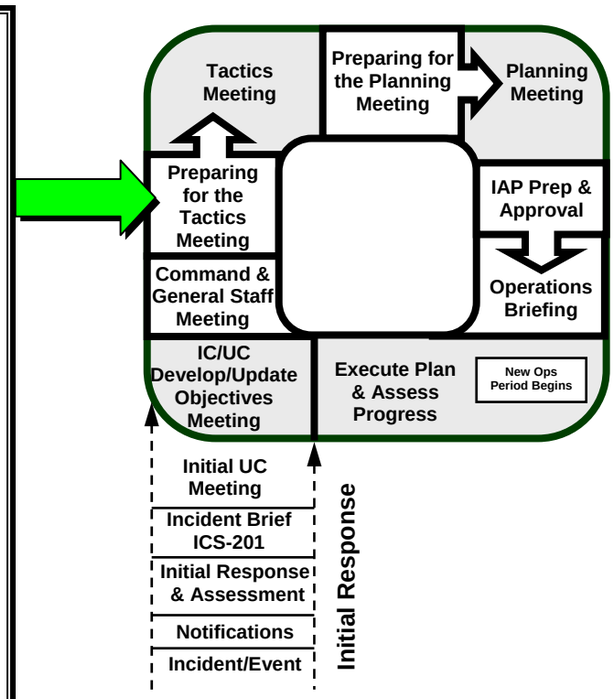
- Develops draft strategies and tactics for each operationally oriented incident objective May use Work Analysis Matrix, ICS-234-CG.
- Develops alternative and/or contingency strategies and tactics.
- Outlines work assignments (tactics) & required resources using ICS-215-CG.
- Develops/outlines Operations Section organization for next operational period.

Planning

- Facilitates process.
- Reviews incident objectives & agrees on those that are the responsibility of the Operations Section to complete.
- Ensures Technical Specialists are included and prepared to contribute as appropriate.
- Presents situation information and provides projections.

Safety Officer

- Begins to develop the Hazard Risk Analysis ICS-215a-CG.



TACTICS MEETING - This 30-minute meeting produces operational input needed to support the IAP. The OSC may present the Work Analysis Matrix (ICS-234-CG), if completed and will present the draft Operational Planning Worksheet (ICS-215-CG). The proposed Operations Section organization will also be presented by OSC and solidified. The SOFR will present the draft Hazard Risk Analysis Worksheet (ICS-215a-CG). OSC/PSC will solicit input of attendees in order to refine these draft products for full staff approval at the Planning Meeting.

When: Prior to Planning Meeting.
Facilitator: PSC.
Attendees: PSC, OSC, LSC, RESL, SITL, SOFR, DOCL, COML, THSP (as needed).

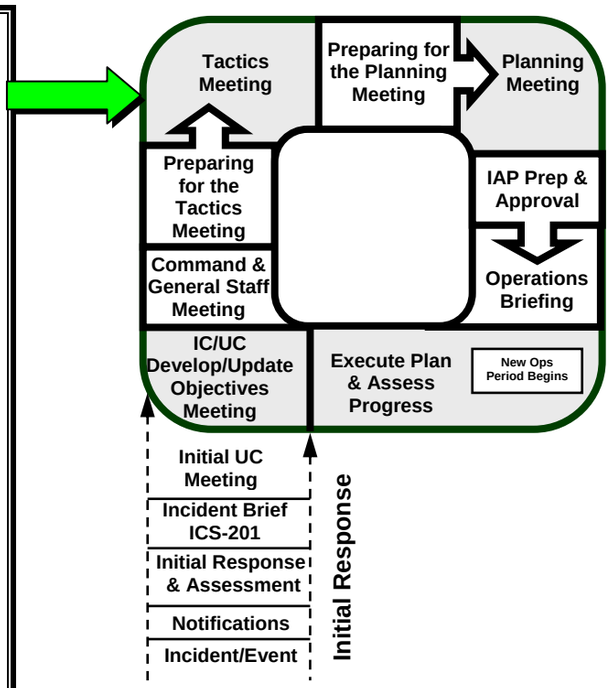
General Tasks

Operations:
- Briefs current operations.
- Presents strategies, tactics and resource needs using ICS-215-CG.
- Identifies alternative strategies.
- Presents Operations Section Organization.

Planning
- Sets up meeting room.
- Facilitates meeting.
- Presents current situation and provides projections.
- Presents resources status.
- Documents meeting.

Safety
- Identifies potential hazards and recommends mitigation measures.
- Presents the Hazard Risk Analysis ICS-215a-CG.

Logistics
- Contributes logistics information as necessary.
- Determines support requirements based on the ICS-215-CG (i.e. facilities and other logistical infrastructure).
- Prepares to order needed resources.



Tactics Meeting Agenda:

1. PSC brings meeting to order, conducts roll call, covers ground rules and reviews agenda.
2. SITL reviews the current & projected incident situation.
3. PSC reviews incident operational objectives and ensures accountability for each.
4. OSC reviews, if completed, the Work Analysis Matrix (ICS-234-CG) strategy and tactics.
5. OSC reviews and/or completes the Operational Planning Worksheet (ICS-215-CG) which addresses work assignments, resource commitments, contingencies and needed support facilities, i.e., Staging Areas.
6. OSC reviews and/or completes Operations Section organization chart.
7. SOFR reviews and/or completes the Hazard Risk Analysis Worksheet (ICS-215a-CG) and identifies and resolves any critical safety issues.

8. LSC discusses and resolves any logistics issues.
9. PSC validates connectivity of tactics and operational objectives.

PREPARING FOR THE PLANNING MEETING

The Command and General Staffs prepare for the upcoming Planning Meeting. The PSC ensures the material, information, resources, etc., used or discussed in the Planning Meeting are prepared and ready for presentation during the meeting.

When: Prior to the Planning Meeting.
Facilitator: PSC facilitates process.
Attendees: None. This is <u>not</u> a meeting but a period of time.

General Tasks

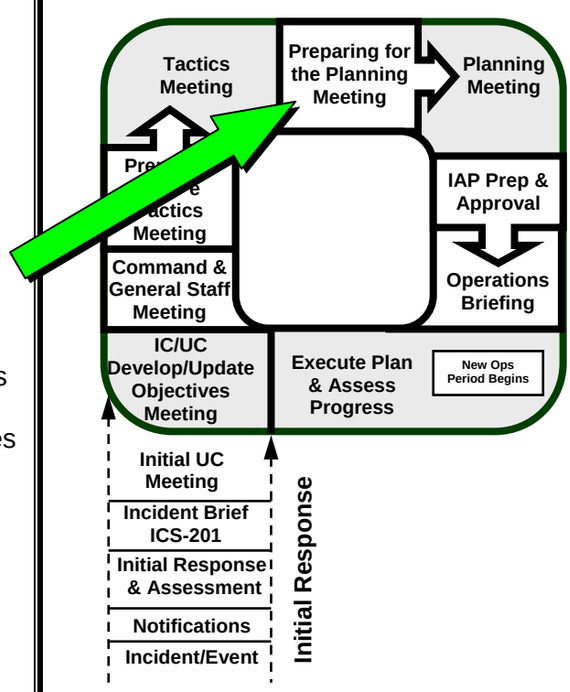
<u>Command</u>
- Prepares further guidance/clarification.
- As needed, meets informally with appropriate staff members.

<u>Operations</u>
- Prepares on-going operations update.
- Prepares final draft ICS-215-CG.
- Coordinates with other staff as needed.

<u>Planning</u>
- Sets up meeting room.
- Develops resource, support and overhead requests and submits to Logistics.
- Publishes/distributes meeting schedule and ensures attendees are prepared.
- Duplicates documents for Command that are needed to support presentations.

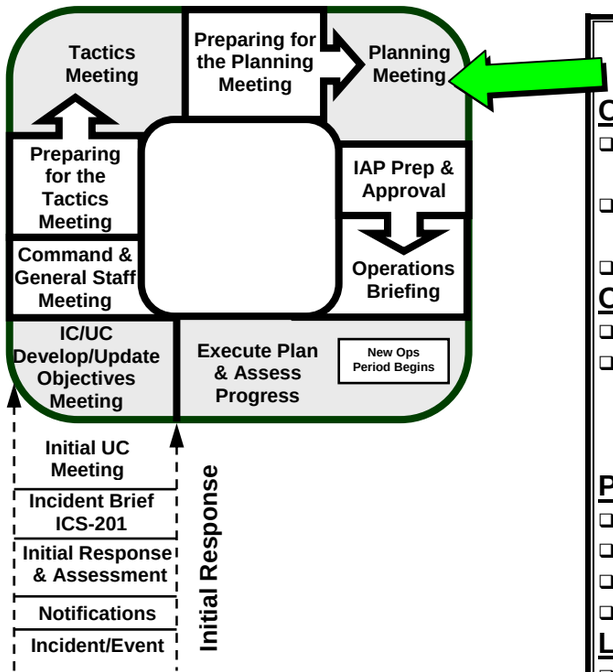
<u>Logistics</u>
- Orders resources to support IAP.
- Considers and orders support requirements, including communications, transportation, medical, etc.
- Prepares for Planning Meeting.
- Verifies support requirements.

<u>Finance/Admin</u>
- Prepares for Planning Meeting.
- Verifies financial and administrative requirements.



PLANNING MEETING - This meeting provides an overview of the tactical plan to achieve Command's current direction, priorities and objectives. The OSC will present the proposed plan to the Command and General Staff for review and comment. OSC will discuss strategy and tactics that were considered and chosen to best meet command's direction for the next operational period. The OSC will also briefly discuss how the incident will be managed along with work assignments and resources and support required to implement the proposed plan. This meeting provides the opportunity for Command and General Staff to discuss and resolve any issues and concerns prior to assembling the IAP. After review and updates are made, planning meeting attendees commit to support the plan.

When: After the Tactics Meeting.
Facilitator: PSC.
Attendees: IC/UC, Command Staff, General Staff, SITL, DOCL and THSP (as required).



General Tasks

Command
- Ensures all of Command's direction, priorities and objectives have been met.
- Provides further direction and resolves differences as needed.
- Gives tacit approval of proposed plan.

Operations
- Provides overview of current OPS.
- Presents plan of action including; strategies, tactics, contingencies, resources, organization structure and overall management considerations i.e. divisions/groups etc.

Planning
- Facilitates meeting.
- Briefs current situation.
- Provides projections.
- Documents meeting.

Logistics
- Briefs logistical support/services and resource ordering status.
- Discusses operational facility issues.

Finance/Admin
- Briefs administrative and financial status/projections, etc.

Command Staff
- Discusses and resolves any Safety, Liaison and Media considerations and issues.

Planning Meeting Agenda:

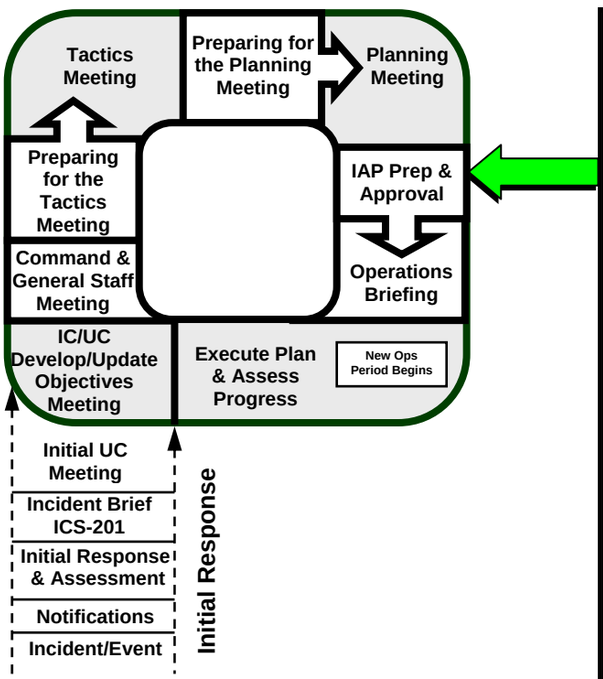
1. PSC brings meeting to order, conducts roll call, covers ground rules and reviews agenda.
2. IC/UC provides opening remarks.
3. SITL provides briefing on current situation, resources at risk, weather/sea forecast and incident projections.
4. PSC reviews Command's incident priorities, decisions and objectives.
5. OSC provides briefing on current operations followed with an overview on the proposed plan including strategy, tactics/work assignments (ICS-215-CG), resource commitment, contingencies, Operations Section organization structure and needed support facilities, i.e., Staging Areas.
6. PSC reviews proposed plan to ensure that Command's priorities and operational objectives are met.
7. PSC reviews and validates responsibility for any open actions/tasks (ICS-233-CG) and management objectives.
8. PSC conducts round robin of Command and General Staff members to solicit their final input and commitment to the proposed plan:
   a. LSC covers transport, communications and supply updates and issues,
   b. FSC covers fiscal issues.
   c. SOFR covers safety issues,
   d. PIO covers public affairs and public information issues,
   e. LNO covers interagency issues and
   f. INTO covers intelligence issues.
9. PSC requests Command's tacit approval of the plan as presented. IC/UC may provide final comments.
10. PSC issues assignments to appropriate IMT members for developing IAP support documentation along with deadlines.

INCIDENT ACTION PLAN PREPARATION AND APPROVAL – Appropriate IMT members must immediately complete the assigned task/products that are needed to include in the IAP. These products must meet the deadline as set by the PSC so that planning can assemble the IAP components. The deadline must be early enough to permit timely IC/UC review, approval, and duplication of sufficient copies for the Operations Briefing and other IMT members.

When: Immediately following the Planning Meeting, the PSC assigns the deadline for products.

Facilitator: PSC facilitates process.

Attendees: None. This is <u>not</u> a meeting but a period of time.



General Tasks

<u>Command</u>
- Reviews, approves and signs IAP.

<u>Operations</u>
- Provides required information for inclusion into IAP (ICS-220-CG).
- Works with Planning to ensure that the chart and ICS-204(s) are complete.

<u>Planning</u>
- Facilitates gathering of required documents and assembles IAP.
- Reviews IAP for completeness.
- Provides completed IAP to IC/UC for review/approval.
- Makes sufficient copies of the IAP.
- Distributes IAP to appropriate team members and files original.

<u>Logistics</u>
- Reviews Logistics Section products for completeness (ICS-205-CG, ICS-206-CG, etc.).
- Provides logistics information for IAP.
- Verifies resources ordered/status.

<u>Finance/Admin</u>
- Verifies financial and administrative requirements for IAP.

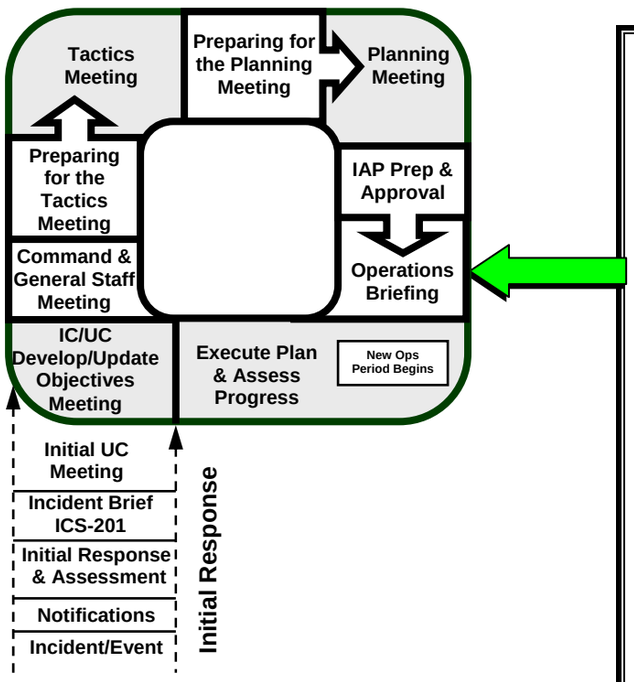
IAP Common Components	Primary Responsibility
1. Incident Objectives (ICS-202-CG).	RESL
2. Organization List/Chart (ICS-203/207-CG).	RESL
3. Assignment List (ICS-204-CG).	RESL
4. Communication Plan (ICS-205-CG).	COML
5. Medical Plan (ICS-206-CG).	MEDL
6. Site Safety Plan (ICS-208-CG).	SOFR
7. Incident Map/Chart.	SITL
8. Weather, tide forecast	SITL

Optional Components (use as pertinent):

1. Air Operations Summary (ICS-220-CG)	AOBD
2. Demobilization Plan	DMOB
3. Transportation Plan	GSUL
4. Decontamination Plan	THSP
5. Waste Management or Disposal Plan	THSP
6. Other Plans and/or documents, as required	

OPERATIONS BRIEFING - This 30-minute, or less, briefing presents the IAP to the Operations Section oncoming shift supervisors. After this briefing has occurred and during shift change, off-going supervisors should be interviewed by their relief and by OSC in order to validate IAP effectiveness. The Division/Group Supervisor may make last minute adjustments to tactics over which they have purview. Similarly, a supervisor may reallocate resources within that Division/Group to adapt to changing conditions.

When: Approximately one hour prior to shift change.
Facilitator: PSC.
Attendees: IC/UC, Command and General Staff, Branch Directors, Division/Group Supervisors, Task Force/Strike Team Leaders (if possible), Unit Leaders, others as appropriate.



General Tasks

Command
- Provides guidance/clarification.
- Provides leadership presence and motivational remarks.

Operations
- Provides Operations Briefing for next operational period.
- Ensures ICS-204 tasking is clear.

Planning
- Sets up briefing area.
- Facilitates Command and General Staff and attendees briefing responsibilities.
- Resolves questions.
- Explains support plans as needed.

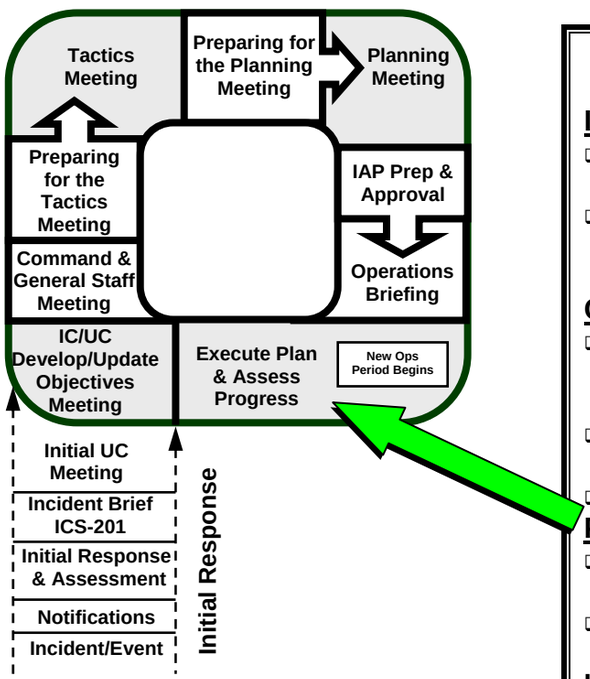
Logistics
- Briefs transportation, communication, and supply issues.

Finance/Admin
- Briefs administrative issues and provides financial report.

Operations Briefing Agenda:

1. PSC opens briefing, covers ground rules, agenda and takes roll call of Command and General Staff and Operations personnel required to attend.
2. PSC reviews IC/UC objectives and changes to the IAP, i.e., pen and ink changes.
3. IC/UC provides remarks.
4. SITL conducts Situation Briefing.
5. OSC discusses current response actions and accomplishments.
6. OSC briefs Operations Section personnel.
7. LSC covers transport, communications and supply updates.
8. FSC covers fiscal issues.
9. SOFR covers safety issues, PIO covers public affairs and public information issues, LNO covers interagency issues and INTO covers intelligence issues.
10. PSC solicits final comments and adjourns briefing.

ASSESS PROGRESS – Assessment is an on-going continuous process to help adjust current operations and help plan for future operations. Following the briefing, and shift change, all Command and General Staff Section Chiefs will review the incident response progress and make recommendations to the IC/UC in preparation for the next IC/UC Objectives Meeting. This feedback/information is continuously gathered from various sources, including Field Observers, responder debriefs, stakeholders, etc. IC/UC should encourage Command and General Staff to get out of the ICP and view first hand the areas of the incident they are supporting.



General Tasks

Incident Commander (IC/UC)
- Monitors on-going incident management activities.
- Considering Best Response practices, evaluates prior decisions, direction, priorities and task assignments.

Operations (OPS)
- Monitors on-going operations and make strategic and tactical changes as necessary.
- Measures/ensures progress against assigned objectives.
- Briefs Command on a scheduled basis.

Planning
- Ensures on-going operational information is being collected and documented.
- Develops new/revised incident objectives and provides to IC/UC.

Logistics
- Evaluates logistical support effectiveness and makes organizational and procedural adjustments as needed.

Finance/Admin
- Monitors ongoing operations to ensure accurate and timely administrative and financial reporting.

Safety Officer
- Monitors ongoing operations and corrects unsafe practices.
- Evaluates effectiveness of the Risk Hazard Analysis (ICS-215a-CG) and Site Safety Plan.

SPECIAL PURPOSE MEETINGS

Special Purpose meetings are most applicable to larger incidents requiring an **Operational Period Planning Cycle**, but may also be useful during the **Initial Response Phase**.

BUSINESS MANAGEMENT MEETING – The purpose of this meeting is to develop and update the Business Management Plan for finance and logistical support. The agenda could include: documentation issues, cost sharing, cost analysis, finance requirements, resource procurement, and financial summary data. Attendees normally include: FSC, COST, PROC, LSC, SITL, and DOCL.

AGENCY REPRESENTATIVE MEETING - This meeting is held to update Agency Representatives and ensure that they can support the IAP. It is conducted by the LNO, and attended by Agency Representatives. It is most appropriately held shortly after the Planning Meeting in order to present the plan (IAP) for the next operational period. It allows for minor changes should the plan not meet the expectations of the Agency Representatives.

MEDIA BRIEFING - This meeting is normally conducted at the Joint Information Center (JIC). Its purpose is to brief the media and the public on the most current and accurate facts. It is set up by the PIO, moderated by a UC spokesperson, and features selected spokespersons. Spokespersons should be prepared by the PIO to address anticipated issues. The briefing should be well-planned, organized, and scheduled to meet media's needs.

TECHNICAL SPECIALIST MEETING – Meetings to gather THSP input to IAP.

DEMOBILIZATION PLANNING MEETING – This meeting is held to gather functional requirements from Command, Command Staff and General Staff that would be included in the incident Demobilization Plan. Functional requirements would include: safety, logistic, and fiscal considerations and release priorities that would be addressed in the plan. Attendees normally include: Command, OSC, PSC, LSC, FSC, LNO, SOFR, INTO PIO and DMOB. The DMOB then prepares a draft Demobilization Plan to include the functional requirements and distributes to Command, Command Staff and General Staff for review and comment.

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CHAPTER 4

KEY DECISIONS, PRIORITIES, RESPONSE OBJECTIVES AND STAFF ASSIGNMENTS

References:

(a) Incident Commander Job Aid
(b) Area Command Job Aid

INTRODUCTION

Incident Commander(s) are responsible for providing direction and guidance to the Incident Management Team (IMT). Command must analyze the overall requirements of the incident and determine the most appropriate direction for the management team to follow during the response. This is accomplished by making key decisions, setting priorities, developing response objectives and assigning work (tasks) to primary staff within the IMT. This chapter can be used by Command to help facilitate their responsibilities. The information/ examples provided can be used as is or modified in response to specific risk applications. See Reference (a) for more information on key Command decisions, priorities, response objectives and staff assignments.

Example Decisions:

- Incident name.
- Organizations/agencies that will be represented in Unified Command.
- Integration of other supporting and cooperating organizations/agencies.
- Support facilities and locations (ICP, Base, JIC etc.).
- Operational period and hours of operation.
- Issuing delegation of authority to staff.
- Critical information reporting process.
- Managing sensitive information.
- Resource ordering, cost sharing and cost accounting.
- Operational security issues.
- Staffing of primary positions (OSC and Deputy).
- Incident Response Priorities.
- IMT Procedures/function.
- How Command will function.

Example Incident Priorities:

- Safety of responders and the public.
- Threat to Homeland Security.
- Minimize adverse impact on the environment.
- Restoration of the transportation infrastructure/ maritime commerce.
- Minimize further loss of property.
- Investigation and apprehension of those responsible.
- Reduce/prevent further threat/attack.

Example Incident Objectives

Safety:

- Provide for the safety and welfare of citizens and response personnel.
- Provide for the safety and security of responders as well as maximize the protection of public health and welfare.
- Identify safety and risk management factors and monitor for compliance for both the public and responders.
- Implement practices that allow for the safety and welfare of the passengers and non-essential crew.
- Conduct Operational Risk Assessment and ensure controls are in place to protect responders and the public.

Search and Rescue:

- Locate and evacuate all passengers and crew.
- Evacuate victims to medical transfer areas or facilities once rescued from immediate peril.
- Establish medical triage along with transport to hospital.
- Complete triage of injured passengers and crew and transport to hospital.
- Conduct joint agency SAR efforts.
- Conduct Urban Search and Rescue.
- Account for and provide temporary shelter for displaced passengers and crew.
- Complete accountability for all passengers and crew.

Fire/Salvage:

- Commence fire fighting operations and contain, extinguish and overhaul fire.
- Conduct damage/stability assessment; develop and implement a salvage plan.
- Implement the salvage and tow plan.

Port, Waterways, and Coastal Security/Law Enforcement:

- Implement security awareness measures including evaluation of changes in incident effects, response conditions, and secondary threats, including potential targeting of first responders and contamination.
- Implement measures to isolate, contain and stabilize the incident, including establishment and adjustment of security perimeters.
- Implement agency and maritime community security plans, including Area Maritime Security Plans (AMSP), to deter and prevent multiple security incidents.
- Establish incident security plan including identification badges and other scene control measures.
- Implement scene integrity and evidence preservation procedures.
- Implement procedures that ensure a coordinated effort is in place for investigation, evidence collection, storage and disposal.
- Investigate cause of incident.
- Identify and implement witness/passenger recovery location(s).
- Establish incident security plan including access documentation (e.g. badge control procedures) and other access control measures.
- Establish and continue enforcement of safety/ security zones.
- Establish/conduct shoreline security to coincide with incident activities and enhanced prevention requirements.
- Perform maritime law enforcement as required.
- Request FAA Implement air space closure and monitoring for compliance.

Waterways Management:

- Conduct port assessment and establish priorities for facilitating commerce.
- Develop/implement transit plan to include final destination/berth for vessel(s).
- Identify safe refuge/berth for impacted vessels.
- Establish and maintain close coordination for possible movement of Homeland or National Security assets (Navy).

Oil/HAZMAT Spills:

- Initiate actions to control the source and minimize the volume released.
- Determine oil/hazmat fate and effect (trajectories) identify sensitive areas, develop strategies for protection and conduct pre-impact shoreline debris removal.
- Contain and recover spilled material (Oil/Hazmat).
- Conduct an assessment and initiate shoreline cleanup efforts.
- Remove product from impacted areas.
- Conduct efforts to effectively contain, clean up, recover and dispose of spilled product.

Environmental:

- Provide protection of environmental sensitive areas including wildlife and historic properties.
- Identify and maximize the protection of environmental sensitive areas.
- Identify threatened species and prepare to recover and rehabilitate injured wildlife.
- Investigate the potential for and if feasible, utilize alternative technologies to support response efforts.

Management:

- Manage a coordinated interagency response effort that reflects the makeup of Unified Command.
- Establish an appropriate IMT organization that can effectively meet the initial and long term challenges required to mitigate the incident.
- Identify all appropriate agency/organization mandates, practices, and protocols for inclusion in the overall response effort.
- Identify and minimize social, political and economic adverse effects.
- Implement a coordinated response with law enforcement and other responding agencies including EOC(s) and the JFO.
- Evaluate all planned actions to determine potential impacts on social, political and economic entities.
- Identify competing response activities (LE and Mitigation) to ensure that they are closely coordinated.
- Identify and establish incident support facilities to support interagency response efforts.
- Keep the public, stakeholders and the media informed of response activities.
- Ensure appropriate financial accounting practices are established and adhered to.
- Establish internal/external resource ordering procedures are established and adhered to.
- Establish an incident documentation system.
- Establish an appropriate structure to facilitate communications with stakeholders and agency/organization coordination facilities.

Example Tasks/Work Assignments:

Incident Management Team members expect Command to assign them specific tasks based on the unique characteristics of an incident. Common tasks

that are normally performed by the staff during responses should not be addressed as tasks. The Operations Section Chief normally receives tasks (work assignments) from Command in the form of incident objectives. Some examples of common tasks (work assignments):

Safety Officer:

- Develop a site safety plan, including support facilities and monitor for compliance.
- Report any serious incidents, accidents, or injuries immediately to command.
- Work closely with Logistics to ensure that appropriate communications are in place to support the response effort.

Public Information Officer:

- Develop a media strategy, Review strategy with Command prior to implementation.
- Establish contact with other Public Information personnel.
- Locate and establish a JIC.
- Provide talking points to Command for press briefings, VIP visits and town hall meetings.
- Keep Command informed of any potential adverse political, social, and economic impacts.

Liaison Officer:

- Develop an action plan to ensure communication and coordination with appropriate stakeholders and submit draft of plan to Command for review and approval.
- Keep Command informed of any stakeholder adverse feelings/relationships that may develop.

Intelligence Officer:

- Identify critical intelligence needs and develop intelligence flow plan and brief IMT.

- Ensure that all requests for information (RFI's) are sent and the Command is briefed on all Field Intelligence Reports (FIR).
- Be central point of coordination for all interagency intelligence organizations: Field Intelligence Support Teams, Joint Terrorism Task Forces, Intelligence Fusion Centers, etc.
- Screen intelligence information for OPSEC/Security Sensitive Information (SSI) classification.

Planning:

- Ensure that all off-site information reporting is approved by Command prior to release.
- Develop a contingency plan for sustaining long-term IMT staffing.
- Brief IMT staff on document control system, including handling and storing secure documents.
- Provide all documents that need review or approval by Command at least one hour prior to implementation or release.

Finance/Admin:

- Provide Command with a summary daily cost estimate.
- Establish a claims system and brief the IMT on the process.
- Advise Command of unusual high cost specialized equipment use.

Logistics:

- Develop and brief the IMT on the internal/external resource ordering process and monitor for compliance.
- Ensure that appropriate security is established at each incident support facility.
- Develop a plan; establish secure communication for both internal and external use and brief IMT staff.

CHAPTER 5

UNIFIED COMMAND

Reference:

(a) Incident Commander Job Aid

INTRODUCTION

Unified Command (UC) is an expansion of the ICS organization. To be a member of the UC you must have authority and jurisdiction. UC members may also include agencies, organizations or private industries bringing large amounts of tactical and support resources to the table. The need for UC is brought about when an incident impacts the jurisdictional or functional responsibility of more than one agency. As a component of ICS, the UC is a structure that brings together the "Incident Commanders" of all major organizations that have jurisdictional responsibility for the incident to coordinate an effective response while carrying out their own agencies jurisdictional responsibilities. UC links the responding organizations to the incident and provides a forum for these agencies to make consensus decisions. Under UC, the various jurisdictions and/or agencies and non-government responders may blend together throughout the organization to create an integrated response team.

The need for UC arises when incidents:

- Cross geographic boundaries (e.g., two states, international boundaries);
- Involve various governmental levels (e.g., Federal, state, local,);
- Impact functional responsibilities (e.g., Search and Rescue, fire, oil spill, EMS); or
- Some combination of the above.

UC Make Up:
Actual UC makeup for a specific incident will be determined on a case-by-case basis taking into account:

(1) The specifics of the incident;
(2) Determinations outlined in existing response plans; or
(3) Decisions reached during the initial meeting of the UC. The makeup of the UC may change as an incident progresses in order to account for changes in the situation.

UC is a team effort, but to be effective the number of personnel should be kept as small as possible. A well-defined process requires the UC to set clear objectives to guide the on-scene response resources.

UC is responsible for overall management of the incident. UC directs incident activities, including development and implementation of overall objectives and strategies, and approves ordering and releasing of resources. UC is not a “decision by committee”. The principals are there to command the response to an incident. Time is of the essence. UC should develop synergy based on the significant capabilities that are brought by the various representatives. There should be personal acknowledgement of each representative’s unique capabilities, a shared understanding of the situation, and agreement on the common objectives. With the different perspectives on UC comes the risk of disagreements, most of which can be resolved through the understanding of the underlying issues. Contentious issues may arise, but the UC framework provides a forum and a process to resolve problems and find solutions.

A cooperative attitude and a thorough understanding are essential. as is a thorough understanding of the ICS Operating Cycle. Nevertheless, situations may arise where consensus agreement may not be reachable. In such instances, the UC member representing the agency with the most jurisdictional responsibility would normally be deferred to for the final decision.

The bottom line is that UC has certain responsibilities as noted above. Failure to provide clear incident objectives and response direction means that UC has failed. While the UC structure is an excellent vehicle (and the only nationally recognized vehicle) for coordination, cooperation, and communication, the duly authorized representatives must make the system work successfully. A strong Command – a single IC or UC – is essential to an effective response.

In order to keep the UC small in numbers; and therefore efficient, it is recommended that one agency in the State or Federal government should be the lead agency to coordinate activities and actions within the State/Federal agencies involved. Specific representatives of various agencies should be encouraged to participate on the response team in the functions that best suit their expertise.

The UC may assign Deputy Incident Commander(s) to assist in carrying out IC and/or UC responsibilities. UC members may also be assigned individual legal and administrative support from their own organizations.

To be considered for inclusion as a UC representative, the involved organization:

1. Must have jurisdictional authority or functional responsibility under a law or ordinance for the incident; and,
2. Must have incident or response operations impact on your organization's Area Of Responsibility (AOR); and,
3. Must be specifically charged by law or ordinance with commanding, coordinating or managing a major aspect of the incident response; and,
4. Should have the resources to support participation in the response organization.

UC representatives must be able to:

- Agree on incident objectives and priorities;
- Have the capability to sustain a 24-hour-7-day-a-week commitment to the incident;
- Have the authority to commit agency or company resources to the incident;
- Have the authority to spend agency or company funds;
- Agree on constraints/limitations, priorities, decisions and procedures;
- Agree on an incident response organization;
- Agree on the appropriate Command and General Staff position assignments to ensure clear direction for on-scene tactical resources;
- Commit to speak with "one voice" through the PIO or JIC, if established;
- Agree on managing sensitive information and operational security issues;
- Agree on logistical support including resource ordering procedures; and
- Agree on cost-sharing and cost accounting procedures, as appropriate.

It is important to note that participation in UC occurs without any agency abdicating authority, responsibility, or accountability.

What if your agency is not represented in UC but is involved in the response effort?
Here is how to ensure your organization's concerns or issues are addressed:

- Serve as an agency or company representative who has direct contact with the Liaison Officer (LNO).
- Provide stakeholder input to the LNO (for environmental, economic, social, or political issues).
- Serve as a Technical Specialist in the Planning Section.
- Provide input directly to a member of UC.

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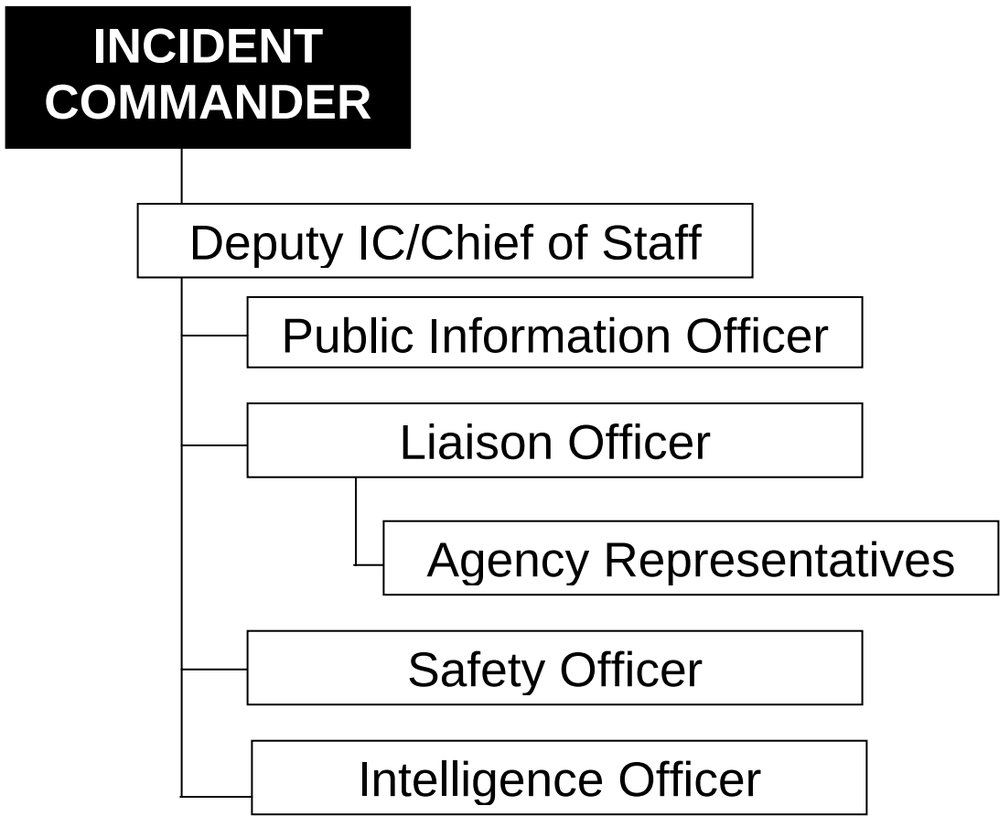
CHAPTER 6

COMMAND STAFF

ORGANIZATION CHART



References:

(a) Incident Commander Job Aid
(b) Public Information Officer Job Aid
(c) Joint Information Center Job Aid
(d) Liaison Officer Job Aid
(e) Safety Officer Job Aid
(f) Intelligence Officer Job Aid

POSITION CHECKLISTS

INCIDENT COMMANDER (IC) – The IC‘s responsibility is the overall management of the incident. On many incidents, the command activity is carried out by a single IC. The IC is selected based on qualifications and experience. The IC Job Aid (reference (a)) should be reviewed regarding the responsibilities and duties of the IC.

The IC may have Deputy IC’s, who may be from the same agency or from an assisting agency. The Deputy IC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. When span of control becomes an issue for the IC, a Deputy IC/Chief of Staff may be assigned to manage the Command Staff.

The major responsibilities of the IC are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain a briefing from the prior IC (201 Briefing).
c. Determine Incident Objectives and general direction for managing the incident.
d. Establish priorities.
e. Establish an ICP.
f. Brief Command Staff and Section Chiefs.
g. Establish an appropriate organization.
h. Ensure planning meetings are scheduled as required.
i. Approve and authorize the implementation of an IAP.
j. Ensure that adequate safety measures are in place.
k. Coordinate activity for all Command and General Staff.
l. Coordinate with key people and officials.
m. Approve requests for additional resources or for

the release of resources.

n. Keep agency administrator informed of incident status.
o. Approve the use of trainees, volunteers, and auxiliary personnel.
p. Authorize release of information to the news media.
q. Ensure Incident Status Summary (ICS 209-CG) is completed and forwarded to appropriate higher authority.
r. Order the demobilization of the incident when appropriate.
s. Maintain Unit Log (ICS 214-CG).

PUBLIC INFORMATION OFFICER (PIO) – The PIO is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations.

Only one primary PIO will be assigned for each incident, including incidents operating under UC and multi-jurisdiction incidents. The PIO may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The PIO and Joint Information Center (JIC) Job Aids (references (b) and (c)) should be reviewed regarding the organization and duties of the PIO.

Agencies have different policies and procedures relative to the handling of public information. The following are the major responsibilities of the PIO, which would generally apply on any incident.

The major responsibilities of the PIO are:

a. Review Common Responsibilities in Chapter 2.
b. Determine from the IC if there are any limits on information release.

c. Develop material for use in media briefings.
d. Obtain IC approval of media releases.
e. Inform media and conduct media briefings.
f. Arrange for tours and other interviews or briefings that may be required.
g. Manage a Joint Information Center (JIC) if established.
h. Obtain media information that may be useful to incident planning.
i. Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.
j. Ensure that all required agency forms, reports and documents are completed prior to demobilization.
k. Brief Command on PIO issues and concerns.
l. Have debriefing session with the IC prior to demobilization.
m. Maintain Unit Log (ICS 214-CG).

LIAISON OFFICER (LNO) – Incidents that are multi-jurisdictional, or have several agencies involved, may require the establishment of the LNO position on the Command Staff. Only one primary LNO will be assigned for each incident, including incidents operating under UC and multi-jurisdiction incidents.

The LNO may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The LNO is assigned to the incident to be the contact for assisting and/or cooperating Agency Representatives. The LNO Job Aid (reference (d)) should be reviewed regarding the organization and duties of the LNO.
The major responsibilities of the LNO are:

a. Review Common Responsibilities in Chapter 2.

b. Be a contact point for Agency Representatives.
c. Maintain a list of assisting and cooperating agencies and Agency Representatives, including name and contact information. Monitor check-in sheets daily to ensure that all Agency Representatives are identified.
d. Assist in establishing and coordinating interagency contacts.
e. Keep agencies supporting the incident aware of incident status.
f. Monitor incident operations to identify current or potential inter-organizational problems.
g. Participate in planning meetings, providing limitations and capability of assisting agency resources.
h. Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the OSC during oil and HAZMAT responses.
i. Coordinate response resource needs for incident investigation activities with the OSC.
j. Coordinate activities of visiting dignitaries.
k. Ensure that all required agency forms, reports and documents are completed prior to demobilization.
l. Brief Command on agency issues and concerns.
m. Have debriefing session with the IC prior to demobilization.
n. Maintain Unit Log (ICS 214-CG).

AGENCY REPRESENTATIVE (AREP) – In many multi-jurisdiction incidents, an agency or jurisdiction may send an AREP who is not on direct tactical assignment, but is there to assist in coordination efforts.

An AREP is an individual assigned to an incident from an assisting or cooperating agency who has been

delegated authority to make decisions on matters affecting that agency's participation at the incident. AREP's report to the LNO or to the IC in the absence of a LNO.

The major responsibilities of the AREPs are:

a. Review Common Responsibilities in Chapter 2.
b. Ensure that all agency resources are properly checked in at the incident.
c. Obtain briefing from the LNO or IC.
d. Inform assisting or cooperating agency personnel on the incident that the AREP position for that agency has been filled.
e. Attend briefings and planning meetings as required.
f. Provide input on the use of agency resources unless resource Technical Specialists (THSP) are assigned from the agency.
g. Cooperate fully with the IC and the General Staff on agency involvement at the incident.
h. Ensure the well-being of agency personnel assigned to the incident.
i. Advise the LNO of any special agency needs or requirements.
j. Report to home agency dispatch or headquarters on a pre-arranged schedule.
k. Ensure that all agency personnel and equipment are properly accounted for and released prior to departure.
l. Ensure that all required agency forms, reports and documents are completed prior to demobilization.
m. Have a debriefing session with the LNO or IC before demobilization.
n. Maintain Unit Log (ICS 214-CG).

SAFETY OFFICER (SOFR) – The SOFR function is to develop and recommend measures for assuring

personnel safety and to assess and/or anticipate hazardous and unsafe situations. Only one primary SOFR will be assigned for each incident. The SOFR Job Aid (reference (e)) should be reviewed regarding the organization and duties of the SOFR.

The SOFR may have assistants, as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities, such as air operations, hazardous materials, etc.

The major responsibilities of the SOFR are:

a. Review Common Responsibilities in Chapter 2.
b. Participate in tactics and planning meetings, and other meetings and briefings as required.
c. Identify hazardous situations associated with the incident.
d. Review the IAP for safety implications.
e. Provide safety advice in the IAP for assigned responders.
f. Exercise emergency authority to stop and prevent unsafe acts.
g. Investigate accidents that have occurred within the incident area.
h. Assign assistants, as needed.
i. Review and approve the Medical Plan (ICS 206-CG).
j. Develop the Site Safety Plan and publish Site Safety Plan Summary (ICS 208-CG) as required.
k. Develop the Work Safety Analysis Worksheet (ICS-215a-CG) as required.
l. Ensure that all required agency forms, reports and documents are completed prior to demobilization.
m. Brief Command on safety issues and concerns.
n. Have debriefing session with the IC prior to demobilization.

o. Maintain Unit Log (ICS 214-CG).

INTELLIGENCE OFFICER (INTO) – For the U.S. Coast Guard, the intelligence function has been determined to best fit as the INTO. For more information on the Intelligence function, see Chapter 11. The responsibility of the INTO is to provide Command intelligence information that can have a direct impact on the safety of response personnel and influence the disposition of maritime security assets involved in the response.

The major responsibilities of the INTO are:

a. Review Common Responsibilities in Chapter 2.
b. Participate in meetings and briefings as required.
c. Collect and analyze incoming intelligence information from all sources.
d. Determine the applicability, significance, and reliability of incoming intelligence information.
e. As requested, provide intelligence briefings to the IC/UC.
f. Provide intelligence briefings in support of the ICS Planning Cycle.
g. Provide Situation Unit with periodic updates of intelligence issues that impact the incident response.
h. Review the IAP for intelligence implications.
i. Answer intelligence questions and advise Command and General Staff as appropriate.
j. Supervise, coordinate, and participate in the collection, analysis, processing, and dissemination of intelligence.
k. Assist in establishing and maintaining systematic, cross-referenced intelligence records and files.
l. Establish liaison with all participating law enforcement agencies including the CGIS, FBI/JTTF, State and Local police departments.

m. Conduct first order analysis on all incoming intelligence and fuse all applicable incoming intelligence with current intelligence holdings in preparation for briefings.
n. Prepare all required intelligence reports and plans.
o. As the incident dictates, determine need to implant Intelligence Technical Specialists in the Planning and Operations Sections.
p. Ensure that all required agency forms, reports and documents are completed prior to demobilization.
q. Have debriefing session with the IC prior to demobilization.
r. Maintain Unit Log (ICS 214-CG).

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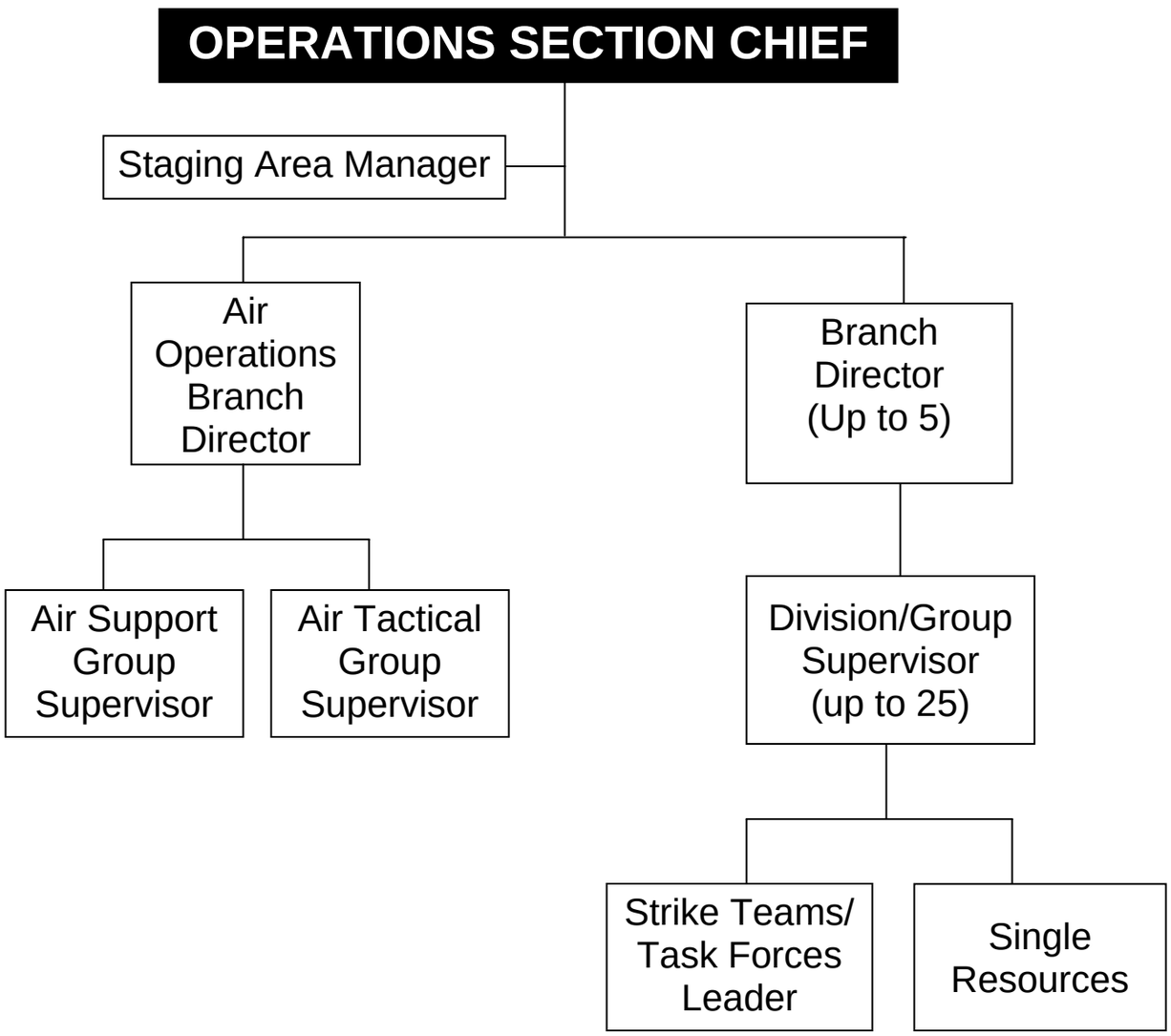
AUGUST 2006

CHAPTER 7

OPERATIONS SECTION

ORGANIZATION CHART



Reference:

(a) Operations Section Chief Job Aid

POSITION CHECKLISTS

OPERATIONS SECTION CHIEF (OSC) – The OSC, a member of the General Staff, is responsible for the management of all tactical operations directly applicable to the primary mission. The OSC will normally be selected from the organization/agency with the most jurisdictional responsibility for the incident.

The OSC activates and supervises organization elements in accordance with the IAP and directs its execution. The OSC also directs the preparation of operational plans; requests or releases resources, monitors operational progress and makes expedient changes to the IAP, as necessary; and reports such to the IC. The OSC Job Aid, Reference (a), should be reviewed regarding the organization and duties of the OSC.

The OSC may have Deputy OSC's, who may be from the same agency or from an assisting agency. The Deputy OSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. In complex incidents, the OSC may assign a Deputy OSC to supervise on-scene operations (major responsibilities (d) through (k) listed below) while the OSC participates in the incident planning process (major responsibilities (l) through (w) listed below).

The major responsibilities of the OSC are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain briefing from IC.
c. Evaluate and request sufficient Section supervisory staffing for both operational and planning activities.
d. Supervise Operations Section field personnel.

e. Implement the IAP for the Operations Section.
f. Evaluate on-scene operations and make adjustments to organization, strategies, tactics, and resources as necessary.
g. Ensure the Resources Unit is advised of changes in the status of resources assigned to the section.
h. Ensure that Operations Section personnel execute work assignments following approved safety practices.
i. Monitor need for and request additional resources to support operations as necessary.
j. Assemble/dissemble task force/strike teams as appropriate.
k. Identify/utilize staging areas.
l. Evaluate and monitor current situation for use in next operational period planning.
m. Convert operational incident objectives into strategic and tactical options. These options may be documented on a Work Analysis Matrix (ICS-234-CG).
n. Coordinate and consult with the PSC, SOFR technical specialists, modeling scenarios, trajectories, etc., on selection of appropriate strategies and tactics to accomplish objectives.
o. Identify kind and number of resources required to support selected strategies.
p. Subdivide work areas into manageable units.
q. Develop work assignments and allocate tactical resources based on strategic requirements (i.e. develop the ICS-215-CG).
r. Coordinate planned activities with the SOFR to ensure compliance with safety practices.
s. Participate in the planning process and the development of the tactical portions (ICS 204-CG and ICS 220-CG) of the IAP.
t. Assist with development of long-range strategic, contingency, and demobilization plans.

u. Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
v. Receive and implement applicable portions of the incident Demobilization Plan.
w. Participate in operational briefings to IMT members as well as briefings to media, and visiting dignitaries.
x. Maintain Unit Log (ICS 214-CG).

BRANCH DIRECTOR (OPBD) – The OPBD's when activated, are under the direction of the OSC and are responsible for the implementation of the portion of the IAP appropriate to the Branches.

The major responsibilities of the OPBD are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain briefing from person relieving.
c. Receive briefing from the OSC.
d. Identify Divisions, Groups, and resources assigned to the Branch.
e. Ensure that Division and/or Group Supervisors (DIVS) have a copy of the IAP.
f. Implement IAP for the Branch.
g. Develop with subordinates alternatives for Branch control operations.
h. Review Division/Group Assignment Lists (ICS 204-CG) for Divisions/Groups within the Branch. Modify lists based on effectiveness of current operations.
i. Assign specific work tasks to DIVS.
j. Supervise Branch operations.
k. Resolve logistic problems reported by subordinates.
l. Attend planning meetings as requested by the OSC.
m. Ensure through chain of command that Resources Unit is advised of changes in the

status of resources assigned to the Branch.

n. Report to OSC when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
o. Approve accident and medical reports (home agency forms) originating within the Branch.
p. Consider demobilization well in advance.
q. Debrief with OSC and/or as directed at the end of each shift.
r. Maintain Unit Log (ICS 214-CG).

DIVISION/GROUP SUPERVISOR (DIVS) – The DIVS reports to the OSC (or OPBD when activated). The DIVS is responsible for the implementation of the assigned portion of the IAP, assignment of resources within the Division/Group, and reporting on the progress of control operations and status of resources within the Division/Group.

The major responsibilities of the DIVS are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain briefing from person relieving.
c. Receive briefing from supervisor.
d. Identify resources assigned to the Division/ Group.
e. Provide the IAP to subordinates, as needed.
f. Review Division/Group assigned tasks and incident activities with subordinates.
g. Implement IAP for Division/Group.
h. Supervise Division/Group resources and make changes as appropriate.
i. Ensure through chain of command that Resources Unit is advised of all changes in the status of resources assigned to the Division/ Group.
j. Coordinate activities with adjacent Division/ Group.

k. Determine need for assistance on assigned tasks.
l. Submit situation and resources status information to the Branch Director or the OSC as directed.
m. Report hazardous situations, special occurrences, or significant events, e.g., accidents, sickness, discovery of unanticipated sensitive resources, to the immediate supervisor.
n. Maintain Unit Log (ICS 214-CG).
o. Ensure that assigned personnel and equipment get to and from assignments in a timely and orderly manner.
p. Resolve logistics problems within the Division/ Group.
q. Participate in the development of Branch plans for the next operational period, as requested.
r. Consider demobilization well in advance.
s. Debrief as directed at the end of each shift.
t. Maintain Unit Log (ICS 214-CG).

STRIKE TEAM/TASK FORCE LEADER (STCR/TFLD) – The STCR/TFLD reports to an OPBD or DIVS and is responsible for performing tactical assignments assigned. The Leader reports work progress, resources status, and other important information and maintains work records on assigned personnel.
The major responsibilities of the STCR/TFLD are:

a. Review Common Responsibilities in Chapter 2.
b. Review Common Unit Leader Responsibilities in Chapter 2.
c. Obtain briefing from person you are relieving.
d. Obtain briefing from supervisor.
e. Review assignments with subordinates and assign tasks.
f. Monitor work progress and make changes when necessary.
g. Keep supervisor informed of progress and any changes.

h. Coordinate activities with adjacent Strike Teams, Task Forces and single resources.
i. Travel to and from active assignment area with assigned resources.
j. Retain control of assigned resources while in available or out-of-service status.
k. Submit situation and resource status information through chain of command DIVS/OPBD/OSC as appropriate.
l. Debrief as directed at the end of each shift.
m. Maintain Unit Log (ICS 214-CG).

SINGLE RESOURCE – The person in charge of a single tactical resource.

The major responsibilities of the Single Resource Leader are:

a. Review Common Responsibilities in Chapter 2.
b. Review assignments.
c. Obtain briefing from person you are relieving.
d. Obtain necessary equipment and supplies.
e. Review weather/environmental conditions for assignment area.
f. Brief subordinates on safety measures.
g. Monitor work progress.
h. Ensure adequate communications with supervisor and subordinates.
i. Keep supervisor informed of progress and any changes.
j. Inform supervisor of problems with assigned resources.
k. Brief relief personnel, and advise them of any change in conditions.
l. Return equipment and supplies to appropriate unit.
m. Complete and turn in all time and use records on personnel and equipment.
n. Debrief as directed at the end of each shift.

o. Maintain Unit Log (ICS 214-CG).

STAGING AREA MANAGER (STAM) – The STAM is under the direction of the OSC and is responsible for managing all activities within a Staging Area.
The major responsibilities of the STAM are:

a. Review Common Responsibilities in Chapter 2.
b. Proceed to Staging Area.
c. Obtain briefing from person you are relieving.
d. Establish Staging Area layout.
e. Determine any support needs for equipment, feeding, sanitation and security.
f. Establish check-in function as appropriate.
g. Ensure security of staged resources.
h. Post areas for identification and traffic control.
i. Request maintenance service for equipment at Staging Area as appropriate.
j. Respond to request for resource assignments. (Note: This may be direct from the OSC or via the Incident Communications Center.)
k. Obtain and issue receipts for radio equipment and other supplies distributed and received at Staging Area.
l. Determine required resource levels from the OSC.
m. Advise the OSC when reserve levels reach minimums.
n. Maintain and provide status to Resource Unit of all resources in Staging Area.
o. Maintain Staging Area in orderly condition.
p. Demobilize Staging Area in accordance with the Incident Demobilization Plan.
q. Debrief with OSC or as directed at the end of each shift.
r. Maintain Unit Log (ICS 214-CG).

AIR OPERATIONS BRANCH DIRECTOR (AOBD) – The AOBD is ground-based and is primarily responsible for preparing the Air Operations Summary Worksheet (ICS 220-CG), the air operations portion of the IAP and for providing logistical support to incident aircraft. The Air Operations Summary Worksheet (ICS 220-CG) serves the same purpose as the Work Assignment (ICS 204-CG) does for other operational resources, by assigning and managing aviation resources on the incident. The Air Operations Summary Worksheet (ICS-220-CG) may or may not be completed depending on the needs of the incident. The AOBD will ensure that agency directives, to include Coast Guard Air Operations Manual, COMDTINST M3710.1(series), flight manuals, unit restrictions, and other agency directives will not be violated by incident aircraft, e.g., flight hours, hoist limitations, night flying, etc. Individual aircrews retain primary responsibility to ensure their aircraft are operated in accordance with their own agency's restrictions and directives. It is also the responsibility of individual aircrews to keep the AOBD informed of their agency’s restrictions and directives that may affect their ability to execute incident assignments. After the IAP is approved, the AOBD is responsible for overseeing the tactical and logistical assignments of the Air Operations Branch. In coordination with the Logistics Section, the AOBD is responsible for providing logistical support to aircraft operating on the incident.

The major responsibilities of the AOBD are:

a. Review Common Responsibilities in Chapter 2.
b. Organize preliminary air operations.
c. Coordinate airspace use with the FAA. Request declaration (or cancellation) of Temporary Flight Restriction (TFR) IAW FAR 91.173 and post Notice to Airmen (NOTAM) as required.
d. Attend the tactics meeting and planning meeting to

obtain information for completing the Air Operations Summary Worksheet (ICS 220-CG), if needed.

e. Participate in preparation of the IAP through the OSC. Insure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
f. Coordinate with the COML to designate air tactical and support frequencies.
g. Perform operational planning for air operations.
h. Prepare and provide Air Operations Summary Worksheet (ICS 220-CG), if completed, to the Air Support Group and Fixed-Wing Bases.
i. Supervise all air operations activities associated with the incident.
j. Evaluate helibase and helispot locations.
k. Establish procedures for emergency reassignment of aircraft.
l. Coordinate approved flights of non-incident aircraft in the TFR.
m. Coordinate Coast Guard air assets with the appropriate Command Center(s) through normal channels on incident air operations activities.
n. Consider requests for logistical use of incident aircraft.
o. Report to the OSC on air operations activities.
p. Report special incidents/accidents.
q. Develop Aviation Site Safety Plan in concert with SOFR.
r. Arrange for an accident investigation team when warranted.
s. Debrief with OSC as directed at the end of each shift.
t. Maintain Unit Log (ICS 214-CG).

AIR TACTICAL GROUP SUPERVISOR (ATGS) – The ATGS is primarily responsible for tactical operations of

aircraft and aircrews. This includes: 1) providing fuel and other supplies; 2) providing maintenance and repair of aircraft; 3) keeping records of aircraft activity, and 4) providing enforcement of safety regulations. The ATGS reports to the AOBD.

The major responsibilities of the ATGS are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain a copy of the IAP from the AOBD, including Air Operations Summary Worksheet (ICS 220-CG), if completed.
c. Participate in AOBD planning activities.
d. Inform AOBD of group activities.
e. Identify resources/supplies dispatched for the Air Tactical Group.
f. Request special air tactical items from appropriate sources through Logistics Section.
g. Coordinate activities with AOBD.
h. Obtain assigned ground-to-air frequency for airbase operations from the Communications Unit Leader (COML) or Incident Radio Communications Plan (ICS 205-CG).
i. Inform AOBD of capability to provide night flying service.
j. Ensure compliance with each agency's operations checklist for day and night operations.
k. Debrief as directed at the end of each shift.
l. Maintain Unit Log (ICS 214-CG).

AIR SUPPORT GROUP SUPERVISOR (ASGS) – The ASGS is primarily responsible for supporting aircraft and aircrews. This includes: 1) providing fuel and other supplies; 2) providing maintenance and repair of aircraft; 3) keeping records of aircraft activity, and 4) providing enforcement of safety regulations. The ASGS reports to the AOBD.

The major responsibilities of the ASGS are:

a. Review Common Responsibilities in Chapter 2.

b. Obtain a copy of the IAP from the AOBD, including Air Operations Summary Worksheet (ICS 220-CG), if completed.
c. Participate in AOBD planning activities.
d. Inform AOBD of group activities.
e. Identify resources/supplies dispatched for the Air Support Group.
f. Request special air support items from appropriate sources through Logistics Section.
g. Determine need for assignment of personnel and equipment at each airbase.
h. Coordinate activities with AOBD.
i. Obtain assigned ground-to-air frequency for airbase operations from the Communications Unit Leader (COML) or Incident Radio Communications Plan (ICS 205-CG).
j. Inform AOBD of capability to provide night flying service.
k. Ensure compliance with each agency's operations checklist for day and night operations.
l. Ensure dust abatement procedures are implemented at helibases and helispots.
m. Provide crash-rescue service for helibases and helispots.
n. Debrief as directed at the end of each shift.
o. Maintain Unit Log (ICS 214-CG).

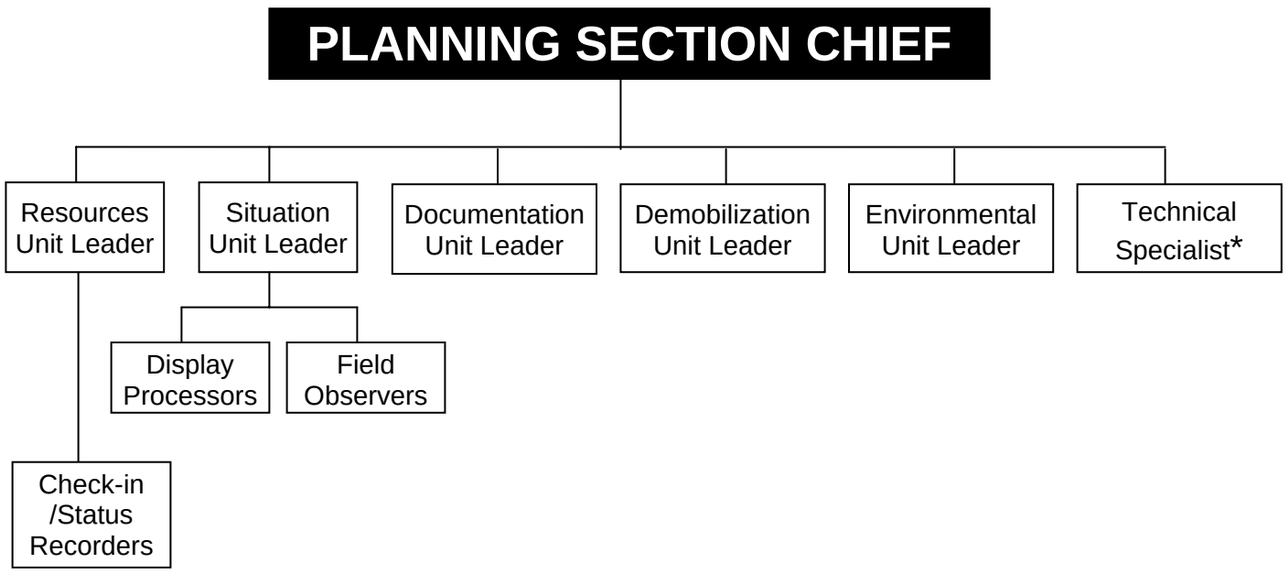
TECHNICAL SPECIALISTS (THSP) – Certain incidents or events may require the use of THSP’s who have specialized knowledge and expertise. THSP’s may function within the Planning Section or be assigned wherever their services are required. See chapter 8 and the THSP Job Aid for more detailed information on THSP’s.

AUGUST 2006

CHAPTER 8

PLANNING SECTION

ORGANIZATION CHART



*** May be assigned wherever their services are required.**

References:

(a) Planning Section Chief Job Aid
(b) Resource Unit Leader Job Aid
(c) Situation Unit Leader Job Aid
(d) Documentation Unit Leader Job Aid
(e) Demobilization Unit Leader Job Aid
(f) Environmental Unit Leader Job Aid
(g) Technical Specialist Job Aid

POSITION CHECKLISTS

PLANNING SECTION CHIEF (PSC) – The PSC, a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of incident information and maintaining status of assigned resources. Information is needed to:

1) Understand the current situation;
2) Predict the probable course of incident events;
3) Prepare strategies, plans and alternative strategies and plans for the incident; and
4) Submit required incident status reports.

The PSC Job Aid, reference (a), should be reviewed regarding the organization and duties of the PSC.

The PSC may have Deputy PSC's, who may be from the same agency or from an assisting agency. The Deputy PSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

The major duties of the PSC are:

a. Review Common Responsibilities in Chapter 2.
b. Collect, process, and display incident information.
c. Assist OSC in the development of response strategies.
d. Supervise preparation of the IAP.
e. Facilitate planning meetings and briefings.
f. Supervise the tracking of incident personnel and resources through the Resources Unit.
g. Assign personnel already on-site to ICS organizational positions as appropriate.
h. Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation).
i. Determine the need for any specialized resources in support of the incident.

j. Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
k. Assemble information on alternative strategies.
l. Provide periodic predictions on incident potential.
m. Keep IMT apprised of any significant changes in incident status.
n. Compile and display incident status information.
o. Oversee preparation and implementation of the Incident Demobilization Plan.
p. Incorporate plans (e.g., Traffic, Medical, Communications, and Site Safety) into the IAP.
q. Develop other incident supporting plans (e.g., salvage, transition, security).
r. Review PSC Job Aid.
s. Maintain Unit Log (ICS 214-CG).

RESOURCE UNIT LEADER (RESL) – The RESL is responsible for maintaining the status of all assigned tactical resources and personnel at an incident. This is achieved by overseeing the check-in of all tactical resources and personnel, maintaining a status-keeping system indicating current location and status of all these resources. The RESL Job Aid, Reference (b), should be reviewed regarding the organization and duties of the RESL.

The major responsibilities of the RESL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Establish the check-in function at incident locations.
d. Prepare Organization Assignment List (ICS 203-CG) and Organization Chart (ICS 207-CG).
e. Prepare appropriate parts of Division Assignment Lists (ICS 204-CG).
f. Maintain and post the current status and location of all tactical resources.

g. Maintain master roster of all tactical resources checked in at the incident.
h. Attend meetings and briefings as required by the PSC.
i. Review Resource Unit Leader Job Aid.
j. Maintain Unit Log (ICS 214-CG).

CHECK-IN/STATUS RECORDER (SCKN) – SCKN's are needed at each check-in location to ensure that all resources assigned to an incident are accounted for. The major responsibilities of the SCKN are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain required work materials, including Check-in Lists (ICS 211-CG), Resource Status Cards (ICS-219) and status display boards or T-card racks.
c. Post signs so that arriving resources can easily find incident check-in location(s).
d. Record check-in information on Check-in Lists (ICS 211-CG).
e. Transmit check-in information to the RESL.
f. Forward completed ICS 211-CG and Status Change Cards (ICS-210) to the RESL.
g. Receive, record, and maintain resource status information on Resource Status Cards (ICS-219) for incident-assigned tactical resources, and overhead personnel.
h. Maintain files of Check-in Lists (ICS 211-CG).
i. Maintain Unit Log (ICS 214-CG).

SITUATION UNIT LEADER (SITL) – The Situation Unit Leader is responsible for collecting, processing and organizing incident information relating to the growth, mitigation or intelligence activities taking place on the incident. The SITL may prepare future projections of incident growth, maps and intelligence information. The

SITL Job Aid, reference (c), should be reviewed regarding the organization and duties of the SITL.
The major responsibilities of the SITL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Begin collection and analysis of incident data as soon as possible.
d. Prepare, post, or disseminate resource and situation status information as required, including special requests.
e. Prepare periodic predictions or as requested by the PSC.
f. Prepare the Incident Status Summary Form (ICS 209-CG).
g. Provide photographic services and maps if required.
h. Conduct situation briefings at meetings and briefings as required by the PSC.
i. Develop and maintain master chart(s)/map(s) of the incident.
j. Maintain chart/map of incident in the common area of the ICP for all responders to view.
k. Maintain Unit Log (ICS 214-CG).

DISPLAY PROCESSOR (DPRO) – The DPRO is responsible for the display of incident status information obtained from Field Observers (FOBS), resource status reports, aerial and other photographs, and infrared data.
The major responsibilities of the DPRO are:

a. Review Common Responsibilities in Chapter 2.
b. Determine:
    - Location of work assignment
    - Numbers, types and locations of displays required
    - Priorities

- Map requirements for the IAP
- Time limits for completion

c. Obtain necessary equipment and supplies.
d. Assist SITL in analyzing and evaluating field reports.
e. Develop required displays in accordance with time limits for completion. Examples of displays include:
   - GIS information
   - Demographic information
   - Incident projection data
   - Enlargement of ICS forms
f. Maintain Unit Log (ICS 214-CG).

FIELD OBSERVER (FOBS) – The FOBS is responsible for collecting situation information from personal observations at the incident and provides this information to the SITL. The major responsibilities of the FOBS are:

a. Review Common Responsibilities in Chapter 2.
b. Determine:
   - Location of assignment
   - Type of information required
   - Priorities
   - Time limits for completion
   - Method of communication
   - Method of transportation
c. Obtain necessary equipment and supplies.
d. Perform FOBS responsibilities to include but not limited to the following:
   - Perimeters of incident
   - Locations of trouble spots
   - Weather conditions
   - Hazards
   - Progress of operations resources
e. Be prepared to identify all facility locations (e.g.,

Helispots, Division and Branch boundaries).

f. Report information to the SITL by established procedure.
g. Report immediately any condition observed that may cause danger and a safety hazard to personnel.
h. Gather intelligence that will lead to accurate predictions.
i. Maintain Unit Log (ICS 214-CG).

DOCUMENTATION UNIT LEADER (DOCL) – The DOCL is responsible for the maintenance of accurate, up-to-date incident files. Examples of incident documentation include: Incident Action Plan(s), incident reports, communication logs, injury claims, situation status reports, etc. Thorough documentation is critical to post-incident analysis. Some of the documents may originate in other sections. The DOCL shall ensure each section is maintaining and providing appropriate documents. The DOCL will provide duplication and copying services for all other sections. The Documentation Unit will store incident files for legal, analytical, and historical purposes. The DOCL Job Aid, reference (d), should be reviewed regarding the organization and duties of the DOCL.

The major responsibilities of the DOCL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Set up work area; begin organization of incident files.
d. Establish duplication service; respond to requests.
e. File all official forms and reports.
f. Review records for accuracy and completeness; inform appropriate units of errors or omissions.
g. Provide incident documentation as requested.
h. Organize files for submitting final incident

documentation package.

i. Maintain Unit Log (ICS 214-CG).

DEMOBILIZATION UNIT LEADER (DMOB) – The DMOB is responsible for developing the Incident Demobilization Plan. On large incidents, demobilization can be quite complex, requiring a separate planning activity. Note that not all agencies require specific demobilization instructions. The DMOB Job Aid, reference (e), should be reviewed regarding the organization and duties of the DMOB.

The major responsibilities of the DMOB are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Review incident resource records to determine the likely size and extent of demobilization effort and develop a resource matrix.
d. Coordinate demobilization with Agency Representatives.
e. Monitor the on-going Operations Section resource needs.
f. Identify surplus resources and probable release time.
g. Establish communications with off-incident facilities, as necessary.
h. Develop an Incident Demobilization Plan that should include:
    - General information section
    - Responsibilities section
    - Release priorities
    - Release procedures
    - Demobilization Checkout Form (ICS-221-CG)
    - Directory
i. Prepare appropriate directories (e.g., maps, instructions, etc.) for inclusion in the demobilization plan.

j. Distribute demobilization plan (on and off-site).
k. Provide status reports to appropriate requestors.
l. Ensure that all Sections/Units understand their specific demobilization responsibilities.
m. Supervise execution of the Incident Demobilization Plan.
n. Brief the PSC on demobilization progress.
o. Review DMOB Job Aid.
p. Maintain Unit Log (ICS 214-CG).

The following are examples of optional Unit Leader positions that can be established and used as needed during an incident:

ENVIRONMENTAL UNIT LEADER (ENVL) – The ENVL is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting. The ENVL prepares environmental data for the Situation Unit. Technical Specialists frequently assigned to the Environmental Unit may include the Scientific Support Coordinator and Sampling, Response Technologies, Trajectory Analysis, Weather Forecast, Resources at Risk, Shoreline Cleanup Assessment, Historical/ Cultural Resources, and Disposal Technical Specialists. The ENVL Job Aid, reference (f), should be reviewed regarding the organization and duties of the ENVL.
The major responsibilities of the ENVL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Obtain a briefing and special instructions from the PSC.
d. Identify sensitive areas and recommend response priorities.
e. Following consultation with natural resource trustees, provide input on wildlife protection

strategies (e.g., removing oiled carcasses, pre-emptive capture, hazing, and/or capture and treatment).

f. Determine the extent, fate, and effects of contamination.
g. Acquire, distribute, and provide analysis of weather forecasts.
h. Monitor the environmental consequences of response actions.
i. Develop shoreline cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
j. Identify the need for, and obtain, permits, consultations, and other authorizations, including Endangered Species Act (ESA) provisions.
k. Following consultation with the FOSC's Historical/Cultural Resources Technical Specialist identify and develop plans for protection of affected historical/cultural resources.
l. Evaluate the opportunities to use various response technologies.
m. Develop disposal plans.
n. Develop a plan for collecting, transporting, and analyzing samples.
o. Review ENVL Job Aid.
p. Maintain Unit Log (ICS 214-CG).

MARINE TRANSPORTATION SYSTEM RECOVERY UNIT LEADER (MTSL) – The MTSL is responsible for planning infrastructure recovery for Transportation Security Incidents (TSI) (see chapter 16) and other incidents that significantly impact the Marine Transportation System (MTS). The MTSL will track and report on the status of the MTS, understand critical recovery pathways, recommend courses of action, and provide all MTS stakeholders with an avenue of input to the response organization. The MTSL prepares

transportation data for the Situation Unit and daily situation briefs applying core Essential Elements of Information (EEIs). Sample EEIs include Deep draft shipping, Aids to Navigation, Bulk liquid facilities, Intermodal connections, Bridges, Vessel Salvage, etc. The major responsibilities of the MTSL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Obtain a briefing and special instructions from the PSC.
d. Support Operation Section Staff elements that are established for MTS Recovery.
e. Identify, track and report impacts to the MTS in accordance with EEIs.
f. Coordinate and consult with MTS stakeholders. Solicit periodic and standardized feedback from impacted industries/stakeholders.
g. Identify resources, agencies involved, and courses of action for the recovery of public infrastructure such as ATON, communications systems, and federal channels.
h. Prioritize recovery operations (including ATON, dredging, salvage, cleanup, repair, etc), as appropriate.
i. Monitor the economic consequences of recovery actions.
j. Develop traffic management plans. Identify the need for, and prepare any special advisories or orders (i.e. Safety/Security Zone).
k. Assess the need for MTS relief measures outside the impacted area. Implement measures (i.e. redirect cargos, establish alternate transportation modes) as necessary.
l. Liaise with MTS Response Branch Director (TRBD) to execute operational objectives.
m. Maintain Unit Log (ICS 214-CG).

INTELLIGENCE UNIT LEADER (IUL) – See Chapter 11.

TECHNICAL SPECIALISTS (THSP) – Certain incidents or events may require the use of THSP's who have specialized knowledge and expertise. THSP's may function within the Planning Section or be assigned wherever their services are required. The THSP Job Aid, reference (g), should be reviewed for more detailed information. The major responsibilities of the THSP are:

a. Review Common Responsibilities in Chapter 2.
b. Provide technical expertise and advice to Command and General Staff as needed.
c. Attend meetings and briefings as appropriate to clarify and help to resolve technical issues within area of expertise.
d. Maintain Unit Log (ICS 214-CG).

Other major responsibilities that might apply to the THSP as appropriate:

e. Provide technical expertise during the development of the IAP and other support plans.
f. Work with the Safety Officer to mitigate unsafe practices.
g. Work closely with Liaison Officer to help facilitate understanding among stakeholders and special interest groups.
h. Be available to attend press briefings to clarify technical issues.
i. Research technical issues and provide findings to decision makers.
j. Trouble shoot technical problems and provide advice on resolution.
k. Review specialized plans and clarify meaning.

The following are examples of Technical Specialists. This is not a complete list but examples of the many

kinds of THSP's that may be used with a possible location for the position in the ICS organization. However, the IC may assign THSP's to any location within the ICS organization based on incident need. For example, the CISM Specialist is normally assigned in Logistics under the Medical Unit Leader; however, an additional CISM Specialist is often assigned in the Command Staff working directly for the IC. Please see the THSP job aid for more information on each of the positions.

Command Staff:

- Auxiliary Liaison Specialist
- Legal specialist
- Volunteer Specialist/Coordinator

Operations:

- Air Tanker/Fixed Wing Coordinator
- Helicopter Coordinator
- Helibase Manager
- Helispot Manager

Planning:

- Documentation Specialist
- Environmental Specialist
- Geographic Information System Specialist
- Historian
- Public Health Specialist
- Salvage and Engineering Technical Specialist
- Situation Report Specialist
- Training Specialist
- Weather Observer

Logistics:

- Berthing Manager
- Camp Manager
- Cashier Manager
- Communications Restoration Manager
- Contingency Communications Manager

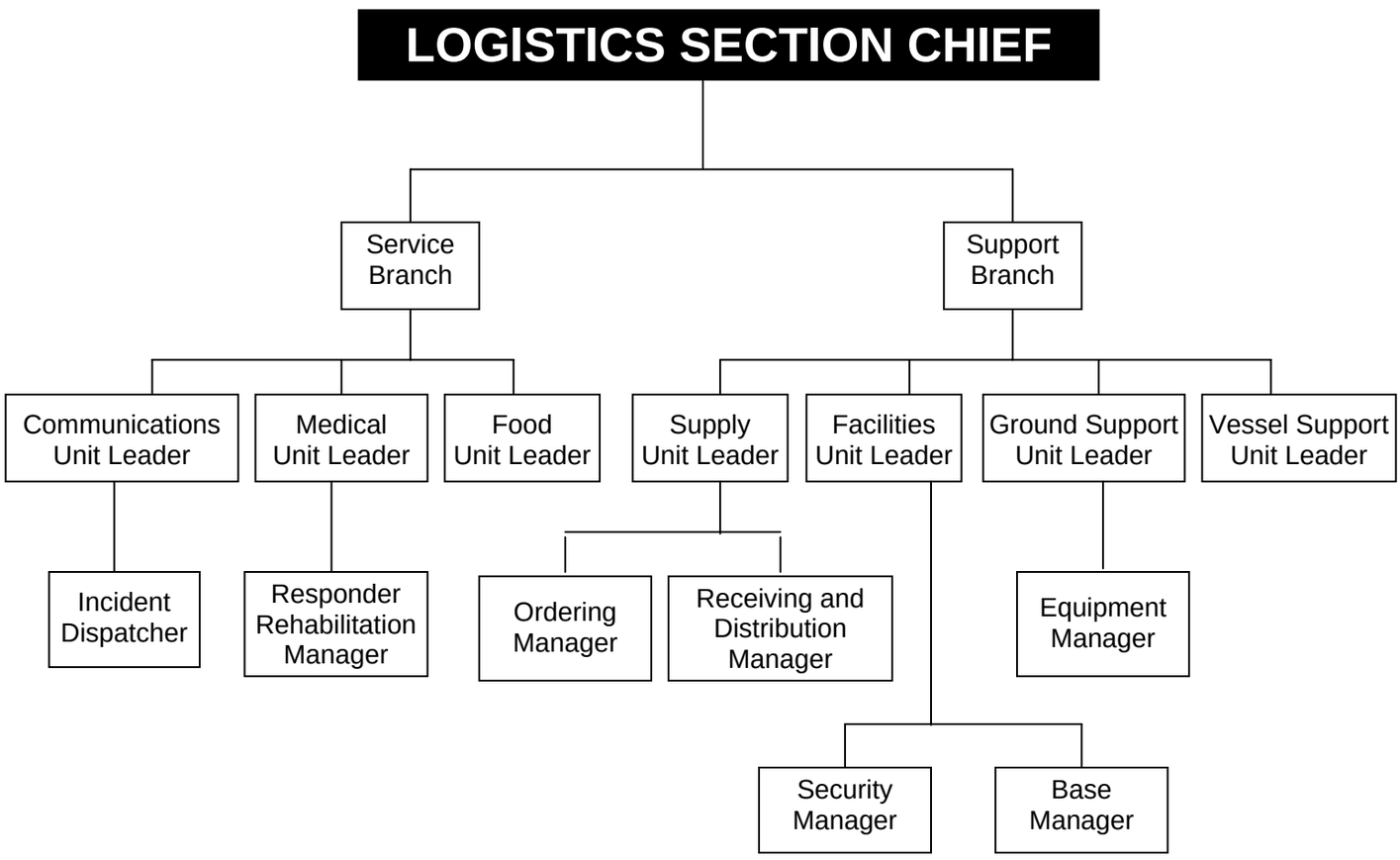
- Chaplain
- Critical Incident Stress Management (CISM) Specialist/Coordinator
- Damage Assessment Teams
- Evacuation Teams/Specialists
- Entitlement Specialist
- Facility Repair and Reconstruction Manager
- Facility Maintenance/Repair Teams/Specialists
- Family Assistance Specialist/Coordinator
- Food Teams/Specialists
- Human Resource Specialist
- Receiving and Distribution Manager
- Legal Support Teams/Specialists
- Medical Teams/Specialists
- Personnel Accountability Manager
- Personnel Support Teams/Specialists

AUGUST 2006

CHAPTER 9

LOGISTICS SECTION

ORGANIZATION CHART



Reference:

(a) Logistics Section Chief Job Aid

POSITION CHECKLISTS

LOGISTICS SECTION CHIEF (LSC) – The LSC, a member of the General Staff, is responsible for providing facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the IAP and activates and supervises the Branches and Units within the Logistics Section. The LSC Job Aid, reference (a), should be reviewed regarding the organization and duties of the LSC.

The LSC may have Deputy LSC's, who may be from the same agency or from an assisting agency. The Deputy LSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

The major responsibilities of the LSC are:

a. Review Common Responsibilities in Chapter 2.
b. Plan the organization of the Logistics Section.
c. Assign work locations and preliminary work tasks to Section personnel.
d. Notify the Resources Unit of the Logistics Section Units activated, including names and locations of assigned personnel.
e. Assemble and brief Logistics Branch Directors and Unit Leaders.
f. Determine and supply immediate incident resource and facility needs.
g. In conjunction with Command, develop and advise all Sections of the IMT resource approval and requesting process.
h. Review proposed tactics for upcoming operational period for ability to provide resources and logistical support.
i. Identify long-term service and support

requirements for planned and expected operations.

j. Advise Command and other Section Chiefs on resource availability to support incident needs.
k. Provide input to and review the Communications Plan, Medical Plan and Traffic Plan.
l. Identify resource needs for incident contingencies.
m. Coordinate and process requests for additional resources.
n. Track resource effectiveness and make necessary adjustments.
o. Advise on current service and support capabilities.
p. Request and/or set up expanded ordering processes as appropriate to support incident.
q. Develop recommended list of Section resources to be demobed and initiate recommendation for release when appropriate.
r. Receive and implement applicable portions of the incident Demobilization Plan.
s. Ensure the general welfare and safety of Logistics Section personnel.
t. Maintain Unit Log (ICS 214-CG).

SERVICE BRANCH DIRECTOR (SVBD) – The SVBD, when activated, is under the supervision of the LSC and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical and Food Units.

The major responsibilities of the SVBD are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Obtain working materials.
d. Determine the level of service required to support operations.

e. Confirm dispatch of Branch personnel.
f. Participate in planning meetings of Logistics Section personnel.
g. Review the IAP.
h. Organize and prepare assignments for Service Branch personnel.
i. Coordinate activities of Branch Units.
j. Inform the LSC of Branch activities.
k. Resolve Service Branch problems.
l. Maintain Unit Log (ICS 214-CG).

COMMUNICATIONS UNIT LEADER (COML) – The COML is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.

The major responsibilities of the COML are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Determine Unit personnel needs.
d. Prepare and implement the Incident Radio Communications Plan (ICS 205-CG).
e. Ensure the Incident Communications Center and the Message Center is established.
f. Establish appropriate communications distribution/maintenance locations within the Base.
g. Ensure communications systems are installed and tested.
h. Ensure an equipment accountability system is established.
i. Ensure personal portable radio equipment from cache is distributed per Incident Radio Communications Plan.

j. Provide technical information as required on:
   - Adequacy of communications systems currently in operation.
   - Geographic limitation on communications systems.
   - Equipment capabilities/limitations.
   - Amount and types of equipment available.
   - Anticipated problems in the use of communications equipment.

k. Supervise Communications Unit activities.
l. Maintain records on all communications equipment as appropriate.
m. Ensure equipment is tested and repaired.
n. Recover equipment from Units being demobilized.
o. Maintain Unit Log (ICS 214-CG).

INCIDENT DISPATCHER (INCM) – The INCM is responsible for receiving and transmitting radio and telephone messages among and between personnel and to provide dispatch services at the incident.
The major responsibilities of the INCM are:

a. Review Common Responsibilities in Chapter 2.
b. Ensure adequate staffing.
c. Obtain and review the IAP to determine the incident organization and Incident Radio Communications Plan.
d. Set up Incident Radio Communications Center; check-out equipment.
e. Request service on any inoperable or marginal equipment.
f. Set-up Message Center location, as required.
g. Receive and transmit messages within and external to the incident.
h. Maintain files of ICS-210 and General Messages (ICS 213-CG).
i. Maintain a record of unusual incident

occurrences.

j. Provide a briefing to relief personnel on:
   - Current activities.
   - Equipment status.
   - Any unusual communications situations.

k. Turn in appropriate documents to the Communications Unit Leader.

l. Demobilize the Communications Center in accordance with the Incident Demobilization Plan.

m. Maintain Unit Log (ICS 214-CG).

MEDICAL UNIT LEADER (MEDL) – The MEDL, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for the development of the Medical Plan; providing medical care and overseeing health aspects of response personnel; obtaining medical aid and transportation for injured and ill response personnel; coordinating with other functions to resolve heath and safety issues; and preparation of reports and records.

The major responsibilities of the MEDL are:

a. Review Common Responsibilities in Chapter 2.

b. Review Unit Leader Responsibilities in Chapter 2.

c. Participate in Logistics Section/Service Branch planning activities.

d. Establish the Medical Unit.

e. Prepare the Medical Plan (ICS 206-CG).

f. Provide any relevant medical input into the planning process for strategy development.

g. Coordinate with Safety Officer, Operations, hazmat specialists, and others on proper personnel protection procedures for incident personnel.

h. Prepare procedures for major medical emergency.

i. Develop transportation routes and methods for

injured incident personnel.

j. Ensure incident personnel patients are tracked as they move from origin, care facility and disposition.
k. Provide continuity of medical care for incident personnel.
l. Declare major medical emergency as appropriate.
m. Provide or oversee medical and rehab care delivered to incident personnel.
n. Monitor health aspects of incident personnel including excessive incident stress.
o. Respond to requests for medical aid, medical transportation and medical supplies.
p. In conjunction with Finance/Admin Section, prepare and submit necessary authorizations, reports and administrative documentation related to injuries, compensation or death of incident personnel.
q. Coordinate personnel and mortuary affairs for incident personnel fatalities.
r. Provide oversight and liaison as necessary for incident victims among emergency medical care, medical examiner and hospital care.
s. Provide for security and proper disposition of incident medical records.
t. Maintain Unit Log (ICS 214-CG).

RESPONDER REHABILITATION MANAGER (REHB) – The REHB reports to the Medical Unit Leader and is responsible for the rehabilitation of incident personnel who are suffering from the effects of strenuous work and/or extreme conditions.

The major responsibilities of the REHB are:

a. Review Common Responsibilities in Chapter 2.
b. Designate the responder rehabilitation location and have the location announced on the radio with radio designation "Rehab".

c. Coordinate with MEDL to request necessary medical personnel to evaluate the medical condition of personnel being rehabilitated.
d. Request necessary resources for rehabilitation of personnel, e.g., water, juice, personnel.
e. Request food through the Food Unit or LSC, as necessary, for personnel being rehabilitated.
f. Release rehabilitated personnel for reassignment.
g. Maintain appropriate records and documentation.
h. Maintain Unit Log (ICS 214-CG).

FOOD UNIT LEADER (FDUL) – The FDUL is responsible for supplying the food needs for the entire incident, including all remote locations, e.g., Staging Areas, as well as providing food for personnel unable to leave tactical field assignments.
The major responsibilities of the FDUL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Determine food and water requirements.
d. Determine the method of feeding to best fit each facility or situation.
e. Obtain necessary equipment and supplies.
f. Ensure that well-balanced menus are provided.
g. Order sufficient food and potable water from the Supply Unit.
h. Maintain an inventory of food and water.
i. Maintain food service areas, ensuring that all appropriate health and safety measures are being followed.
j. Supervise Food Unit personnel as appropriate.
k. Maintain Unit Log (ICS 214-CG).

SUPPORT BRANCH DIRECTOR (SUBD) – The SUBD, when activated, is under the direction of the LSC, and is responsible for the development and implementation of logistics plans in support of the

Incident Action Plan. The SUBD supervises the operations of the Supply, Facilities, Ground Support and Vessel Support Units.
The major responsibilities of the SUBD are:

a. Review Common Responsibilities in Chapter 2
b. Review Unit Leader Responsibilities in Chapter 2.
c. Obtain work materials.
d. Identify Support Branch personnel dispatched to the incident.
e. Determine initial support operations in coordination with the LSC and SVBD.
f. Prepare initial organization and assignments for support operations.
g. Assemble and brief Support Branch personnel.
h. Determine if assigned Branch resources are sufficient.
i. Maintain surveillance of assigned Units work progress and inform the LSC of their activities.
j. Resolve problems associated with requests from the Operations Section.
k. Maintain Unit Log (ICS 214-CG).

SUPPLY UNIT LEADER (SPUL) – The SPUL is primarily responsible for receiving, storing and distributing all supplies for the incident; maintaining an inventory of supplies; and storing, disbursing and servicing non-expendable supplies and equipment.
The major responsibilities of the SPUL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Participate in Logistics Section/Support Branch planning activities.
d. Determine the type and amount of supplies enroute.
e. Review the IAP for information on operations of the Supply Unit.
f. Develop and implement safety and security

requirements.

g. Order, receive, distribute and store supplies and equipment.
h. Receive and respond to requests for personnel, supplies and equipment.
i. Maintain an inventory of supplies and equipment.
j. Service reusable equipment.
k. Submit reports to the SUBD.
l. Maintain Unit Log (ICS 214-CG).

ORDERING MANAGER (ORDM) – The ORDM is responsible for placing all orders for supplies and equipment for the incident. The ORDM reports to the SPUL. The major responsibilities of the ORDM are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain necessary agency(s) order forms.
c. Establish ordering procedures.
d. Establish name and telephone numbers of agency(s) personnel receiving orders.
e. Set up filing system.
f. Obtain roster of incident personnel who have ordering authority.
g. Obtain list of previously ordered supplies and equipment.
h. Ensure order forms are filled out correctly.
i. Place orders in a timely manner.
j. Consolidate orders, when possible.
k. Identify times and locations for delivery of supplies and equipment.
l. Keep RCDM informed of orders placed.
m. Submit all ordering documents to the Documentation Control Unit through the SPUL Leader before demobilization.
n. Maintain Unit Log (ICS 214-CG).

RECEIVING AND DISTRIBUTION MANAGER (RCDM) – The RCDM is responsible for receiving and

distributing all supplies and equipment (other than primary resources) and the service and repair of tools and equipment. The RCDM reports to the SPUL.
The major responsibilities of the RCDM are:

a. Review Common Responsibilities in Chapter 2.
b. Order required personnel to operate supply area.
c. Organize the physical layout of the supply area.
d. Establish procedures for operating the supply area.
e. Set up a filing system for receiving and distributing supplies and equipment.
f. Maintain inventory of supplies and equipment.
g. Develop security requirement for supply area.
h. Establish procedures for receiving supplies and equipment.
i. Submit necessary reports to the SPUL.
j. Notify ORDM of supplies and equipment received.
k. Provide necessary supply records to SPUL. Leader.
l. Maintain Unit Log (ICS 214-CG).

FACILITIES UNIT LEADER (FACL) – The FACL is primarily responsible for the set up, maintenance and demobilization of incident facilities, e.g., Base, ICP and Staging Areas, as well as security services required to support incident operations. The FACL provides sleeping and sanitation facilities for incident personnel and manages Base operations. Each facility is assigned a manager who reports to the FACL and is responsible for managing the operation of the facility.
The FACL reports to the SUBD.
The major responsibilities of the FACL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Obtain a briefing from the SUBD or the LSC.
d. Receive and review a copy of the IAP.

e. Participate in Logistics Section/Support Branch planning activities.
f. In conjunction with the Finance/Admin Section, determine locations suitable for incident support facilities and secure permission to use through appropriate means.
g. Inspect facilities prior to occupation and document conditions and preexisting damage.
h. Determine requirements for each facility, including the ICP.
i. Prepare layouts of incident facilities.
j. Notify Unit Leaders of facility layout.
k. Activate incident facilities.
j. Provide Facility Managers and personnel to operate facilities.
k. Provide sleeping facilities.
l. Provide security services.
m. Provide food and water service.
n. Provide sanitation and shower service, as needed.
o. Provide facility maintenance services, e.g., sanitation, lighting, clean up, trash removal, etc.
p. Inspect all facilities for damage and potential claims.
q. Demobilize incident facilities.
r. Maintain facility records.
s. Maintain Unit Log (ICS 214-CG).

SECURITY MANAGER (SECM) – The SECM is responsible for providing safeguards needed to protect personnel and property from loss or damage.
The major responsibilities of the SECM are:

a. Review Common Responsibilities in Chapter 2.
b. Establish contacts with local law enforcement agencies, as required.
c. Contact the Resource Use Specialist for crews or Agency Representatives to discuss any special

custodial requirements that may affect operations.

d. Request required personnel support to accomplish work assignments.
e. Ensure security of classified material and/or systems.
f. Ensure that support personnel are qualified to manage security problems.
g. Develop Security Plan for incident facilities.
h. Adjust Security Plan for personnel and equipment changes and releases.
i. Coordinate security activities with appropriate incident personnel.
j. Keep the peace, prevent assaults and settle disputes through coordination with Agency Representatives.
k. Prevent theft of all government and personal property.
l. Document all complaints and suspicious occurrences.
m. Maintain Unit Log (ICS 214-CG).

BASE MANAGER (BCMG) – The BCMG is responsible for ensuring that appropriate sanitation, security and facility management services are conducted at the Base. The major responsibilities of the BCMG are:

a. Review Common Responsibilities in Chapter 2.
b. Determine personnel support requirements.
c. Obtain necessary equipment and supplies.
d. Ensure that all facilities and equipment are set up and properly functioning.
e. Supervise the establishment of
   - Sanitation facilities, including showers, and
   - Sleeping facilities.
f. Make sleeping area assignments.
g. Adhere to all applicable safety and health standards and regulations.
h. Ensure that all facility maintenance services are

provided.

i. Maintain Unit Log (ICS 214-CG).

GROUND SUPPORT UNIT LEADER (GSUL) – The GSUL is primarily responsible for ensuring: repair of primary tactical equipment, vehicles, mobile ground support equipment and fueling services; transportation of personnel, supplies, food and equipment in support of incident operations; recording all ground equipment usage time, including contract equipment assigned to the incident; and implementing the Traffic Plan for the incident. The major responsibilities of the GSUL are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Participate in Support Branch/Logistics Section planning activities.
d. Develop and implement the Traffic Plan.
e. Support out-of-service resources.
f. Notify the Resources Unit of all status changes on support and transportation vehicles.
g. Arrange for and activate fueling, maintenance and repair of ground resources.
h. Maintain Support Vehicle Inventory and transportation vehicles (ICS-218).
i. Provide transportation services IAW requests from the LSC or SUBD.
j. Collect use information on rented equipment.
k. Requisition maintenance and repair supplies, e.g., fuel, spare parts.
l. Maintain incident roads.
m. Submit reports to SUBD as directed.
n. Maintain Unit Log (ICS 214-CG).

EQUIPMENT MANAGER (EQPM) – The EQPM provides service, repair and fuel for all apparatus and equipment; provides transportation and support vehicle services; and maintains records of equipment use and

service provided.
The major responsibilities of the EQPM are:

a. Review Common Responsibilities in Chapter 2.
b. Obtain the IAP to determine locations for assigned resources, Staging Area locations and fueling and service requirements for all resources.
c. Obtain necessary equipment and supplies.
d. Provide maintenance and fueling according to schedule.
e. Prepare schedules to maximize use of available transportation.
f. Provide transportation and support vehicles for incident use.
g. Coordinate with AREP on service and repair policies, as required.
h. Inspect equipment condition and ensure coverage by equipment agreement.
i. Determine supplies (e.g., gasoline, diesel, oil and parts needed to maintain equipment in an efficient operating condition) and place orders with the Supply Unit.
j. Maintain Support Vehicle Inventory (ICS-218).
k. Maintain equipment rental records.
l. Maintain equipment service and use records.
m. Check all service repair areas to ensure that all appropriate safety measures are being taken.
n. Maintain Unit Log (ICS 214-CG).

VESSEL SUPPORT UNIT LEADER (VESS) – The VESS is responsible for implementing the Vessel Routing Plan for the incident and coordinating transportation on the water and between shore resources. Since most vessels will be supported by their own infrastructure, the Vessel Support Unit may be requested to arrange fueling, dockage, maintenance and repair of vessels on a case-by-case basis.
The major responsibilities of the VESS are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Obtain a briefing from the SUBD or the LSC.
d. Participate in Support Branch/Logistics Section planning activities.
e. Coordinate development of the Vessel Routing Plan.
f. Coordinate vessel transportation assignments with the Protection and Recovery Branch or other sources of vessel transportation.
g. Coordinate water-to-land transportation with the Ground Support Unit, as necessary.
h. Maintain a prioritized list of transportation requirements that need to be scheduled with the transportation source.
i. Support out-of-service vessel resources, as requested.
j. Arrange for fueling, dockage, maintenance and repair of vessel resources, as requested.
k. Maintain inventory of support and transportation vessels.
l. Maintain Unit Log (ICS 214-CG).

TECHNICAL SPECIALISTS (THSP) – Certain incidents or events may require the use of THSP's who have specialized knowledge and expertise. THSP's may function within the Planning Section or be assigned wherever their services are required. See chapter 8 and the THSP Job Aid for more detailed information on THSP's.

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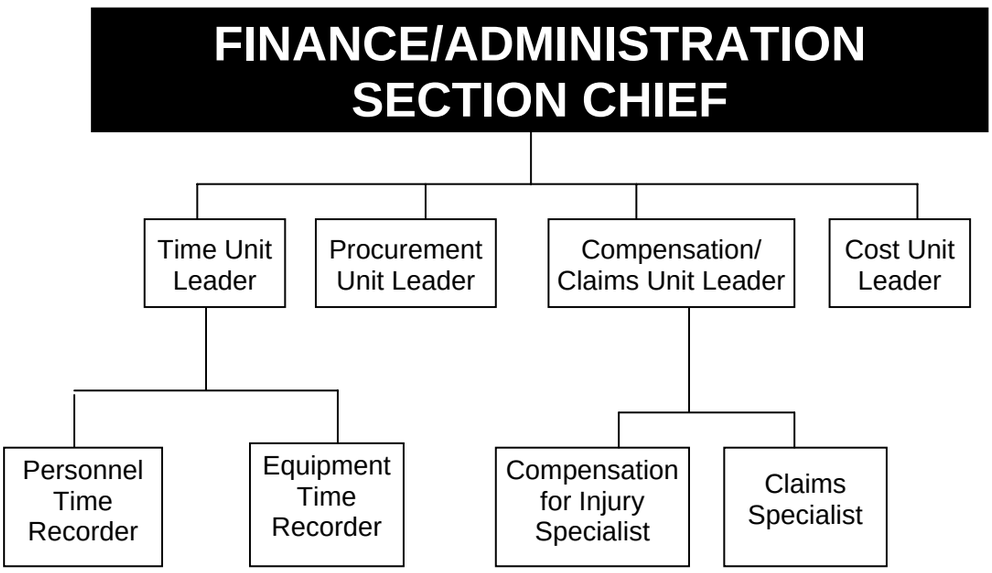
CHAPTER 10

FINANCE/ADMINISTRATION SECTION

ORGANIZATION CHART



Reference:

(a) Finance/Administration Section Chief Job Aid

POSITION CHECKLISTS

FINANCE/ADMINISTRATION SECTION CHIEF (FSC)

- The FSC, a member of the General Staff, is responsible for all financial, administrative and cost analysis aspects of the incident and for supervising members of the Finance/Admin Section. The FSC Job Aid (reference (a)) should be reviewed regarding the organization and duties of the FSC.

The FSC may have Deputy FSC's, who may be from the same agency or from an assisting agency. The Deputy FSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

The major responsibilities of the FSC are:

a. Review Common Responsibilities in Chapter 2.
b. Participate in incident planning meetings and briefings as required.
c. Review operational plans and provide alternatives where financially appropriate.
d. Manage all financial aspects of an incident.
e. Provide financial and cost analysis information as requested.
f. Gather pertinent information from briefings with responsible agencies.
g. Develop an operating plan for the Finance/ Admin Section; fill supply and support needs.
h. Determine the need to set up and operate an incident commissary.
i. Meet with Assisting and Cooperating Agency Representatives, as needed.
j. Maintain daily contact with agency(s) administrative headquarters on Finance/Admin matters.
k. Ensure that all personnel time records are

accurately completed and transmitted to home agencies, according to policy.

l. Provide financial input to demobilization planning.
m. Ensure that all obligation documents initiated at the incident are properly prepared and completed.
n. Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.
o. Develop recommended list of Section resources to be demobed and initial recommendation for release when appropriate.
p. Receive and implement applicable portions of the incident Demobilization Plan.
q. Maintain Unit Log (ICS 214-CG).

TIME UNIT LEADER (TIME) - The TIME is responsible for equipment and personnel time recording and for managing the commissary operations.

The major responsibilities of the TIME are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Determine incident requirements for time recording function.
d. Determine resource needs.
e. Contact appropriate agency personnel/ representatives.
f. Ensure that daily personnel time recording documents are prepared and in compliance with agency(s) policy.
g. Establish time unit objectives.
h. Maintain separate logs for overtime hours.
i. Establish commissary operation on larger or long-term incidents, as needed.
j. Submit cost estimate data forms to the Cost Unit, as required.
k. Maintain records security.

l. Ensure that all records are current and complete prior to demobilization.
m. Release time reports from assisting agency personnel to the respective Agency Representatives prior to demobilization.
n. Brief the FSC on current problems and recommendations, outstanding issues and follow-up requirements.
o. Maintain Unit Log (ICS 214-CG).

EQUIPMENT TIME RECORDER (**EQTR)** - Under supervision of the TIME, the EQTR is responsible for overseeing the recording of time for all equipment assigned to an incident.

The major responsibilities of the EQTR are:

a. Review Common Responsibilities in Chapter 2.
b. Set up the EQTR function in location designated by the Time Unit Leader.
c. Advise Ground Support Unit, Vessel Support Unit, Facilities Unit and Air Support Group of the requirement to establish and maintain a file for maintaining a daily record of equipment time.
d. Assist Units in establishing a system for collecting equipment time reports.
e. Post all equipment time tickets within 4 hours after the end of each operational period.
f. Prepare a use and summary invoice for equipment, as required, within 12 hours after equipment arrival at the incident.
g. Submit data to TIME for cost effectiveness analysis.
h. Maintain current posting on all charges or credits for fuel, parts and services.
i. Verify all time data and deductions with owner/ operator of equipment.
j. Complete all forms according to agency specifications.

k. Close out forms prior to demobilization.
l. Distribute copies per agency and incident policy.
m. Maintain Unit Log (ICS 214-CG).

PERSONNEL TIME RECORDER (PTRC) - Under supervision of the TIME, the PTRC is responsible for overseeing the recording of time for all personnel assigned to an incident.

The major responsibilities of the PTRC are:

a. Review Common Responsibilities in Chapter 2.
b. Establish and maintain a file for incident personnel time reports within the first operational period.
c. Initiate, gather or update a time report from all applicable personnel assigned to the incident for each operational period.
d. Ensure that all employee identification information is verified to be correct on the time report.
e. Post personnel travel and work hours, transfers, promotions, specific pay provisions and terminations to personnel time documents.
f. Ensure that time reports are signed.
g. Close-out time documents prior to personnel leaving the incident.
h. Distribute all time documents according to agency policy.
i. Maintain a log of excessive hours worked and give to the TIME daily.
j. Maintain Unit Log (ICS 214-CG).

PROCUREMENT UNIT LEADER (PROC) - The PROC is responsible for administering all financial matters pertaining to vendor contracts, leases and fiscal agreements.

The major responsibilities of the PROC are:

a. Review Common Responsibilities in Chapter 2.

b. Review Unit Leader Responsibilities in Chapter 2.
c. Review incident needs and any special procedures with Unit Leaders, as needed.
d. Coordinate with local jurisdiction on plans and supply sources.
e. Obtain the Incident Procurement Plan.
f. Prepare and authorize contracts, building and land-use agreements.
g. Draft memoranda of understanding as necessary.
h. Establish contracts and agreements with supply vendors.
i. Provide for coordination between the ORDM and all other procurement organizations supporting the incident.
j. Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
k. Interpret contracts and agreements; resolve disputes within delegated authority.
l. Coordinate with the Compensation/Claims Unit for processing claims.
m. Complete final processing of contracts and send documents for payment.
n. Coordinate cost data in contracts with the COST.
o. Brief the FSC on current problems and recommendations, outstanding issues and follow-up requirements.
p. Maintain Unit Log (ICS 214-CG).

COMPENSATION/CLAIMS UNIT LEADER (COMP) - The COMP is responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims related activities (other than injury) for an incident.

The major responsibilities of the COMP are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.

c. Obtain a briefing from the FSC.
d. Establish contact with the incident MEDL, SOFR and LNO (or Agency Representatives if no LNO is assigned).
e. Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
f. Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
g. Review Incident Medical Plan(ICS 206-CG)
h. Ensure that CLMS's have adequate workspace and supplies.
i. Review and coordinate procedures for handling claims with the Procurement Unit.
j. Brief the CLMS's on incident activity.
k. Periodically review logs and forms produced by the CLMS's to ensure that they are complete, entries are timely and accurate, and that they are in compliance with agency requirements and policies.
l. Ensure that all Compensation for Injury and Claims logs and forms are complete and routed to the appropriate agency for post-incident processing prior to demobilization.
m. Keep the FSC briefed on Unit status and activity.
n. Demobilize unit in accordance with the Incident Demobilization Plan.
o. Maintain Unit Log (ICS 214-CG).

COMPENSATION FOR INJURY SPECIALIST (INJR) - Under the supervision of the COMP, the Compensation for Injury Specialist is responsible for administering financial matters resulting from serious injuries and fatalities occurring on an incident. Close coordination is required with the Medical Unit.

The major responsibilities of the INJR are:

a. Review Common Responsibilities in Chapter 2.

b. Collocate Compensation for Injury Specialist with the Medical Unit when possible.
c. Establish procedure with Medical Unit Leader on prompt notification of injuries or fatalities.
d. Obtain a copy of Incident Medical Plan (ICS 206-CG).
e. Provide written authority for persons requiring medical treatment.
f. Ensure that correct agency forms are being used.
g. Provide correct billing forms for transmittal to doctor and/or hospital.
h. Coordinate with MEDL to keep informed on status of injured and/or hospitalized personnel.
i. Obtain all witness statements from SOFR and/or MEDL and review for completeness.
j. Maintain a log of all injuries occurring at the incident.
k. Coordinate/handle all administrative paperwork on serious injuries or fatalities.
l. Coordinate with appropriate agency(s) to assume responsibility for injured personnel in local hospitals after demobilization.
m. Maintain Unit Log (ICS 214-CG).

CLAIMS SPECIALIST (CLMS) - Under the supervision of the COMP, the CLMS is responsible for managing all claims-related activities (other than injury) for an incident.

The major responsibilities of the CLMS are:

a. Review Common Responsibilities in Chapter 2.
b. Develop and maintain a log of potential claims.
c. Coordinate a claims prevention plan with applicable incident functions.
d. Initiate an investigation on all claims other than personnel injury.
e. Ensure that site and property involved in an investigation are protected.

f. Coordinate with the investigation team as necessary.
g. Obtain witness statements pertaining to claims other than personnel injury.
h. Document any incomplete investigations.
i. Document follow-up action needs by the local agency.
j. Keep the COMP advised on the nature and status of all existing and potential claims.
k. Ensure the use of correct agency forms.
l. Maintain Unit Log (ICS 214-CG).

COST UNIT LEADER (COST) - The COST is responsible for collecting all cost data, performing cost effectiveness analyses and providing cost estimates and cost saving recommendations for the incident. The major responsibilities of the COST are:

a. Review Common Responsibilities in Chapter 2.
b. Review Unit Leader Responsibilities in Chapter 2.
c. Obtain a briefing from the FSC.
d. Coordinate with agency headquarters on cost reporting procedures.
e. Collect and record all cost data.
f. Develop incident cost summaries.
g. Prepare resources-use cost estimates for the Planning Section.
h. Make cost-saving recommendations to the FSC.
i. Ensure all cost documents are accurately prepared.
j. Maintain cumulative incident cost records.
k. Complete all records prior to demobilization.
l. Provide reports to the FSC.
m. Maintain Unit Log (ICS 214-CG).

TECHNICAL SPECIALISTS (THSP) – Certain incidents or events may require the use of THSP's who have specialized knowledge and expertise. THSP's

may function within the Planning Section or be assigned wherever their services are required. See chapter 8 and the THSP Job Aid for more detailed information on THSP's.

CHAPTER 11

INTELLIGENCE

References:

(a) National Response Plan (NRP)
(b) National Incident Management System (NIMS)
(c) Intelligence Officer Job Aid

INTRODUCTION

This is a brief summary of the Intelligence function as used in NIMS ICS. The Intelligence Function has been described in more detail in references (a) and (b) and a Job Aid has been developed to assist Coast Guard Intelligence Officers (reference (c)). The analysis and sharing of information and intelligence are important elements of ICS. In this context, intelligence includes not only national security or other types of classified information but also other operational information, such as risk assessments, medical intelligence (i.e., surveillance), weather information, geospatial data, structural designs, toxic contaminant levels, and utilities and public works data that may come from a variety of different sources. Traditionally, information and intelligence functions are located in the Situation Unit under the Planning Section. However, in exceptional situations, the IC/UC may need to assign the information and intelligence functions to other parts of the ICS organization. In any case, information and intelligence must be appropriately analyzed and shared with personnel, designated by the IC, who have proper clearance and a “need-to-know" to ensure that they support decision-making.

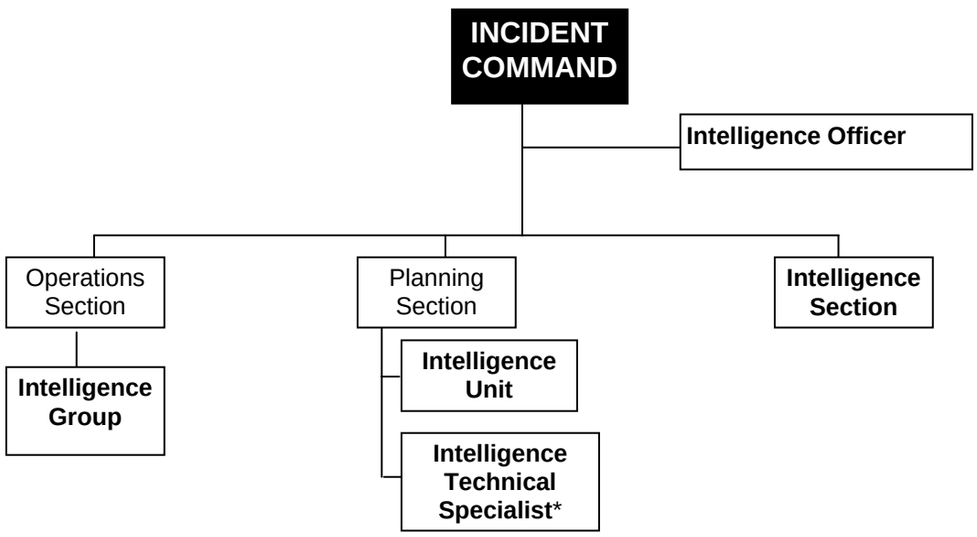
The intelligence and information function may be organized in one of the following ways:

a. Within the Command Staff as the Intelligence Officer (INTO). This option may be most appropriate in incidents in which incident-related intelligence is provided through real-time reach-back capabilities.
b. As an Intelligence Unit within the Planning Section. This option may be most appropriate in an incident with some need for tactical intelligence that can be handled by the Planning Section but requires a separate unit from the Situation Unit to handle it.
c. As an Intelligence Branch or Group within the Operations Section. This option may be most appropriate in incidents with a high need for **tactical** intelligence actions.
d. As a separate General Staff Intelligence Section. This option may be most appropriate when an incident is heavily influenced by intelligence factors or when there is a need to manage and/or analyze a large volume of classified or highly sensitive intelligence or information. This option is particularly relevant to a terrorism incident, for which intelligence plays a crucial role throughout the incident life cycle.
e. As an Intelligence Technical Specialist. This option can be used for any situation because a technical specialist can be assigned where most needed to in the ICS organization but may be most appropriate when little intelligence information is required by the incident.

Regardless of how it is organized, the information and intelligence function is also responsible for developing, conducting, and managing information- related security plans and operations as directed by the IC. These can include information security and operational security activities, as well as the complex task of ensuring that sensitive information of all types (e.g., classified

information, sensitive law enforcement information, proprietary and personal information, or export-controlled information) is handled in a way that not only safeguards the information but also ensures that it gets to those who need access to it so that they can effectively and safely conduct their missions. The information and intelligence function also has the responsibility for coordinating information-security and operational-security matters with public awareness activities that fall under the responsibility of the PIO, particularly where such public awareness activities may affect information or operations security.

ORGANIZATION CHART
Locations where Intelligence may be located in the ICS Organization



* May be assigned wherever their services are required.

For the U.S. Coast Guard, the intelligence function often fits best as the Intelligence Officer because of the Sector organization and other reasons noted in reference (c). See references (a) and (b) for more information on intelligence function and Chapter 6 and reference (c) for more information on the INTO duties and responsibilities.

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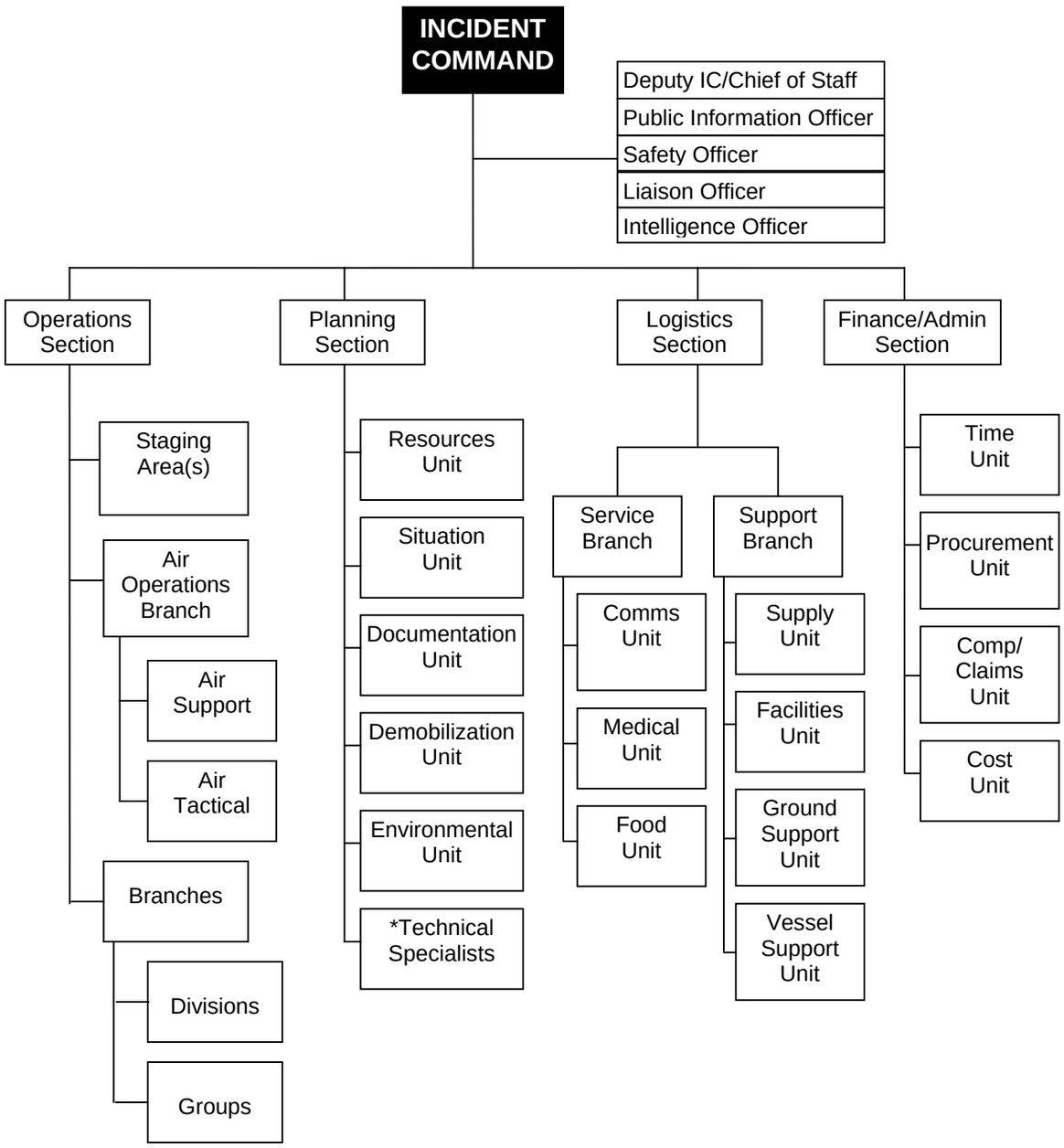
CHAPTER 12

ORGANIZATIONAL GUIDES

INCIDENT COMMAND SYSTEM ORGANIZATION CHART



* May be assigned wherever their services are required.

ICS ORGANIZATION GUIDE

COMMAND

1. Incident Commander - one per incident. Unless incident is multi-jurisdictional.
2. Multi-jurisdictional incidents establish Unified Command with each jurisdiction supplying an individual to represent agency in Unified Command Structure.
3. Incident Commander may have Deputy IC's as needed.
4. Command Staff Officer - one per function per incident.
5. Command Staff may have assistants as needed.
6. Agency Representatives report to Liaison Officer on Command Staff.

INCIDENT BASE RECOMMENDED MINIMUM PERSONNEL REQUIREMENTS
(**PER TWELVE (12) HOUR OPERATIONAL PERIOD or SHIFT**)

(If camps are established, the minimum personnel requirements for the Base may be modified or additional personnel may be added to support camps.)

	UNIT POSITION	SIZE OF INCIDENT (NUMBER OF DIVISIONS/GROUPS)				
		2	5	10	15	25
OPERATIONS	Operations Section Chief	One Per Operational Period				
	Deputy Operations Section Chief	1	1	1	2	3
	Branch Director		2	3	4	6
	Division/Group Supervisor	2	5	10	15	25
	Strike Team Leaders	As Needed				
	Task Force Leaders	As Needed				
	Air Operations Director		1	1	1	1
	Air Tactical Group Supervisor	1	1	1	1	1
	Helicopter Coordinator	As Needed				
	Air Support Group Supervisor	1	1	1	1	1
	Helibase Manager	One Per Helibase				
	Helispot Manager	One Per Helispot				
	Staging Area Manager	One Per Staging Area				
PLANNING	Planning Section Chief	One Per Incident				
	Deputy Planning Section Chief	1	1	1	2	3
	Resource Unit Leader	1	1	1	1	1
	Assistant Resource Unit Leader			1	1	2
	Status Recorders	1	2	3	3	4
	Check-In Recorders	As Needed				
	Technical Specialists	As Needed				
	Situation Unit Leader	1	1	1	1	1
	Assistant Situation Unit Leader			1	1	2
	Display/Report Processor		1	1	1	2
	SITREP/OPSUM Processors	1	1	1	2	2
	Field Observer		1	2	2	4
	Weather Observer	As Needed				
	Aerial/Ortho Photo Analyst	As Needed				
	Computer Terminal Operator		1	1	1	1
	Environmental Unit Leader	1	1	1	1	1
	Documentation Unit Leader		1	1	1	1
	Demobilization Unit Leader			1	1	1
	Demob Recorders from Resources	As Needed				

ICS Organization Guide continued

	UNIT POSITION	SIZE OF INCIDENT (NUMBER OF DIVISIONS/GROUPS)				
		2	5	10	15	25
LOGISTICS	Logistics Section Chief	One Per Incident				
	Deputy Logistics Section Chief				1	2
	Service Branch Director	As Needed				
	Communications Unit Leader	1	1	1	1	1
	Assistant Communications Unit Leader			1	1	2
	Incident Communications Manager	1	1	1	1	1
	Incident Dispatcher	1	2	3	3	4
	Message Center Operator		1	1	2	2
	Messenger		1	2	2	2
	Communications Technician		1	2	4	4
	Medical Unit Leader	1	1	1	1	1
	Assistant Medical Unit Leader	As Needed				
	Food Unit Leader		1	1	1	1
	Food Unit Assistant (each camp)	As Needed				
	Support Branch Director	As Needed				
	Supply Unit Leader		1	1	1	1
	Camp Supply Assistant (each camp)	As Needed				
	Ordering Manager			1	1	1
	Receiving/Distribution Manager		1	1	1	1
	Recorders		1	1	2	2
	Supply Unit Staff		2	2	2	2
	Facility Unit Leader		1	1	1	1
	Base Manager		1	1	1	1
	Camp Manager (each camp)	As Needed				
	Facility Maintenance Specialist		1	1	1	1
	Security Manager		1	1	1	1
	Facility Unit Staff		6	6	12	12
	Ground Support Unit Leader	1	1	1	1	1
	Equipment Manager		1	1	1	1
	Assistants	As Needed				
	Equipment Timekeeper		1	1	1	1
	Mechanics	1	1	3	5	7
	Drivers	As Needed				
	Operators	As Needed				
	Vessel Support Unit Leader	As Needed				
FIN-ADMIN	Finance/Administration Section Chief	One Per Incident				
	Deputy Finance/Admin Section Chief					1
	Time Unit Leader		1	1	1	1
	Time Recorder, Personnel		1	3	3	5
	Time Recorder, Equipment		1	2	2	3
	Procurement Unit Leader		1	1	1	1
	Compensation/Claims Unit Leader		1	1	1	1
	Compensation Specialist	As Needed				
	Claims Specialist	As Needed				
	Cost Unit Leader		1	1	1	1
	Cost Analyst			1	1	1

JOINT-STAFF (J-Staff)/ICS ORGANIZATION CORRELATION CHART

Coast Guard personnel may find themselves working in a Joint-Staff (J-Staff) organization in support of DOD operations, or DOD personnel may find themselves working in support of a Federal or State Agency within an ICS organization. The following table is provided to enable those trained in an ICS position to identify where their ICS skills best fit in a J-Staff Organization. Conversely, if J-Staff qualified individuals find themselves working in an ICS organization in support of a response they can use the table to find where their J-Staff training and experience will best fit in the ICS organization.

For example, if an individual is trained as a Resources Unit Leader in ICS and they report to a J-Staff organization, their skills in ICS would best fit under J-1 (Manpower and Personnel).

* It is important to remember that the J-Staff was not intended to be an emergency response organization.

J Staff	J Staff Responsibilities	Proposed ICS Position Equivalents
Commander, Deputy Commander, Chief of Staff	♦ Plan and conduct military operations in response, including the security of the command and protection of the United States, its possessions and bases against attack or hostile incursion. ♦ Maintain the preparedness of the command to carry out missions assigned to the command. ♦ Carry out assigned missions, tasks, and responsibilities.	**Incident Commander** – the IC's responsibility is the overall management of the incident. On most incidents, a single IC carries out the command activity. The IC is selected by qualifications and experience. **Unified Command** – A unified team that manages an incident by establishing a common set of incident objectives and strategies. This is accomplished without loss or abdication of agency or organizational authority, responsibility or accountability.
Special Staff	♦ Gives technical, Administrative & tactical advice ♦ Prepares parts of plans, estimates & orders ♦ Coordinates & supervises staff active Responsible directly to the Commander	**Technical Specialists**- Personnel with special skills who can be used anywhere within the ICS Organization.
Personal Staff	♦ Gives technical, Administrative & tactical advice ♦ Prepares parts of plans, estimates & orders ♦ Coordinates & supervises staff active Responsible directly to the Commander ♦ Special Matters over which commander chooses to exercise close personal control ♦ Usually includes the political adviser ties	**Information Officer**- is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. **Liaison Officer**- is assigned to the incident to be the contact for assisting and/or cooperating Agency Representatives **Safety Officer**- to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. Only the SOFR will be assigned for each incident. **Intelligence Officer**- Command Staff Officer who Determines Intelligence gaps and intelligence Requirements during the planning phase, analyzes and shares intelligence among ICS functions and involved partners, and processes classified and unclassified request for intelligence.

J Staff	J Staff Responsibilities	Proposed ICS Position Equivalents
J-1: Manpower & Personnel	♦ All matters concerning human resources and, ♦ Unit Personnel strength and readiness status ♦ Monitors and assesses elements of personnel administration & management **Receives information for coordinating, advising, and planning to assist the CG Commander in accomplishing the mission**	**Resources Unit**: Maintains status of all assigned resources at an incident (key supervisory personnel, primary & support resources, etc.). *(Planning Section)* **Documentation Unit**: Maintains accurate, up-to-date incident files. *(Planning Section)* **Time Unit**: Accurate recording of daily personnel time, compliance with time recording policies, and managing commissary operations. *(Finance/Administration Section)*
J-2: Intelligence	♦ All matters concerning military and contingency intelligence. ♦ Acquires various intelligence information and data. ♦ Analyzes and evaluates intelligence and data. ♦ Provides analyzed information and data to CG Commander with recommendations.	**Intel Officer** - Command Staff Officer who Determines Intelligence gaps and intelligence Requirements during the planning phase, analyzes and shares intelligence among ICS functions and involved partners, and processes classified and unclassified request for intelligence. The INTO manages operational information such as risk assessments, affects on public and responders, utilities and infrastructure affects, and develops strategic assessment vs. specific targeted. (Command Staff)
J-3: Operations	♦ All matters concerning contingency operations, tactical plans, tactical response organization and training ♦ Maintains current operations estimate of situation in coordination with other staff elements ♦ Coordinates & develops the operations & tactical plans, and OPORDERS ♦ Responsible for all tactical activities ♦ All personnel and unit training within Command organization	**Operations Section Chief**: Manages tactical operations, requests resources as needed, supervises execution of the Incident Action Plan for Operations, approves release of resources from assigned status. *(Operations Section)* Other Branches, Task Forces, Single Resources, Staging Area Manager, Air Operations, Air Tactical Group, etc**.** Assigned duties, as directed under the standard ICS organization. *(Operations Section)*

J Staff	J Staff Responsibilities	Proposed ICS Position Equivalents
J-4: Logistics	♦ All matters concerning the response organization supplies, maintenance, transportation, and services ♦ Determines supply requirements and coordinates/processes supply requests. Ensures supply security. ♦ **Supervises collection, staging, distribution and transportation of supplies**	**Logistics Section Chief**: All incident support (exception being aviation support). (*Logistics Section)* **Demobilization Unit**: Develops Incident demobilization plan. *(Planning Section)* **Medical Unit**: Procedures for managing major medical emergencies, provide medical aid, and assist with processing injury-related claims (determine level of emergency medical activities prior to activation, acquire and manage medical support, establish procedures for handling serious injuries). *(Logistics Section)* **Food Unit**: Supplies food needs for the entire incident (determine food & water requirements, obtain necessary equipment and supplies, order sufficient food and potable water, etc.). *(Logistics Section)* **Supply Unit**: Orders, receives, processes, stores all incident-related resources. Provides supplies to planning, logistics and finance/admin sections, determines type and amount of supplies en route, orders, receives, distributes, and stores supplies and equipment, maintains inventory of supplies and equipment. *(Logistics Section)* **Facilities Unit**: Sets up, maintains and demobilizes all incident support facilities. Determines requirements for each incident facility, activates incident facilities, provides security services, etc. *(Logistics Section)* **Ground Support Unit:** Maintenance, service, and fueling of all mobile equipment & vehicles. Ground transportation of personnel, supplies and equipment. Support services for mobile equipment & vehicles, order maintenance & repair supplies, etc. *(Logistics Section)*

J Staff	J Staff Responsibilities	Proposed ICS Position Equivalents
J-4: Logistics (continued)	*(continued from previous page)*	**Procurement Unit**: All matters pertaining to vendor contracts, leases, and fiscal agreements. Coordinate with local jurisdiction on plans and supply sources, draft memoranda of understanding, establish contracts & agreements with supply vendors. *(Finance/Administration Section)*
J-5: Plans & Policy	♦ All matters concerning the long range response organization planning. ♦ Prepares mission, concept, and overall operations plans for the contingency. ♦ Prepares the recommended Course of Action (COA) and Commander's Estimates (CE), and provides response recommendations. ♦ Coordinates and facilitates all planning functions and processes.	**Planning Section Chief**: Evaluates, processes, and disseminates information for use at the incident. Reassigns out-of-service personnel already on-site to ICS organizational positions, as appropriate, establishes information requirements, and reporting schedules, determines need for any specialized resources, assembles information on alternative strategies, provides periodic predictions on incident potential, reports any significant changes in incident status. *(Planning Section)*
J-6: Command, Control & Communications	♦ All matters concerning Command, Control, and Communications. ♦ Handles command responsibilities for communications. ♦ Coordinates tactical communications planning and execution. ♦ Manages and develops the electronics and automatic information systems.	**Communications Unit**: Develops plans for the use of incident communications equipment and facilities, installs and tests the communications equipment, supervises the Incident Communications Center, distributes and maintains communications equipment. *(Communications Section)*

J-7 Operational Plans and Interoperability	♦ Prepares appropriate strategic and theater force structure recommendations and alternatives for use in the development of military plans. ♦ Prepares the appropriate JSPS documents to support implementation of Joint Staff force structure recommendations including force apportionment and assignment. ♦ Conducts tradeoff analyses between force effectiveness and alternative resource distributions. ♦ Conducts tradeoff analyses of joint force capabilities and requires, including assessments of the projected readiness, sustainability, modernization, and force structure aspects of current and programmed forces.	**Planning Section Chief**: Evaluates, processes, and disseminates information for use at the incident. Reassigns out-of-service personnel already on-site to ICS organizational positions, as appropriate, establishes information requirements, and reporting schedules, determines need for any specialized resources, assembles information on alternative strategies, provides periodic predictions on incident potential, reports any significant changes in incident status. *(Planning Section)*

J-8 **Force Structure, Resources and Assessment**	♦ Pursues joint force development through joint doctrine, training, war plans, and assessments ♦ Through the Joint Training System, joint exercise program, CJCS Assessment Program, and review of conventional war plans, assists the combatant commands, Joint Staff, Services, and OSD to exercise and improve the capability of US forces and combat support agencies to achieve strategic goals. ♦ Facilitates addressing warfighting requirements needed in war plans, joint education, training, and doctrine.	**Finance Section Chief**- is responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section. ♦ **Compensation/Claims**: Oversees completion of all forms required by workers' compensation and local agencies. Also maintains file of injuries and illnesses, associated with the incident. Close coordination with the Medical Unit. Claims are responsible for investigating all claims involving property associated with or involved in incident. *(Finance/Administration Section)* ♦ **Cost Unit**: Provides all incident cost analysis. Insures proper identification of all equipment and personnel requiring payment, prepares estimates of incident costs, and maintains accurate records of incident costs. *(Finance/Administration Section)* ♦ **Procurement Unit**: All matters pertaining to vendor contracts, leases, and fiscal agreements. Coordinate with local jurisdiction on plans and supply sources, draft memoranda of understanding, establish contracts 7 agreements with supply vendors. *(Finance/Administration Section*

JOPES and ICS Interaction

Anyone who has participated in the Joint Operational Planning and Execution System (JOPES) or ICS planning processes will understand the value of *Process*. Process is as important as and sometimes more important than the plan. The process itself drives critical information and communication of that information where it needs to go. JOPES consists of two planning processes; Crisis Action Planning (CAP) and Deliberate Planning. ICS delineates between *Unplanned Incidents* and *Planned Events*. Although ICS has been utilized for large scale Planned Events, by design, it is a CAP process.

The JOPES and ICS Interaction diagram takes the *linear* process for producing JOPES OPLANS and Orders and *bends* it around the ICS Operational Planning "P". This works because the basic functional activities are essentially the same for all planning processes. The diagram translates between JOPES and ICS functions, phases, and tools. Both JOPES and ICS practitioners can now see that the processes flow in the same sequence; how by implication, portions of a JOPES plan or order relate to ICS tools; and that continuous improvement of ICS can be incorporated into JOPES OPLANS and Orders.

Current Coast Guard doctrine dictates JOPES for some of its Deliberate Planning and ICS for most CAP responses. The Deliberate OPLANS and Contingency Plans prepare units for response and directly feed into the development of ICS Incident Action Plans when they do.

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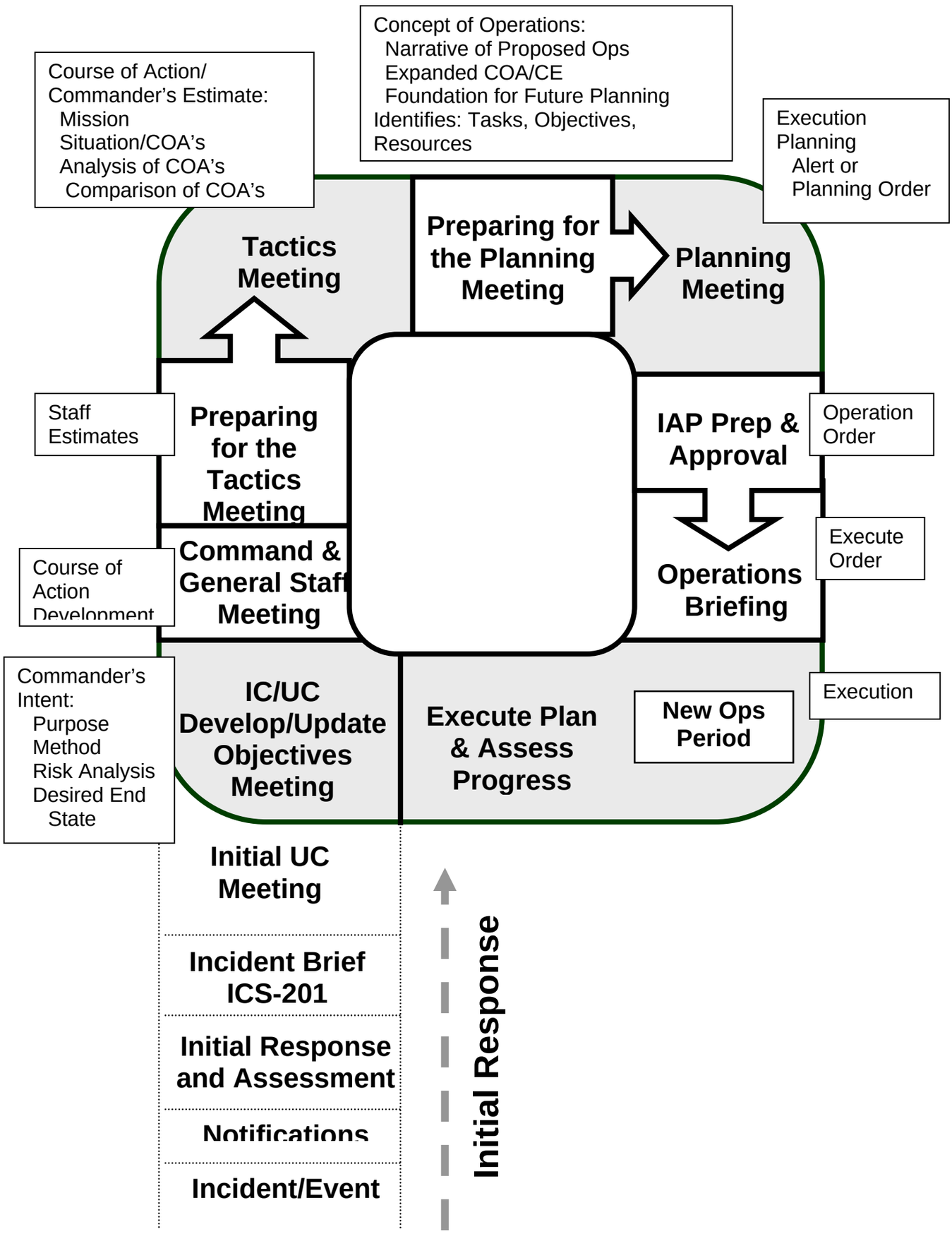
JOPES and ICS Interaction



CHAPTER 13

AREA COMMAND

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CHAPTER 13

AREA COMMAND

References:

(a) National Response Plan (NRP)
(b) National Incident Management System NIMS)
(c) Area Command Job Aid
(d) Logistics Section Chief Job Aid

INTRODUCTION

The purpose of an Area Command (AC) is to oversee the management of the incident(s), focusing primarily on strategic assistance and direction and resolving competition for scarce response resources. An Area Command (AC) is activated only if necessary, depending on the complexity of the incident and incident management span-of-control considerations. This organization does not supplant the Incident Commanders (IC's) and Unified Commands (UC's), but supports and provides strategic direction. Execution of tactical operations and coordination remains the responsibility of the on-scene incident command/unified command structure.

Area Command is an organization activated by the Sector, District, or Area Commander to ensure coordination for Command, Planning, Logistical and Fiscal matters. For example, the need for an AC may arise when there are multiple incidents and/or a spill of national significance (SONS). The AC will determine critical resource allocation. For multiple incidents, AC may also establish incident prioritization.

NOTE: For further details on operating procedures refer to the Area Command Job Aid.

AREA COMMAND
CONCEPT OF OPERATIONS

AC Activation Criteria

A District/Area Commander or the Commandant can determine when an incident(s) is of such magnitude, complexity or operational intensity that it would benefit from the activation of an AC. Also, there may be times when multiple incidents occur within one Sector Commander zone where incidents are competing for the same resources. The AC may be designated by the Sector Commander or the Sector Commander may fulfill the AC role. Factors to consider when deciding to activate an AC include but are not limited to:

1. Complex incident overwhelming local and regional Coast Guard assets;
2. An incident that overlaps Coast Guard districts;
3. An incident that crosses international borders;
4. The existence of, or the potential for, a high level of national political and media interest;
5. Significant threat or impact to the public health and welfare, natural environment, property or economy over a broad geographic area; or
6. More than one active incident where incidents are competing for the same resources.

AC Activation Guidance

When the decision is made to activate an AC, the following actions should occur:

1. An Area Commander is designated by the Sector Commander, District Commander, Area Commander or the Commandant.
2. Designated Area Commander and deputy/deputies will be delegated clear succession of command authority.
3. If an incident(s) is multi-jurisdictional, the AC shall be established using Unified Command (UC)

concepts and principles. When Unified Area Command (UAC) is established, representatives will typically consist of executives possessing the highest level of response authority as possible.

4. Determine appropriate location for the Area Command Post (ACP).

AC Responsibilities

AC has the overall responsibility for strategic management of the incident(s) and will:

1. Establish AC strategic objectives.
2. Establish overall response priorities.
3. Rank incidents in order of priority.
4. Identify and allocate critical resources based on incident needs.
5. Ensure that the incident(s) is properly managed;
6. Ensure that the on-scene incident(s) objectives are met.
7. Minimize conflict with supporting agency's/ stakeholder and public concerns.
8. Coordinate acquisition of critical or specialized resources.
9. In the event that a Joint field Office (JFO) is activated, coordinate acquisition of national assets to support the incident(s) between AC and the JFO. (See reference (a) or Chapter 14 for detailed description of a JFO.)

AC Staffing

The AC organization should be kept as small as possible. The size of the AC organization will be determined by the authorities and support requirements of the incident(s) and follows standard ICS principles like flexibility and scalability. Under normal circumstances, AC staffing will consist of:

1. Area Commander(s) and Deputy/Deputies
2. AC Liaison Officer (AC LNO)

3. AC Safety Officer (AC SOFR)
4. AC Public Information Officer (AC PIO)
5. AC Intelligence Officer (AC INTO)
6. AC Logistics Chief (AC LC)
7. AC Communication Unit Leader (AC COML)
8. AC Information Technology Specialist (AC ITS)
9. AC Facility Unit Leader (AC FACL)
10. AC Planning Chief (AC PC)
11. AC Documentation Unit Leader (AC DOCL)
12. AC Critical Resources Unit Leader (AC CRESL)
13. AC Situation Unit Leader (AC SITL)
14. AC Finance/Administration Chief (AC FC)

Optional Staffing
1. Legal Specialist
2. Security Specialist
3. Intel Specialist
4. Aviation Coordinator
5. Documentation Specialist/Executive Assistant
6. Legislative Affairs Officer

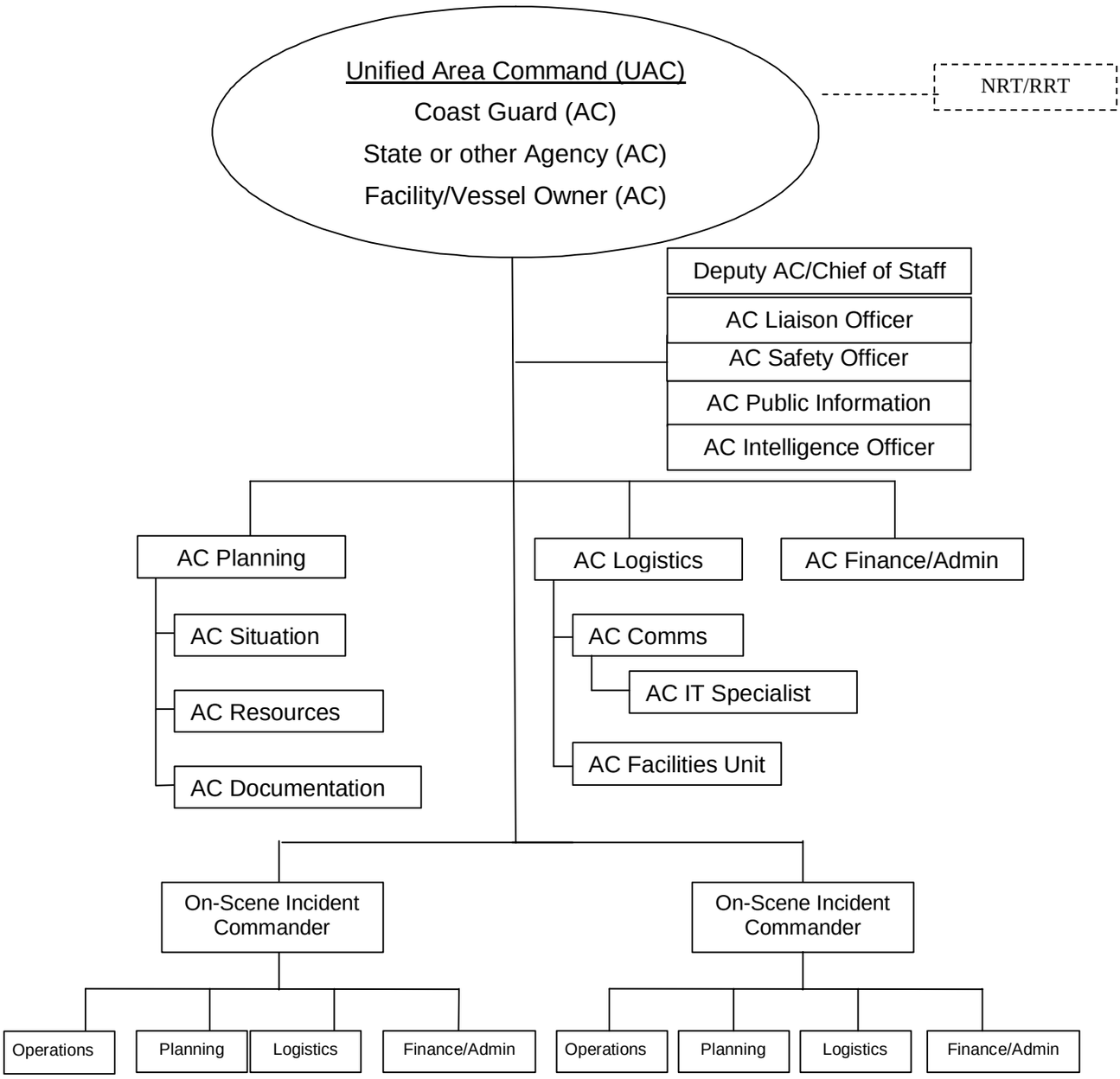
The Area Command organization does not, in any way, replace the on-scene incident organization(s) or functions. The above positions, if established, are strictly related to supporting the AC functional responsibilities. Tactical operations continue to be directed at the on-scene IC/UC command level.

In addition, **Expanded Ordering** may be set up outside of the local incident(s) and outside of Area Command to assist with non-critical resource ordering. See more about expanded ordering process in reference (d), the Logistics Section Chief Job Aid.

AC REPORTING RELATIONSHIPS

It is envisioned that the role of Area Commander for Incidents of National Significance (INS) will be filled by a Flag Officer (or their designee) with the ability to set priorities and objectives on behalf of the entire Coast Guard. When established, the Area Commander reports through normal Coast Guard reporting channels to the Commandant. If a JFO or other Multiagency Coordination Centers (MACS) are established, the AC will need to determine the appropriate level of coordination and liaison required to support the incident(s).

AREA COMMAND ORGANIZATION



Note: NIIMS Area Command includes an Aviation Coordinator position. This position was intentionally left out for Coast Guard AC. The AC can add the position anytime they determine a need for special aviation coordination.

AREA COMMAND
POSITION CHECKLISTS

AREA COMMANDER (AC)

The Area Commander is responsible for providing the overall direction to the on-scene IC(s). This responsibility includes ensuring that conflicts are resolved, incident objectives are established and strategies are selected to meet AC priorities and strategic objectives.

The Area Commander responsibilities are as follows:

1. Review Common Responsibilities in Chapter 2.
2. Obtain authorities and policy guidance from agency executive(s).
3. Provide briefings to the next level of command through normal reporting channels.
4. If operating within a UAC, develop a working agreement with all UAC participants to ensure that jurisdictional authorities are not compromised or neglected.
5. In coordination with on-scene IC's/UC's determine level of effort AC will need to support.
6. Based on the scope of the job, ensure the AC organization is capable of meeting their functional responsibility.
7. Identify location and establish an appropriate Area Command Post.
8. Establish authorities and policy guidance and communicate to AC team members.
9. Develop overall direction, priorities, and strategic objectives and convey to on-scene IC's/UC's.
10. Ensure that the incident response strategies address the direction set by the AC.
11. Establish priorities for assignment and demobilization of critical resources.
12. Coordinate demobilization of critical resources.

13. Establish a media strategy (plan) for release of information to the media, the public, etc.
14. Serve as public spokesperson for the overall response.
15. Manage the AC organization to ensure the on-scene IC's/UC's are appropriately supported.
16. Maintain AC log of strategic decisions.
17. Monitor and evaluate AC Incident management Team (AC IMT) performance.
18. Anticipate and analyze long term big picture potential consequences and develop strategic response alternatives.

DEPUTY AREA COMMANDER (DAC)

The AC may have Deputy AC's, who may be from the same agency or from an assisting agency. The Deputy AC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. When span of control becomes an issue for the AC, a Deputy AC/Chief of Staff may be assigned to manage the AC Command Staff.

The major responsibilities of the DAC are:

1. Review Common Responsibilities in Chapter 2.
2. Assist the AC in executing their responsibilities.
3. Perform Area Commander Duties in the absence of the designated Area Commander.
4. Oversee and facilitate the overall operation of the AC Staff and General Staff functions on behalf of the Area Commander.
5. Administer special projects as assigned.

AC LIAISON OFFICER (AC LNO)

Establish liaison, as needed, with representatives of assisting and cooperating agencies. This will often be with the same agencies represented at the IC level, but

will typically be a link to a more senior organizational level than that represented on-scene.

The major responsibilities of the AC LNO are:

1. Review Common Responsibilities in Chapter 2.
2. Review the LNO Job Aid.
3. Establish liaison, as needed, with stakeholders, such as environmental, economic, and political groups. It is expected, however, that the majority of stakeholder service and support will be handled at the on-scene command level.
4. Support on-scene LNO(s) efforts to establish strong ties with assisting/cooperating agencies and stakeholders.
5. When appropriate coordinate with the National Response Team (NRT)/Regional Response Team (RRT) to identify and resolve issues and concerns.
6. Maintain communications with stakeholders and assisting and cooperating agencies and keep AC advised of their issues and concerns.
7. Liaise with all investigating agencies, to minimize impact on incident response operations.
8. Coordinate AC site visits with on-scene command.

AC PUBLIC INFORMATION OFFICER (AC PIO)

The AC PIO is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. Normally, detailed information regarding response specifics will be referred to and handled by the appropriate on-scene PIO. The AC PIO will generally provide information on overall progress and status of the response from a regional or national perspective.

The major responsibilities of the AC PIO are:

1. Review Common Responsibilities in Chapter 2.
2. Review the PIO and JIC Job Aids.

3. Provide information on the incident(s) to the media and other interested parties.
4. Identify and communicate to AC organization and on-scene IMT, the Area Command's policy and procedures for release of information.
5. As directed, establish and manage the AC Joint Information Center (AC JIC).
6. Coordinate with the on-scene PIO(s) to obtain information and to ensure consistency in release of information.
7. Closely coordinate with on-scene PIO's to develop and establish an effective public information strategy.
8. Evaluate public and media perception of the response effectiveness and keep AC and on-scene command informed.
9. Keep the AC and AC staff informed of news releases, press conferences, town meetings, etc., to be conducted at the AC level.
10. Prepare briefing materials and coordinate the conduct of press conferences, town meetings, etc.
11. Provide speaker preparation and coaching to members of the AC staff.
12. Carry out the protocol function for visiting dignitaries, including coordination and conduct of briefs and site visits. As much as possible, AC will coordinate VIP site visits in an effort to minimize the impact on the on-scene IMT's.

AC SAFETY OFFICER (AC SOFR)

The SOFR function is to develop and recommend measures for assuring personnel safety and to assess and/or anticipate hazardous and unsafe situations. Normally, detailed information regarding response specifics will be referred to and handled by the appropriate on-scene SOFR. The AC SOFR will generally provide information on overall safety issues

and progress/status of the response from a regional or national perspective.

The major responsibilities of the AC SOFR are:

1. Review Common Responsibilities in Chapter 2.
2. Review the SOFR Job Aid.
3. Develop AC Facility Safety Plan and monitor for compliance.
4. Evaluate thoroughness of the on-scene Site Safety Plan(s).
5. As requested, provide assistance to on-scene SOFR and on-scene IMT's in investigating accidents, injuries, fatalities, etc.
6. Review on-scene Incident Action Plans (IAP's) for safety implications.

AC INTELLIGENCE OFFICER (AC INTO)

For the U.S. Coast Guard, the intelligence function has been determined to best fit as the INTO. For more information on the Intelligence function, see Chapter 11. The responsibility of the AC INTO is to provide Command intelligence information for the AC that can have a direct impact on the response personnel and influence the disposition of maritime security assets involved in the response. Normally, detailed information regarding incident intelligence specifics will be referred to and handled by the appropriate on-scene INTO. The AC INTO will generally provide information on overall intelligence issues and progress/status of the response from a regional or national perspective.

The major responsibilities of the AC INTO are:

1. Review Common Responsibilities in Chapter 2.
2. Review the INTO Job Aid.
3. Working with AC, determine the level and complexity of Intelligence needed to support their efforts.

4. Reach agreement with AC on where the intelligence position will be located within the AC organization.
5. Determine Intelligence gaps and Intelligence requirements needed to support AC's decision making process and the development of the Operating Guide.
6. Analyze and share intelligence among AC organization, involved partners and the on-scene IMT(s).
7. Manage and process classified and unclassified requests for intelligence.
8. Ensure that intelligence is properly used and filed.
9. Coordinate intelligence gathering activities with other external agencies and organizations (i.e. FBI, State and local law enforcement, etc).

AC PLANNING CHIEF (AC PC)

The AC Planning Chief is responsible for collecting, evaluating, managing, and disseminating information at the AC level. The responsibility of the AC PC is to provide AC planning information for the AC that can have a direct impact on the response personnel and influence the disposition of maritime security assets involved in the response. Normally, detailed information regarding incident planning specifics will be referred to and handled by the appropriate on-scene PSC. The AC PC will generally provide information on overall planning issues and progress/status of the response from a regional or national perspective.

The major responsibilities of the AC PC are:

1. Review Common Responsibilities in Chapter 2.
2. Review the PSC Job Aid.
3. Review on-scene incident action plans for purposes of assessing potential conflicts with AC direction.
4. Oversee the preparation and dissemination of the AC Operating Guide (OG).

5. Facilitate/conduct AC meetings and briefings.
6. Prepare material and conduct special situation briefings for AC.
7. Assure appropriate displays are developed, maintained and posted.
8. Ensure all off-site reporting requirements are met, i.e., ICS 209-CG.
9. Ensure a documentation process is in place for collecting, duplicating and filing information, including intelligence.
10. Brief Operating Guide to AC staff, Agency Executives, on-scene commanders and VIP's.
11. Ensure that the on-scene commander(s) are adequately anticipating and developing contingencies for addressing future response needs.
12. Assist AC in the development of strategies, objectives, priorities, operating procedures and protocols.
13. Coordinate with Logistics on the identification of, ordering, assignment and demobilization of critical resources.
14. Ensure accurate status of critical resources.
15. Prepare and distribute the AC policies, procedures and decisions to the AC staff and the on-scene IC's/UC's.
16. Ensure a check-in process is in place to ensure accountability of visitors and command post personnel.
17. Develop recommendation for standing down the AC organization (demobilization).

AC SITUATION UNIT LEADER (AC SITL)

The AC SITL is responsible for collecting, processing and organizing incident information relating to the growth, mitigation or intelligence activities taking place on the incident. The SITL may prepare future

projections of incident growth, maps and intelligence information. The responsibility of the AC SITL is to provide situational information for the AC that can have a direct impact on the response personnel and influence the disposition of maritime security assets involved in the response. The AC SITL will generally provide information on overall issues and progress/status of the response from a regional or national perspective.

The major responsibilities of the AC PC are:

1. Review Common Responsibilities in Chapter 2.
2. Review the SITL Job Aid.
3. Develop and implement procedures for collecting and displaying the current operational picture that reflects AC overall response emphasis.
4. Collect and analyze intelligence gathered from on-scene command, external entities, AC staff, and brief AC on the potential implications.
5. Maintain current situation status displays.
6. Prepare incident situation information for support of, and use in, meetings, briefings and reporting documents.
7. Prepare for and conduct situation briefings.
8. Establish and maintain a task/action tracking process (ICS-234-CG).
9. Develop and maintain ICS 209AC-CG, Incident Status Summary.
10. As scheduled, provide frequent/timely incident status updates (ICS 209AC-CG) to Coast Guard Headquarters, the parent Coast Guard District, and other agencies and entities.
11. Be prepared to respond to real-time critical information requests.
12. As required, provide incident status updates to stakeholders or other external organizations on an unscheduled basis.

13. Develop and post a briefing and meeting schedule ICS 230AC-CG.
14. Develop a list of critical information elements.

AC CRITICAL RESOURCES UNIT LEADER (AC CRESL)

The AC CRESL is responsible for maintaining the status of all critical tactical resources and personnel. The AC CRESL will generally provide information on critical resources issues and progress/status of the response from a regional or national perspective.
The major responsibilities of the AC CRESL are:

1. Review Common Responsibilities in Chapter 2.
2. Review RESL Job Aid.
3. Maintain resource status for all critical resources.
4. Maintain resource status on all AC organization.
5. Establish and maintain a check-in process to ensure accountability of visitors and command post personnel.
6. Develop and post an AC organization chart ICS AC207-CG.
7. Assist Planning Chief in the development and assembling of the AC Operating Guide.
8. Support/assist the AC Planning Chief in assigning and demobilizing critical resources.
9. Develop 24 hr watch schedule.
10. Working with the on-scene commanders, submit critical resource needs to the AC Logistics Chief.
11. Coordinate with the AC Finance/Administration Chief to track response costs for AC.
12. Develop and maintain the Resource Allocation and Prioritization worksheet ICS AC215-CG.
13. Set-up meeting and briefing area using the meeting room layout (Refer to Area Command job aid for room layout).

AC DOCUMENTATION UNIT LEADER (AC DOCL)

The DOCL is responsible for the maintenance of accurate, up-to-date incident files.

The major responsibilities of the AC DOCL are:

1. Review Common Responsibilities in Chapter 2.
2. Review the DOCL Job Aid.
3. Establish a process for collecting, analyzing and storing AC documentation both non-secure and secure information.
4. Establish duplication service and respond to requests.
5. File all official memos, forms and reports.
6. Enforce confidentiality policies on release of documents.
7. Monitor accuracy of completeness of records submitted for filing.
8. Provide duplicates of forms and reports to authorized requesters.
9. Obtain approval for release of any documents or reports.
10. Prepare final files for hand-off to appropriate official for future use.

AC LOGISTICS CHIEF (AC LC)

The responsibility of the AC LC is responsible to provide facilities, services, and material in support of the AC.

The major responsibilities of the AC LC are:

1. Review Common Responsibilities in Chapter 2.
2. Review the LSC Job Aid.
3. Establish and maintain an appropriate ACP for the AC organization.
4. Provide services, and support for the AC organization, including billeting, transportation, feeding, etc.
5. Respond to requests to meet AC organization staffing requirements.

6. Establish and maintain a resource ordering process for the AC organization.
7. Work with on-scene IMT's to identify and respond to critical resource needs.
8. Identify list of potential critical/specialized resource suppliers.
9. Source, order and track critical and specialized resources from point of departure to incident check-in.
10. Support/assist the Planning Chief, in developing recommendations for establishing priorities to govern the assignment and demobilization of critical resources.
11. Plan for, and establish secure and non-secure voice and data communication for internal and external needs of the AC organization.
12. As appropriate, provide security services for the ACP.
13. When directed by AC, take charge of the expanded supply network to support the on-scene commanders.
14. Develop AC Communication Plan, ICS AC205-CG.
15. Establish and maintain an accountable-property tracking system.
16. Coordinate directly with the Finance/Administration Chief, for procurement and accounting purposes.

AC FACILITIES UNIT LEADER (AC FACL)

The AC FACL is primarily responsible for the set up, maintenance and demobilization of AC facilities.
The major responsibilities of the AC FACL are:

1. Review Common Responsibilities in Chapter 2.
2. Determine space requirements for ACP.
3. Prepare ACP footprint and assist AC staff in setting up individual work areas.
4. Coordinate with Safety Officer in conducting Site Safety Inspection of ACP.

5. If required, provide for billeting and feeding of AC personnel.
6. Provide for facility maintenance (e.g. sanitation, janitorial services, lighting, etc.).
7. Ensure facility is maintained in a safe condition.
8. Restore facility to its pre-occupancy condition.
9. If required, develop Facility Security Plan and manage security activities including staff parking area.
10. Ensure that all facility equipment is acquired, setup and properly functioning (i.e. furniture, display boards, copy machines, faxes, etc).
11. Establish property accountability system for issued equipment.

AC COMMUNICATIONS UNIT LEADER (AC COML)

The AC COML is responsible for developing plans for the effective use of AC communications equipment and facilities; installing and testing of communications equipment; supervision of the AC Communications Center.

The major responsibilities of the AC COML are:

1. Review Common Responsibilities in Chapter 2.
2. Review COML Job Aid.
3. Prepare and implement AC Communications Plan for both internal and external needs.
4. Provide input into the AC Operating guide as it relates to communications, ICS AC205-CG.
5. Ensure communications systems are installed and tested and maintained including ACP internal telephone system.
6. Coordinate with on-scene communication Unit Leaders and assist with acquisition of specialized equipment and frequency management issues.
7. Provide technical information to both the ACP staff and incident(s).

8. Establish accountability system for issued communications equipment.
9. If required, install secure communication network.

AC INFORMATION TECHNOLOGY SPECIALIST (AC ITS)

The major responsibilities of the AC ITS are:

1. Review Common Responsibilities in Chapter 2.
2. Analyze the requirements for data processing to support the ACP for both internal and external data transmission needs (for both secure and non-secure).
3. Install and maintain ACP LAN and stand alone system including laptops, printers and plotters.
4. Brief user group on system operations.
5. Based on requirements, determine need for specialized expertise to operate and maintain systems.

AC FINANCE CHIEF (AC FC)

The AC FC is responsible for all financial, administrative and cost analysis aspects of the AC and for supervising members of the AC Finance/Admin Section.

The major responsibilities of the AC FC are:

1. Review Common Responsibilities in Chapter 2.
2. Review the FSC Job Aid.
3. Determine Area Command requirements for cost accounting.
4. Coordinate with on-scene Finance/Admin Section Chief(s) to determine methodology for reporting cost information.
5. Collect, analyze and summarize cost data.
6. Keep AC briefed on response costs.
7. Ensure that response costs are managed within the established financial ceilings and guidelines.

8. Coordinate and advise AC on ceiling adjustments when necessary.
9. For oil and hazardous materials incidents: keep the AC advised as to the impact on the Oil Spill Liability Trust Fund (OSLTF) or CERCLA Fund and potential/projected time for reaching liability limits of the Facility/Vessel owner .
10. Establish a Pollution Removal Funding Authorization (PRFA) or other interagency agreements and ensure compliance with all cost documentation requirements of interagency fiscal agreements.
11. For oil spills: Coordinate the overall processing of claims with the Facility/Vessel owner and on-scene Finance/Admin Section Chiefs.
12. Coordinate with JFO for Stafford Act funding sources.
13. If required, develop cost sharing agreements with member of AC.
14. Monitor use of high cost specialized equipment and keep AC advised.
15. If required, coordinate processing of claims resulting from response actions.

OPTIONAL POSITIONS/TECHNICAL SPECIALISTS

LAW SPECIALIST

1. Review Common Responsibilities in Chapter 2.
2. Review Technical Specialist Job Aid.
3. Advise the AC on legal issues.
4. Establish links with the Facility/Vessel owner, state, and other applicable legal representatives. This is primarily a responsibility during Spills of National Significance (SONS).
5. Review documents developed by AC or AC staff to ensure they meet the legal requirements of participating agencies and organizations.

6. Ensure AC documentation control system is appropriate.
7. Identify what documents and/or information can or cannot be released during the response.
8. Monitor compliance of agreements being used during the response (i.e. MEXUS, etc.).

SECURITY SPECIALIST

1. Review Common Responsibilities in Chapter 2.
2. Review Technical Specialist Job Aid.
3. Determine security requirements of the Area Command Post (ACP).
4. Develop and implement ACP Security Plan.
5. Obtain assets to monitor and enforce security.
6. If required, determine need for ACP identification badge system and provide this service.
7. Evaluate and recommend to AC the need for secure communications for both voice and data.
8. Coordinate with on-scene security specialist(s) as needed to ensure security requirements are met.
9. If needed, establish a list of ACP personnel levels of security clearance.

AVIATION COORDINATOR

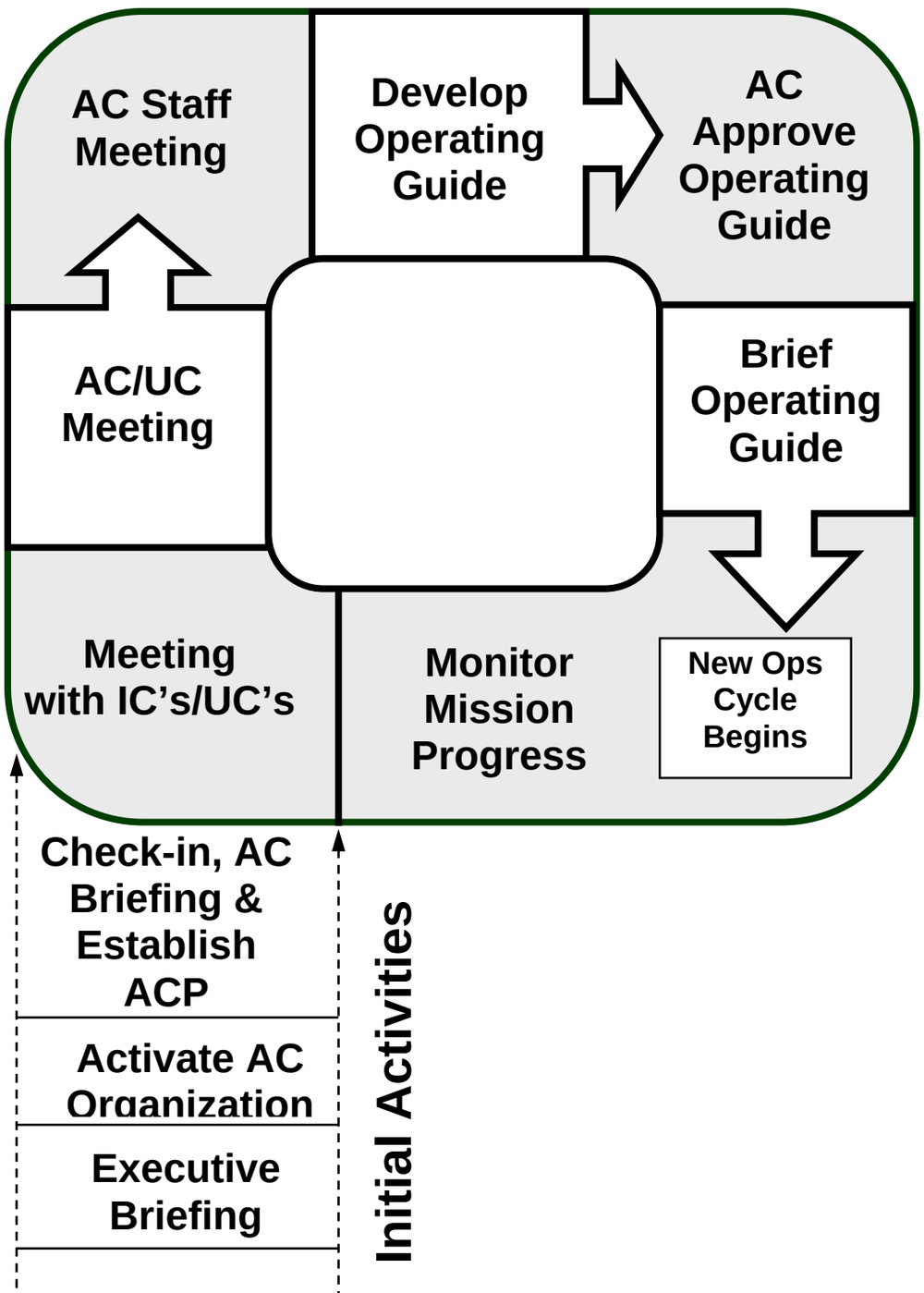
1. Review Common Responsibilities in Chapter 2.
2. Determine where in the AC organization this function will be assigned.
3. Determine AC requirements for use of aviation assets.
4. If aviation assets are determined to be a critical resource, coordinate with the Planning and Logistics Chief on ordering, assigning and demobilizing these assets.
5. Schedule the use of aviation assets assigned to support AC and their staff.
6. Coordinate with the On-scene Air Operations Director for multi- incident utilization of air assets.

7. Provide technical expertise on the use of specialized air assets to both AC and on-scene IMT(s).
8. If needed, develop an ICS 220-CG, Air Operations Summary Work Sheet.

DOCUMENTATION SPECIALIST/EXECUTIVE ASSISTANT

1. Review Common Responsibilities in Chapter 2.
2. Review Technical Specialist and DOCL Job Aids.
3. Determine AC requirements for documenting meeting and briefing.
4. Prepare Decision Memos for AC and primary staff review and approval.
5. Ensure AC meeting notes accurately reflect what was said.
6. Ensure that AC meeting notes, memos and reports are provided to the Documentation Unit Leader.
7. Develop and maintain chronological Log of AC decisions, direction and actions.
8. Perform other administractive duties as may be assigned (i.e. runner, expeditor, etc.).

AREA COMMAND OPERATING CYCLE MEETINGS, BRIEFINGS, AND THE OPERATING GUIDE PROCESS



The period of initial activation of the AC organization is when a determination is made to establish an AC organization to support on-scene IMT's. Senior Agency Representatives/Agency Executive(s) determine and designate who will represent the Coast Guard and other appropriate organizations within the AC structure.

EXECUTIVE BRIEFING – This is the first activity where the representatives in Area Command are briefed by senior agency executives on the overall situation which includes:

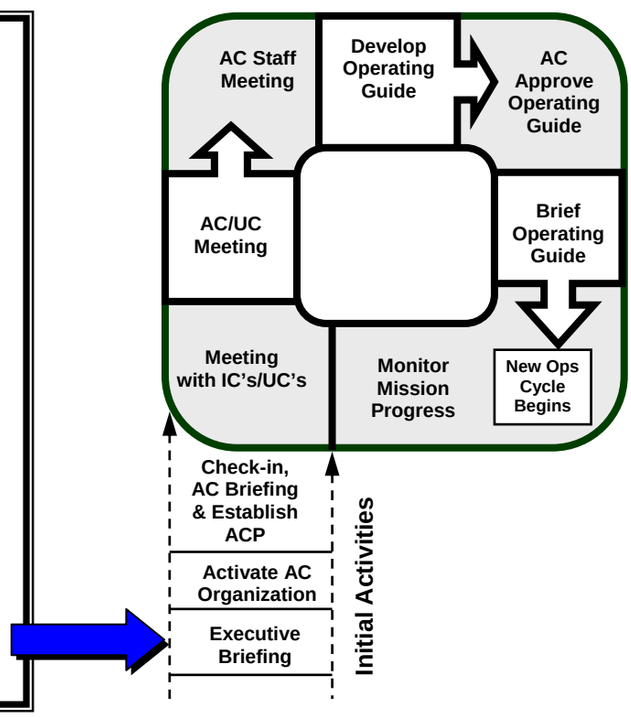
- Establish authorities.
- Receive policy guidance.
- Reach agreement on the scope of the job.
- Identify Area Command Post location.

When: Selected Area Commander(s) gather for the first time
Facilitator: Senior Agency Executive or designee
Attendees: Selected Area Commanders and deputies

General Tasks

Senior Agency Executives
- ☐ Provide situation briefing.
- ☐ Establish authorities.
- ☐ Review agency policies.
- ☐ Discuss scope of effort.
- ☐ Convey reporting requirements and relationships.
- ☐ Reach agreement on Command Post location.

Area Commanders
- ☐ Obtain briefing.
- ☐ Clarify scope of effort and issues.
- ☐ Agree on critical information reporting.
- ☐ Define any social, political, environmental and economic issues.
- ☐ Identify any cost constraints.
- ☐ Identify on-scene commanders



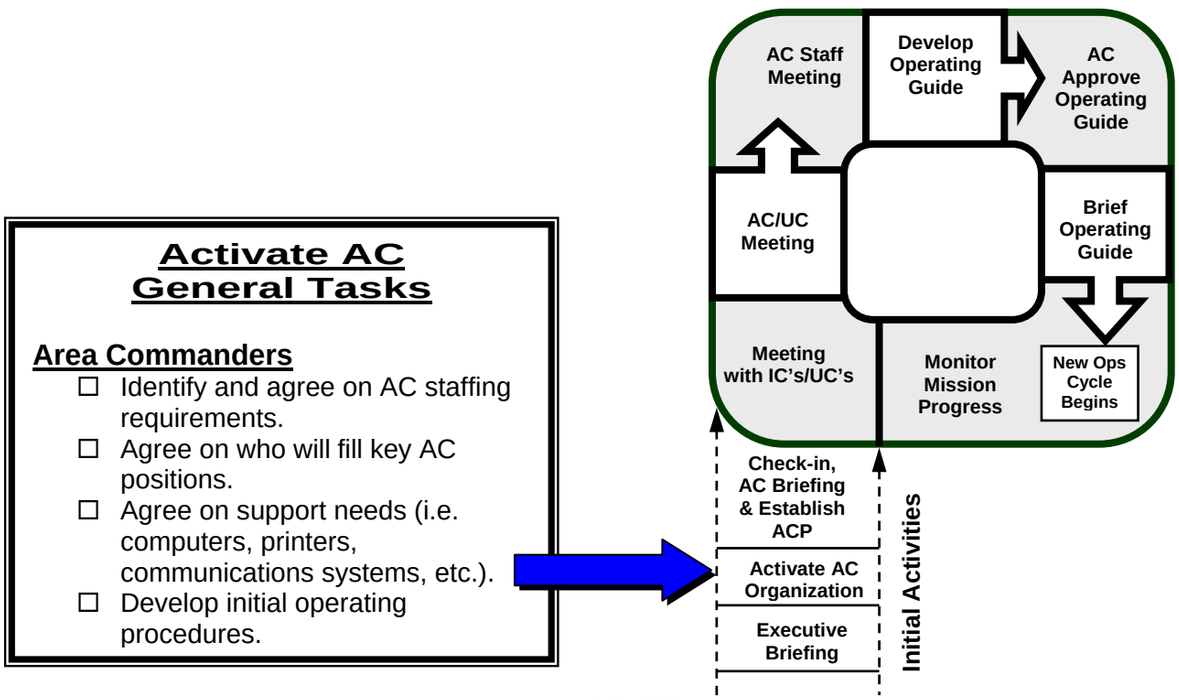
EXECUTIVE BRIEFING AGENDA

1. Brief on the need and requirements for AC organization.
2. Discuss prior communications between executives and IC's/UC's.
3. Brief on current situation.
4. Brief on AC authorities, duties and responsibilities.

5. Discuss overarching political, social, economic and environmental issues affecting the mission.
6. Clarify reporting and briefing requirements and lines of authority.
7. Discuss and reach agreement on overall AC staffing and Area Command Post (ACP) location.
8. Discuss plans and agreements that may be in place.
9. Close out meeting with concurrence from Area Commanders that their concerns have been addressed.

ACTIVATE AC ORGANIZATION/INITIAL AC MEETING – Provides Area Commander(s) the opportunity to determine the size of the Area Command organization based on the scope of effort and agreements reached at the Executive Briefing. This time block could also be used to evaluate the suitability of the proposed ACP location to meet AC organizational needs. Area Commander(s) come to agreement on AC staffing.

When: Shortly after the Executive Briefing
Facilitator: AC Member or AC PC (if available)
Attendees: Area Commanders



ACTIVATE AC ORGANIZATION/INITIAL AC MEETING AGENDA:

1. Facilitator brings meeting to order, covers ground rules and reviews agenda.
2. Validate makeup of newly formed UAC, based on Chapter 5 criteria.
3. Clarify UAC Roles and Responsibilities.
4. Review agency policies.
5. Establish and document response Priorities, Limitations and Constraints.
6. Define and document the UAC jurisdictional boundaries and focus (Area of Responsibility (AOR)).
7. Determine location of Area Command Post (ACP).
8. Determine AC period length/start time and work shift hours.
9. Designate lead organization for AC Planning Chief, Information, Safety, Intelligence and Liaison Officers as needed.
10. Designate other AC key staff assignments as needed.
11. Discuss and agree on managing sensitive information, resource ordering, cost sharing, cost accounting, and operational security issues.
12. Summarize and document key decisions, procedures and guidance.

CHECK-IN, AC STAFF BRIEFING & ESTABLISH ACP – Area Commanders will conduct initial briefing with AC personnel. Briefing will include expectations from Area Commanders and any limitations or issues the AC will be expected to address. Establishment of the ACP may also be addressed at this time.

When: At the time AC staff begins to arrive and ACP is being established

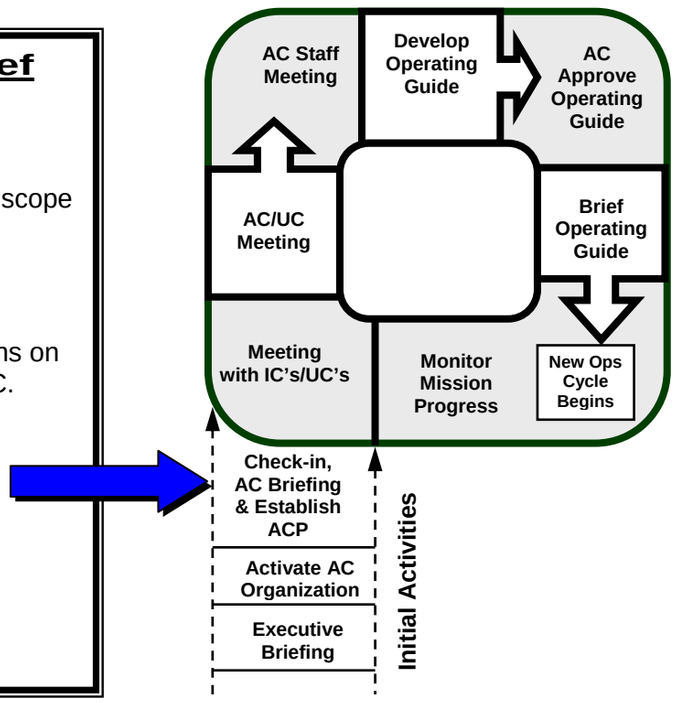
Facilitator: AC PC or Area Commander(s) with participation from Planning and Logistics Chiefs
Attendees: All AC personnel

Check-In and AC Brief General Tasks

Area Commanders
- ☐ Provide guidance to AC staff on scope of assignment.
- ☐ Convey agency executives' expectations, policy guidance, authorities, etc.
- ☐ Convey Area Command decisions on staffing and support needs of AC.
- ☐ Assign tasks, if necessary (i.e., preparing for the on-scene IC meeting).

AC Planning Chief
- ☐ Facilitate briefing.
- ☐ Document open actions.

AC Staff
- ☐ Clarify individual roles and responsibilities.



AC STAFF MEETING AGENDA:

1. AC PC brings meeting to order, conducts roll call, covers ground rules and reviews agenda.
2. AC SITL conducts situation status briefing.
3. AC provides initial comments, expectations, initial assignments, and closing comments.

MEETING WITH ON-SCENE INCIDENT COMMANDERS/UNIFIED COMMANDS – Provides Area Commander(s) the opportunity to dialogue with on-scene IC's/UC's and receive on-scene IC's/UC's current situation, strategies and issues confronting them.

When: As soon as possible after AC becomes operational
Facilitator: AC PC

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Attendees: Area Commanders, Planning, Logistics and Finance/Admin Chiefs, On-scene IC's/UC's and their Planning Section Chiefs

Meeting with IC/UCs General Tasks

Area Commanders

- ☐ Clarify AC roles and expectations.
- ☐ Provide policy and direction.
- ☐ Cover AC operating procedures.
- ☐ Provide ground rules or procedures for on-scene IC's/UC's to follow.
- ☐ Area Commanders and on-scene IC's/UC's reach agreement on division of responsibility (i.e., media relations, stakeholder meetings, etc.).

AC Planning Chief

- ☐ Provide reporting requirements, formats and time frames.
- ☐ Collect incident IAP's and/or 201's.

AC Logistics Chief

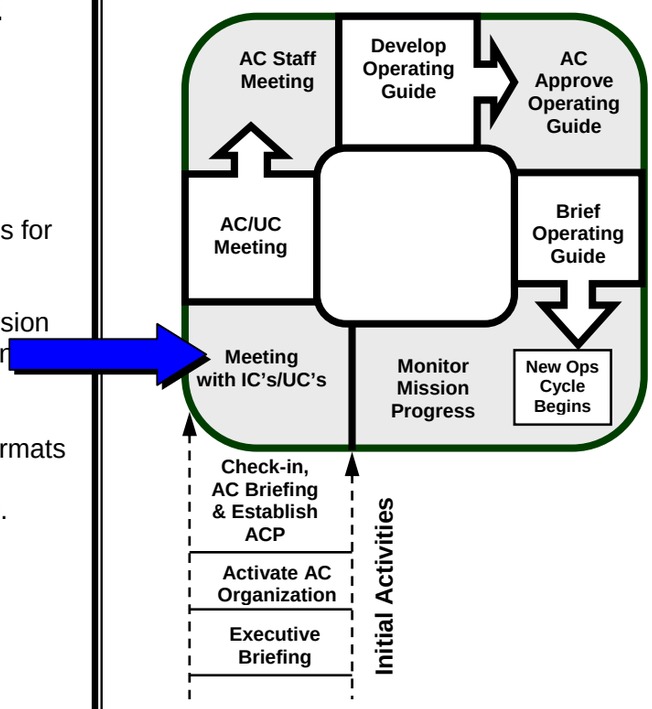
- ☐ Provide procedures for ordering specialized or critical resources.
- ☐ Explain process for sharing or re-assigning specialized and critical resources.
- ☐ Explain demobilization of specialized and critical resources.

AC Finance/Admin Chief

- ☐ Explain process for cost tracking.
- ☐ Explain notification procedures for responder illnesses, injuries or accidents.

On-scene Incident Commanders/UC's

- ☐ Provide overall situation report for their individual incident.
- ☐ Identify resources at risk.
- ☐ Specify current incident objectives.
- ☐ Provide response priorities.
- ☐ Provide long-term projections and existing and anticipated problems.
- ☐ Provide list of resource requirements and shortfalls.
- ☐ Identify probability of success if resource needs are met.
- ☐ Identify consequences if resource requirements are not met.
- ☐ Identify for Area Commanders, areas that AC can provide assistance to them



AC IC/UC MEETING AGENDA

1. AC PC brings meeting to order, conducts role call, And reviews agenda.
2. AC's provide opening remarks along with providing policy direction, Executives' expectations, AC interim operating procedures, expectations and ground rules.
3. AC PC provides guidance on information reporting to include timeframes, units of measure and formats along with critical information reporting.
4. AC LC provides guidance on ordering and sharing of specialized and critical resources, including demobilization of these resources.
5. AC FC provides guidance on cost accounting and reporting of injuries and accidents.
6. IC's/UC's report on their individual situation to include resources at risk, incident objectives, incident priorities, resource requirements and consequences if resource requirements are not met.
7. Resolve oustanding issues or concerns.
8. AC PC solicits final comments and adjourns the meeting.

AREA COMMANDERS MEETING – During this 1-hour meeting, the AC(s) will use the information derived from the IC meeting and develop overall strategies, objectives, priorities and identify any critical resource needs or issues AC will have to deal with. As needed, AC's will prioritize among incidents. AC(s) will also finalize the AC operating procedures.

When: As soon as possible after adjournment of IC/UC meeting
Facilitator: AC Planning Chief
Attendees: Area Commanders, AC Planning Chief, other staff upon AC request

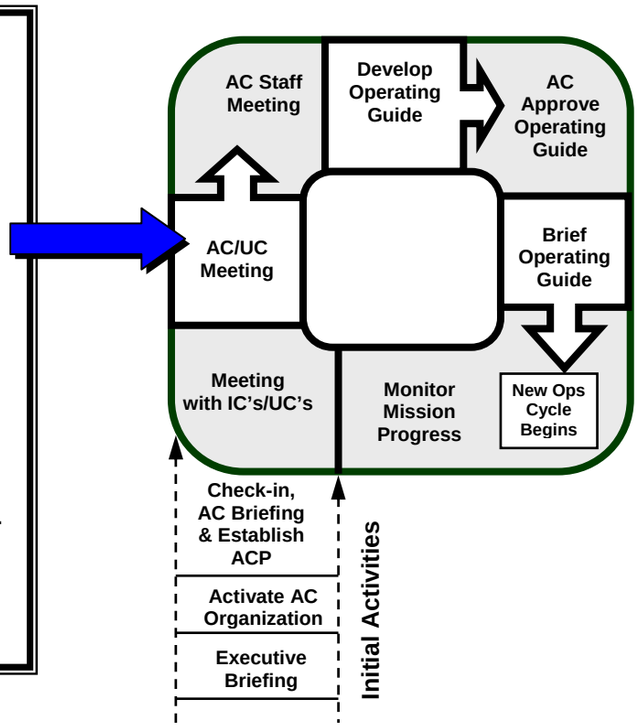
AC/UC Meeting General Tasks

Area Commanders

- ☐ Reach agreement on what are critical resources.
- ☐ Discuss limitations and constraints.
- ☐ Prioritize incidents.
- ☐ Develop overall priorities, objectives and strategies.
- ☐ AC will also finalize the AC operating procedures, i.e., core hours of operation, night watch, staffing requirements, meeting schedules, reporting timeframes, etc.
- ☐ Identify any specific tasks for AC staff.

AC Planning Chief

- ☐ Set up meeting room using meeting room layout.
- ☐ Facilitate meeting.



AREA COMMANDERS MEETING AGENDA

1. AC PC brings meeting to order.
2. AC addresses any policies, limitations and constraints.
3. AC reaches agreement on criteria for identifying critical resources.
4. AC discusses and prioritizes incidents.
5. AC PC facilitates discussion and develops overall response priorities.
6. AC PC leads discussion on development of strategic objectives.
7. AC will also finalize the AC operating procedures, i.e., core hours of operation, night watch, staffing requirements, meeting schedules, reporting timeframes, etc.
8. AC identifies any specific tasks for AC staff.
9. AC addresses any critical issues derived from the IC/UC Meeting or Agency Executive Briefing.

AC STAFF MEETING/BRIEFING – During this 1-hour meeting, the AC(s) will present their decisions and management direction to the AC staff. This meeting should clarify and help to insure understanding among

the core AC staff as to decisions, objectives, priorities, procedures and functional assignments (tasks) that the AC has discussed and reached agreement.

When: Following AC meeting
Facilitator: AC Planning Chief
Attendees: Area Commanders and AC staff to include Unit Leaders and Technical Specialists, if needed

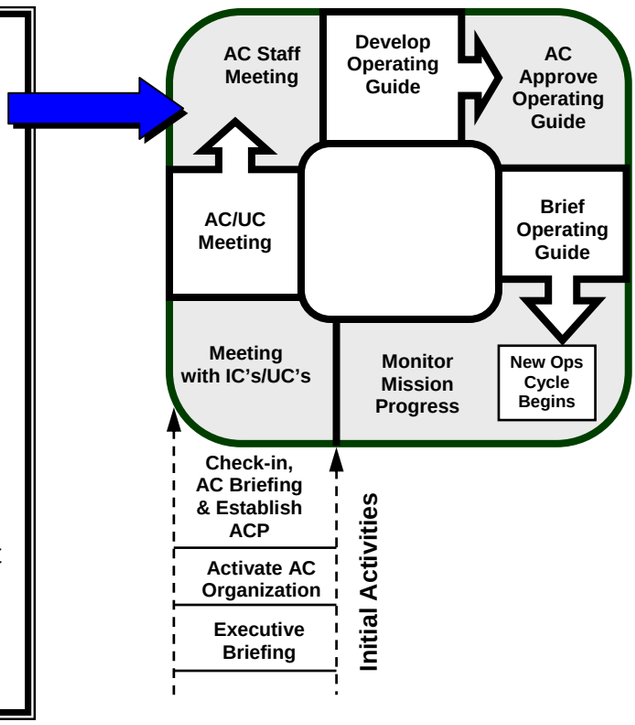
AC Staff Meeting General Tasks

Area Commanders
- ☐ Present AC decisions, directions, and priorities.
- ☐ Present AC operating procedures.
- ☐ Discuss overall response emphasis including any limitations and constraints.
- ☐ Present functional work assignments (tasks).

AC Planning Chief
- ☐ Set-up meeting/briefing area.
- ☐ Facilitates and documents meeting.

AC Situation Unit Leader
- ☐ Provide updates on the overall current situation and projections if available.

AC Staff
- ☐ Review and clarify functional work assignments (tasks).

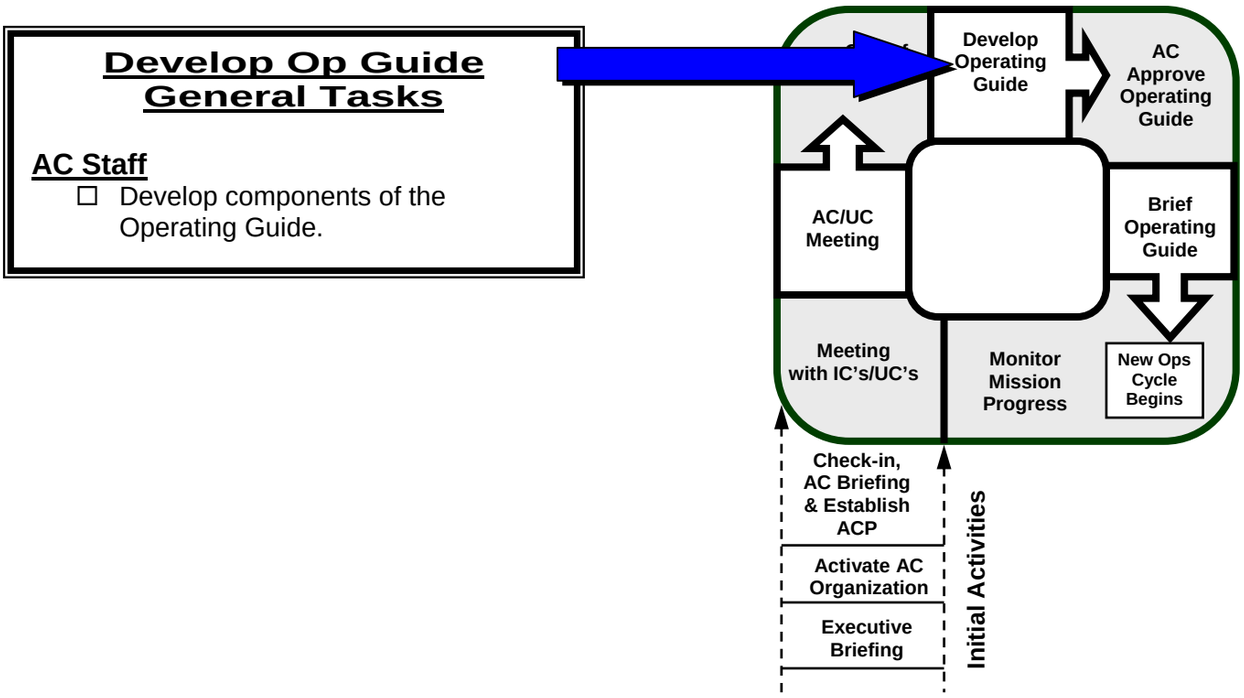


AC STAFF MEETING/BRIEFING AGENDA

1. AC PC brings meeting to order, conducts role call, covers ground rules and reviews agenda.
2. AC SITL conducts situation status briefing.
3. AC provides comments.
4. AC presents
   a. Decisions, directions, and priorities.
   b. Operating procedures.
   c. Overall response emphasis, including limitations and constraints.
   d. Functional work assignments (tasks) to staff members.
5. AC PC facilitates a short discussion on issues and concerns and adjourns meeting.

DEVELOP OPERATING GUIDE – During this block of time, AC staff develops components that are to be included in the Operating Guide. These components must meet the deadlines set by the PC so Planning can assemble the Operating Guide. Deadline must be early enough to permit timely AC review, approval and duplication.

When: Following AC staff meeting
Facilitator: Planning Chief facilitates process
Attendees: None. This is not a meeting but a period of time.



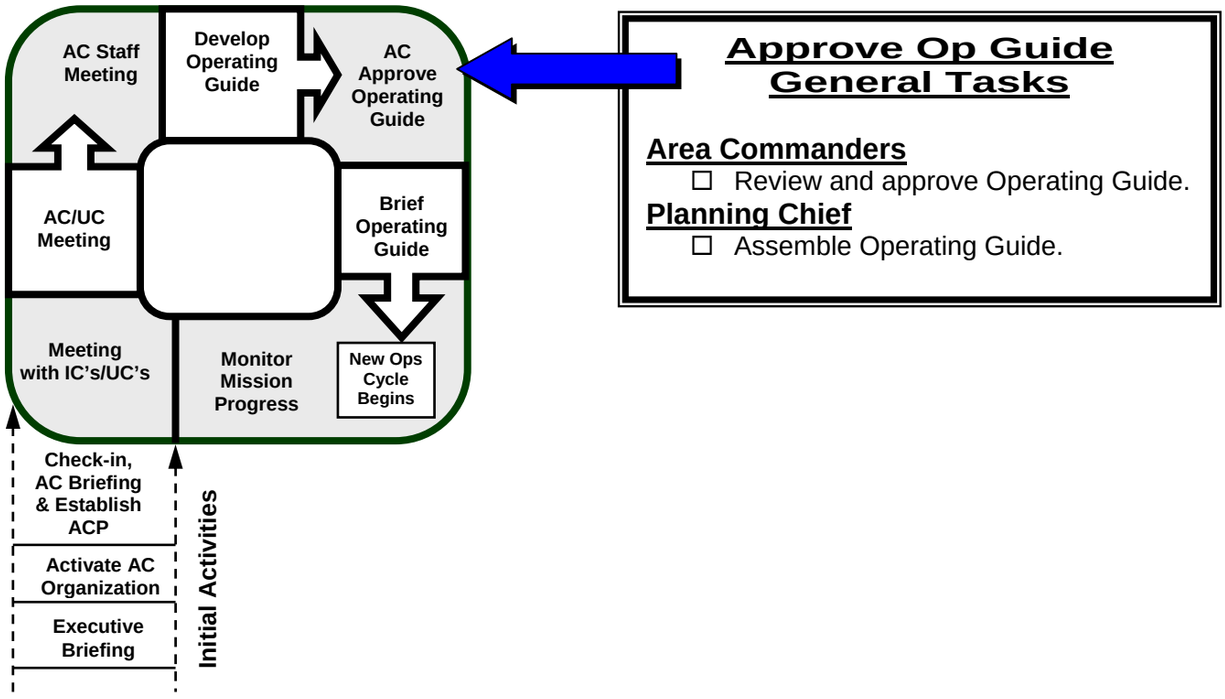
OP GUIDE COMPONENTS	PRIMARY RESPONSIBILITY
1. AC Priorities & Objectives (ICS AC202-CG)	AC CRESL
2. AC Organization List/Chart (ICS AC207-CG)	AC CRESL
3. Critical Resource Summary (ICS AC215-CG)	AC CRESL
4. AC Meeting & Briefing Schedule (ICS AC230-CG)	AC SITL
5. AC Communication Plan (ICS AC205-CG)	AC COML
6. Information Management Plan	AC PIO
7. Critical Information Reporting	AC SITL
8. AC Staffing Schedule	AC CRESL
9. AC Policies, Procedures & Decisions	AC PC

OPTIONAL COMPONENTS (Use as Pertinent)

1. Air Operations Summary (ICS 220-CG)	AC AVSP
2. AC Demobilization Plan	AC PC
3. AC Facility Safety Plan	AC SOFR
4. AC Security Plan	AC SCSP
5. Other AC Plans or documents as required	AC Staff

AC APPROVE OPERATING GUIDE – During this block of time, AC PC assembles Operating Guide, reviews content, makes adjustments if necessary, and provides to AC for review and approval. Following approval duplicates required copies for distribution.

When: Following Operating Guide Development
Facilitator: PC and AC facilitates process
Attendees: None. This is a block of time



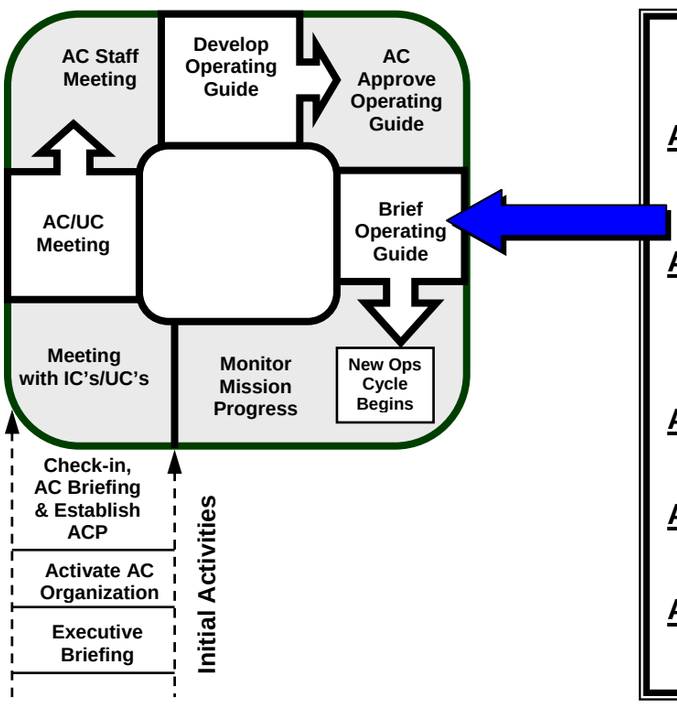
BRIEF OPERATING GUIDE – This 30-minute or less briefing presents the Operating Guide to the AC staff and on-scene IC's/UC's. Briefing to on-scene IC's/UC's may be accomplished by video conferencing or some other medium. Copies are either faxed or sent electronically to on-scene IC's/UC's and Agency Executives.

AUGUST 2006

When: At or as close as possible to AC shift change

Facilitator: AC Planning Chief

Attendees: All AC staff and if possible On-scene IC's/UC's, and Agency Executives



Brief Op Guide General Tasks

Area Commanders
- ☐ Provide leadership presence and motivational remarks.
- ☐ Provide guidance/clarification.

AC Planning Chief
- ☐ Set up briefing area
- ☐ Prepares briefing materials
- ☐ Facilitates Briefing
- ☐ Provide status on critical resources

AC Situation Unit Leader
- ☐ Provides Situation Briefing
- ☐ Review status of open actions/tasks

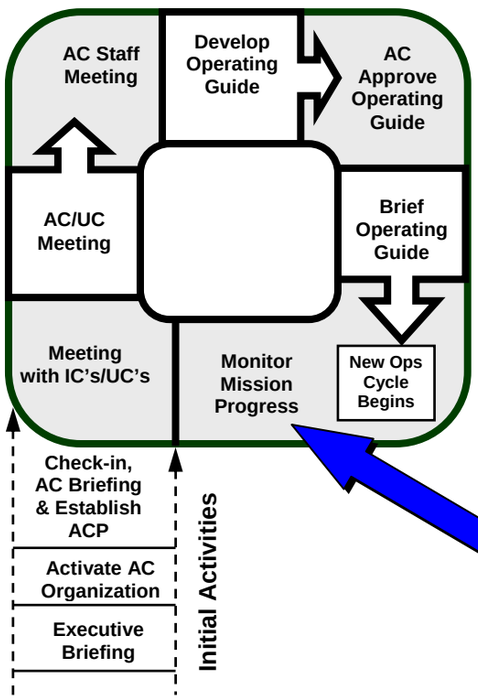
AC Logistics Chief
- ☐ Address logistical support/service issues

AC Finance/Admin Chief
- ☐ Address finance/admin issues

OPERATING GUIDE BRIEFING AGENDA

1. AC PC opens meeting, conducts role call and reviews agenda.
2. AC SITL conducts situation status briefing and provides projections as needed.
3. AC provides opening remarks.
4. AC PC presents Operating Guide.
5. AC LC presents status of specialized and critical resources.
6. AC FC presents status of cost tracking and other cost accounting issues.
7. AC PC conducts round robin to clarify and resolve open issues with participants.
8. AC PC adjourns briefing.

MONITOR MISSION PROGRESS – Assessment is an on-going continuous process to help determine needed adjustments to the operating guide and assist in planning future support to the on-scene operations. Following the AC Operating Guide briefing, and shift change, all AC staff will review mission progress and make recommendations to the AC(s). This feedback/information is continuously gathered from various sources.



General Tasks

Area Commanders

- ☐ Keeps superiors informed of progress and issues.
- ☐ Evaluates overall AC effectiveness.
- ☐ Resolves problems as they occur.
- ☐ Follows up on staff work assignments / open actions.
- ☐ Communicates with IC's/UC's and assists as needed.
- ☐ Attends planned meetings and briefings.
- ☐ Evaluates staff effectiveness and orders additional resources as needed.
- ☐ Provides leadership presence and motivational remarks.
- ☐ Provides guidance/clarification.

AC Planning Chief

- ☐ Evaluates Planning Section effectiveness.
- ☐ Evaluates staffing requirements for next operational period.
- ☐ Prepares briefing materials.
- ☐ Conducts a Planning Section meeting.
- ☐ Ensures that document control system is functioning properly.
- ☐ Provides status on critical resources.

AC Logistics Chief

- ☐ Addresses ongoing logistical support/service issues.
- ☐ Ensure appropriate communications is in place.
- ☐ Evaluate space requirements and make adjustments as needed.
- ☐ Monitor Command Post security.
- ☐ Source critical and specialized resources.
- ☐ Evaluate logistics staffing needs and order as needed.

AC Finance/Admin Chief

- ☐ Continue to address finance/admin issues.
- ☐ Investigate any unusual claims and briefs Command.
- ☐ Develop cost sharing agreements as needed.
- ☐ Monitor AC procurement procedures.
- ☐ Briefing Command on any unusual high cost items being requested.

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CHAPTER 14

JOINT FIELD OFFICE AND INCIDENTS OF NATIONAL SIGNIFICANCE

References:

(a) National Response Plan (NRP)
(b) National Incident Management System (NIMS)
(c) Joint Field Office Standard Operating Guide (SOP)
(d) Alignment with the National Incident Management System and National Response Plan, COMDTINST 16000.27 (series)

NOTE: This chapter provides a very brief overview of the National Response Plan (NRP), Incidents of National Significance (INS), and activation of the Joint Field Office (JFO). For more information and more detailed guidance, please see references (a) through (d).

INTRODUCTION

For a potential or actual Incident of National Significance (INS), DHS may establish a Joint Field Office (JFO). The purpose of a JFO is to provide support to local Incident Command structures and coordinate efforts to address broader regional impacts of the incident. As part of the Multi-agency Coordination System (MACS), the JFO does not supplant the on-scene Incident Command(s)/Area Command(s), but supports and provides broader coordination of incident-related activities. Execution of tactical operations and coordination remains the responsibility of the IC(s)/AC(s).

Activation of a Joint Field Office

When DHS determines that a JFO is necessary, DHS will identify agencies with primary responsibility for incident management to serve a part of the JFO Coordination Group. The JFO Coordination Group will coordinate (usually by teleconference) to define situationally appropriate requirements for a JFO. DHS tasks Emergency Support Function (ESF) #5 (led by FEMA) to stand up a JFO and provide core staffing. Other agencies provide additional staffing of the JFO based on the nature of the incident, typically through the activation of various ESF's. The Principal Federal Official (PFO), PFO Support Staff, and other Senior Federal Officials (SFO's) may operate from an Interim Operating Facility (IOF) until a fully functional JFO is established.

Responsibilities of the JFO Coordination Group

The JFO Coordination Group is comprised of the PFO, who serves as the Secretary of Homeland Security's local representative and agencies with primary responsibility for incident management, such as FEMA's Federal Coordinating Officer (FCO). For incidents that fall largely in Coast Guard jurisdiction, the Coast Guard will participate in the JFO Coordination Group as a SFO. The JFO Coordination Group is responsible for:

a. Overall coordination of Federal incident management and assistance activities across the spectrum of prevention, preparedness, response, and recovery.
b. Ensuring the seamless integration of Federal activities in support of and in coordination with State, local, and tribal organizations.
c. Providing needed resources as requested by the Incident Command and/or relevant EOC's.
d. Providing strategic guidance to Federal entities.

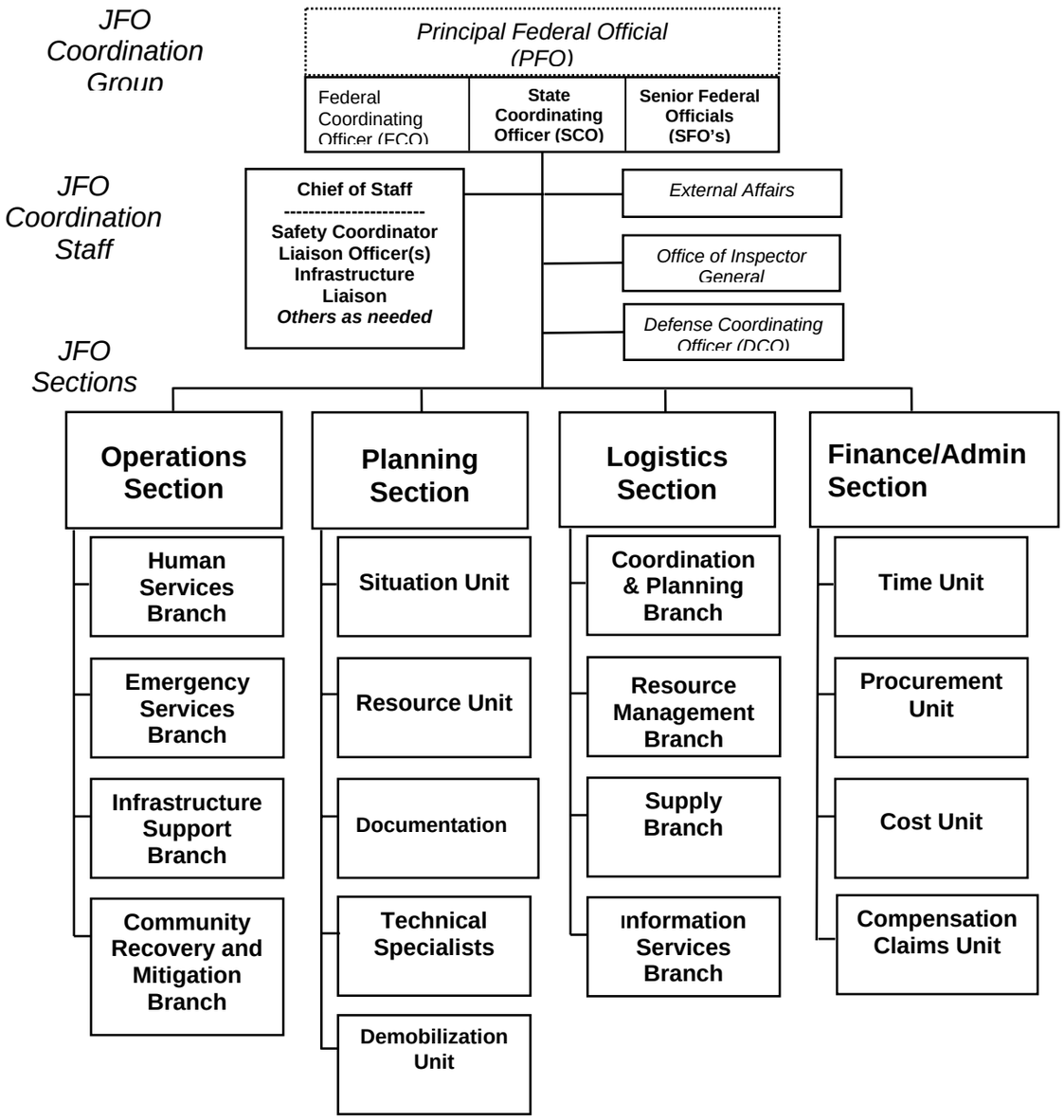
e. Facilitating interagency conflict resolution as necessary.
f. Serving as a primary, although not exclusive, point of contact for Federal interface with State, local, and tribal senior elected/appointed officials, the media, and the private sector.
g. Providing real-time incident information to the Secretary of Homeland Security through the HSOC and the IIMG.
h. Coordinating response resource needs between multiple incidents as necessary.
i. Coordinating the overall Federal public communications strategy locally to ensure consistency of Federal interagency communications to the public.
j. Ensuring that adequate connectivity is maintained between the Incident Command structures; JFO; HSOC; local, county, State, and regional EOC's; nongovernmental EOC's; and relevant elements of the private sector.

Organization of the Joint Field Office

Although the JFO is not an Incident Command structure, it uses an Incident Management Team (IMT) organization to facilitate the integration of multi-agency staffing, provide a robust structure and process for coordinating its activities, and provide a planning cycle for the development of a Coordination Plan. The JFO organization adapts to the magnitude, complexity and nature of the incident. The following diagram is an example JFO organization for natural disasters. For terrorist incidents, the FBI's Joint Operations Center (JOC) is incorporated as a branch within the Operations Section. Likewise, for National Special Security Events (NSSE's), the US Secret Service Multi-agency Command Center (MACC) is also incorporated as a

branch within Operations. See chapter 23 for more info about NSSE's.

Example JFO Organization for Natural Disasters



Note: Depending on the magnitude of the disaster, a PFO may not always be designated, in which case the FCO will provide the Federal lead.

The SCO represents the State, and in some instances, the JFO Coordination Group may include local and/or tribal representatives as well as NGO and private-sector representatives, as appropriate.

Coordination between the Incident Command and Joint Field Office

In a response where there is no federal presence in the Unified Command, the JFO primarily works with the involved State EOC's to provide federal assistance. In situations where there is a federal presence in the Unified Command (such as terrorist incidents and oil/hazmat releases), the JFO will coordinate directly with the Unified Command/Area Command. For an effective response, the JFO and the on-scene Incident Command must work together in a cooperative environment. Coordination will take place both at the senior level (i.e., between the Unified Command and JFO Coordination Group) and at the staff levels (e.g., between ICP Planning Section and the JFO Planning Section, Safety Officer and Safety Coordinator, etc.). Based on the incident objectives and Incident Action Plan established by the Unified Command, the JFO establishes broader objectives and creates a Coordination Plan. While developing the broader objectives and Coordination Plan, the JFO Coordination Group must also consider the national strategy and concerns of the Interagency Incident Management Group (IIMG). The Coordination Plan includes objectives established by the JFO Coordination Group, synopsis of agency and Incident Command actions, assigned coordination activities, information-sharing procedures, and a safety plan.

Facilitation Between the JFO and Unified Command

To facilitate cooperation, the on-scene Unified Command should provide to the JFO:

a. Incident Priorities.
b. Copy of Incident Action Plan (IAP) per operational period.
c. Progress updates with identified hindrances.
d. Critical needs/Critical resource shortfalls (and impact of not receiving required resources).
e. Political, social, economic, and environmental impacts.
f. Long term projections.
g. Contact directory.
h. Meeting schedules.

In turn, the JFO:

a. Provides requested resources.
b. Coordinates broader objectives with those established by the UC.
c. Addresses resource and policy issues raised by the UC.
d. Synchronizes planning cycle with UC planning cycle, as appropriate.
e. Distributes an overall contact directory.
f. Provides copy of the Coordination Plan.

CHAPTER 15

TERRORISM

1. Table of Contents 15-1

2. Introduction 15-2

3. Terrorism Incident Specific NIMS ICS Positions and Task Descriptions 15-5

4. Terrorism Incident Technical Teams 15-14

CHAPTER 15

TERRORISM

References:

(a) National Response Plan (NRP)
(b) National Incident Management System (NIMS)
(c) Coast Guard Hazmat Response Special Teams and Capabilities Contact Handbook
(d) U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST 16247.1 (series)

INTRODUCTION

A nuclear, biological, or chemical Weapon of Mass Destruction (WMD) type terrorist incident is inherently a hazardous substance incident. As such it should be responded to under the National Response System (NRS). As applicable, consult Chapter 20 Hazardous Substance (Chemical, Biological, Radiological and Nuclear) and Chapter 22 (Multi-Casualty) of this Incident Management Handbook (IMH) regarding establishment and use of the Incident Command System when a terrorist incident precipitates a hazardous materials release and/or mass casualty.

The UC responding to an incident where terrorism is involved have to be acutely aware of the unique nature of the Federal Government's response mechanism for these types of incidents. All agencies must use the National Plan (NRP) structures and the National Incident Management System (NIMS) to coordinate all Federal assistance to State and local governments for response activities to Incidents of National Significance (INS). During a terrorism incident, the UC may work for the Federal Bureau of Investigation (FBI) and/or FEMA and will be guided by the NRP

If an incident occurs without warning that produces major consequences and appears to be caused by an act of terrorism, then FEMA and the FBI will initiate response actions concurrently. FBI will have the lead in this incident because of the possible terrorism link and all agencies will be guided by the NRP.

With the exception of the U.S. Coast Guard National Strike Force (NSF), upon notification of WMD/Terrorism incident, USCG policy is to stay clear of the contaminated area and to provide command, control and support only. NSF Strike Teams are the only units within the Coast Guard who are currently trained and have a mission to respond to chemical incidents for either Coast Guard or the U.S. Environmental Protection Agency (USEPA) Federal On-Scene Coordinators. For personnel responding to WMD/Terrorism events, certain guidelines should be followed:

- Hesitate – don't rush in and ask questions later! Take time to decide what to do.
- Evaluate the situation – size up the situation - think about what's happening and what you should do.
- Isolate – after evaluating where the hot zone is, don't let anyone other than a responder enter the hot zone, and don't let other responders enter the hot zone without proper equipment. Set up a barrier line, even if you have only simple yellow emergency tape.
- Evacuate – get people out of the hot zone without risking your own life. Don't go into the hot zone without proper equipment. Keep victims and others who might have been exposed from getting too far away – medical and police will want to talk to them.

- Decontaminate – but only if you can do it without endangering yourself. Use a fire hose if possible so you won't have to get close to the victims; in some cases a victim can self decontaminate.
- Cooperate – when other responders arrive, follow standard organizational principles. But above all cooperate; there'll be time later to argue who's boss; right now try to save lives.
- Communicate – let other emergency and medical authorities know what your situation is and what you're doing. But if you think there might be a flammable vapor around, don't use your radios (or any other electrical equipment) near the incident. Retreat to a vapor free area to use that radio.
- Investigate – actually, the first responder won't do any real criminal investigation, but you must remember this is a crime scene and responders and others shouldn't disturb crime scenes. Preserve the crime scene (for all terrorism is a crime as well as an act of war); observe, remember, and report to police.
- Be aware of possible secondary devices, including explosive, radiological, chemical and biological. Be cognizant of surroundings, especially of containers, or packages that appear misplaced. A tactic terrorist's use involves setting off a device designed to draw in first responders and then setting off a secondary device to maximize casualties.
- Ask qualified authorities, typically the FBI, if the area has been cleared of secondary devices.
- Again, be aware that in a WMD incident terrorists generally have a singular purpose and that is to cause fear, death and destruction. A defensive stance should always be maintained for a WMD incident.

TERRORISM INCIDENT SPECIFIC NIMS ICS POSITIONS AND TASK DESCRIPTIONS

Only those ICS positions and tasks specific and unique to Terrorist Incident missions will be described in this section. Persons assigned the common positions consistent with the NIMS organization should refer to position job aids and Chapters 5 through 11 of this Manual for their position/task descriptions and checklists.

INCIDENT COMMANDER - Tasks specific to a Terrorist Incident are to:

a. Review Incident Commander responsibilities in Chapter 6.
b. Assesses the need for additional resources and assist in obtaining their assistance. Some of these resources are listed in the Terrorism Special Teams section of this chapter.
c. Ensure that the following have been established:
    - HAZMAT Group – which is responsible for deploying a reconnaissance team, produce sampling/identification, assisting with victim rescue, setting up decontamination for responders and developing a plan of action for containment and control of hazardous agents.
    - Medical Group – which is responsible for initiating victim rescue, patient decontamination, and emergency medical care for NBC victims.
    - Hospital Coordination – which establishes communication links with area hospitals, provides them with situation reports, and information on agent identification, and determines pharmacology needs.

- Medical Information & Research – which begins to research agent characteristics based upon victim signs and symptoms, victims' descriptions of agent, sample characteristics, and other information as it becomes available. Establishes communication with Poison Control Centers (ATSDR and CDC).
- Law Enforcement Group – which coordinates law enforcement agencies to establish incident security, establishes evidence collection and control, and obtains intelligence information.

d. Work to identify and address strategic and tactical issues.
e. Work with city and county mental health resources to assure that Critical Incident Stress Management services are provided to victims, their families, first responders, and the general public.
f. Coordinate with the County Medical Examiner/Coroner to establish appropriate forensic and mortuary services for deceased victims.
g. Assist the Safety Officer in establishing a site safety plan; implementing an accountability system; and establishing hot, warm, and cold zones if not already established.

PUBLIC INFORMATION OFFICER - Tasks specific to a terrorist incident are:

a. Review Public Information Officer Responsibilities in Chapter 6.
b. Establish safe media conference areas distant from the Incident Command Post.
c. During the Event:
   1. Determine what information is appropriate to

release to avoid panic.

2. Promote optimum community response.
3. Develop information releases that support response activities:
   - Medical treatment sites that the victims can report to.
   - Transportation avenues and other areas that are closed off.
   - Immediate first aid measures that can be taken.
   - Location of shelter facilities where evacuated personnel have been moved to.

d. After the Event:
   1. Release non-sensitive information.
   2. Provide basic information regarding the event:
      - Where, what, why, how.
      - Units responding.
      - Number of casualties.
   3. Examples of types of information that should not be released:
      - Names of fatalities.
      - Specific type/name of agent involved (until after incident is terminated).
      - Dispersal method(s) used.
      - Specific law enforcement activities.
      - Condition of victims.

EVENT SITE BRANCH DIRECTOR - Tasks specific to terrorist incidents are:

a. Review Branch Director Responsibilities in Chapter 7.
b. Coordinate for site control around the vicinity where the event occurred.
c. Determine hazards presented by the event (monitoring/detection).

d. Establish a safe refuge and a casualty collection area.
e. Establish emergency decontamination capability.
f. Coordinate with Medical Unit for medical treatment and transport capability, including requesting county transit buses.
g. Coordinate with Safety Officer for a site safety and control plan.
h. Determine containment and control procedures to be used.
i. Coordinate with other agencies (investigative/ evidence gathering).

COMMUNITY IMPACT BRANCH DIRECTOR - Tasks specific to terrorist incidents are:

a. Review Branch Director Responsibilities in Chapter 7.
b. Coordinate for perimeter security and traffic control.
c. Determine hazards presented to the community through detection/monitoring.
d. Determine best protective actions to use:
   - Rescue
   - Shelter-in-place (SIP)
   - Evacuation
   - Establish shelters
e. Establish emergency decontamination capability for off site personnel and public.
f. Establish a medical treatment and transport capability for off-site personnel and the public.
g. Coordinate with Safety Officer for site safety and control plan.
h. Coordinate with Information Officer to develop emergency broadcast messages to alert and update the community.
i. Determine re-entry procedures to be used

j. Coordination with other agencies and notify the County Health Officer.

HAZARDOUS SUBSTANCE/MATERIALS GROUP - Tasks specific to terrorist incidents are:

a. Review the Division/Group Supervisor Responsibilities in Chapter 7.
b. Review the Chemical tasks in Chapter 19 of this document.
c. Ensure the implementation of defensive mitigation practices when indicated.
d. Ensure that information regarding the agent(s) and patient symptoms is passed to the Medical Group.
e. Ensure patients are properly decontaminated.

MEDICAL GROUP - Tasks specific to terrorist incidents are:

a. Review Common Responsibilities in Chapter 2.
b. Direct medical care delivery to response personnel and incident victims.

HOSPITAL COORDINATION UNIT - The Medical Group usually performs these responsibilities and duties, but this unique unit is established to assist at terrorist incident responses. Their tasks are:

a. Review Unit Leader Responsibilities in Chapter 2.
b. Serve as liaison for local medical facilities receiving patients.
c. Ensure vital incident management information is communicated to each receiving hospital.
d. Provide the medical communities with the needed patient care information for the agent(s) involved, in cooperation with the Technical Specialist-Medical Information & Research.
e. Implement a system of patient tracking in concert with the on-scene EMS personnel and facilities

receiving patients.

f. When requested, serve as clinical consultants to the medical staff at each medical facility-receiving patients by providing advice on patient care, personnel safety, or facility protection, in cooperation with the Technical Specialist-Medical Information & Research.

TECHNICAL SPECIALIST-MEDICAL INFORMATION & RESEARCH - The Medical Group performs these responsibilities in collaboration with National Response Center (NRC), an emergency communication infrastructure designed to assist Federal responses to incidents.

a. Identify needed research materials that will assure optimum access to the most current, complete, and accurate information available on nuclear, biological, or chemical (NBC) agents.

b. Perform the research needed to identify the agent(s) involved, physical characteristics, appropriate PPE, and information about possible signs and symptoms to be observed, treatments to be initiated, antidotes to be utilized, and possible long-term effects. This activity will be completed by assimilating information from several sources including:
   - Technical Specialist-Reference & Resources in the Hazardous Substance Group.
   - Regional Poison Control Center.
   - CHEMTREC.
   - Various special teams listed on page 15-14.

c. Communicate vital mitigation and clinical management information to the Medical Group including:
   - Needed patient care information for the agent(s) involved.

- Antidote needs of each facility and assist them in obtaining the needed items from the regional cache, government agencies, or vendors. Serve as clinical consultants to the medical staff at each facility receiving patients, by providing advice on patient care, personnel safety, or facility protection.

LAW ENFORCEMENT GROUP - Tasks specific to terrorist incidents are:

a. Review Division/Group Supervisor Responsibilities in Chapter 7.
b. Review Law Enforcement Group Tasks in Chapter 17 of this Manual.
c. Review Appendix J of reference (d).
d. Obtain pertinent law enforcement information in order to coordinate the operational response from the following:
   - FBI field office.
   - Local law enforcement agencies.
   - State law enforcement/traffic agencies.
   - Local fire and rescue agencies, including HAZMAT teams.
   - Local Emergency Operations Centers.
   - Pertinent NBC information discussed at intelligence sharing forums.
   - Current national and international events involving terrorist group activities.
   - Intelligence from all sources.
e. Advise the IC of law enforcement related issues and latest intelligence information.
f. Be familiar with local law enforcement resources available (Bomb Squads, etc.).
g. Assist in obtaining needed resources from law enforcement operations.
h. Assure incident security issues are identified and

addressed.

i. Verify the incident. Determine if a terrorist act has occurred.
j. Respond to the scene with sufficient personnel to address the incident.
k. Initiate appropriate callback of additional personnel as needed.
l. Establish inner and outer perimeters, based on the nature of the incident.
m. Provide security for the Command Post.
n. Verify the identification of the responding personnel.
o. Coordinate incident site evacuation.
p. Coordinate evacuation of surrounding areas as needed.
q. Coordinate traffic flow, especially ingress and egress of emergency/rescue
r. Provide evidence identification, collection and control, including:
    - Establish control and protection of the crime scene.
    - Coordinate the collection/preservation of evidence with the FBI.
    - Mapping/photographing of all evidence locations.
    - Collection of non-contaminated evidence.
    - Coordination of collection, chain of custody, and safe storage of contaminated evidence with the Hazardous Substance/HAZMAT Group.
    - Provide secure, safe storage for collected evidence.
s. Affect the arrest and transportation of the perpetrators when possible.

MEDICAL TECHNICAL SPECIALIST (Planning Section) - The Medical Group usually performs these responsibilities and duties, but this unique position is established to assist at terrorist incident responses in the planning section. This position (preferably filled by a physician) is responsible for:

a. Review Common Responsibilities in Chapter 2.
b. Review Medical Group tasks in Chapter 19 of this manual.
c. Serve as medical advisor to the Incident Commander and Operations Section Chief.
d. Develop and implement the medical action plan in conjunction with the Medical and Hazardous Substance/HAZMAT Groups.
e. Assure effective liaison with local EMS agencies and medical facilities.
f. Perform additional tasks and duties as assigned during an incident.

MENTAL HEALTH COORDINATION - First responders will receive Critical Incident Stress Management services through departmental resources. Victims, their families, and the general community will receive Critical Incident Stress Management services through established sources, including the Airport Chaplains, American Red Cross Disaster Mental Health Services and County Mental Health Services.

CORONER COORDINATION - The City/County Medical Examiner/Coroner staff, according to the Mass Casualty Incident Plan, will process deceased victims once the FBI has released the scene. The City/County Examiner/Coroner will assist the law enforcement branch with collecting evidence from deceased victims upon request. Federal mortuary resources are also available, if requested.

TERRORISM INCIDENT TECHNICAL TEAMS

Resources for a WMD/Terrorism incident response are similar to that of a chemical incident response. The NIMS ICS should be followed and the State and local responders who normally respond to a chemical incident will also respond to a WMD incident. However, the FBI should be notified during a WMD event, and due to the extreme nature of a WMD incident, DOD resources may also be needed.

The FBI is the lead agency for a WMD incident. If upon arriving on scene and USCG personnel suspect the incident to be WMD related, the FBI and NRC should be contacted through proper channels. FEMA is also a lead agency under the NRP to support the incident response.

There are several Special Teams that have response capabilities for WMD/Terrorism incidents and are listed in more detail in reference (c), Coast Guard Hazmat Response Special Teams and Capabilities Contact Handbook which can be found at the following website: http://homeport.uscg.mil/ and are listed here:

- Agency for Toxic Substances and Disease Registry (ATSDR) Emergency Response Teams
- U.S. Marine Corps Chemical Biological Incident Response Force (CBIRF)
- Department of Energy Nuclear Emergency Support Team (DOE NEST)
- USEPA Environmental Response Team (EPA ERT)
- USEPA Office of Enforcement, Compliance, and Assurance (OECA), National Counter-terrorism Evidence Response Team (NCERT)

- USEPA Radiological Emergency Response Team (EPA RERT)
- Federal Bureau of Investigation, Laboratory Division, Hazardous Materials Response Unit (FBI HMRU)
- National Oceanic and Atmospheric Administration Office of Response and Restoration (NOAA OR&R) Hazardous Materials Response Division (HAZMAT)
- USCG National Pollution Funds Center (USCG NPFC)
- USCG National Strike Force (USCG NSF)
- Occupational Safety and Health Administration Health Response Team (OSHA HRT)
- United States Navy (USN) Supervisor of Salvage and Diving (SUPSALV)
- United States Army Corps of Engineers Rapid Response Program (USACE RR)
- Department of Defense (DOD) Joint Director of Military Support (JDOMS)
- Department of Homeland Security (DHS), Federal Emergency Management Agency, Metropolitan Medical Response System (MMRS)
- USEPA Diving Program
- USEPA Emergency Communications and Outreach Team (ECOT)
- USEPA Emergency Response Peer Support and Critical Incident Stress Management (Peer Support/CISM) Team
- USEPA Ocean Survey Vessel, Peter W. Anderson
- United States National Guard Civil Support Teams (USNG CST)

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CHAPTER 16

Maritime Security/Antiterrorism

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2. Introduction 16-2

3. Area Maritime Security 16-4

4. Maritime Security Incident Specific NIMS ICS Positions and Task Descriptions 16-9

CHAPTER 16

MARITIME SECURITY/ANTITERRORISM

References:

(a) Maritime Security/Antiterrorism Job Aid
(b) National Response Plan (NRP)
(c) National Strategy for Maritime Security (NSMS)
(d) National Maritime Transportation Security Plan (NMTSP)
(e) Maritime Transportation Security Act of 2002 (MTSA)
(f) Coast Guard Strategic Plan for Combating Terrorism – Maritime Sentinel
(g) National Response Options Matrix (NROM)
(h) 33 CFR Subchapter H – Maritime Security
(i) Navigation and Vessel Inspection Circular (NVIC) 9-02
(j) Public Law (PL) 106-390/42 U.S.C. 5121, et seq. The Robert T. Stafford Disaster Assistance and Emergency Relief Act
(k) Reimbursement from the Federal Emergency Management Agency (FEMA), COMDTINST 7300.8 (series)
(l) Maritime Infrastructure Recovery Plan (MIRP)
(m) Critical Incident Communications, COMDTINST 3100.8 (series)

INTRODUCTION

Maritime Security. Maritime security, as used in this Chapter, refers to Area Maritime Security (AMS) antiterrorism measures (i.e., prevention and defensive-oriented protection) that are used to reduce the vulnerability of the Marine Transportation System (MTS), individuals and property to terrorist acts, to include limited response and containment by local

forces. Maritime security/antiterrorism also includes immediate measures for initial MTS support response and thereafter to facilitate recovery required to reestablish MTS functions, and cargo flow in particular. Maritime security antiterrorism activities for the MTS and its components are continuously conducted from pre-incident through incident response and through immediate recovery actions to completion of recovery operations in order to deter or prevent multiple incidents, to protect critical maritime infrastructure, and to support MTS recovery. Law enforcement (LE) and counterterrorism aspects of maritime security are addressed in Chapters 15 and 17. Where LE or counterterrorism response is required during incident management, AMS antiterrorism measures are a supporting activity.

Please see the Maritime Security/Antiterrorism Job Aid, reference (a), for more information.

Continuing Antiterrorism Requirement During Incident Management. Antiterrorism security requirements are a continuing responsibility during incident management in support of references (b) through (f), and must be effectively represented, coordinated, and conducted regardless of the initiating hazard or cause of an incident. An incident that occurs which is or threatens to become a Transportation Security Incident (TSI) triggers prearranged enhanced antiterrorism security measures within the affected area to protect the MTS, with emphasis on critical maritime infrastructure. Such an event would likely also result in the Commandant, U.S. Coast Guard, implementing additional security measures, as well as changes in maritime security (MARSEC) and force protection levels within the MTS but outside of the area that is immediately impacted by the incident. This action would

be guided by reference (g) and the known elements of the incident.

An incident that begins as other than a security event may nevertheless require enhanced antiterrorism security measures to protect the MTS. These measures are in addition to force protection measures. During incident management, enhanced local antiterrorism security measures may also be mandated from the national level in response to another incident in another location or through proactive changes in MARSEC levels. The maritime security component of antiterrorism, as discussed below, must be incorporated into the operations and planning sections of the incident command structure.

Maritime Security Activities. A maritime security framework with antiterrorism measures that respond to mandated requirements and a risk-based management strategy has been established for each port area within that area's Maritime Transportation Security Act (MTSA)-mandated Area Maritime Security Plan (AMSP) per references (e), (h) and (i).

Maritime Security (MARSEC) Levels. Maritime security emphasis is governed by MARSEC levels that are set by the Commandant, U.S. Coast Guard, in coordination with the Department of Homeland Security. The Commandant sets the MARSEC level consistent with the Homeland Security Advisory System (HSAS) and that Threat Condition's scope of application. The Commandant retains the discretion to adust the MARSEC level when necessary to address particular security concerns or circumstances related to the marine transportation system. The lowest MARSEC level, MARSEC 1, is generally comparable with the level of risk associated with HSAS Threat Levels LOW

through ELEVATED (GREEN/BLUE/YELLOW) , thereby accommodating the continually higher baseline level of risk associated with marine operations. This correlation reflects the continually higher baseline level of risk associated with marine operations. The Coast Guard Sector Commander, serving as Coast Guard Captain of the Port (COTP), has been delegated authority to unilaterally increase the local MARSEC level under exceptional circumstances according to criteria contained in reference (k).

AREA MARITIME SECURITY

Area Maritime Security (AMS). AMS under MTSA, reference (e), and implementing regulations, reference (h), and covers the full preparedness continuum of prevention, protection, response, and recovery and develops details, measures, procedures and strategies for preventing and responding to a TSI, and facilitating recovery of the MTS after a TSI. AMS activities are coordinated locally by the Coast Guard Captain of the Port (COTP) as the Federal Maritime Security Coordinator (FMSC). Actual operations and responses are conducted under applicable organization, community-based and incident-specific operating, contingency and response plans, as available.

AMS During Incident Management. AMS provides an existing local maritime security foundation, including coordination and communications arrangements with the port community for initiating incident management by a unified command for a large-scale local transportation emergency, Transportation Security Incident (TSI), or Incident of National Significance. An incident in any of these categories could originate from or involve one or a combination of hazards including terrorism, natural disaster, civil disturbance, or

oil/hazardous material spill. Consequently, it is essential to correlate and coordinate the continuing and enhanced AMS activities across ICS groups (e.g., Maritime Security, Law Enforcement (LE), Oil and Hazardous Materials, Search and Rescue (SAR), and MTS Response and Recovery) and maritime-related support of Emergency Support Functions (ESF).

AMS activities at MARSEC 1 provide a framework and pre-established coordination and communications arrangements for providing prevention and protection of maritime resources during an incident, initiating incident management for local marine transportation security emergencies, and supporting prevention and protection for effects of other emergencies. Facility and vessel-specific security plans also provide critical information to support response to an incident involving one or more of these assets. Maritime security and marine safety activities also provide some of the core and supporting resources in varying degrees of capability for responding to any category of hazard affecting the MTS, and within the immediate area around ports and waterways. Immediate MTS recovery activities within the impacted area also provide essential elements of information (EEI) needed by the Coast Guard, Customs and Border Patrol (CBP), Transportation Security Administration (TSA), and Department of Transportation (DOT) to facilitate recovery and restoration of cargo flow outside of the impacted areas per reference (l).

Area Maritime Security Committee (AMSC). Preparedness is co-developed with port stakeholders. Preparedness activities include formation and coordination of Area Maritime Security Committees selected per criteria in reference (i); identification of critical port infrastructure and operations; identification of risks (threats, vulnerabilities, and consequences)

through risk-based assessments; determination of mitigation strategies and implementation methods; development and description of the process by which to continually evaluate overall port security; preparation of AMS plans including details of additional security measures for increases in MARSEC levels, incident unified command, response and recovery structure, responsibilities and capabilities, procedures for security response and for facilitating MTS recovery. The AMSC provides planning and coordination support; it is not considered a response entity for the purposes of crisis management..

Area Maritime Security Plans (AMSP). Antiterrorism measures are enumerated in AMSPs, which are supported by facility-specific and vessel-specific security and response plans. These plans are designated as Sensitive Security Information (SSI) and are restricted from public access. The AMSPs are supporting plans to references (a), (c), (e), (h) and (j). Plan content is specified by reference (i). An AMSP is not a first responder plan, but an awareness, preparedness and prevention plan as well as a supporting plan for response and MTS recovery. AMSP development considers possible roles, responsibilities, and resources very broadly and is generally limited to determining who will respond, what their roles will be, what resources they can provide, and procedures that they will use. The AMSP provides a framework for communication and coordination amongst port stakeholders and law enforcement and public officials to:

- Identify and reduce vulnerabilities to security threats in and near the MTS.
- Implement special procedures to ensure marine safety, and the safety and readiness of personnel, installations, and equipment,

- Coordinate implementation of prevention and protection procedures during response, and
- Facilitate and support coordinated MTS recovery and restoration activities.

AMS planning is supported or supplemented on a port-by-port, case-by-case basis by local plans and other materials (e.g. underwater port security plans, maritime counterterrorism plans, response and recovery job aids). AMSPs and Area Contingency Plans (ACP) for oil and hazardous materials typically involve many of the same stakeholders, and may be implemented concurrently based on the prevailing circumstances.

MTS Recovery This section addresses measures that are needed within the area impacted by a TSI to provide initial recovery and to provide the basis to facilitate long-term recovery and mitigation activities as characterized below:

- Initial Recovery – MTS infrastructure has been returned to service and is capable of operations at some level. Activities, policies or mitigation strategies aimed at recovery are considered to be achievable in 90 days or less.
- Long-term recovery – MTS infrastructure has been returned to pre-incident condition or has the capacity to operating at pre-incident levels. Activities, policies or mitigation strategies aimed at long-term recovery may take longer than 90 days. Generally parallels long-term recovery measures associated with Emergency Support Function (ESF) #14.

The Coast Guard is responsible for recovery of agency infrastructure and for MTS infrastructure that it directly administers (e.g. aids to navigation). Sector

Commanders, as Captains of the Port (COTP) and FMSC, are responsible for developing coordinated initial recovery activities in consultation with AMSCs for MTS infrastructure that is subject to references (d) and (g). MTS recovery should also be coordinated with mitigation measures covered by ACPs that are related to the MTS.

MARITIME SECURITY-ANTITERRORISM SPECIFIC NIMS ICS POSITIONS AND TASK DESCRIPTIONS

Only those ICS positions and tasks specific and unique to Maritime Security antiterrorism responsibilities will be described in this section. Persons assigned the common positions consistent with the NIMS organization should refer to position job aids and Chapters 5 through 11 of this Manual for their position/task descriptions and checklists.

Area Maritime Security includes immediate operational measures as well as planning for security and recovery operations. Area maritime security antiterrorism is addressed in the Operations Section. MTS security and recovery activities are planned in the Planning Section and conducted through the Operations Section.

INCIDENT COMMANDER - Tasks specific to an Incident are to:

a. Review Incident Commander (IC) responsibilities.
b. Review Maritime Security responsibilities as delineated in AMSPs.
c. Determine HSAS threat level and MARSEC level and required maritime security measures.
d. Determine if unilateral local-area increase in MARSEC level is necessitated by the incident.
e. Comply with critical incident communications requirements in reference (m)
f. Ensure that the following have been established:
    - Maritime Security Group in Operations Section – which coordinates implementation of MARSEC measures, coordinates maritime security activities with the law enforcement (LE), oil and hazardous materials, search and rescue (SAR), and MTS recovery groups.
g. Implement supporting plans as applicable.

h. Work to identify and address tactical and strategic issues.
i. Assist the Coast Guard component commander in coordinated maritime security and MTS response and recovery operations and activities consistent with the AMSP, site safety plan, law enforcement, oil and hazardous materials, and search and rescue operations.
j. Determine antiterrorism support required for military outloads in or through the affected area.

AREA MARITIME SECURITY GROUP - Tasks specific to security incidents are:

a. Review the Division/Group Supervisor Responsibilities in Chapter 7.
b. Coordinate implementation of MARSEC levels changes.
c. Monitor and report attainment of MARSEC measures and deficiencies, ensuring the implementation of MARSEC requirements.
d. Assist the Incident Commander in meeting critical incident communications requirements of reference (m).
e. Implement AMSP contingency arrangements and procedures.
f. Coordinate AMS oversight and support with AMSC.
g. Coordinate AMS support for LE, oil and hazardous materials, SAR and MTS recovery activities.
h. Coordinate implementation of supporting plans (e.g. underwater port security).
i. Arrange for, document and report MTS damage assessments.
j. Coordinate AMS support for MTS Recovery.
k. Coordinate AMS support for ESF activities.
l. Coordinate AMS support for military outload

operations in or through the affected area.

MTS RECOVERY UNIT - Tasks specific to recovery of the MTS are:

a. Review MTS Unit Leader responsibilities in Chapter 8.
b. Activate MTS recovery unit assist team (where available).
c. Be familiar with the AMSC and AMSP and associated recovery procedures and priorities.
d. Identify and implement supporting MTS recovery plans, where available.
e. Incorporate MTS security and recovery into ICS planning cycle.
f. Advise the IC and PSC of maritime security issues associated with MTS recovery and latest EEI from port community stakeholders in coordination with the Maritime Security, LE, oil and hazardous materials and SAR Groups.
g. As needed, assist IC, PSC and OSC in prioritization of critical infrastructure needed to be brought to operational status.
h. Determine and advise the IC and PSC of relevant pre-scripted FEMA mission assignments under the Stafford Act, reference (j), related to or required for MTS recovery.
i. Coordinate with IC, PSC, FEMA and pertinent ESFs for FEMA/Stafford Act mission assignments through the Joint Field Office (JFO) in support of MTS response to reestablish a basic capability for long-term recovery.
j. Assess and advise IC and PSC of unified command capability to perform any FEMA mission assignment requests received through the JFO.
k. Coordinate with the LE Group to determine the relationship of evidence protection requirements

to recovery operations.

l. Identify short and long term issues affecting or potentially affecting the MTS with supporting materials.
m. Identify supporting requirements.
n. Review and apply as applicable reference (k) recommendations for MTS Recovery.
o. For incidents impacting more than one Coast Guard Sector, provide information to support management of regional issues, including local area impacts that will be felt outside of the immediate response area, such as export delays.
p. Make recommendations to the IC and PSC on short term (impact felt within 90 days) recovery priorities and actions.

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CHAPTER 17

LAW ENFORCEMENT

1. Contents 17-1

2. Introduction 17-2

3. Law Enforcement Activity Scenario and Modular Organization Development 17-3

4. Law Enforcement Activity Specific ICS Positions and Task Descriptions 17-10

CHAPTER 17

LAW ENFORCEMENT

References:

(a) U.S. Coast Guard Maritime Law Enforcement Manual (MLEM), COMDTINST 16247.1 (series)
(b) Maritime Counter Drug and Alien Migrant Interdiction Operations Manual, COMDTINST M16247.4 (series)
(c) National Response Plan (NRP)
(d) National Incident Management System (NIMS)

INTRODUCTION

The organization for a major Law Enforcement Operation (Counter Drug or Alien Migrant Interdiction) is designed to show an organizational structure that could provide supervision and control for the essential functions required during such an operation.

It must be emphasized that this guide is not a substitute for law enforcement planning as outlined in the references (a) and (b). The Commandant and Area manuals, operation orders and policies that could include plans for such major multi-agency/multi-nation that would lead major Counter Drug or Alien Migrant Interdiction Operations should identify the organizations, resources, and command and control structure that would be utilized in the operation. Exercising these plans will develop and fine-tune national and agency roles in the IC/UC and ICS.

The normal law enforcement action for Coast Guard units will be single unit activities. Reference (b) identifies the structure for these normal single unit operations and dictates in detail how the operation is to

be carried out. Since NIMS ICS is the primary system used by most Federal, State, and Local government agencies, and is required by references (c) and (d) to be used in response to incidents, it is advantageous to use and understand the ICS process in a large multi-agency and multi-national operation where the incident brings numerous agencies together with overlapping jurisdictions, responsibilities, and capabilities. In these situations, Coast Guard Law Enforcement personnel may be expected to fill Command and General Staff positions, with other agencies in the role of IC an/or within an UC. In this IMH, the goal is to build upon the structure identified in reference (b), and demonstrate how the IC/UC and ICS organization may be used when a Law Enforcement Operation grows from a single unit operation to a Multi-Agency/Multi-National Operation.

For example, an alien migrant interdiction operation such as the Mariel Boat Lift can generate a huge multiple-agency response with a limited command and control structure. Because the Coast Guard is usually the first unit on-scene and because of its mission responsibilities and capabilities, it will be instrumental in building the final overall command and control team.

Although there are many types of law enforcement activities, a major multi-agency Alien Migrant Interdiction Operation was selected to demonstrate how the expanding modular ICS organization might be used to manage a Law Enforcement Operation. Commandant and Area instructions, manuals and operation orders include references, plans and policies that dictate overall U.S. Coast Guard Law Enforcement operations policy. For example, OPLAN VIGILANT SENTRY provides the overall Department of Homeland Security response to a mass migration in the Caribbean.

LAW ENFORCEMENT ACTIVITY SCENARIO AND MODULAR ORGANIZATION DEVELOPMENT

MODULAR DEVELOPMENT - A series of examples of modular development are included to illustrate one method of expanding the ICS organization.

INITIAL RESPONSE ORGANIZATION - A U.S. Coast Guard cutter is on normal patrol when it intercepts a small boat fitting the profile of an undocumented migrant vessel. The Coast Guard cutter carries out the standard boarding operation procedures for the vessel. See Page 17-7 for an example of the Initial Response Organization.

REINFORCED RESPONSE ORGANIZATION - Upon boarding the profiled vessel, the boarding party discovers a large number of undocumented migrants. During the boarding party's search and investigation, the interpreter overhears one of the undocumented migrants express his concern for relatives aboard another vessel. The Commanding Officer of the cutter relays this information to the U.S. Coast Guard District with operational control over his mission, and a Coast Guard aircraft is deployed to search for the other vessel. The District Commander assumes the role of lead agency and IC for the interdiction operation, and requests the appropriate U.S. Coast Guard Area Commander to direct an additional cutter to his operational control to assist in the search for other possible undocumented migrant vessels. The District Commander also notifies local DOD units that there is a possibility of additional undocumented migrant vessels in the operational area. The second cutter has additional Law Enforcement Detachments (LEDETs) assigned before sailing. See Page 17-8 for an example of the Reinforced Response Organization.

MULTI-DIVISION/GROUP ORGANIZATION - Within a day of searching, the Coast Guard aircraft and JIATF resources have identified numerous vessels of all sizes that fit the undocumented migrant vessel profile. This information is relayed to the District, who in turn notifies the Area Commander and Coast Guard Headquarters. Coast Guard Headquarters notifies the Immigration and Customs Enforcement (ICE) and other federal law enforcement agencies. Upon notification to these agencies by Coast Guard Headquarters, the Commandant will normally give authorization for direct communication to the District Commander. The Area Commander orders all available cutters (WHEC, WMEC) to the area for interdiction operations under the operational control of the District Commander. DOD lends its resources to assist in the search for undocumented migrant vessels. See Page 17-9 for an example of the Multi-Division/Group Organization.

The Department of Homeland Security assigns a representative to assist and coordinate its activities with the District Commander. The District Commander's Staff and Agency Representatives are tasked with developing the resource requirements for the extended interdiction operation, and determining the resources that will have to be obtained from outside the District. The District Chief of Operations is assigned as the OSC. The operational area is divided into geographical divisions and a Coast Guard cutter is assigned to each division for patrol and boarding operations. A Navy vessel is directed to the scene to serve as an undocumented migrant holding area. ICE provides aircraft for additional search patrols.

Since many of the vessels being used to carry undocumented migrants are sailing under the flag of other nations, the U.S. Coast Guard has requested through the Department of State that representatives of those governments be assigned as ship riders to Coast Guard vessels, allowing them to carry out boardings on the applicable nations vessels in international waters.

The IC/UC establishes a JIC to handle the intense media interest that is developing over the operation.

MULTI-BRANCH ORGANIZATION - As the situation develops, the number of undocumented migrants discovered and detained by the Coast Guard has grown beyond the capability of vessels to safely and humanly hold them offshore. The IC/UC has determined that holding facilities must be prepared on shore. The IC/UC identify Federal, State and Local resources to assist in planning and implementing the shoreside facilities. See Page 17-10 for an example of the Multi-Branch Organization.

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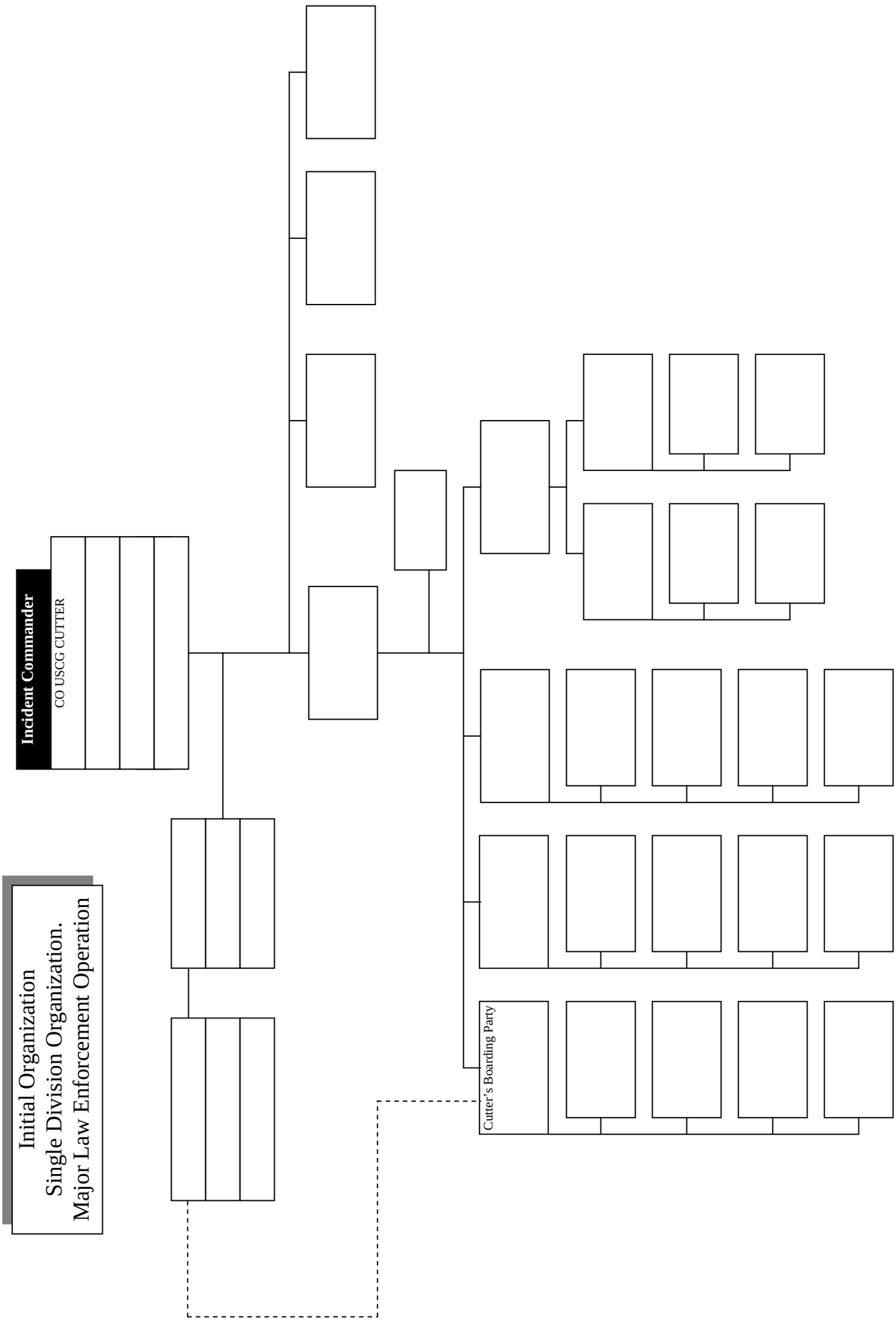
Incident Commander
CO USCG CUTTER
Cutter's Boarding Party
Initial Organization
Single Division Organization.
Major Law Enforcement Operation

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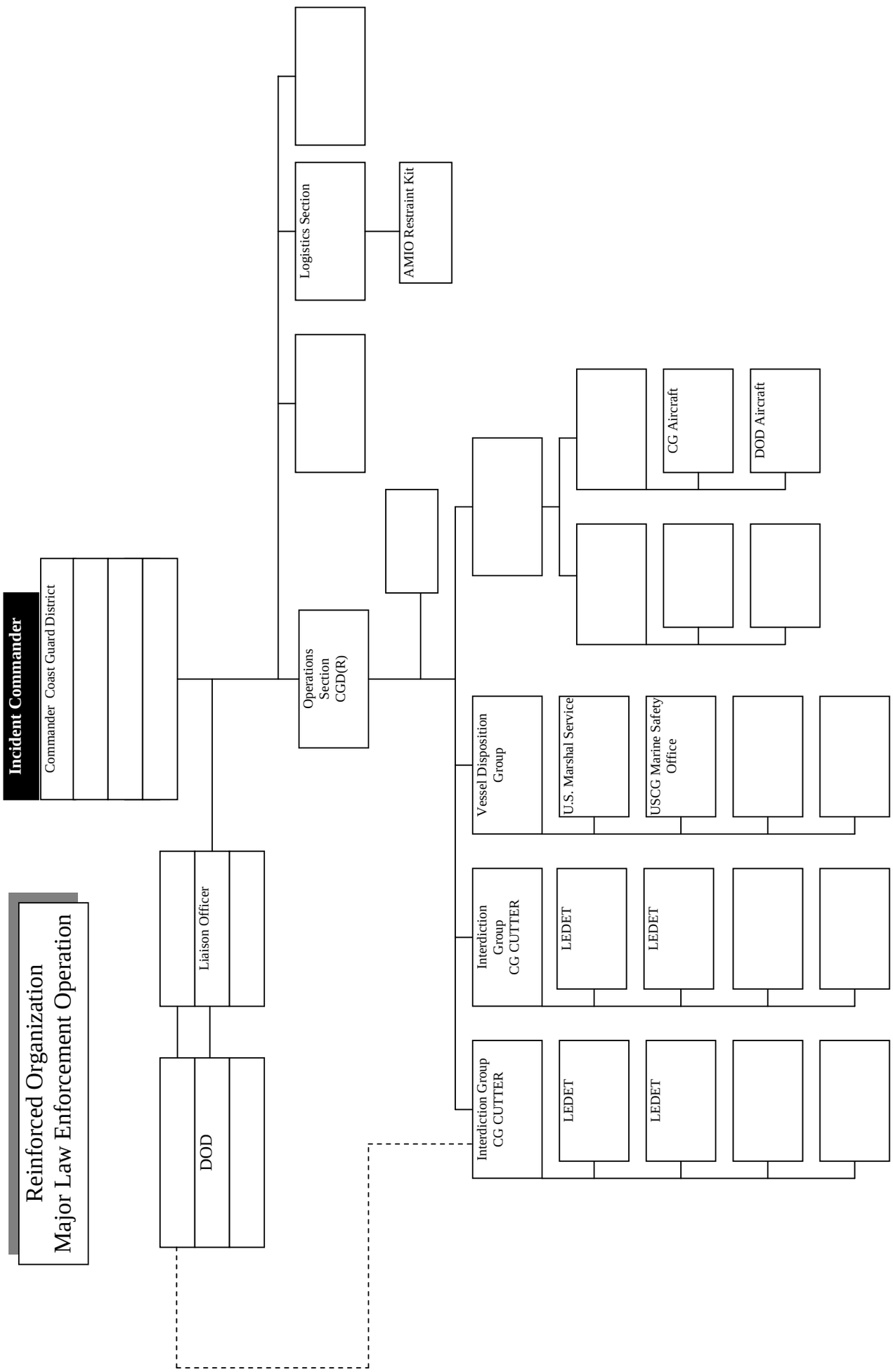
Reinforced Organization
Major Law Enforcement Operation
Incident Commander
Commander Coast Guard District
Liaison Officer
DOD
Operations Section CGD(R)
Logistics Section
AMIO Restraint Kit
CG Aircraft
DOD Aircraft
Vessel Disposition Group
U.S. Marshal Service
USCG Marine Safety Office
Interdiction Group CG CUTTER
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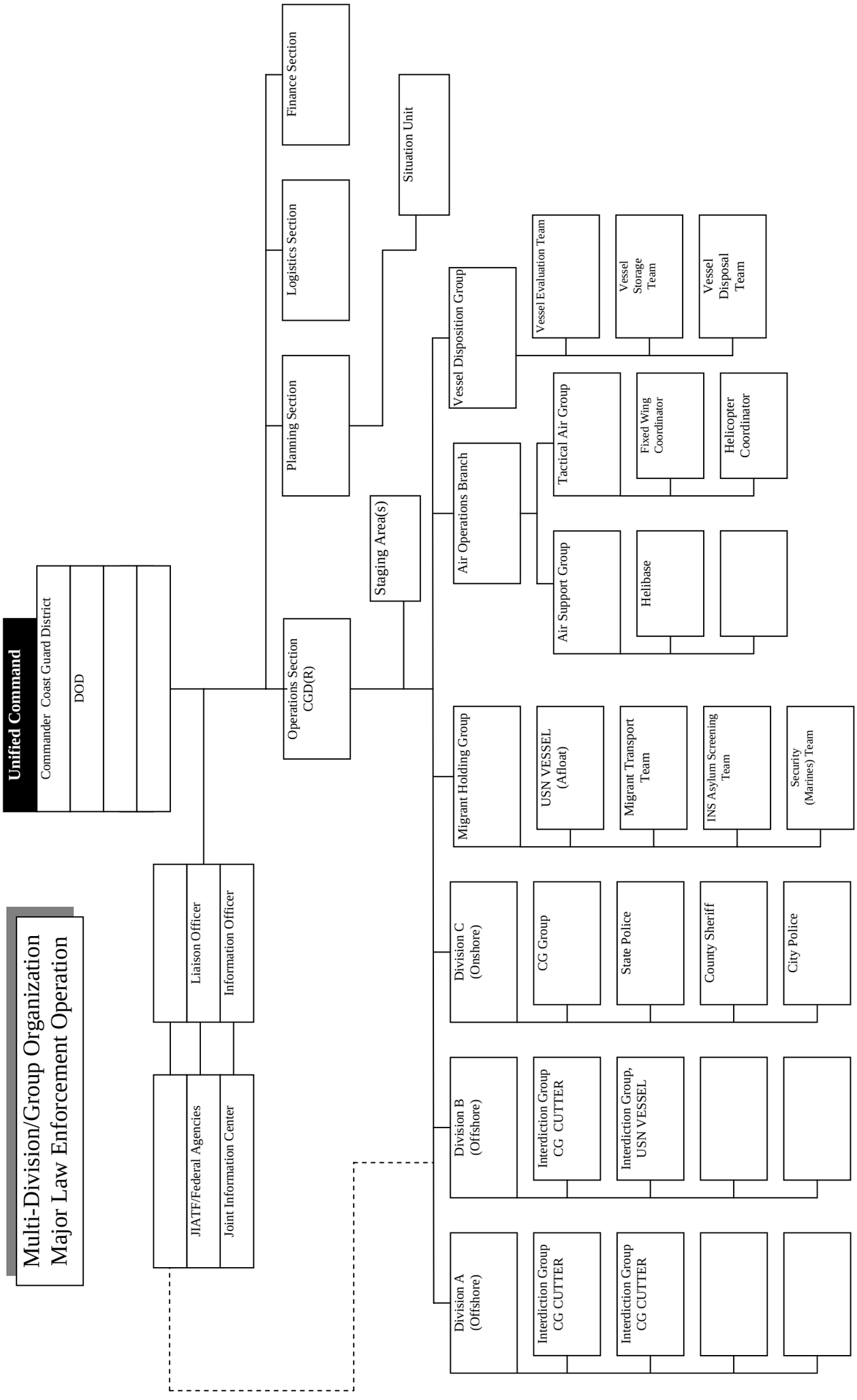
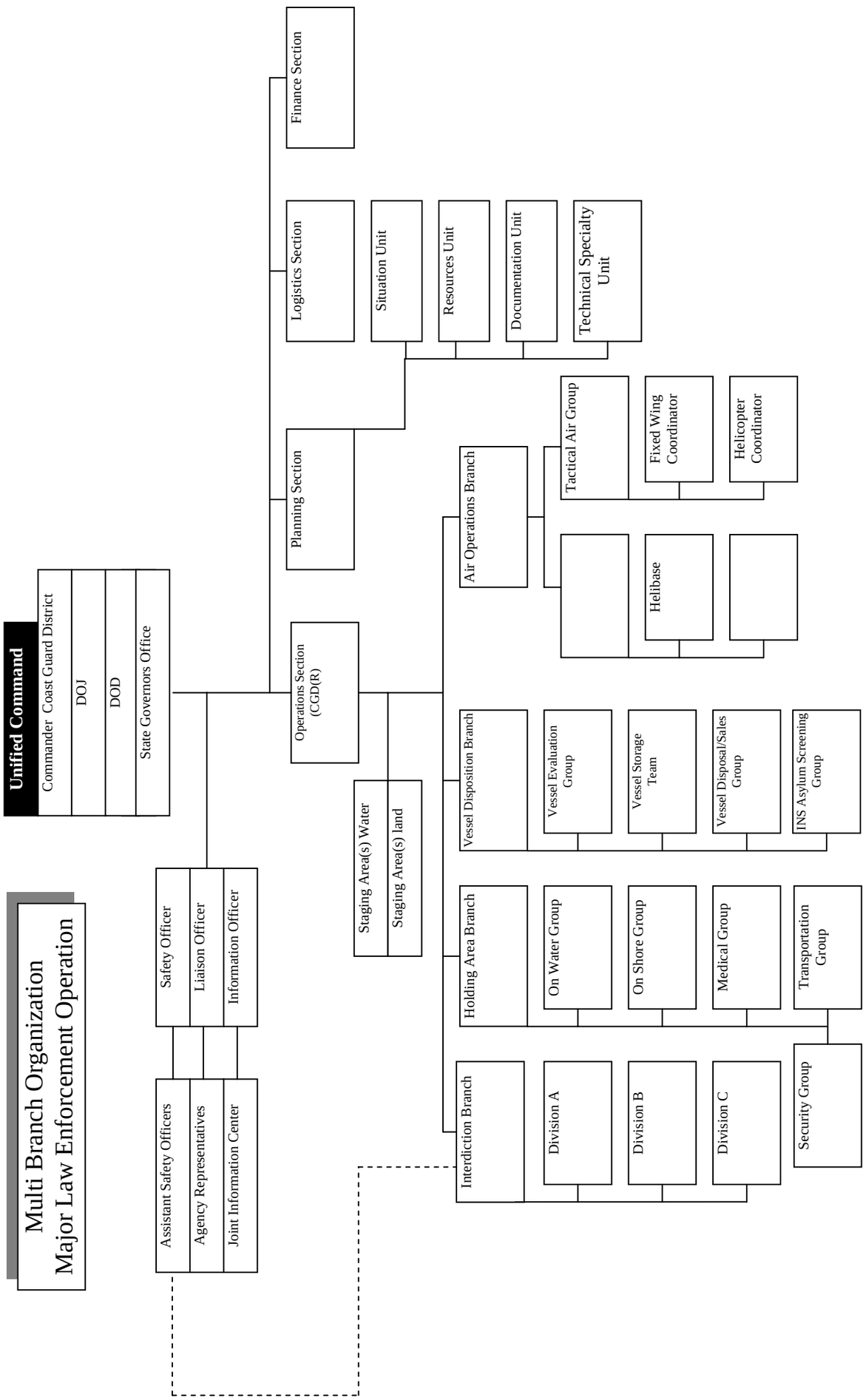

Multi-Division/Group Organization
Major Law Enforcement Operation
Unified Command
Commander Coast Guard District
DOD
Liaison Officer
Information Officer
JIATF/Federal Agencies
Joint Information Center
Operations Section
CGD(R)
Planning Section
Logistics Section
Finance Section
Staging Area(s)
Situation Unit
Air Operations Branch
Air Support Group
Tactical Air Group
Helibase
Fixed Wing
Coordinator
Helicopter
Coordinator
Vessel Disposition Group
Vessel Evaluation Team
Vessel
Storage
Team
Vessel
Disposal
Team
Migrant Holding Group
USN VESSEL
(Afloat)
Migrant Transport
Team
INS Asylum Screening
Team
Security
(Marines) Team
Division C
(Onshore)
CG Group
State Police
County Sheriff
City Police
Division B
(Offshore)
Interdiction Group
CG CUTTER
Interdiction Group,
USN VESSEL
Division A
(Offshore)
Interdiction Group
CG CUTTER
Interdiction Group
CG CUTTER



LAW ENFORCEMENT

LAW ENFORCEMENT ACTIVITY SPECIFIC ICS POSITIONS AND TASK DESCRIPTIONS

Only those ICS positions and tasks specific and unique to Law Enforcement missions will be described in this section. Persons assigned the common positions consistent with the NIMS ICS organization should refer to position job aids and Chapters 5 through 11 of this IMH for their position/task descriptions and checklists.

ASYLUM PRESCREENING OFFICER (APSO) - The APSO is responsible for conducting initial screenings of individuals who have made asylum claims or come from a nation with a history of political persecution, human rights violations, or torture. APSOs are full time asylum officers deployed to the field. The APSO will normally be assigned to the LO as an Agency Representative or directly to the Command Staff.

These prescreening interviews determine if an individual has a credible fear of persecution upon return to his/her home nation. APSO interviews are transmitted to CIS Headquarters in Washington, D.C., for review by asylum specialists. If it is determined that an individual has a credible fear of persecution, the person is taken to another location for more extensive interviews. While the APSO may be assigned in various locations within the ICS, he/she needs to have direct access to communications with Washington, D.C. The contents of APSO interviews may be confidential and not available for intelligence or general use. Additional duties include:

a. Review the Agency Representative Responsibilities in Chapter 6.
b. Advise the IC/UC on the procedures for asylum interviews, specific support required, and the separation of those claiming asylum.

c. Liaise with CIS Headquarters on asylum issues.
d. Conduct additional interviews as necessary.
e. Advise the IC on trends in asylum claims and indicators that those within the IC/UC may need to be aware of.

VESSEL DISPOSITION GROUP SUPERVISOR - The Vessel Disposition Group Supervisor is responsible for the disposal of vessels seized in the course of Law Enforcement Operations. In some cases this will involve warning the return of the vessel to the flag state, but in many situations the vessel will be seized for forfeiture (either because it is stateless or because it was used in the commission of a crime). In drug interdiction missions, this task is usually performed by Immigration and Customs Enforcement (ICE). In all other cases, the U.S. Marshal Service performs this function.

If an asset is seized for forfeiture, all hazardous materials must be removed and all safety violations must be corrected before the vessel can be disposed of. The lead agency will contract out for removal and disposal of hazardous materials from the vessel using private contractors. U.S. Coast Guard Sectors may be asked to assist the lead agency in assessing the condition of the vessel, the applicable environmental laws that may apply to the vessels condition, and steps needed to correct the assessed violations. Addition duties included:

a. Review the Division/Group Supervisor Responsibilities in Chapter 7.

LAW ENFORCEMENT DETACHMENT TEAM LEADER - Law Enforcement Detachment Team (LEDET) Leaders are responsible for separate teams of individuals trained in boarding vessels for conducting law enforcement operations. LEDETs typically deploy to U.S. Navy and foreign naval vessels to provide them with law enforcement capability. They can also be used in various situations to augment Coast Guard Cutter Boarding Teams, and in these cases should not be confused with the Cutter's Boarding Team, which is made up of individuals permanently assigned to the Cutter's crew. Addition duties included:

a. Review the Strike Team Leader/Task Force Responsibilities in Chapter 7.

MARITIME SAFETY AND SECURITY TEAMS - Maritime Safety and Security Teams (MSSTs) were created under the Maritime Transportation Security Act (MTSA) 2002, in direct response to the terrorist attacks on Sept. 11, 2001, and are a part of the Department of Homeland Security's layered strategy directed at protecting our seaports and waterways. MSSTs provide waterborne and a modest level of shoreside antiterrorism force protection for strategic shipping, high interest vessels and critical infrastructure. MSSTs are a quick response force capable of rapid, nationwide deployment via air, ground or sea transportation in response to changing threat conditions and evolving Maritime Homeland Security (MHS) mission requirements. Multi-mission capability facilitates augmentation for other selected Coast Guard missions.

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CHAPTER 18

SEARCH AND RESCUE

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CHAPTER 18

SEARCH AND RESCUE

References:

(a) IMO/ICAO International Aeronautical and Maritime Search and Rescue Manual, Vols. I & II
(b) U.S. National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IMSAR)
(c) National Search and Rescue Plan, 1999
(d) U.S. Coast Guard Addendum to the National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IMSAR), COMDTINST 16130.2 (series)
(e) National Response Plan (NRP)
(f) National Incident Management System (NIMS)

INTRODUCTION

Search and Rescue (SAR) efforts primarily focus on finding and assisting persons in actual or apparent distress and are carried out within a well-defined SAR response system as per references (a) – (d). These references have their basis in international law that U.S. SAR services are obligated to follow, and they have practical benefits that are intended to maximize the effectiveness of SAR operations, particularly when working with other military services, SAR authorities of other nations, and with ships or aircraft at sea. When an emergency warrants responses in addition to SAR, the NIMS ICS organizational structure shall be used for overall response management in accordance with reference (e) and (f). Examples of other activities that are not SAR, but are often closely associated with a SAR incident, include search and recovery, salvage,

investigation, fire-fighting, pollution response, etc. This chapter describes an example ICS organizational structure that will provide supervision and control of essential functions during a SAR incident that includes, or will include, non-SAR response activities.

For incidents that actually or potentially involve both SAR and non-SAR response activities, the SAR Mission Coordinator (SMC), who is designated by the SAR response system, will initiate action and coordinate the overall SAR response in accordance with references (a) through (d). When the Incident Commander (IC) is designated, the SMC function will be placed under the umbrella of the ICS organizational structure, typically as the SAR Branch Director or SAR Group Supervisor in the Operations Section. Simply put, the SAR response system "plugs into" the ICS organizational structure, where the SMC (or someone designated by the SMC to carry out this function) serves as the "plug" or link. The SAR response may also include a SAR On-Scene Coordinator (SAR OSC) and an Aircraft Coordinator (ACO). In some cases the person serving as the Incident Commander (IC) or Operations Section Chief (OSC) may also be designated as the SMC, but the terms "Incident Commander" or "Operations Section Chief" are not interchangeable with titles associated with SAR response functions. For the majority of incidents, the SAR response will be completed/suspended by the time the ICS structure is fully in place. As the SAR mission winds down and other missions take precedence (i.e., search and recovery), the IC may designate the SMC or SAR OSC in the SAR response system to continue as a Branch Director or Group Supervisor in the ICS structure to manage on-scene operations other than SAR. Likewise, Search and Rescue Units (SRUs) may also be reassigned to other groups in the ICS structure once the SAR mission is concluded. In general, Coast Guard

personnel with SAR responsibilities should receive sufficient ICS training to enable them to carry out their respective duties in ICS response organizations.

SEARCH AND RESCUE BEST RESPONSE

KEY AREAS TO A SUCCESSFUL SAR RESPONSE

Success of response operations can often be found in how well the management team focused on key response areas. ICs and their Command and General Staff should consider, if applicable, the following key response areas during ICS activation in conjunction with or following a search and rescue operation.

OPERATIONAL

Search Planning & Operations
Rescue Planning & Operations
Medical/Triage
Fire Fighting
Shoreline Search & Recovery
On-Water Search & Recovery

SUPPORT/COORDINATION

Safety
Stress Management
Liaison with Victim's Families
Security
Investigations
Resources
Political
Assisting & Cooperating Agencies
Public Information
Command Post Needs

IC's and their Command and General Staff need to closely monitor how well the incident objectives, strategies, and tactics are addressing the key response areas identified above and adjust, as necessary, to ensure the maximum potential for the best possible response.

SEARCH AND RESCUE INCIDENT SCENARIO AND MODULAR ORGANIZATION DEVELOPMENT

MODULAR DEVELOPMENT - A series of examples of modular development are included to illustrate one method of expanding the major airline crash incident organization.

INITIAL RESPONSE ORGANIZATION (MAJOR AIRLINE CRASH) - The SAR Mission Coordinator (SMC), initiates emergency response actions and designates the best-qualified and most capable unit on-scene as SAR OSC. The SMC may also designate an ACO to manage air assets on-scene if there are too many for the SAR OSC to effectively manage or communications between surface and air assets prove challenging. The first to arrive on scene would likely be USCG vessels and aircraft, police/fire boats, fishing vessels, and hosts of recreational boats. The FAA will be requested to establish air space restrictions and issue the appropriate Notice to Airmen (NOTAMs). The cognizant Sector Commander or District Commander may be designated the IC, at which time the SMC function is placed under the umbrella of the ICS organizational structure. Rescue and emergency medical treatment will take priority during this phase. Recovery and identification of the deceased, accident investigation, and cleanup will take priority later in the incident. Initial responders will be heavily involved in the rescue, triage, and transportation of survivors. A PIO is immediately assigned to provide initial information to the media and establish a JIC. CERT and/or CISM support should be considered early. See Page 18-9 for an example of the initial response organization.

REINFORCED RESPONSE ORGANIZATION (MAJOR AIRLINE CRASH) - An ICP is established and initially

staffed with personnel from the Coast Guard; local, state, and federal law enforcement and emergency response/management agencies; and local medical institutions/organizations. The JIC should be staffed for 24-hour operations, if need be. A LNO is also designated to coordinate the large numbers of responding and interested government agencies and public organizations. The SOFR is assigned to assess the safety hazards/situation and develop a Site Safety Plan (ICS-208). The NTSB and the FBI may be added to the UC upon their representative's physical arrival on-scene. See Page 18-10 for an example of the reinforced response organization.

The Operations Section Chief (OSC) is designated to manage the growing number of operational activities (e.g., SAR, medical care, security, and evidence collection). This may be the Sector Commander if the District Commander assumes the role of IC. The following Groups are established to organize the operational activities:

- The SAR Group continues to carry out the SAR response under the function of the SMC. Additional surface and air assets have arrived from different jurisdictions. Tactical control of some or all of the response assets may be shifted to the SAR Group for tasking by the SAR OSC or ACO.
- The Medical Group, supported heavily by local EMS and hospital personnel and resources, coordinates triage and treatment areas, as well as transporting survivors. A Patient Transportation Unit may be established to efficiently move survivors from the staging/triage areas to medical facilities.
- The Law Enforcement Group begins the task of

securing the scene; providing shore-side security for staging areas and the ICP, establishing evidence collection and control; and conducting the investigation. If criminal activity is not suspected, the NTSB may have primary investigative responsibilities. If terrorism is suspected, the FBI will take the lead. NTSB and FBI representatives will participate in the UC and brief the UC concerning their needs regarding investigation and recovery operations. A Traffic Control Unit may be needed to keep tremendous number of shore-side curiosity seekers from impairing the access of EMS/rescue personnel to critical Staging Areas.

- An Air Tactical Group Supervisor may be designated to coordinate assignments and air assets and manage air tactical activities.
- Consideration should be given to establishing a Demobilization Unit.

MULTI-DIVISION/GROUP ORGANIZATION (MAJOR AIRLINE CRASH) - The UC and Command Staff are functional and fully staffed. The District may be designated as the Coast Guard IC to be on the same level as the NTSB and FBI representative(s). The Sector Commander may assume the role of OSC, if he or she has not already done so. Deputies from the fire, law enforcement, and emergency medical service agencies could assist the OSC. The Rescue, Medical, and Law Enforcement Groups are fully developed. The rescue is nearly complete, if not already completed, and the operation is shifting to search and recovery of bodies and aircraft debris. Surface and air assets are shifted to other groups, such as the Search and Recovery and Law Enforcement Groups. See page 18-11 for an example of the Multi-Division/Group Organization.

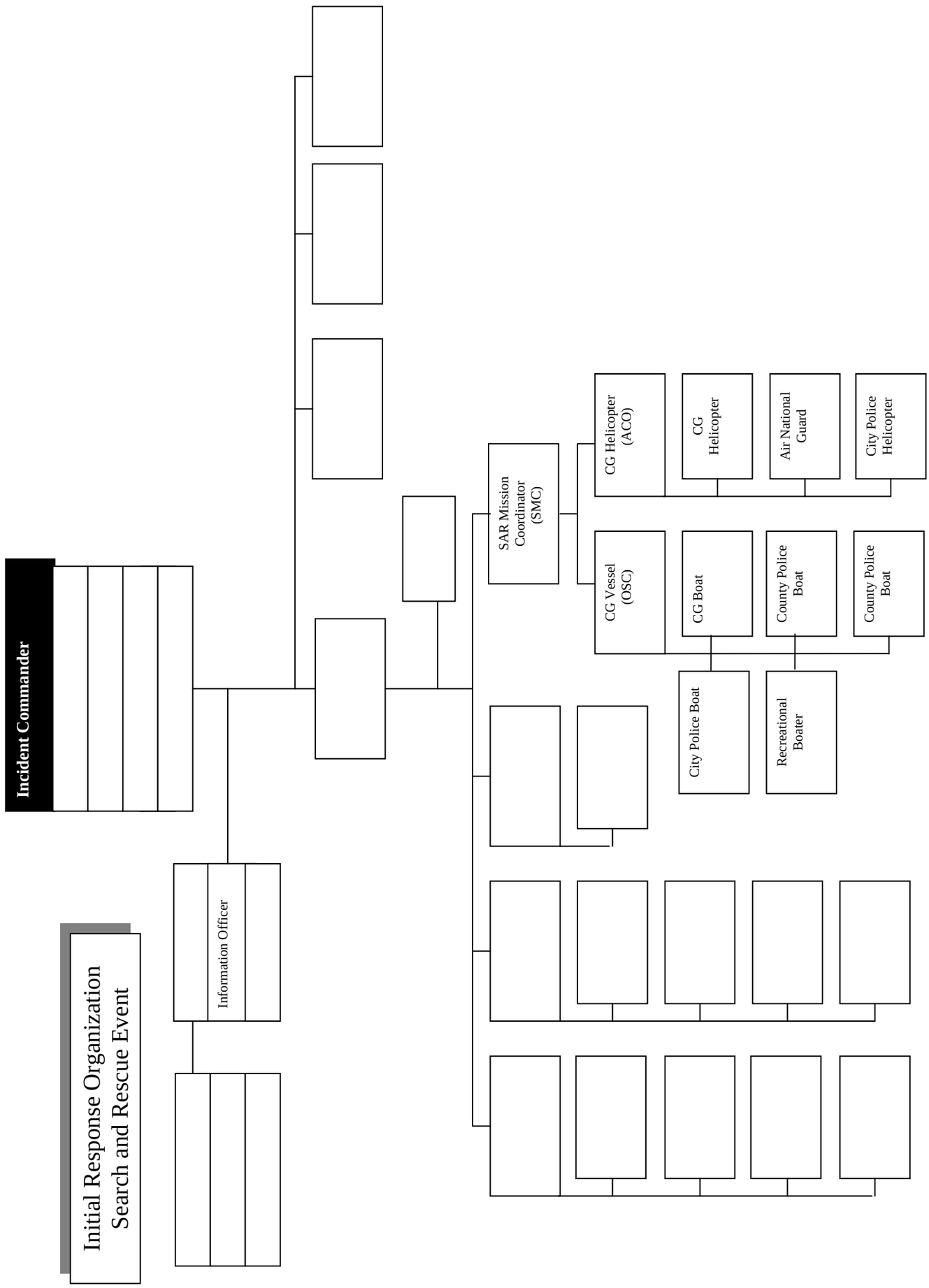
The focus of the UC's efforts is shifting to the NTSB and law enforcement agencies, including city/county/state coroner. A Body Recovery Team has been added and is working closely with the coroner who has jurisdiction. An Underwater Recovery Group has been initiated and may be led by the Navy or other qualified agencies. The FBI, NTSB and local/state law enforcement agencies are coordinating the investigation and recovery of wreckage.

The JIC continues to be fully staffed. Additional assets may be needed to accommodate the political dignitaries and next of kin that would want to view the accident site or have direct briefings from the Command Staff.

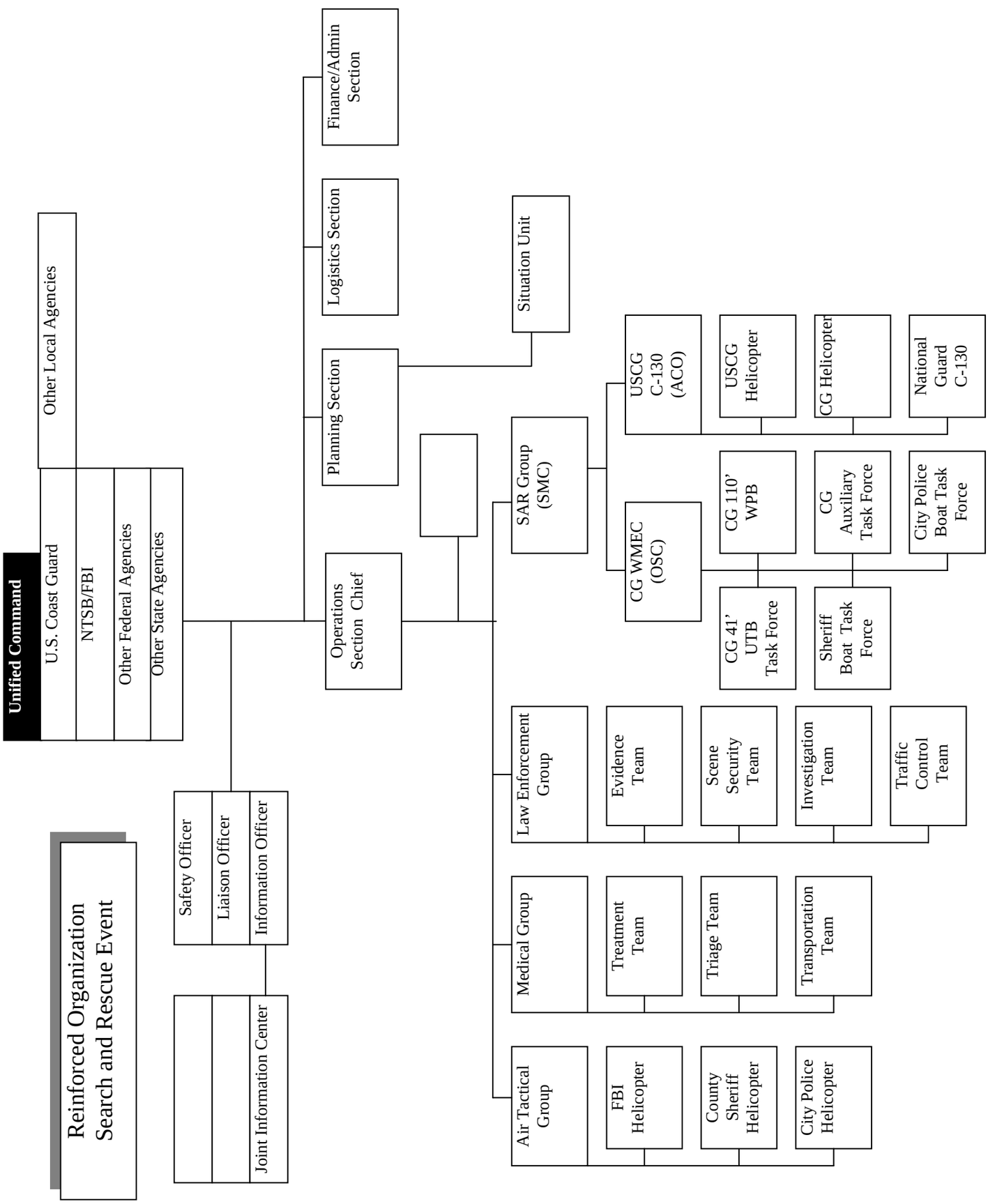
MULTI-BRANCH ORGANIZATION (MAJOR AIRLINE CRASH) - The UC is fully functional and staffed. UC efforts are focused on NTSB and FBI concerns. The Coast Guard is now primarily assisting with search and recovery activities, as well as providing host/landlord support. The appropriate deputies and assistants have been designated to ensure an integrated and coordinated operation at the Section, Branch, Division, and Group levels. See Page 18-12 for an example of the Multi-Branch Organization.

The recovery operation has been divided into three branches (i.e., Surface, Underwater, and Shore-side). Geographic divisions have been created to divide the search and recovery into manageable areas.

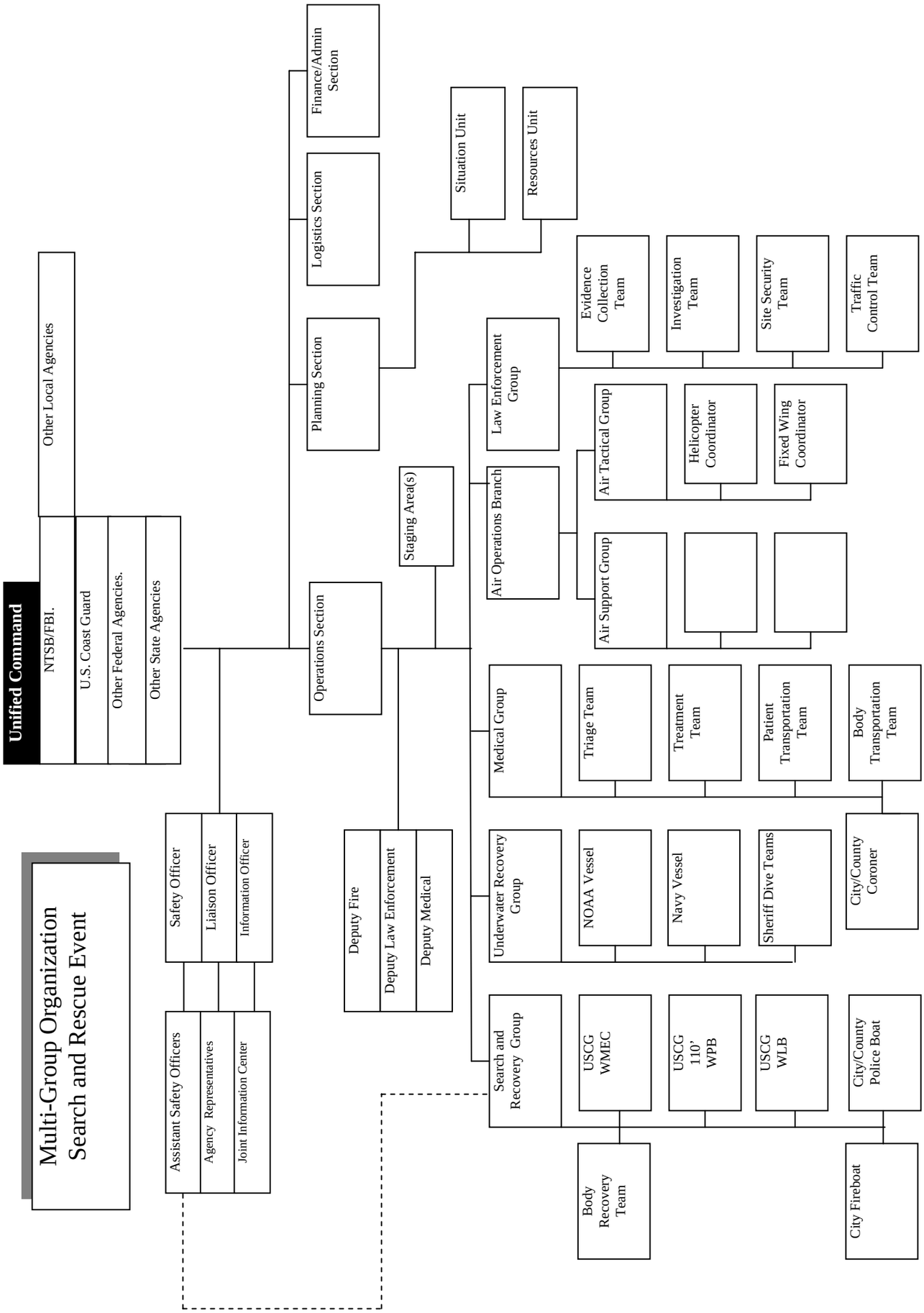
Although not shown on the organization chart, a Demobilization Unit may be established in the Planning Section to develop an Incident Demobilization Plan. This plan should include the Chaplain and/or CISM.



SEARCH & RESCUE



SEARCH & RESCUE



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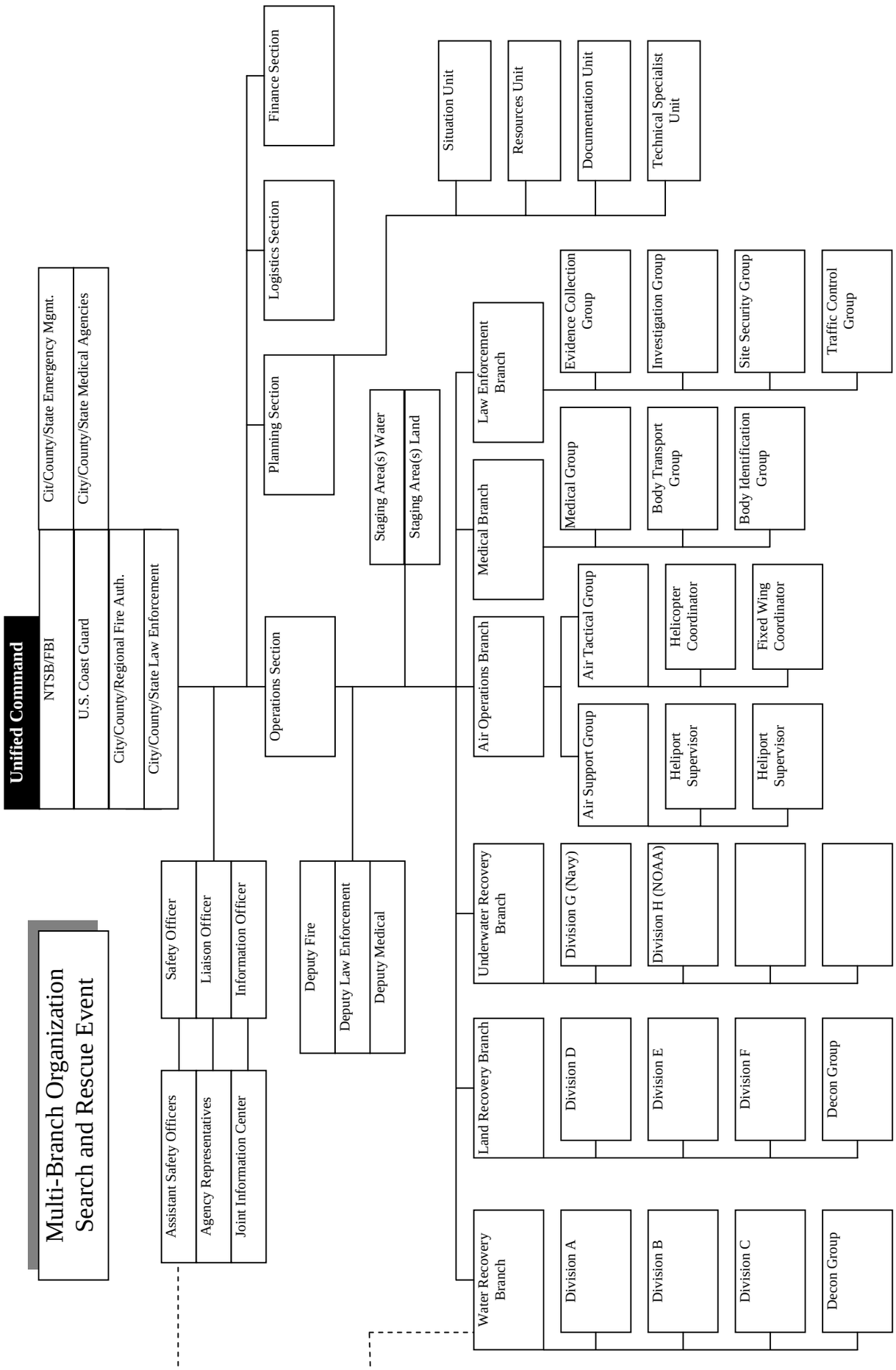

SEARCH & RESCUE

SEARCH AND RESCUE SPECIFIC ICS POSITIONS AND TASK DESCRIPTIONS

Only those ICS positions and tasks specific and unique to Search and Rescue (SAR) missions will be described in this section. A general description of SAR Response System Specific functions is also included. Persons assigned the common positions consistent with the NIMS ICS organization should refer to the position job aids and Chapters 5-13 of this IMH for their position/task descriptions and checklists.

INCIDENT COMMANDER (IC) - In addition to the responsibilities outlined in Chapter 2, the IC (and the OSC if one is designated) of an incident that includes a SAR mission must recognize that the SAR Mission Coordinator (SMC) is obligated to carry out the SAR mission in accordance with references (a) – (d). The SMC (or someone designated by the SMC for this function) serves as the link between the SAR Response System and the ICS organization and is best placed at the Branch Director or Group Supervisor level (for further description and duties of the SMC, see SAR System Specific Functions below). The IC may also be designated as the SMC; however, separate individuals should carry out the IC and SMC functions if the operational tempo and/or span of control warrant it or the IC is not thoroughly familiar with all SAR system processes. For SAR incidents that actually or potentially include other non-SAR activities (i.e. search and recovery, salvage, investigation, pollution response, fire-fighting, etc.), carry out the following tasks as appropriate:

a. Establish a suitable ICP, preferably at a site separate from the OPCEN, and stand-up ICS organization apart from initial response operations.

- Assign personnel to establish the ICP and stand-up ICS organization that are not responsible for initial response actions (i.e., personnel not coordinating or prosecuting the SAR case).
- Establish an ICP, and accommodate to the best extent possible and as necessary the following four components: (1) at-sea command and control; (2) reconstruction, investigation and human remains transfer (primarily involving mass casualties); (3) family briefings; and (4) media briefings and access.
- Activate/request Incident Management Assist Team (IMAT) augmentation.
- If it is not operationally feasible for the SMC to be physically located at the ICP, the SMC should assign a liaison to the ICP to represent the SMC.

b. Mobilize additional appropriate resources as soon as possible to stabilize the situation or assist in the recovery, salvage, pollution response, firefighting, etc. (i.e., tugs, fireboats, charter boats, salvage vessels, etc.).

c. Have the District Command Center contact the FAA to establish a Temporary Flight Restriction (TFR) for the airspace over the area of incident/operations.

d. Ensure the following Groups are established, if necessary:
   - Medical Group to coordinate emergency medical care, including transportation to medical facilities, for Person On Board (POB) of a distressed vessel or craft (descriptions of these functions are found in Chapter 19).

- Law Enforcement Group to coordinate law enforcement agencies to provide shore-side security of Staging Areas and the ICP, establish evidence collection and control, and assist with enforcement of safety and/or security zones (descriptions of these functions are found in Chapter 14).

e. Immediately assign or request a PIO to provide initial information to the media and establish a JIC to provide timely information and updates on progress of SAR efforts and outline of future actions.
   - Ensure that the JIC is staffed for 24-hour operations, if necessary, to meet the demands for information by the media, community groups, and public in general.
   - Be available, as the IC, to provide press briefings. If the SAR response is on-going, ensure the SMC is aware of all press briefing plans

f. Coordinate with the SMC to notify Next of Kin (NOK) as soon as possible and maintain daily contact with them to provide progress of SAR efforts and outline future actions. The IC shall ensure the greatest possible sensitivity in interacting with family and friends of the victims. Note: For cases involving airline crashes, the airlines are responsible for making NOK notifications.
   - For SAR incidents involving large numbers of victims, especially in cases of mass casualties or prolonged searches, ensure that lodging is centrally located and/or easily accessible for those NOK who arrive in the area. This will facilitate daily briefings.

- Establish an area where families of victims can receive daily mission briefings. For incidents involving large numbers of POB, this should be at the place where NOK are centrally lodged.
- If the operational tempo does not allow the IC to provide the NOK briefings personally, assign a senior officer who is disengaged operationally from the SAR incident to provide this as a primary task.
- Provide information on mission progress and future actions to the NOK before releasing it to the media.
- Notify NOK of a decision to suspend SAR efforts prior to suspending search for missing POB.

g. The SMC or SAR Coordinator may continue the SAR mission beyond the time when a case would normally be suspended due to humanitarian considerations, large number of people involved, or forecast of greatly improved search conditions.

However, when the potential for saving life is minimal, Search and Rescue Units (SRUs) will not be put at unnecessary risk. Nor should they continue searching in that situation when their use may preclude their availability for other missions.

NOTE: Only those agencies designated as U.S. SAR Coordinators (i.e., the USCG for maritime regions) have the authority to suspend a SAR case.

h. When scheduling surface and air SRUs, utilize fatigue standards found in Appendix K of reference (d) and applicable policies of the

operational commander.

i. For incidents involving firefighting, establish a Firefighting Group to coordinate local authorities responsible for fighting fires on vessels or at waterfront facilities. Note: This should be coordinated prior to an incident. During marine firefighting situations, CG units shall adopt a conservative response posture and focus actions on those traditional Coast Guard activities not requiring CG personnel to enter into a hazardous environment.
   - The CG Captain of the Port (COTP) is the USCG entity responsible for coordinating firefighting activities.
   - As per reference (d), CG personnel shall not actively engage in firefighting (other than fires on CG vessels) except in support of a regular firefighting agency under the supervision of a qualified fire officer. CG assistance is available only to the degree of training level and adequacy of equipment.
   - CG personnel shall not engage in independent firefighting, except to save a life or in the early stages of a fire to avert a significant threat without undue risk.

OPERATIONS SECTION CHIEF (OSC) – In addition to the responsibilities outlined in Chapter 7, the OSC of an incident must recognize that the SMC is obligated to carry out the SAR mission in accordance with references (a) – (d). The OSC may also be designated, and perform the function of the SMC, if operational tempo and/or span of control allow it, and the person is thoroughly familiar with all SAR system processes (for further description and duties of the SMC see SAR Response System Specific Functions below).

SAR SYSTEM SPECIFIC FUNCTIONS

(Note: These functions are provided for information of the IC. SMC's and SAR OSCs are to use established guides and procedures set forth in references (a) - (d) and in standard operating procedures.

SAR MISSION COORDINATOR (SMC) - The SMC is designated (usually pre-designated) by the SAR Response System for each specific SAR mission and coordinates the overall response to a SAR incident in accordance with references (a) – (d). In the U.S. Coast Guard, the SMC designation is done by a responsible Command Center that serves as a Rescue Coordination Center (RCC) or Rescue Sub-Center (RSC). SMC responsibilities typically include:

a. Gathering detailed information relating to the distress situation.
b. Issuing an Urgent marine Information Braodcast (UMIB) to inform mariners in the area of the distress situation and to instruct them to either keep clear of the area or to request their assistance.
c. Conduct SAR operations in accordance with standard SAR procedures and standards as set forth in references (a) – (c).
d. Assign a SAR On-Scene Coordinator (SAR OSC) as appropriate to improve on-scene coordination.
e. Use search planning tools to develop search plans that optimally use available resources.
f. Ensure all documentation from the SAR mission, to include copies of SITREP's, logs, SAR Action Plans, photo/video film, etc., are provided to the Documentation Unit Leader.

SAR On-Scene Coordinator (SAR OSC) - The SAR OSC coordinates the SAR mission on-scene using the resources made available by SMC and should safely

carry out the SAR Action Plan in accordance with references (a) - (d). The SAR OSC may serve as a Branch Director or Group Supervisor to manage on-scene operations after the SAR mission is concluded and other missions continue, such as search and recovery. SAR OSC responsibilities typically include:

a. Establish and maintain communications with the SMC.
b. Assume operational control and coordination of all SRUs assigned until relieved or mission is completed.
    - Establish and maintain communications with all SRUs using assigned on-scene channels.
    - Require all aircraft to make “operations normal” reports to the SAR OSC.
    - Establish a common altimeter setting for all on scene aircraft.
    - Obtain necessary information from arriving SRU’s, provide initial briefing and search instructions, and provide advisory air traffic service to aid pilots in maintaining separation from one another.
c. Carry out SAR action plans.
    - Receive and evaluate all sighting reports, and divert SRUs to investigate sightings.
    - Obtain search results from departing SRUs.
d. Submit sequentially numbered situation reports (SITREPs) to the SMC at regular intervals.

TECHNICAL SPECIALISTS/EQUIPMENT

PARARESCUEMAN (PJ) TECHNICAL SPECIALIST - These members of the USAF are specialists in the rescue, stabilization, and recovery of personnel from remote areas, often under extremely hazardous

conditions, including combat. PJs provide emergency medical treatment (at the paramedic level) necessary to stabilize and evacuate injured personnel.

a. PJ's often provide worldwide search, rescue and recovery assistance associated with aircraft accidents, disaster relief, humanitarian evacuation, and contingency landing support for NASA missions.
b. If deployed from fixed-wing assets, they jump with a Rigged Alternate Method Zodiac (RAMZ), providing them with a small boat to help facilitate rescues.

FLIGHT SURGEON - The flight surgeon is a physician that has attended a special course that has prepared them to provide medical support in the aviation community. They are qualified to fly or provide medical consultation.

COAST GUARD RESCUE SWIMMER – All Coast Guard Air Stations with helicopters have highly trained helicopter rescue swimmers who are EMT qualified. They are trained to deploy from the helicopter to recover an incapacitated victim from the water, day or night.

SELF-LOCATING DATUM MARKER BUOYS (SLDMB's) – All Coast Guard Air Stations and many Coast Guard surface units and small boat stations are equipped with self-locating datum marker buoys (SLDMB) which can provide high quality, extended duration current information. SLDMB's provide frequent, high-resolution (GPS-based) position information independent of any on-scene unit. Section 4.11 of Ref (d) provides detailed information on SLDMB's.

CHAPTER 19

OIL SPILL

TABLE OF CONTENTS

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2. Introduction 19-2

3. Oil Spill Best Response 19-3

4. Oil Spill Activity Scenario and Modular Organization Development 19-5

5. Oil Spill Specific ICS Positions and Task Descriptions 19-12

CHAPTER 19

OIL SPILL

References:

(a) National Response Plan (NRP)
(b) National Incident Management System (NIMS)
(c) National Contingency Plan (NCP)
(d) NPFC User Reference Guide
(e) FOSC Field Finance & Resource Management (FFARM) Guide
(f) Technical Specialist Job Aid

INTRODUCTION

The Coast Guard is a regulatory agency for industries involved in the transport of oil, routinely supports other agencies in their response to oil spills, and may become involved in oil spills when responding or supporting responses to other incidents such as terrorist actions, hazardous materials releases from chemical carriers, accidents at non-transportation related facilities that may be located within a COTP Zone, etc. It is impossible to address the possible ICS organizations that may result from the above scenarios. It is important to note that the majority of oil spills are small events that will not and should not result in a response beyond that of an initial or reinforced response organization. It should also be noted that the capabilities in various COTP zones throughout the country vary greatly. The COTP must have knowledge of the local government response capability and be familiar with the local and state ICs as this will affect the degree of leadership and control that the Coast Guard will be expected to take in oil spill response. In areas where the state and local government have a strong oil spill response program,

the Coast Guard may be primarily in a support role during the emergency phases. In areas where there is no oil spill response capability, the Coast Guard may be expected to take a much stronger leadership role.

In this regard, there may also be reasons to expand the UC beyond the FOSC, SOSC, and Responsible Party IC (RPIC) participation that has become the standard for oil spill response. The organizations reflect that under OPA 90 regulations, the responsible party (RP) who has had the oil spill is mandated to follow an approved Facility Response Plan (FRP) or Vessel Response Plan (VRP), to provide a spill management team for managing the oil spill, and to become a member of the UC. For a full description of a specific ICS position assignment or task, the reader should refer to the appropriate task assignment provided in Chapters 5 -11.

OIL SPILL BEST RESPONSE
DELIVERING "BEST RESPONSE"

IC's and their Command and General Staffs need to closely monitor how well the incident objectives, strategies, and tactics are addressing "Best Response" and key response functions, and to make appropriate adjustments where necessary to ensure the maximum potential for success.

The term "Best Response" means that a response organization will effectively, efficiently, and safely respond to oil spills, minimizing the consequences of pollution incidents and to protect our national environmental and economic interests.

"Best Response" equals a successful response based on achievement of certain key success factors (i.e. the

things that a response must accomplish to be considered successful) as follows:

- **Human Health**
  - No public injuries
  - No worker injuries
- **Natural Environment**
  - Source of discharge minimized
  - Source contained
  - Sensitive areas protected
  - Resource damage minimized
- **Economy**
  - Economic impact minimized
- **Public Communication**
  - Positive media coverage
  - Positive public perception
- **Stakeholders Support**
  - Minimize stakeholder impact
  - Stakeholders well informed
  - Positive meetings
  - Prompt Handling of claims
- **Organization**
  - Standard Response Mgmt Syst
  - Sufficient/Efficient resources

When conducting an oil spill response, ICs and their Command and General Staffs should always consider the “Best Response” concept while managing operational and support/coordination functions.

OPERATIONAL	SUPPORT/COORDINATION
Search and Rescue	Public Information
Fire Fighting	Assisting and Cooperating Agencies
Salvage and Lightering	Environmental
Protection	Economic
Shoreline recovery	Political
On-Water recovery	Claims
Dispersants	Natural Resource Damage
Assessment	Investigations
In-Situ Burning	Safety
Wildlife	Command Post Needs
Disposal	
Hazardous Substance	

OIL SPILL ACTIVITY SCENARIO AND MODULAR ORGANIZATION DEVELOPMENT

MODULAR DEVELOPMENT

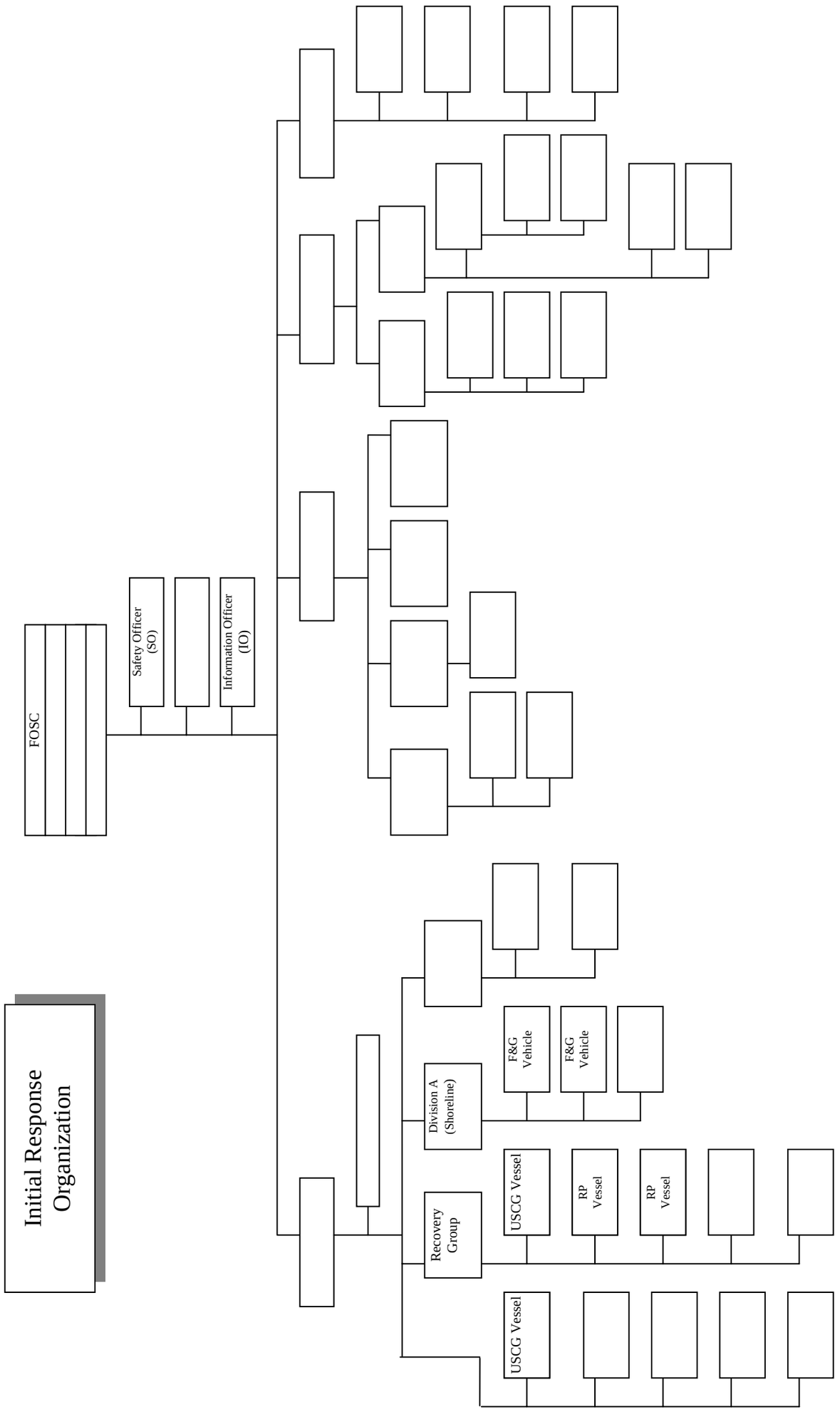
A series of examples of Modular Development are included to illustrate one method of expanding the Incident Organization at an oil spill incident. The examples shown are not meant to be restrictive, nor imply that these are the only ways to build an ICS organizational structure from an initial response to a multi-branch organization.

INITIAL RESPONSE ORGANIZATION - Initial Response resources are managed by the IC who will handle all Command and General Staff responsibilities. A UC is established. See Page 19-6 for an example of an oil spill initial response organization.

REINFORCED RESPONSE ORGANIZATION - The UC has established a Protection Group and a Recovery Group to manage on-water activities and a shoreline division to manage land-based resources. An SOFR and IO have been assigned. See Page 19-7 for an example of a reinforced response.

MULTI-DIVISION/GROUP ORGANIZATION - The UC has assigned all Command Staff positions and established a number of Divisions and Groups as well as an OSC and PSC. Some Logistic Units are established. See Page 19-8 for an example of a multi-division/group organization.

MULTI-BRANCH ORGANIZATION - The IC has established all Command and General Staff positions and has established four branches. See Page 19-9 for an example of an oil spill multi-branch organization.


Initial Response Organization
FOSC
Safety Officer (SO)
Information Officer (IO)
Division A (Shoreline)
F&G Vehicle
F&G Vehicle
Recovery Group
USCG Vessel
RP Vessel
RP Vessel
USCG Vessel

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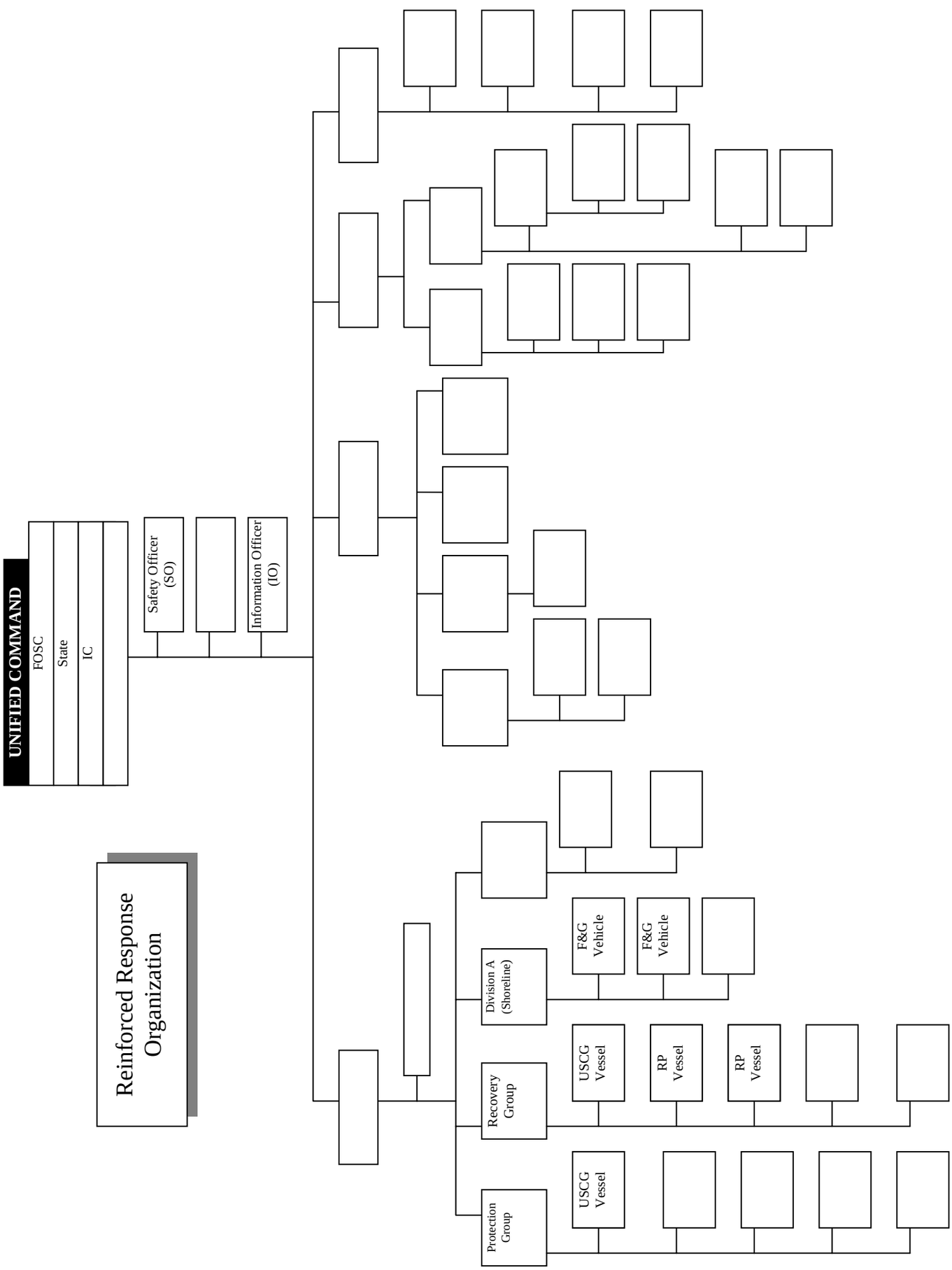
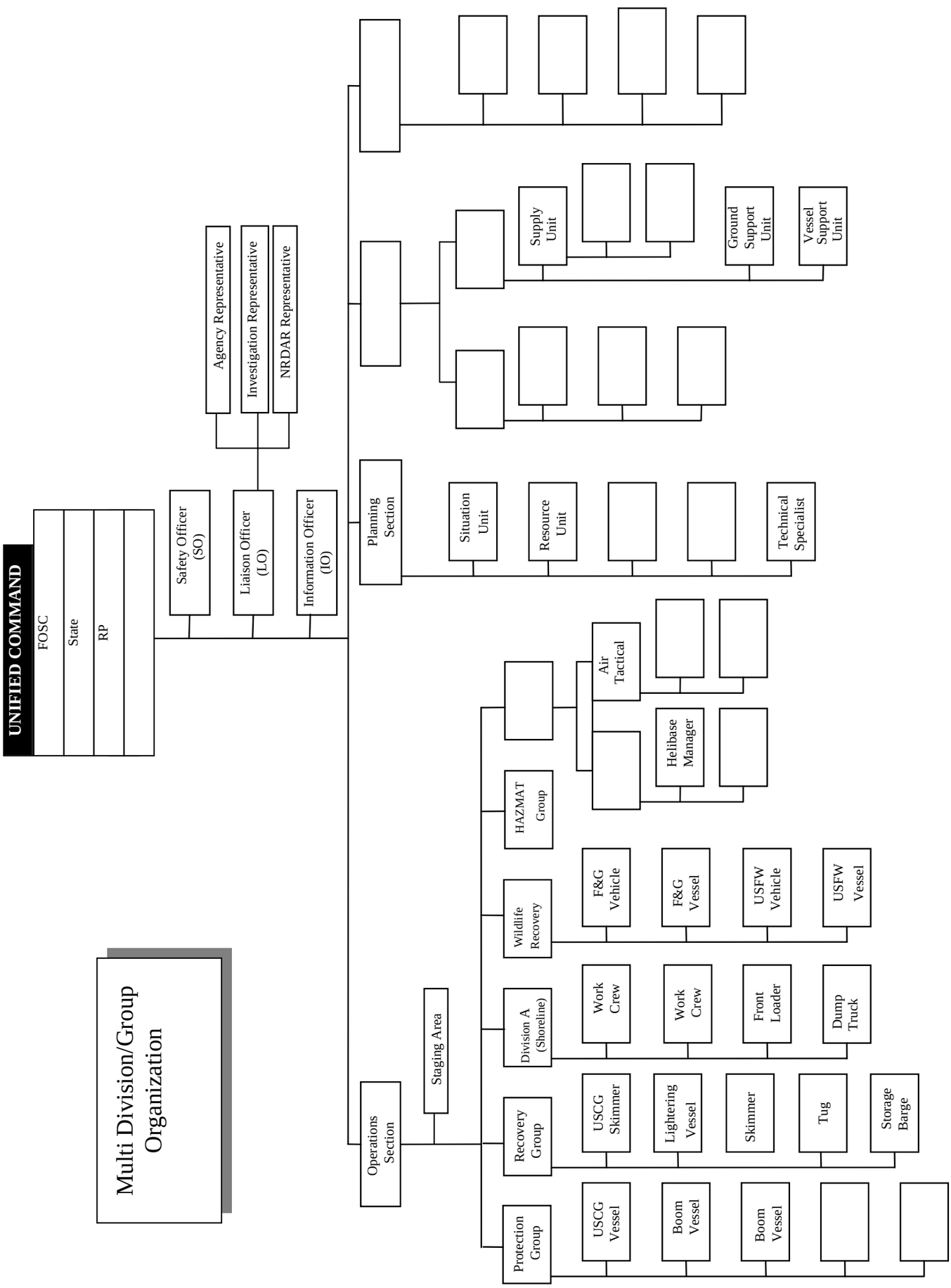
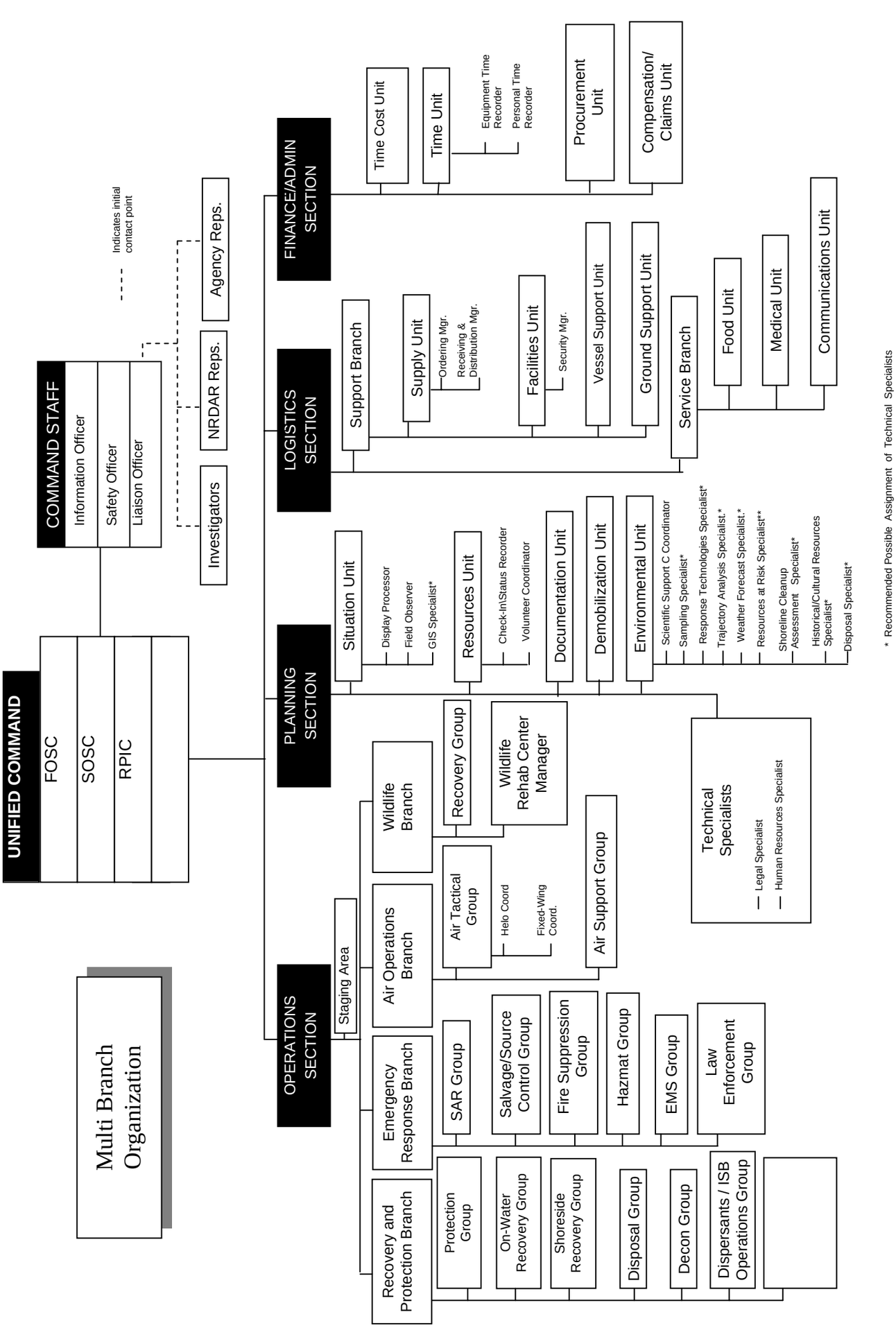

UNIFIED COMMAND
FOSC
State
IC
Safety Officer (SO)
Information Officer (IO)
Reinforced Response Organization
Division A (Shoreline)
F&G Vehicle
F&G Vehicle
Recovery Group
USCG Vessel
RP Vessel
RP Vessel
Protection Group
USCG Vessel


Multi Division/Group Organization
UNIFIED COMMAND
FOSC
State
RP
Safety Officer (SO)
Liaison Officer (LO)
Agency Representative
Investigation Representative
NRDAR Representative
Information Officer (IO)
Planning Section
Situation Unit
Resource Unit
Technical Specialist
Supply Unit
Ground Support Unit
Vessel Support Unit
Operations Section
Staging Area
Recovery Group
Protection Group
Division A (Shoreline)
Wildlife Recovery
HAZMAT Group
Air Tactical
Helibase Manager
F&G Vehicle
F&G Vessel
USFW Vehicle
USFW Vessel
Work Crew
Work Crew
Front Loader
Dump Truck
USCG Skimmer
Lightering Vessel
Skimmer
Tug
Storage Barge
USCG Vessel
Boom Vessel
Boom Vessel


UNIFIED COMMAND
FOSC
SOSC
RPIC
COMMAND STAFF
Information Officer
Safety Officer
Liaison Officer
Indicates initial contact point
Agency Reps.
NRDAR Reps.
Investigators
Multi Branch Organization
OPERATIONS SECTION
Staging Area
Recovery and Protection Branch
Protection Group
On-Water Recovery Group
Shoreside Recovery Group
Disposal Group
Decon Group
Dispersants / ISB Operations Group
Emergency Response Branch
SAR Group
Salvage/Source Control Group
Fire Suppression Group
Hazmat Group
EMS Group
Law Enforcement Group
Air Operations Branch
Air Tactical Group
Helo Coord
Fixed-Wing Coord.
Air Support Group
Wildlife Branch
Recovery Group
Wildlife Rehab Center Manager
PLANNING SECTION
Situation Unit
Display Processor
Field Observer
GIS Specialist*
Resources Unit
Check-in\Status Recorder
Volunteer Coordinator
Documentation Unit
Demobilization Unit
Environmental Unit
Scientific Support C Coordinator
Sampling Specialist*
Response Technologies Specialist*
Trajectory Analysis Specialist.*
Weather Forecast Specialist.*
Resources at Risk Specialist**
Shoreline Cleanup Assessment Specialist*
Historical/Cultural Resources Specialist*
Disposal Specialist*
Technical Specialists
Legal Specialist
Human Resources Specialist
LOGISTICS SECTION
Support Branch
Supply Unit
Ordering Mgr.
Receiving & Distribution Mgr.
Facilities Unit
Security Mgr.
Vessel Support Unit
Ground Support Unit
Service Branch
Food Unit
Medical Unit
Communications Unit
FINANCE/ADMIN SECTION
Time Cost Unit
Time Unit
Equipment Time Recorder
Personal Time Recorder
Procurement Unit
Compensation/ Claims Unit
* Recommended Possible Assignment of Technical Specialists

OIL SPILL

OIL SPILL SPECIFIC ICS POSITIONS AND TASK DESCRIPTIONS

INCIDENT COMMANDER – The IC for oil discharges will, whenever possible and practical, be organized under the UC Structure that includes, but is not limited to:

- The pre-designated FOSC
- The pre-designated State On-Scene Incident Commander (SOSC)
- The representative of the RP IC

The UC is responsible for the overall management of the incident. The UC directs incident activities including the development and implementation of strategic decisions and approves the ordering and releasing of resources. The UC may assign a Deputy IC to assist in carrying out IC responsibilities. IC tasks specific to oil spill events are:

a. Review IC Responsibilities in Chapter 6.
b. Review IC Job Aid.
c. Be cognizant of the primary objectives for oil spill response activities.
    - Ensure the safety of citizens and response personnel.
    - Control the source of the spill.
    - Manage a coordinated response effort.
    - Maximize protection of environmentally sensitive areas.
    - Contain and recover spilled material.
    - Recover and rehabilitate injured wildlife.
    - Remove oil from impacted areas.
    - Minimize economic impacts.
    - Keep stakeholders informed of response activities.
    - Keep the public informed of response

activities.

- Ensure that the source of a discharge is designated and that the RP advertises procedures by which claims may be presented or that the National Pollution Fund Center (NPFC) assumes this role.
- Inform the NPFC regarding the source of the discharge. NPFC will issue the required Notice of Designation.
- Refer all removal and damage claims to the RP or, if no identifiable RP, to the NPFC Claims Adjudication division.

FINANCE/ADMINISTRATION SECTION CHIEF – Refer to Page 10-2 for the Finance/Administration Section Chief position responsibilities. In addition, consult the References (d) and (e) for guidance on oil spill financial issues.

NRDAR REPRESENTATIVE - The Natural Resource Damage Assessment and Restoration (NRDAR) Representatives are responsible for coordinating NRDAR needs and activities of the trustee team. NRDAR activities generally do not occur within the structure, processes, and control of the ICS. However, particularly in the early phases of a spill response, many NRDAR activities overlap with the environmental assessment performed for the sake of spill response. Therefore, NRDAR Representatives should remain coordinated with the spill response organization through the LO, and they may need to work directly with the UC, Planning Section, Operations Section, and the NOAA SSC to resolve any problems or address areas of overlap. This includes close coordination with the LO for obtaining timely information on the spill and injuries to natural resources.

While NRDAR resource requirements and costs may fall outside the responsibility of the Logistics and Finance/Administrative Sections, coordination is important. The NRDAR Representative will coordinate NRDAR or injury determination activities.

a. Review Common Responsibilities in Chapter 2.
b. Review Agency Representative Responsibilities in Chapter 6.
c. Attend appropriate meetings to facilitate communication between NRDAR Team and IC/UC.
d. Provide status reports.
e. Coordinate with the LO, or the UC in the absence of an LO, to assure that NRDAR field activities do not conflict with response activities and to request logistical support for NRDAR field activities.
f. Seek the FOSC's cooperation in acquiring response-related samples or results of sample analysis applicable to NRDAR; (e.g., spilled petroleum product from source and/or oil from contaminated wildlife).
g. Support the UCs information needs through the IO.
h. Interact with appropriate units to collect information requested by the NRDAR Team.
i. Obtain necessary safety clearances for access to sampling sites.
j. Coordinate with other organizations to identify personnel available for NRDAR.

AIR TACTICAL GROUP SUPERVISOR - Air Tactical Group Supervisor tasks specific to oil spill events are: The coordination and scheduling of aircraft operations intended to locate, observe, track, surveil, support dispersant applications, or to be used for other deliverable response application techniques, or report

on the incident situation when fixed and/or rotary-wing aircraft are airborne at an incident. These coordination activities are normally performed by the Air Tactical Group Supervisor while airborne.

a. Review Air Tactical Group Supervisor Responsibilities in Chapter 7.
b. Obtain a briefing from the Air Operations Branch Director or the OPS.
c. Coordinate dispersant, in-situ burning, and bioremediation application through the Air Operations Branch Director.
d. Coordinate air surveillance mission scheduling and observer assignments with the SUL.
e. Identify remote sensing technology that may enhance surveillance capabilities.
f. Coordinate air surveillance observations and provide reports by the most direct methods available.
g. Report on air surveillance and operations activities to the Air Operations Branch Director.
h. Coordinate application-monitoring requirements with the Helicopter and Fixed-Wing Coordinators and the Situation Unit.
i. Report on air application activities to the Air Operation Branch Director.

HELICOPTER COORDINATOR - Helicopter Coordinator tasks specific to oil spill events are: The coordination and scheduling of helicopter operations intended to locate, observe, track, surveil, or report on the incident situation. The Helicopter Coordinator coordinates the application of dispersants, in-situ burning agents and bioremediation agents.

AIR TANKER/FIXED-WING COORDINATOR – The Air Tanker/Fixed-Wing Coordinator tasks specific to oil spill events are: The scheduling of fixed wing operations

intended to locate, observe. track, surveil, or report on the incident situation. The Air Tanker/Fixed-Wing Coordinator coordinates the aerial application of dispersants, in-situ burning agents and bioremediation agents.

RECOVERY AND PROTECTION BRANCH DIRECTOR - The Recovery and Protection Branch Director is responsible for overseeing and implementing the protection, containment and cleanup activities established in the IAP.

a. Review Branch Director responsibilities in Chapter 7.

PROTECTION GROUP SUPERVISOR - The Protection Group Supervisor is responsible for the deployment of containment, diversion, and adsorbent/absorbent materials in designated locations. Depending on the size of the incident, the Protection Group may be further divided into Teams, Task Forces and Single Resources.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Implement Protection Strategies in the IAP.
c. Direct, coordinate, and assess the effectiveness of protective actions.
d. Modify protective actions, as needed.
e. Maintain Unit/Activity Log (ICS Form 214).

ON WATER RECOVERY GROUP SUPERVISOR - The On Water Recovery Group Supervisor is responsible for managing on water recovery operations in compliance with the IAP. The Group may be further divided into Teams, Task Forces and Single Resources.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Implement Recovery Strategies in the IAP.
c. Direct, coordinate, and assess the effectiveness

of on water recovery actions.
d. Modify recovery actions as needed.
e. Maintain Unit Log (ICS 214-CG).

DISPERSANT OPERATIONS GROUP SUPERVISOR - The Dispersants Operations Group Supervisor is responsible for coordinating all aspects of a dispersant operation. For aerial applications, the Group works closely with the Air Tactical Group Supervisor.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Determine resource needs.
c. Assist the Planning Section in the development of dispersant operations and monitoring plans.
d. Implement approved dispersant operations and monitoring plans.
e. Manage dedicated dispersant resources and coordinate required monitoring.
f. Coordinate required monitoring.
g. Maintain Unit (ICS 214-CG).

IN-SITU BURN OPERATIONS GROUP SUPERVISOR The In-Situ Burn Operations Group Supervisor is responsible for coordinating all aspects of an in-situ burn operation. For aerial ignition, the Group works closely with the Air Tactical Group Supervisor.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Determine resource needs.
c. Assist the Planning Section in the development of in-situ burn operations and monitoring plans.
d. Implement approved in-situ burn operations and monitoring plans.
e. Manage dedicated in-situ burning resources.
f. Coordinate required monitoring.
g. Maintain Unit Log (ICS 214-CG).

SHORESIDE RECOVERY GROUP SUPERVISOR - The Shoreside Recovery Group Supervisor is responsible for managing shoreside cleanup operations in compliance with the IAP. The Group may be further divided into Strike Teams, Task Forces, and Single Resources.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Implement Recovery Strategies in the IAP.
c. Direct, coordinate, and assess effectiveness of shoreside recovery actions.
d. Modify protective actions, as needed.
e. Maintain Unit Log (ICS 214-CG).

DISPOSAL GROUP SUPERVISOR - The Disposal Group Supervisor is responsible for coordinating the on-site activities of personnel engaged in collecting, storing, transporting, and disposing of waste materials. Depending on the size and location of the spill, the Disposal Group may be further divided into Teams, Task Forces, and Single Resources.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Implement the Disposal Portion of the IAP.
c. Ensure compliance with all hazardous waste laws and regulations.
d. Maintain accurate records of recovered material.
e. Maintain Unit Log (ICS 214-CG).

DECONTAMINATION GROUP SUPERVISOR - The Decontamination Group Supervisor is responsible for decontamination of personnel and response equipment in compliance with approved statutes.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Implement Decontamination Plan.
c. Determine resource needs.

d. Direct and coordinate decontamination activities.
e. Brief Site SOFR on conditions.
f. Maintain Unit Log (ICS 214-CG).

EMERGENCY RESPONSE BRANCH DIRECTOR - The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation.

a. Review Branch Director responsibilities in Chapter 7.

SALVAGE/SOURCE CONTROL GROUP SUPERVISOR - Under the direction of the Emergency Response Branch Director, the Salvage/Source Control Group Supervisor is responsible for coordinating and directing all salvage/source control activities related to the incident.

a. Review Division/Group Supervisor responsibilities in Chapter 7.
b. Coordinate the development of Salvage/Source Control Plan.
c. Determine Salvage/Source Control resource needs.
d. Direct and coordinate implementation of the Salvage/Source Control Plan.
e. Manage dedicated salvage/Source Control resources.
f. Maintain Unit Log (ICS 214-CG).

WILDLIFE BRANCH DIRECTOR - The Wildlife Branch Director is responsible for minimizing wildlife injuries during spill responses; coordinating early aerial and ground reconnaissance of the wildlife at the spill site and reporting results to the SUL; advising on wildlife protection strategies, including diversionary booming placements, in-situ burning, and chemical

countermeasures; removing of oiled carcasses, employing wildlife hazing measures as authorized in the IAP; and recovering and rehabilitating impacted wildlife. A central Wildlife Processing Center should be identified and maintained for, evidence tagging, transportation, veterinary services, treatment and rehabilitation storage, and other support needs. The activities of private wildlife care groups, including those employed by the RP, will be overseen and coordinated by the Wildlife Branch Director.

a. Review Branch Director responsibilities in Chapter 7.
b. Develop the Wildlife Branch portion of the IAP.
c. Supervise Wildlife Branch operations.
d. Determine resource needs.
e. Review the suggested list of resources to be released and initiate recommendation for release of resources.
f. Assemble and disassemble teams/task forces assigned to the Wildlife Branch.
g. Report information about special activities, events, and occurrences to the OPS.
h. Assist the Volunteer Coordinator in determining training needs of wildlife recovery volunteers.
i. Maintain Unit Log (ICS 214-CG)

WILDLIFE RECOVERY GROUP SUPERVISOR - The Wildlife Recovery Group Supervisor is responsible for coordinating the search for collection and field tagging of dead and live impacted wildlife and transporting them to the processing center(s). This group should coordinate with the Planning Situation Unit in conducting aerial and group surveys of wildlife population in the vicinity of the spill. They should also deploy acoustic and visual wildlife hazing equipment, as needed.

a. Review Division/Group Supervisor responsibilities

in Chapter 7.
b. Determine resource needs.
c. Establish and implement protocols for collection and logging of impacted wildlife.
d. Coordinate transportation of wildlife to processing stations(s).
e. Maintain Unit Log (ICS 214-CG).

WILDLIFE REHABILITATION CENTER MANAGER - The Wildlife Rehabilitation Center Manager is responsible for the oversight of facility operations, including: receiving oiled wildlife at the processing center, recording essential information, collecting necessary samples, and conducting triage, stabilization, treatment, transport and rehabilitation of oiled wildlife. The Wildlife Rehabilitation Center Manager is responsible for assuring appropriate transportation to appropriate treatment centers for oiled animals requiring extended care and treatment.

a. Review Common Responsibilities in Chapter 2.
b. Determine resource needs and establish a processing station for impacted wildlife.
c. Process impacted wildlife and maintain logs.
d. Collect numbers/types/status of impacted wildlife and brief the Wildlife Branch Operations Director.
e. Coordinate the transport of wildlife to other facilities.
f. Coordinate release of recovered wildlife.
g. Implement Incident Demobilization Plan.
h. Maintain Unit Log (ICS 214-CG).

SCIENTIFIC SUPPORT COORDINATOR - The Scientific Support Coordinator (SSC) is a technical specialist and is defined in the NCP as the principal advisor to the FOSC for scientific issues. The SSC is responsible for providing expertise on chemical hazards, field observations, trajectory analysis,

resources at risk, environmental tradeoffs of countermeasures and cleanup methods, and information management. The SSC is also charged with gaining consensus on scientific issues affecting the response, but also ensuring that differing opinions within the scientific community are communicated to the incident command. Additionally, the SSC is responsible for providing data on weather, tides, currents, and other applicable environmental conditions. The SSC can serve as the Environmental Unit Leader.

a. Review Common Responsibilities in Chapter 2.
b. Review Technical Specialist Job Aid.
c. Attend planning meetings.
d. Determine resource needs.
e. Provide overflight maps and trajectory analysis, including the actual location of oil, to the Situation Unit.
f. Provide weather, tidal and current information.
g. Obtain consensus on scientific issues affecting the response.
h. In conjunction with Natural Resource Trustee Representatives and the FOSC's Historical/Cultural Resources Specialist, develop a prioritized list of resources at risk, including threatened and endangered species.
i. Provide information on chemical hazards.
j. Evaluate environmental tradeoffs of countermeasures and cleanup methods, and response endpoints.
k. Maintain Unit Log (ICS 214-CG)

SAMPLING TECHNICIAL SPECIALIST - The Sampling Technical Specialist is responsible for providing a sampling plan for the coordinated collection, documentation, storage, transportation, and submittal to appropriate laboratories for analysis or storage.

a. Review Common Responsibilities in Chapter 2.

b. Review Technical Specialist Job Aid.
c. Determine resource needs.
d. Participate in planning meetings as required.
e. Identify and alert appropriate laboratories.
f. Meet with team to develop an initial sampling plan and strategy, and review sampling and labeling procedures.
g. Set up site map to monitor the location of samples collected and coordinate with GIS staff. Coordinate sampling activities with the NRDAR Representative, Investigation Team, and legal advisors.
h. Provide status reports to appropriate requesters.
i. Maintain Unit Log (ICS 214-CG).

RESPONSE TECHNOLOGIES SPECIALIST - The Response Technologies Specialist is responsible for evaluating the opportunities to use various response technologies, including mechanical containment and recovery, dispersant or other chemical countermeasures, in-situ burning, and bioremediation. The specialist will conduct the consultation and planning required by deploying a specific response technology, and by articulating the environmental tradeoffs of using or not using a specific response technique.

a. Review Common Responsibilities in Chapter 2.
b. Review Technical Specialist Job Aid.
c. Participate in planning meetings, as required.
d. Determine resource needs.
e. Gather data pertaining to the spill, including spill location, type and amount of petroleum spilled, physical and chemical properties, weather and sea conditions, and resources at risk.
f. Identify the available response technologies (RT) that may be effective on the specific spilled petroleum.
g. Make initial notification to all agencies that have

authority over the use of RT.
h. Keep the PSC advised of RT issues.
i. Provide status reports to appropriate requesters.
j. Establish communications with the RRT to coordinate RT activities.
k. Maintain Unit Log (ICS 214-CG).

TRAJECTORY ANALYSIS TECHNICAL SPECIALIST - The Trajectory Analysis Technical Specialist is responsible for providing to the UC, projections and estimates of the movement and behavior of the spill. The specialist will combine visual observations, remote sensing information, and computer modeling, as well as observed and predicted tidal, current, and weather data to form these analyses.

Additionally, the specialist is responsible for interfacing with local experts (weather service, academia, researchers, etc.) in formulating these analyses. Trajectory maps, over-flight maps, tides and current data, and weather forecasts will be supplied by the specialist to the Situation Unit for dissemination throughout the ICP.

a. Review Common Responsibilities in Chapter 2.
b. Review Technical Specialist Job Aid.
c. Schedule and conduct spill observations/over-flights, as needed.
d. Gather pertinent information on tides, currents and weather from all available sources.
e. Provide a trajectory and over-flight maps, weather forecasts, and tidal and current information.
f. Provide briefing on observations and analyses to the proper personnel.
g. Demobilize in accordance with the Incident Demobilization Plan.
h. Maintain Unit Log (ICS 214-CG).

WEATHER FORECAST TECHNICAL SPECIALIST - The Weather Forecast Technical Specialist is responsible for acquiring and reporting incident-specific weather forecasts. The specialist will interpret and analyze data from NOAA's National Weather Service and other sources. This person will be available to answer specific weather related response questions and coordinate with the Scientific Support Coordinator and Trajectory Analysis Specialist as needed. The specialist will provide weather forecasts to the Situation Unit for dissemination throughout the ICP.

a. Review Common Responsibilities in Chapter 2.
b. Gather pertinent weather information from all appropriate sources.
c. Provide incident-specific weather forecasts on an assigned schedule.
d. Provide briefings on weather observations and forecasts to the proper personnel.
e. Maintain Unit Log (ICS 214-CG).

RESOURCES AT RISK (RAR) TECHNICAL SPECIALIST - The Resources at Risk (RAR) Technical Specialist is responsible for the identification of resources thought to be at risk from exposure to the spilled oil through the analysis of known and anticipated oil movement, and the location of natural, economic resources, and historic properties. The RAR Technical Specialist considers the relative importance of the resources and the relative risk to develop a priority list for protection.

a. Review Common Responsibilities in Chapter 2.
b. Review Technical Specialist Job Aid.
c. Participate in planning meetings as required.
d. Determine resource needs.
e. Obtain current and forecasted status information from the Situation Unit.

f. Following consultation with Natural Resource Trustee Representatives, identify natural RAR, including threatened and endangered species, and their critical habitat.
g. Following consultation with the FOSC's Historical/Cultural Resources Specialist, identify historic properties at risk.
h. Identify socio-economic resources at risk.
i. In consultation with Natural Resource Trustee Representatives, Land Management Agency Representatives, and the FOSC's Historical/Cultural Resources Specialist, develop a prioritized list of the resources at risk for use by the Planning Section.
j. Provide status reports to appropriate requesters.
k. Maintain Unit Log (ICS 214-CG).

SHORELINE CLEANUP ASSESSMENT TECHNICAL SPECIALIST The Shoreline Cleanup Assessment Technical Specialist is responsible for providing appropriate cleanup recommendations as to the types of the various shorelines and the degree to which they have been impacted. This technical specialist will recommend the need for, and the numbers of, Shoreline Cleanup Assessment Teams (SCATs) and will be responsible for making cleanup recommendations to the Environmental Unit Leader. Additionally, this specialist will recommend cleanup endpoints that address the question of "**How clean is clean?"**

a. Review Common Responsibilities in Chapter 2.
b. Review Technical Specialist Job Aid.
c. Obtain a briefing and special instructions from the Environmental Unit Leader.
d. Participate in Planning Section meetings.
e. Recommend the need for and number of SCATs.
f. Describe shoreline types and oiling conditions.
g. Identify sensitive resources (ecological,

recreational, historical properties, economic).

h. Recommend the need for cleanup. In consultation with Natural Resource Trustee Representatives, Land Management Agency Representatives, and the FOSC's Historical/Cultural Resources Specialist.
i. Recommend cleanup priorities. In consultation with Natural Resource Trustee Representatives, Land Management Agency Representatives, and the FOSC's Historical/Cultural Resources Specialist.
j. Monitor cleanup effectiveness.
k. Recommend shoreline cleanup methods and endpoints
l. Maintain Unit Log (ICS 214-CG).

HISTORICAL/CULTURAL RESOURCES TECHNICAL SPECIALIST - The Historical/Cultural Resources Technical Specialist is responsible for identifying and resolving issues related to any historical or cultural sites that are threatened or impacted during an incident. The Specialist must understand and be able to implement a "Programmatic Agreement on Protection of Historic Properties" (Consult NRT's document "Programmatic Agreement on the Protection of Historic Properties During Emergency Response under the NCP" for guidance) as well as consulting with State Historic Preservation Officers (SHPO), land management agencies, appropriate native tribes and organizations, and other concerned parties. The technical specialist must identify historical/cultural sites and develop strategies for protection and cleanup of those sites in order to minimize damage.

a. Review Common Responsibilities in Chapter 2.
b. Review Agency Representative Responsibilities in Chapter 6.
c. Review Technical Specialist Job Aid.

d. Implement the Programmatic Agreement (PA) for the FOSC.
e. If a PA is not used, coordinate Section 106 consultations with the SHPO.
f. Consult and reach consensus with the concerned parties on affected historical/cultural sites.
g. Identify and prioritize threatened or impacted historical/cultural sites.
h. Develop response strategies to protect historical/cultural sites.
i. Participate in the testing and evaluation of cleanup techniques used on historical/cultural sites.
j. Ensure compliance with applicable Federal/State regulations.
k. Maintain Unit Log (ICS 214-CG).

DISPOSAL (WASTE MANAGEMENT) TECHNICAL SPECIALIST - The Disposal (Waste Management) Technical Specialist is responsible for providing the OSC with a Disposal Plan that details the collection, sampling, monitoring, temporary storage, transportation, recycling, and disposal of all anticipated response wastes.

a. Review Common Responsibilities in Chapter 2.
b. Review Technical Specialist Job Aid.
c. Determine resource needs.
d. Participate in planning meetings as required.
e. Develop a Pre-Cleanup Plan and monitor pre-cleanup operations, if appropriate.
f. Develop a detailed Waste Management Plan.
g. Calculate and verify the volume of petroleum recovered, including petroleum collected with sediment/sand, etc.
h. Provide status reports to appropriate requesters.
i. Maintain Unit Log (ICS 214-CG).

CHAPTER 20

HAZARDOUS SUBSTANCE
(Chemical, Biological, Radiological, and Nuclear)

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CHAPTER 20

HAZARDOUS SUBSTANCE
(Chemical, Biological, Radiological, and Nuclear)

References:

(a) National Response Plan (NRP)
(b) National Incident Management System (NIMS)
(c) National Contingency Plan (NCP)
(d) Technical Specialist Job Aid

INTRODUCTION

There are numerous scenarios that provide an opportunity for the Coast Guard to become involved in Hazardous Substance/Material (CBRN- Chemical, Biological, Radiological, Nuclear) releases. The Coast Guard is a regulatory agency for industries involved in the transport of hazardous substances, routinely supports other agencies in their response to hazardous substance releases, and may become involved in hazardous substance releases when responding or supporting responses to other incidents such as terrorist actions, oil spills from refrigerated cargo ships, accidents at non-transportation related facilities that may be located within a COTP Zone, etc. It is impossible to address all possible ICS organizations that may result from the above scenarios. Therefore, this chapter will review two possible scenarios involving hazardous substances/materials. One will be a land based facility type event, and the second a will be marine type incident in an offshore area. Both will show the modular development of the ICS organization.

It is important to note that the majority of hazardous substance releases, like oil spills, are small events that will not and should not result in a response beyond that

of an initial or reinforced response organization. It should also be noted that the capabilities in various COTP zones throughout the country vary greatly. The COTP must have knowledge of the local government response capability and be familiar with their ICs as this will affect the degree of leadership and control that the Coast Guard will be expected to take in hazardous substance/material events. In areas where the state and local government have a strong hazardous substance/materials response program, the Coast Guard may be primarily in a support role during the emergency phases. In areas where there is no hazardous substance capability, the Coast Guard may be expected to take a much stronger leadership role.

In this regard, there may also be reasons to expand the UC beyond the FOSC, SOSC, and Responsible Party IC (RPIC) participation that has become the standard for oil spill response. The UC represented in this chapter reflects the possible levels of participation that may be seen in some locations and situations for hazardous substance incidents. Annual pre-incident planning meetings of all possible stakeholders are essential and highly recommended for determining the response capabilities and personalities that may be involved in the real event for a specific local area or region. These annual meetings will assist the FOSC in determining what level of UC participation will be required for his/her area.

There are different definitions used for hazardous response throughout the transportation, response and regulatory communities. Hazardous substances are referred to as hazardous materials, noxious substances, chemicals, biological, radiological, nuclear, CBRN, and other names. In this section, you will find “hazardous substances” referred to as hazardous

substance/material.

This is in consideration of the fact that in laws that are the basis for Coast Guard response authority (OPA-90, CERCLA, RCRA) the term hazardous substance is used, however, fire and police departments nationwide refer to chemical response activity as hazardous materials response. Since most hazardous substance responses will include City, County, Regional, and State Fire and Law Enforcement Agencies, the ICS organizations in this section will include both terms.

The organizations have been modified in this section to reflect that under OPA 90 regulations, the responsible party (RP) who has had the release is mandated to follow an approved Facility Response Plan (FRP) or Vessel Response Plan (VRP), to provide a spill management team for managing the release, and to become a member of the UC.

Response to a biological incident in the coastal zone can range from the illegal disposal of medical waste to the intentional release of a disease-causing organism. Initial response actions to a biological incident will depend on the type of incident and the cause/or suspected cause of the incident (i.e. terrorist act).

The Coast Guard Incident Commander’s response to biological incidents most likely will involve the use of both the Captain of the Port and Federal On-scene Coordinator (FOSC) authorities. The FOSC role is limited to disease causing agents that exist outside a host for a period of time and which can be physically removed from the environment.

If the biological incident is suspected or confirmed to be the result of a terrorist act, response to the incident

should be initiated using this Chapter, the Terrorism Chapter, the National Response Plan, and the Area Maritime Security Plan.

A radiological incident involves the release or potential release of radioactive material that poses an actual or perceived hazard to public safety, national security and/or the environment.

The U.S. Coast Guard's jurisdiction as the Coordinating Agency for a radiological incident is limited in both geographic area and authority. In radiological incidents where the Coast Guard has jurisdiction and there is no involvement of terrorism the Coast Guard Incident Commander responds under the NCP. For any radiological incidents where terrorism is involved, the Department of Energy is the Coordinating Agency responding under the NRP and the Coast Guard is a cooperating agency. The National Response Plan limits the Coast Guard's Coordinating Agency role for radiological incidents to "*certain areas of the coastal zone.*" In addition to geographic limitations, the scope of the Coast Guard's jurisdiction as the Coordinating Agency is limited to those radiological incidents that do not involve a terrorist act.

The role of Coordinating Agency for radiological incidents in the maritime environment can reside with several different federal agencies depending on geographic location, accountability for the radiological source, and the suspected or actual involvement of terrorism.

For any terrorist event involving non-Department of Defense or non-Nuclear Regulatory Committee (NRC) radioactive material, the Department of Energy (DOE) will assume the role of Coordinating Agency to address

the radiological aspects of the response. Please see the NRP for more information.

The Hazardous Substance/Materials organization module is designed to provide an organization structure that will provide necessary supervision and control for the essential functions required at virtually all Hazardous Substance/Materials incidents. This is based on the premise that controlling the tactical operations of companies and movement of personnel and equipment will provide a greater degree of safety and also reduce the probability of spreading of contaminants. The Hazardous Substance/Materials Group Supervisor will direct the primary functions, and all resources that have a direct involvement with hazardous materials will be supervised by one of the functional leaders, the Hazardous Substances/Materials Group Supervisor, or when activated the Hazardous Substances/Materials Branch Director.

Since the Logistics Section and Finance Sections, if formed during a hazardous substance response, will reflect the same functional requirements as in the generic ICS organization, they have not been included in the organizational charts for this chapter.

UNIFIED COMMAND

A hazardous substances/materials release may bring together a greater number and a wider variety of agencies than any other single incident the Coast Guard may face. It is assumed that all hazardous materials incidents will be managed under UC principles because in virtually all cases, fire, law enforcement, and public health agencies will have some statutory functional responsibility for IC and Control and mitigation.

Depending on incident factors, several other agencies will respond to a hazardous materials incident. The best method of ensuring effective information flow and coordination between the responding agencies at the scene of a multi-agency incident is to establish an ICP and the use of a UC. Each key response agency should provide a representative to remain at the ICP who will have authority to speak for and commit agency resources. The Assisting Agencies Section of this document lists some of the typical functional responsibilities of law enforcement and health agencies.

HAZARDOUS SUBSTANCE SCENARIO AND MODULAR ORGANIZATION DEVELOPEMENT

MODULAR DEVELOPMENT FOR A LAND BASED TYPE EVENT - A series of examples of modular development are included to illustrate one method of expanding the incident organization.

INITIAL RESPONSE ORGANIZATION (LAND BASED TYPE EVENT) - The ICs will handle all Command and General Staff responsibilities and manage initial response resources. See Page 20-9 for an example of an Initial Response Organization.

REINFORCED RESPONSE ORGANIZATION (LAND BASED TYPE EVENT) - The two IC's have met and have established a UC. They have established a Hazardous Materials Group to manage all activities around the Control Zones and have organized Law Enforcement Units into a Task Force to isolate the Operational Area. The IC's have decided to establish a Planning Section, a Staging Area and a SO. See Page 20-10 for an example of a Reinforced Response Organization.

MULTI-DIVISION/GROUP ORGANIZATION (LAND BASED TYPE EVENT) - The UC has activated most Command and General Staff positions and has established a combination of Divisions and Groups. See Page 20-11 for an example of a Multi-Division/Group Organization

MULTI BRANCH ORGANIZATION FOR A LAND BASED TYPE EVENT - The UC has activated all Command and General Staff positions and has established four branches in the OPS. See Page 20-12 for an example of a Multi-Branch Organization.

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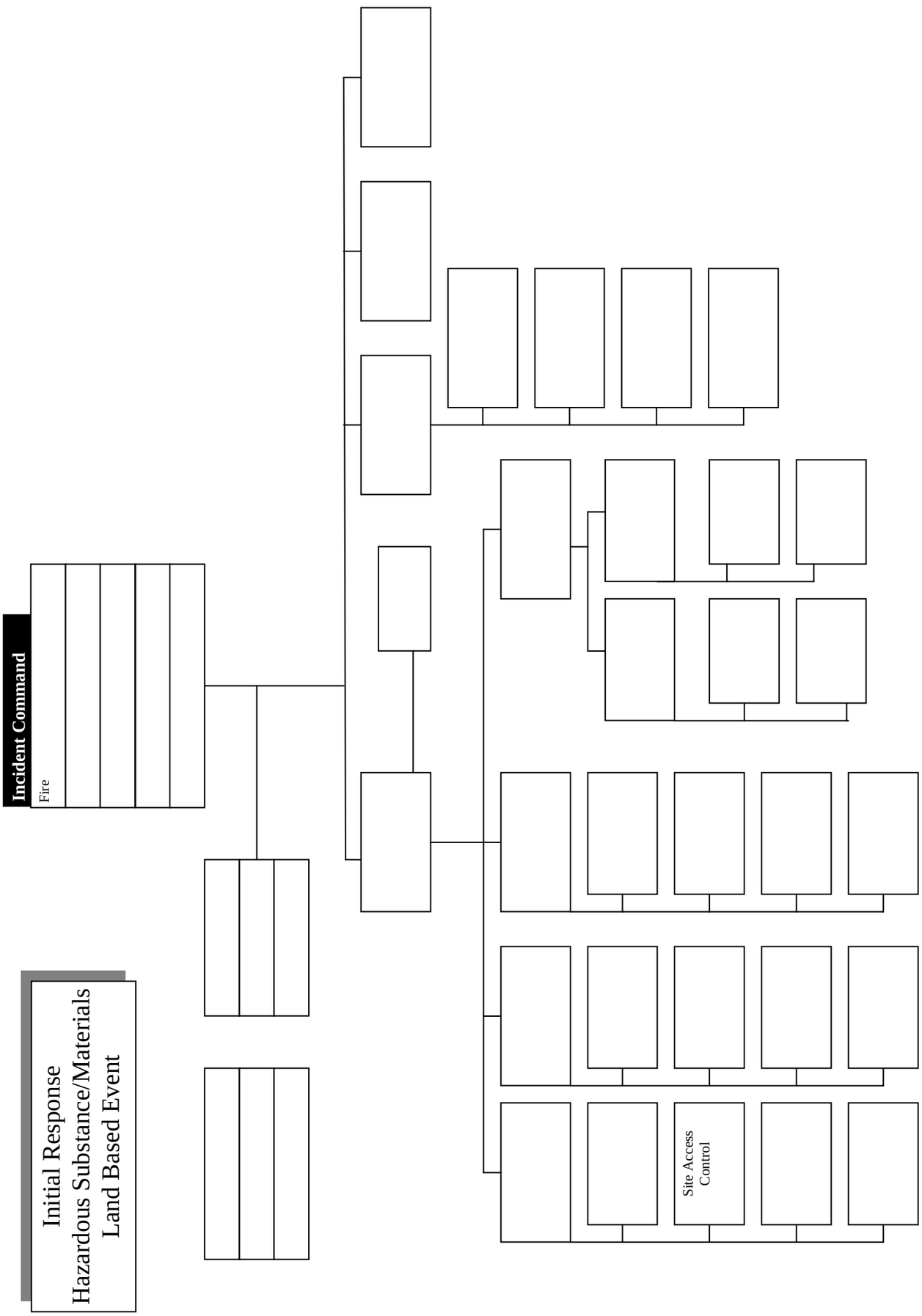
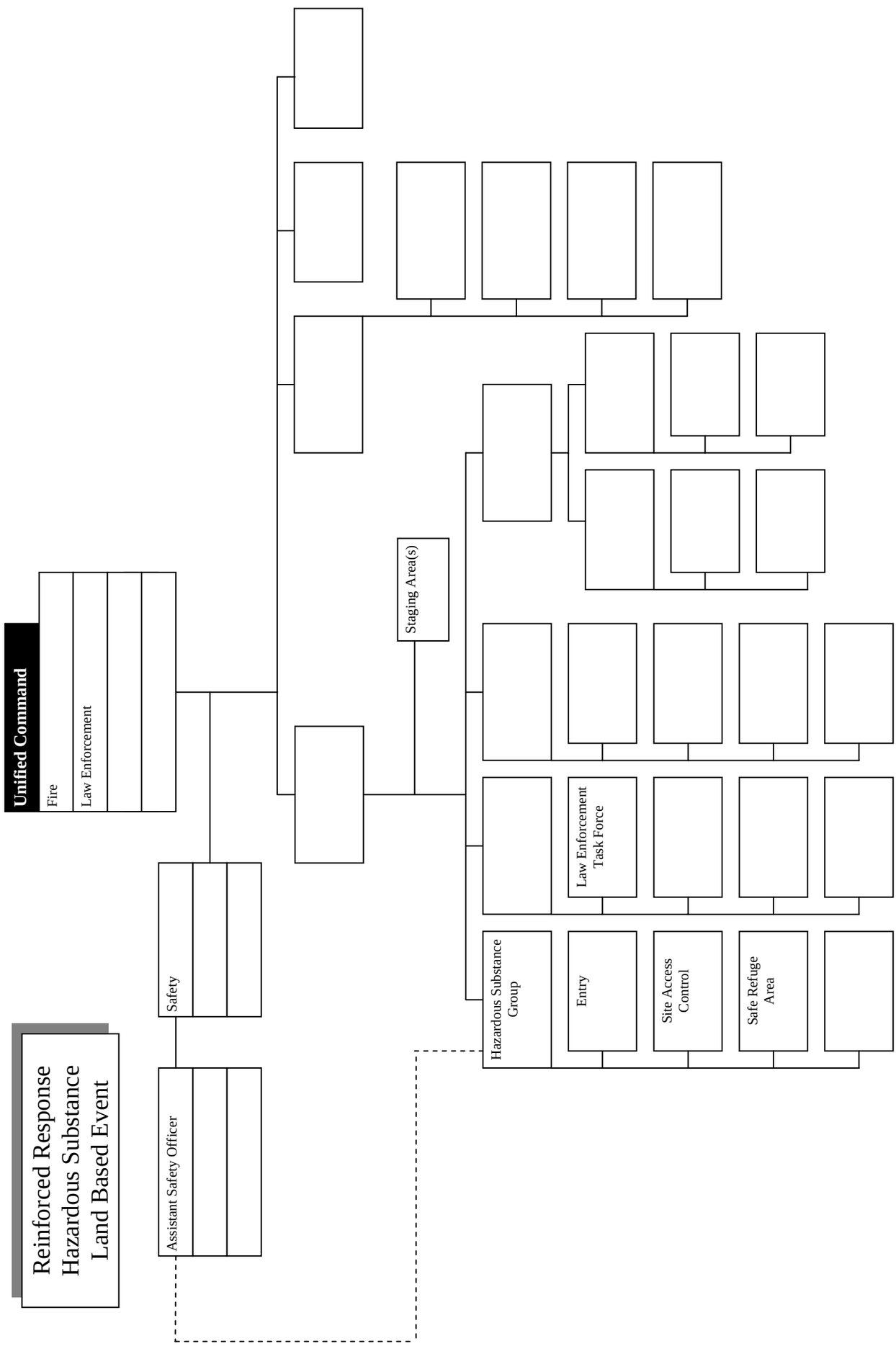
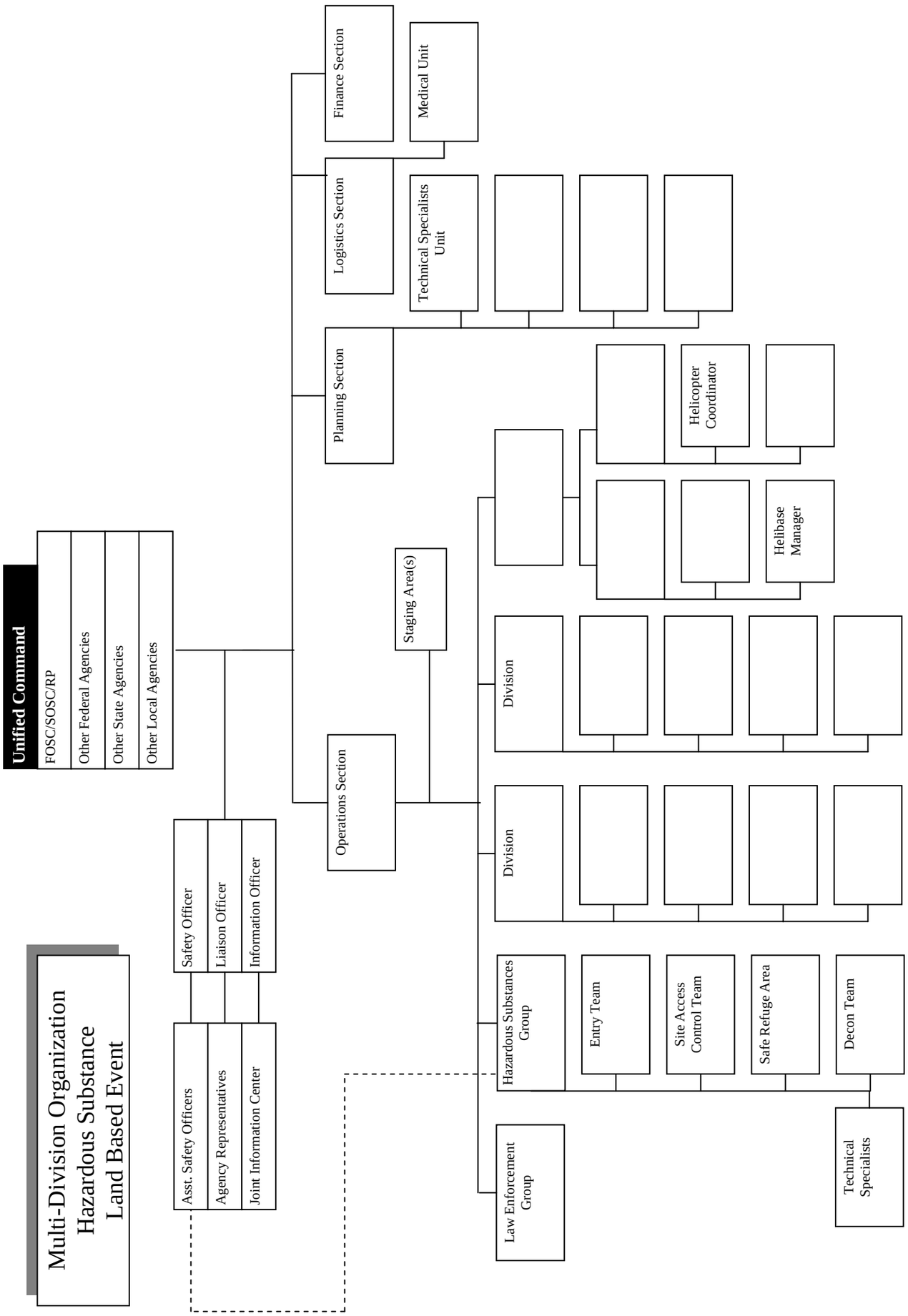
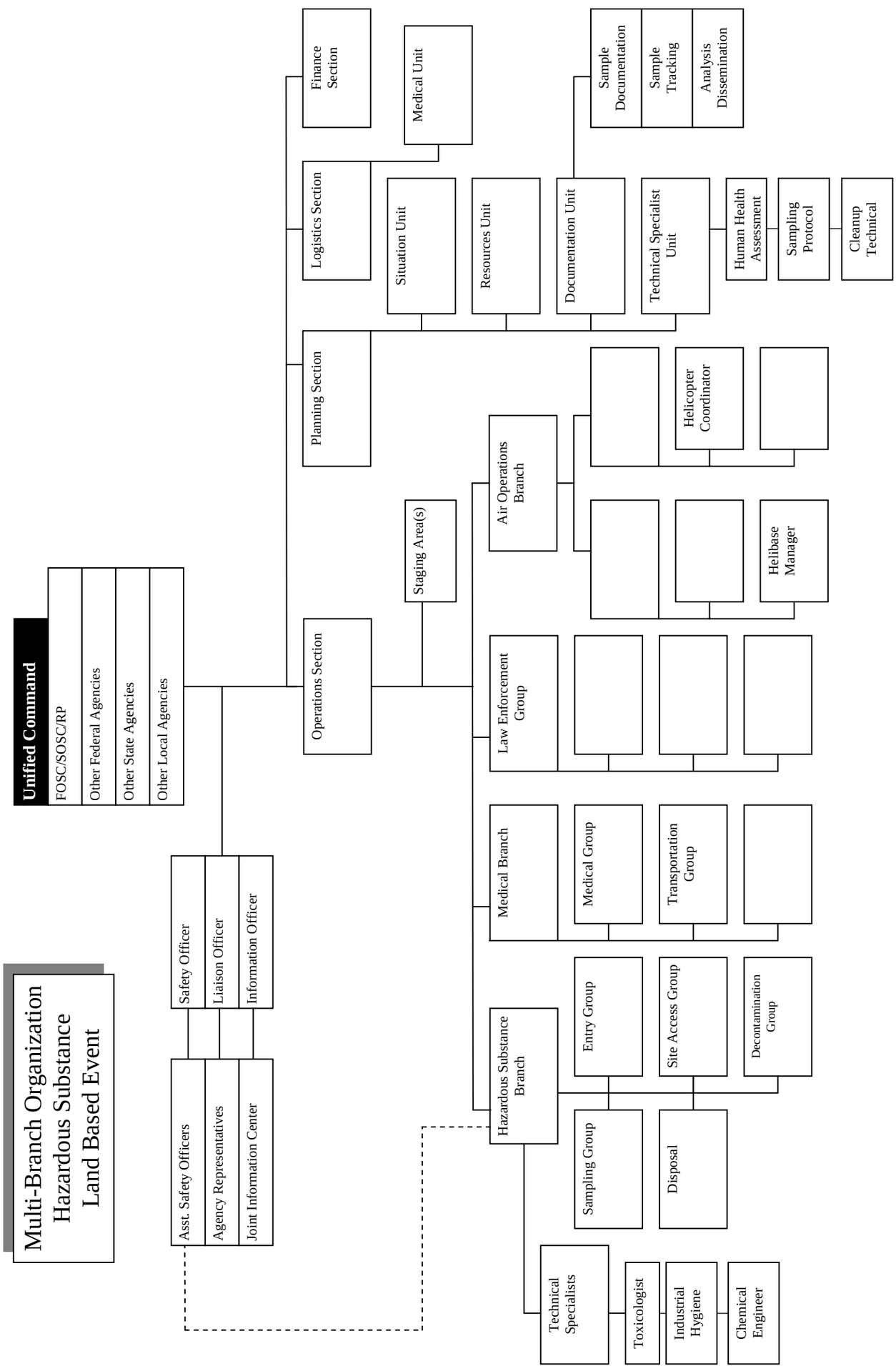

Incident Command
Fire
Initial Response
Hazardous Substance/Materials
Land Based Event
Site Access
Control


Unified Command
Fire
Law Enforcement
Staging Area(s)
Safety
Assistant Safety Officer
Hazardous Substance Group
Entry
Site Access Control
Safe Refuge Area
Law Enforcement Task Force
Reinforced Response
Hazardous Substance
Land Based Event

AUGUST 2006


Multi-Division Organization
Hazardous Substance
Land Based Event
Unified Command
FOSC/SOSC/RP
Other Federal Agencies
Other State Agencies
Other Local Agencies
Safety Officer
Liaison Officer
Information Officer
Asst. Safety Officers
Agency Representatives
Joint Information Center
Operations Section
Staging Area(s)
Planning Section
Logistics Section
Finance Section
Medical Unit
Technical Specialists Unit
Helicopter Coordinator
Helibase Manager
Division
Division
Hazardous Substances Group
Entry Team
Site Access Control Team
Safe Refuge Area
Decon Team
Technical Specialists
Law Enforcement Group


Multi-Branch Organization
Hazardous Substance
Land Based Event
Unified Command
FOSC/SOSC/RP
Other Federal Agencies
Other State Agencies
Other Local Agencies
Safety Officer
Liaison Officer
Information Officer
Asst. Safety Officers
Agency Representatives
Joint Information Center
Operations Section
Planning Section
Logistics Section
Finance Section
Staging Area(s)
Air Operations Branch
Helicopter Coordinator
Helibase Manager
Law Enforcement Group
Medical Branch
Medical Group
Transportation Group
Hazardous Substance Branch
Entry Group
Site Access Group
Decontamination Group
Sampling Group
Disposal
Technical Specialists
Toxicologist
Industrial Hygiene
Chemical Engineer
Situation Unit
Resources Unit
Documentation Unit
Technical Specialist Unit
Medical Unit
Sample Documentation
Sample Tracking
Analysis Dissemination
Human Health Assessment
Sampling Protocol
Cleanup Technical

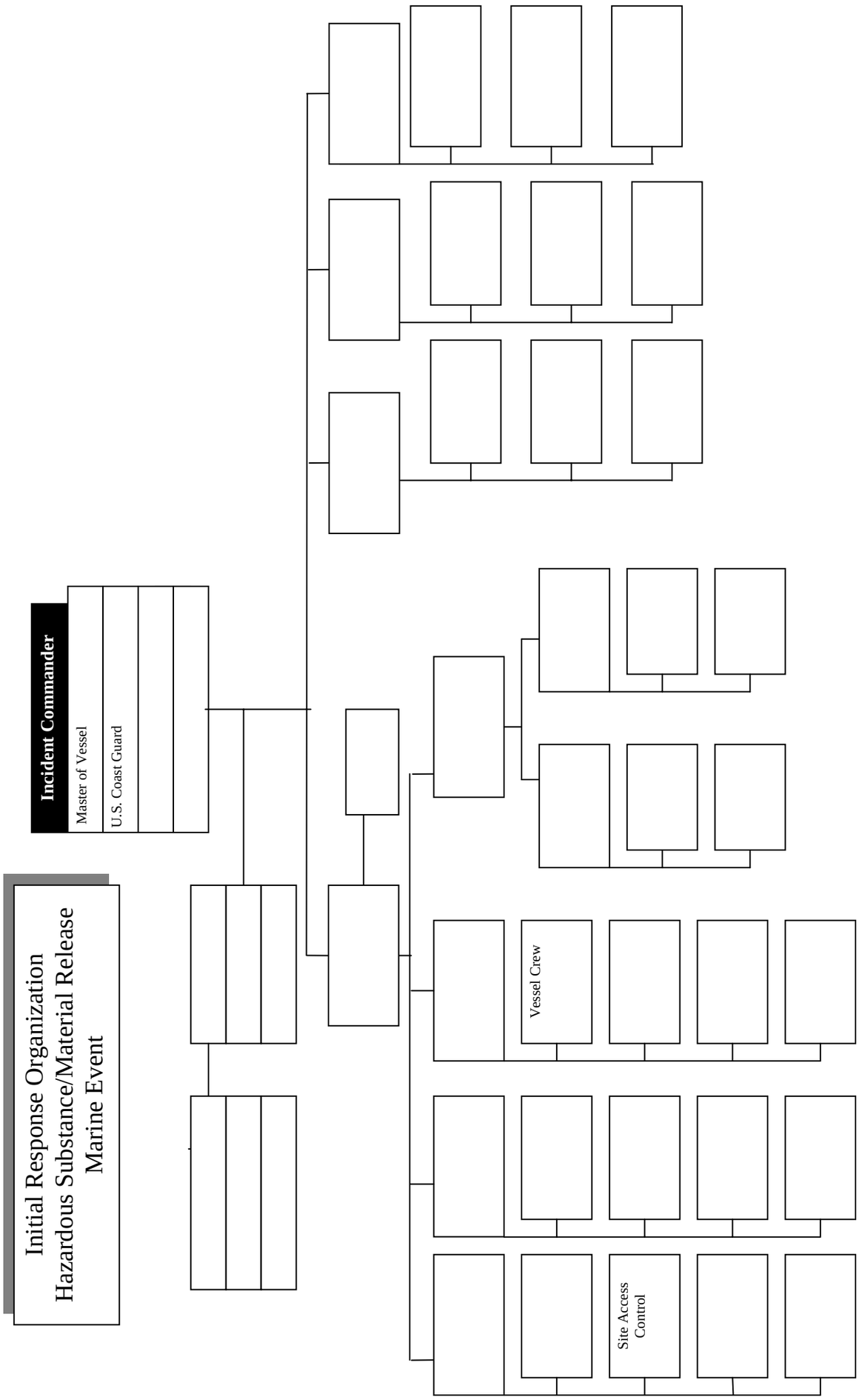
MODULAR DEVELOPMENT (MARINE TYPE EVENT)

INITIAL RESPONSE ORGANIZATION (MARINE TYPE EVENT) - A vessel offshore suffers a casualty that releases a hazardous substance. The initial IC will be the vessel's master, and the ship's crew will carry out initial response activities. The Coast Guard will be involved from a notification perspective and will begin assessment of the situation based on information from the master. See Page 20-14 for an example of an Initial Response Organization.

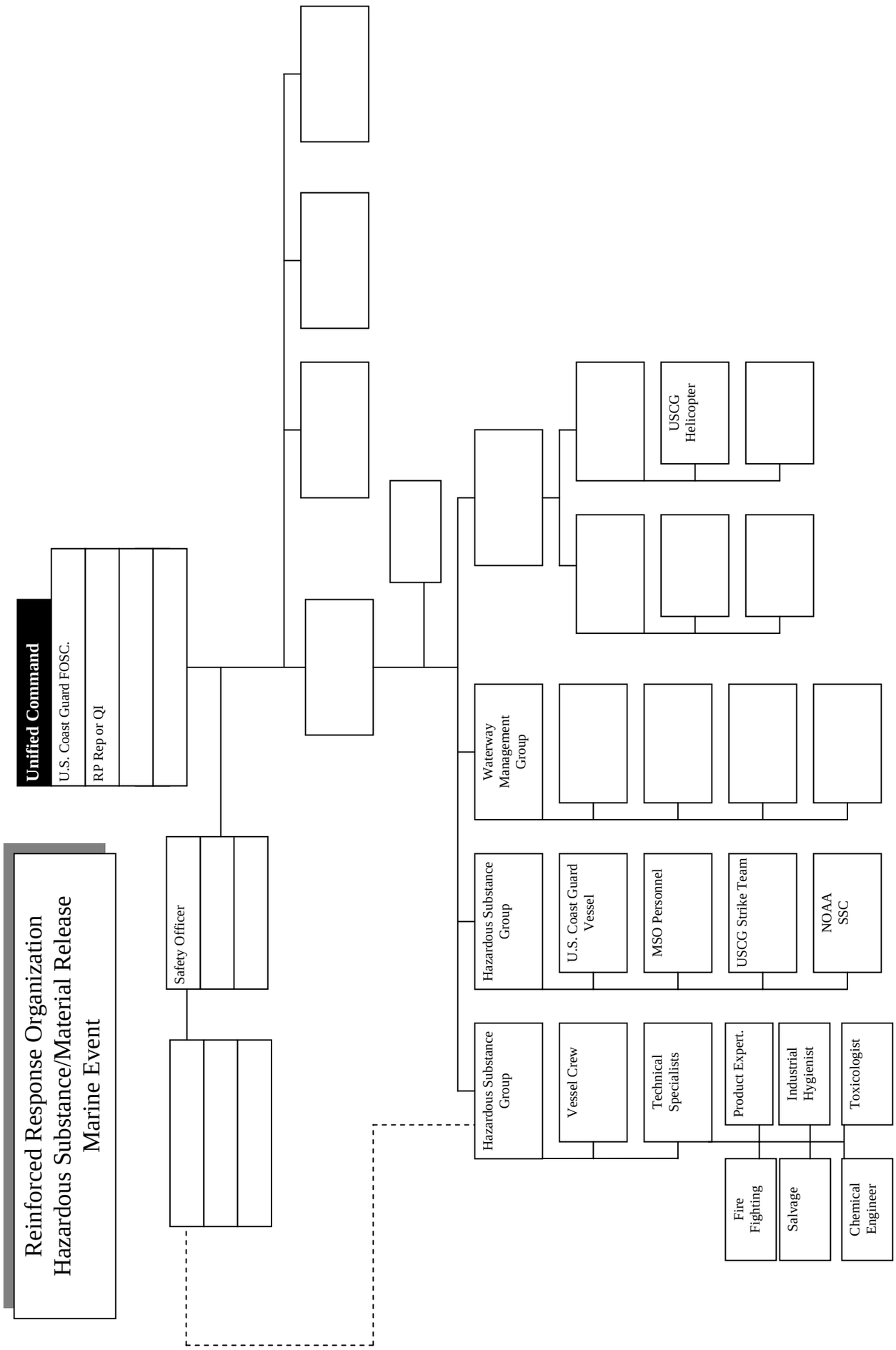
REINFORCED RESPONSE ORGANIZATION (MARINE TYPE EVENT) - The FOSC and the vessel's QI/owner representative have met and have established a UC. They have established two Hazardous Materials Groups to fully assess the situation and plan a response. See Page 20-15 for an example of a Reinforced Response Organization.

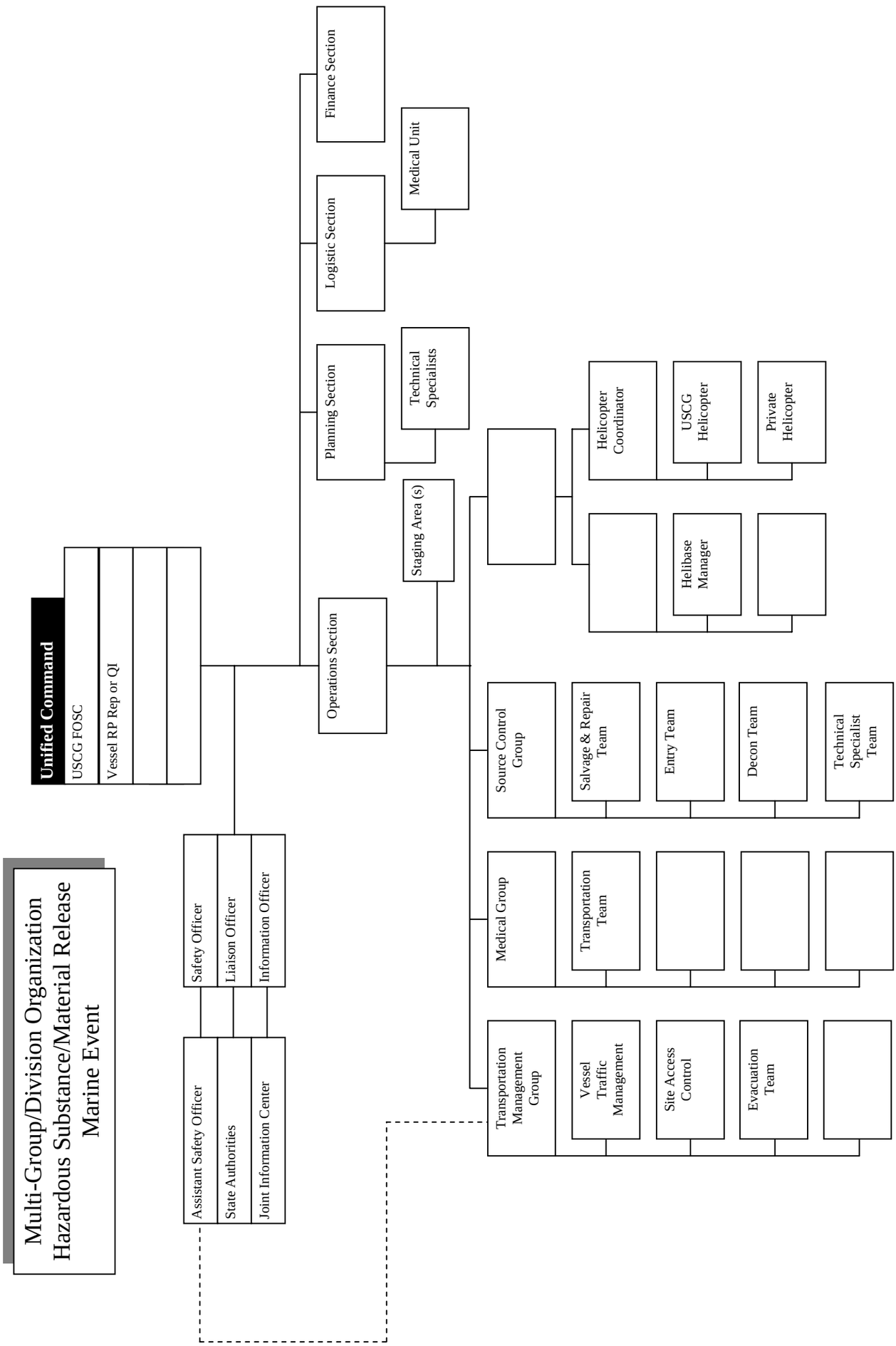
MULTI-DIVISION/GROUP ORGANIZATION (MARINE TYPE EVENT) - The UC has activated most Command and General Staff positions and has molded the RP and government resources into a combination of Groups tasked with assessing and responding to the incident. See Page 20-16 for an example of a Multi-Division/Group Organization.

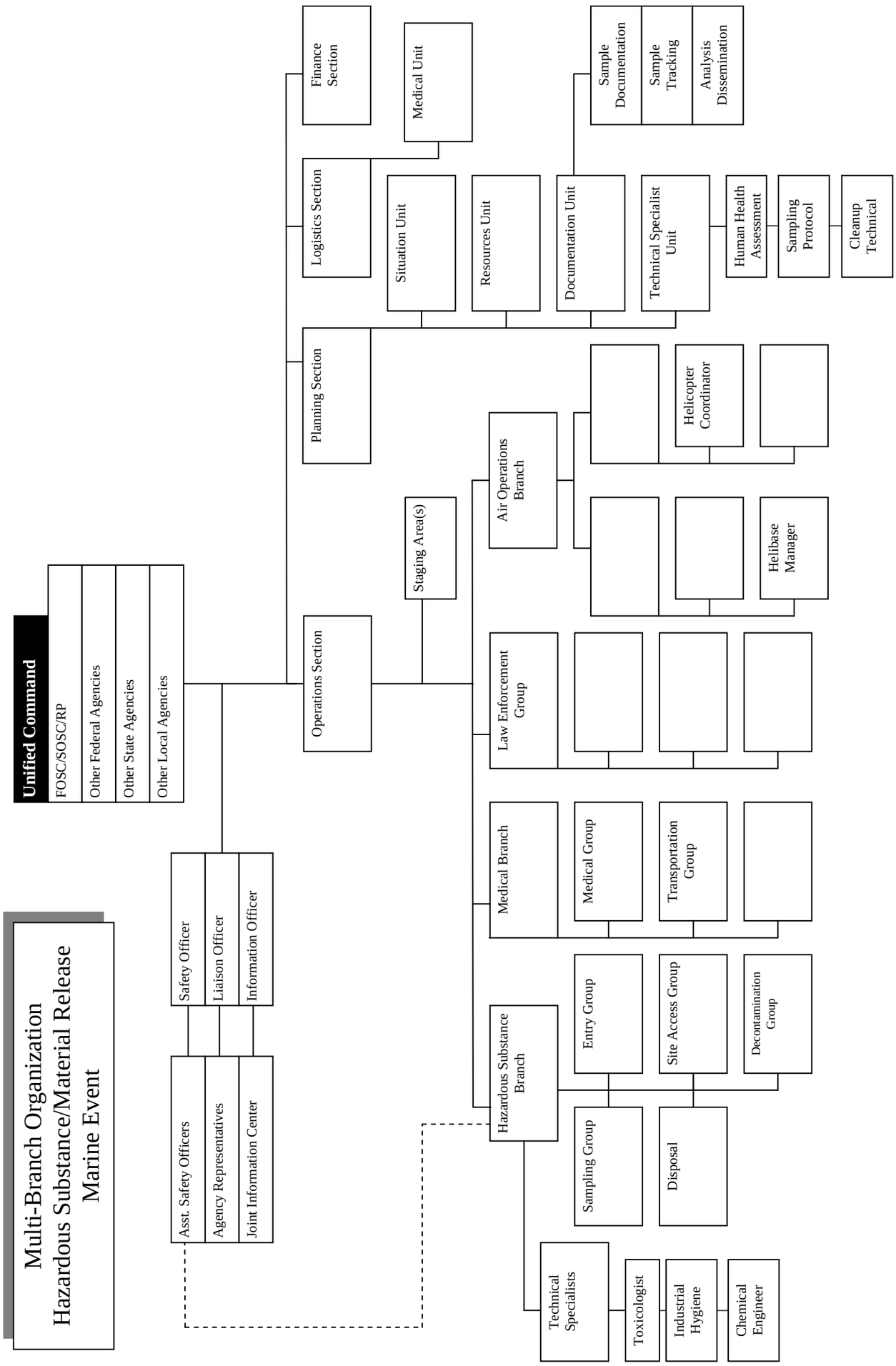
MULTI BRANCH ORGANIZATION (MARINE TYPE EVENT) - The UC has activated all Command and General Staff positions and has established four branches within the OPS. Since the event may require action to bring the vessel into port for offloading, firefighting, or salvage and repair, the UC includes state and city representation. See Page 20-17 for an example of a Multi-Branch Organization.


Initial Response Organization
Hazardous Substance/Material Release
Marine Event
Incident Commander
Master of Vessel
U.S. Coast Guard
Vessel Crew
Site Access Control

AUGUST 2006


Reinforced Response Organization
Hazardous Substance/Material Release
Marine Event
Unified Command
U.S. Coast Guard FOSC.
RP Rep or QI
Safety Officer
Waterway Management Group
USCG Helicopter
Hazardous Substance Group
U.S. Coast Guard Vessel
MSO Personnel
USCG Strike Team
NOAA SSC
Hazardous Substance Group
Vessel Crew
Technical Specialists
Product Expert.
Industrial Hygienist
Toxicologist
Fire Fighting
Salvage
Chemical Engineer


Multi-Group/Division Organization
Hazardous Substance/Material Release
Marine Event
Unified Command
USCG FOSC
Vessel RP Rep or QI
Safety Officer
Liaison Officer
Information Officer
Assistant Safety Officer
State Authorities
Joint Information Center
Operations Section
Planning Section
Logistic Section
Finance Section
Technical Specialists
Medical Unit
Staging Area (s)
Helicopter Coordinator
USCG Helicopter
Private Helicopter
Helibase Manager
Source Control Group
Salvage & Repair Team
Entry Team
Decon Team
Technical Specialist Team
Medical Group
Transportation Team
Transportation Management Group
Vessel Traffic Management
Site Access Control
Evacuation Team


Multi-Branch Organization
Hazardous Substance/Material Release
Marine Event
Unified Command
FOSC/SOSC/RP
Other Federal Agencies
Other State Agencies
Other Local Agencies
Safety Officer
Liaison Officer
Information Officer
Asst. Safety Officers
Agency Representatives
Joint Information Center
Operations Section
Planning Section
Logistics Section
Finance Section
Staging Area(s)
Air Operations Branch
Helicopter Coordinator
Helibase Manager
Law Enforcement Group
Medical Branch
Medical Group
Transportation Group
Hazardous Substance Branch
Entry Group
Site Access Group
Decontamination Group
Sampling Group
Disposal
Technical Specialists
Toxicologist
Industrial Hygiene
Chemical Engineer
Medical Unit
Situation Unit
Resources Unit
Documentation Unit
Technical Specialist Unit
Sample Documentation
Sample Tracking
Analysis Dissemination
Human Health Assessment
Sampling Protocol
Cleanup Technical

HAZARDOUS SUBSTANCE/HAZMAT RELEASE SPECIFIC ICS POSITIONS AND TASK DESCRIPTIONS

Only those positions and tasks specific and unique to Hazardous Substance/Material Release response missions will be described in this section. Persons assigned to positions common and consistent with the NIIMS organization should refer to the position job aids and Chapter 5-11 of this IMH for their position/task description checklists.

INCIDENT COMMANDER and SAFETY OFFICER - In addition to the specific tasks assigned to the IC and SOFR on Page 6-2 and Page 6-6, respectively, the IC and SOFR for a hazardous substance incident will use the following guidance when preparing the Site Safety Plan:

a. Assign site safety responsibility.
b. Establish perimeter and restrict access.
c. Characterize site hazards:
    - Identity pollutant.
    - Obtain Material Safety Data Sheets.
    - Conduct air monitoring.
    - Identify physical and biological hazards i.e.: slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants and biological waste.
d. Establish control zones:
    - Exclusion zone.
    - Contamination reduction zone.
    - Support zone.
e. Assess training requirements:
    - Check HAZWOPER cards.
    - Insure safety briefings.

f. Select personal protective equipment (PPE):
   - Level A, B, C, or D.
g. Establish decontamination stations.
h. Establish Emergency Medical Plan:
   - Locate and list: hospital, EMT(S) and first-aid stations.
   - List emergency numbers: fire, police, and ambulance.

ASSISTANT SAFETY OFFICER – HAZARDOUS MATERIALS - The Assistant Safety Officer coordinates with the Hazardous Substance/Material Group Supervisor (or Hazardous Materials Branch Director, (if activated). The Assistant Safety Officer Hazardous Substance/Material coordinates safety related activities directly relating to the Hazardous Substance/Material Group operations as mandated by 29 CFR Part 1910.120 and applicable State and local laws. The person in this position advises the Hazardous Substance/Material Group Supervisor (or Hazardous Substance/Material Branch Director) on all aspects of health and safety and has the authority to stop or prevent unsafe acts. In a multi-activity incident the Assistant Safety Officer Hazardous Substance/Material does not act as the Safety Officer for the overall incident. Assistant Site Safety Officer-Hazardous Substance/Material tasks include:

a. Review SOFR Responsibilities in Chapter 6.
b. Obtain a briefing from the Hazardous Substance/Material Group Supervisor.
c. Participate in the preparation and implementation of a Site Safety and Control Plan.

d. Advise the Hazardous Substance/Material Group Supervisor (or Hazardous Substance/Material Branch Director) of deviations from the Site Safety and Control Plan (ICS Form 208-HM) or any dangerous situations.
e. Alter, suspend, or terminate any activity that is judged to be unsafe.
f. Ensure the protection of the Hazardous Substance/Material Group personnel from physical, environmental, and chemical hazards/exposures.
g. Ensure the provision of required emergency medical services for assigned personnel and coordinate with the Medical Unit Leader.
h. Ensure that medical related records for the Hazardous Substance/Material Group personnel are maintained.
i. Maintain Unit Log (ICS 214-CG).

FINANCE/ADMINISTRATION SECTION CHIEF - Refer to Page 10-2 for the Finance/Administration Section Chief position responsibilities. In addition, consult the NPFC user reference Guides (TOPS) and the FFARM Field Guide for guidance on hazardous material financial issues.

HAZARDOUS SUBSTANCE/MATERIAL GROUP SUPERVISOR - The Hazardous Substance/Material Group Supervisor is responsible for the implementation of the phases of the IAP dealing with the Hazardous Material Group operations. The Hazardous Substance/Material Group Supervisor is responsible for the assignment of resources within the Hazardous Substance/Material Group, reporting on the progress of control operations and the status of resources within the Group. The Hazardous Substance/Material Group Supervisor directs the overall operations of the

Hazardous Substance/Materials Group; Additional tasks include:

a. Review Division/Group Supervisor Responsibilities in Chapter 7.
b. Ensure the development of Control Zones and Access Control Points and the placement of appropriate control lines.
c. Evaluate and recommend public protection action options to the OSC or Branch Director (if activated).
d. Ensure that current weather data and future weather predictions are obtained.
e. Establish environmental monitoring of the hazard site for contaminants.
f. Ensure that a Site Safety and Control Plan (ICS Form 208-HM) is developed and implemented.
g. Conduct safety meetings with the Hazardous Substance/Material Group.
h. Participate, when requested, in the development of the IAP.
i. Ensure that recommended safe operational procedures are followed.
j. Ensure that the proper Personal Protective Equipment is selected and used.
k. Ensure that the appropriate agencies are notified through the Incident Commander.
l. Maintain Unit/Activity Log (ICS Form 214).

ENTRY LEADER - Reports to the Hazardous Substance/Material Group Supervisor. The Entry Leader is responsible for the overall entry operations of assigned personnel within the Exclusion Zone; Additional tasks include:

a. Review Unit Leader Responsibilities in Chapter 2.
b. Supervise entry operations.
c. Recommend actions to mitigate the situation within the Exclusion Zone.

d. Carry out actions, as directed by the Hazardous Substance/Material Group Supervisor.
e. Maintain communications and coordinate operations with the Decontamination Leader.
f. Maintain communications and coordinate operations with the Site Access Control Leader and the Safe Refuge Area Manager (if activated).
g. Maintain communications and coordinate operations with the Technical Specialist Hazardous Substance/Material Reference.
h. Maintain control of the movement of people and equipment within the Exclusion Zone, including contaminated victims.
i. Direct rescue operations, as needed, in the Exclusion Zone.
j. Maintain Unit Log (ICS 214-CG).

DECONTAMINATION GROUP SUPERVISOR - The Decontamination Group Supervisor is responsible for the operations of the decontamination element and for providing decontamination, as required by the ICP; Additional tasks include:.

a. Review Division/Group Supervisor Responsibilities in Chapter 7.
b. Establish the Contamination Reduction Corridor(s).
c. Identify contaminated people and equipment.
d. Supervise the operations of the decontamination element in the process of decontaminating people and equipment.
e. Maintain control of movement of people and equipment within the Contamination Reduction Zone.
f. Maintain communications and coordinate operations with the Entry Leader.
g. Maintain communications and coordinate operations with the Site Access Control Leader

and the Safe Refuge Area Manager (if activated).

h. Coordinate the transfer of contaminated patients requiring medical attention (after decontamination) to the Medical Group.
i. Coordinate handling, storage, and transfer of contaminants within the Contamination Reduction Zone.
j. Maintain Unit Log (ICS 214-CG).

SITE ACCESS CONTROL LEADER - The Site Access Control Leader is responsible for the control of the movement of all people and equipment through appropriate access routes at the hazard site and ensures that contaminants are controlled and records are maintained.

a. Review Unit Leader Responsibilities in Chapter 2.
b. Organize and supervise assigned personnel to control access to the hazard site.
c. Oversee the placement of the Exclusion Control Line and the Contamination Control Line.
c. Ensure that appropriate action is taken to prevent the spread of contamination.
d. Establish the Safe Refuge Area within the Contamination Reduction Zone. Appoint a Safe Refuge Area Manager (as needed).
e. Ensure that injured or exposed individuals are decontaminated prior to departure from the hazard site.
f. Track the movement of persons passing through the Contamination Control Line to ensure that long-term observations are provided.
g. Coordinate with the Medical Group for proper separation and tracking of potentially contaminated individuals needing medical attention.
h. Maintain observations of any changes in climatic conditions or other circumstances external to the

hazard site.

i. Maintain communications and coordinate operations with the Entry Leader.
j. Maintain communications and coordinate operations with the Decontamination Leader.
k. Maintain Unit Log (ICS 214-CG).

SAFE REFUGE AREA MANAGER - The Safe Refuge Area Manager reports to the Site Access Control Leader and coordinates with the Decontamination Leader and the Entry Leader. The Safe Refuge Area Manager is responsible for evaluating and prioritizing victims for treatment, collecting information from the victims, and preventing the spread of contamination by these victims. If there is a need for the Safe Refuge Area Manager to enter the Contamination Reduction Zone in order to fulfill assigned responsibilities then the appropriate PPE shall be worn.

a. Maintain Common Responsibilities in Chapter 2.
b. Establish the Safe Refuge Area within the Contamination Reduction Zone adjacent to the Contamination Reduction Corridor and the Exclusion Control Line.
c. Monitor the hazardous substance/materials release to ensure that the Safe Refuge Area is not subject to exposure.
d. Assist the Site Access Control Leader by ensuring the victims are evaluated for contamination.
e. Manage the Safe Refuge Area for the holding and evaluation of victims who may have information about the incident, or if they are suspected of having contamination.
f. Maintain communications with the Entry Leader to coordinate the movement of victims from the Refuge Area(s) in the Exclusion Zone to the Safe Refuge Area.
g. Maintain communications with the

Decontamination Leader to coordinate the movement of victims from the Safe Refuge Area into the Contamination Reduction Corridor, if needed.

h. Maintain Unit Log (ICS 214-CG).

SAMPLING GROUP SUPERVISOR - The Sampling Group is assigned to the Operations Section because of the immediate communication and coordination they must have with the other field groups. The Field Sampling Group will normally include an Air Monitoring Team, Water Sampling Team, and a Soil Sampling Team. They will normally be responsible for perimeter monitoring and sampling, and will either coordinate sampling within the hot zone and warm zones with the Entry Group, or if properly trained and outfitted with PPE, they may take samples within the hot/warm zones themselves. They will be responsible for:

a. Conducting all sampling required for immediate operation activity and communicating sampling data, such as results of routine air monitoring to on-site operational and safety personnel.
b. Conducting air, water, and soil sampling as directed by the regulatory agencies and other interested parties through the Sampling Protocol Team.
c. Ensuring that all samples are obtained following appropriate sample protocol and other special instructions they may obtain.
d. Ensuring that all samples taken are properly documented and following the chain of custody procedures.
e. Ensuring that the samples are properly transferred to the Sample Documentation and Tracking Teams for proper documentation, analysis, and final dissemination.

SCIENTIFIC SUPPORT COORDINATOR SPECIALIST - The Scientific Support Coordinator (SSC) is a technical specialist and is defined in the NCP as the principal advisor to the FOSC for scientific issues. The SSC is responsible for providing expertise on chemical hazards, field observations, trajectory analysis, resources at risk, environmental trade-offs of countermeasures and cleanup methods, and information management. The SSC is also charged with gaining consensus on scientific issues affecting the response and ensuring that differing opinions within the scientific community are communicated to the IC/UC. Additionally, the SSC is responsible for providing data on weather, tides, and currents, and other applicable environmental conditions. The SSC can serve as the Environmental Unit Leader.

a. Review Common Responsibilities in Chapter 2.
b. Attend planning meetings.
c. Determine resource needs.
d. Provide overflight maps and trajectory analysis to the Situation Unit.
e. Provide weather, tidal and current information.
f. Obtain consensus on scientific issues affecting the response.
g. Develop a prioritized list of the resources at risk.
h. Provide information on chemical hazards.
i. Evaluate environmental tradeoffs of countermeasures and cleanup methods, and response endpoints.
j. Maintain Unit Log (ICS 214-CG).

TECHNICAL SPECIALIST GROUP SUPERVISOR - There are a number of specialist positions that will be required for hazardous substance response operations. Because of their field locations and requirement for close coordination with the Operations Section Field Personnel, they are assigned to the Technical Group.

The Technical Specialist Group Supervisor is responsible for coordinating the activities of these various specialists and ensuring that their services and information are made available to the appropriate field and command post activities. The Technical Group Supervisor will:

a. Review the Division/Group Supervisor responsibilities in Chapter 7.
b. Will oversee the activities of the following identified specialists.

TECHNICAL SPECIALIST-HAZARDOUS SUBSTANCE/MATERIALS REFERENCE - This position provides technical information and assistance to the Hazardous Substances/Material Group using various reference sources such as computer databases, technical journals, CHEMTREC, and phone contact with facility representatives. The Technical Specialist Hazardous Substances/Materials Reference may provide product identification using hazardous categorization tests and/or any other means of identifying unknown materials.

a. Review Common Responsibilities in Chapter 2.
b. Obtain a briefing from the PSC.
c. Provide technical support to the Hazardous Substance/Materials Group Supervisor.
d. Maintain communications and coordinate operations with the Entry Leader.
e. Provide and interpret environmental monitoring information.
f. Provide analysis of hazardous material samples. Determine PPE compatibility to hazardous material.
g. Provide technical information of the incident for documentation.
h. Provide technical information management with public and private agencies (i.e.; Poison Control

Center, Toxicology Center, CHEMTREC, State Department of Food and Agriculture, National Response Team).

i. Assist the Planning Section with projecting the potential environmental effects of the release.
j. Maintain Unit Log (ICS 214-CG).

TOXICOLOGIST – The Toxicologist Specialist is a trained, certified professional that can determine the toxic effects of the released hazardous substance on responders, the public, and the environment. This position is required by regulation for Coast Guard approved FRP and VRP and will be on-scene on behalf of the RP.

INDUSTRIAL HYGIENIST – An Industrial Hygienist Specialist is a trained and certified professional that can assist the SOFR in determining appropriate protective measures to be taken by responders in complex hazardous substances responses to ensure the workers health and safety.

CHEMICAL ENGINEER – A Chemical Engineer is a trained and licensed professional that is knowledgeable in the development and application of manufacturing processes in which materials undergo changes in properties and that deals especially with the design and operation of plants and equipment to perform such work.

PRODUCT EXPERT – The Product Expert is a trained professional that is knowledgeable about the specific hazardous substance product that is released, and in particular the chemical changes that may occur when it is released into the environment, such as water, air, etc.

MARINE CHEMIST – A Marine Chemist Specialist is a

trained professional, usually a chemist or industrial hygienist certified for declaring confined spaces as gas free for entry.

ASSISTING AGENCIES

LAW ENFORCEMENT – The local law enforcement agency will respond to most Hazardous Substance/Material incidents. Depending on incident factors, law enforcement may be a partner in UC or may participate as an assisting agency. Some functional responsibilities that may be handled by law enforcement are:

a. Isolate the incident area.
b. Manage crowd control.
c. Manage traffic control.
d. Manage public protective action.
e. Provide scene management for on-highway incidents.
f. Manage criminal investigations.

ENVIRONMENTAL HEALTH AGENCIES – In most cases the local or State environmental health agency will be at the scene as a partner in UC. Some functional responsibilities that may be handled by environmental health agencies are:

a. Determine the identity and nature of the Hazardous Substances/Materials.
b. Establish the criteria for clean up and disposal of the Hazardous Substances/Materials.
c. Declare the site safe for re-entry by the public.
d. Provide the medical history of exposed individuals.
e. Monitor the environment.
f. Supervise the clean up of the site.
g. Enforce various laws and acts.
h. Determine legal responsibility.

i. Provide technical advice.
j. Approve funding for the clean up, if required.

TECHNICAL SPECIALISTS

SAMPLING PROTOCOL TEAM - During a significant hazardous substance/Material release incident, there will be numerous requirements for sampling under the ICS UC umbrella. Unless control is taken immediately, there is the possibility for each entity with regulatory or legal interest to begin a sampling regimen independent of each other. The Sampling Protocol team under the Planning Section would be responsible for:

a. Determining the overall sampling protocol for the incident.
b. Coordinating within the interested parties what analysis is required for overall samples.
c. Coordinating procedures for split samples between all parties.
d. Providing special instructions to the field sampling teams operating under the OPS.
e. Coordinate with appropriate agencies and the RP, and determine independent laboratories to be used for analysis, and coordinating the contracting of their services with the Logistics Section and Finance Section.
f. Providing specific special instructions to the laboratories for analytical work.

SAMPLE TRACKING TEAM – As indicated above for sample documentation, there is the possibility of thousands of samples to be taken for analysis during a significant hazardous substance release incident. The Sample Tracking Team will be responsible for:

a. Ensuring that all samples are collected from Field Sampling Teams.
b. Coordinate preferred turn around times for

specific samples being analyzed.

c. Ensuring that proper chain of custody documents are prepared and logged for all samples.
d. Assign control numbers to all samples.
e. Ensure samples are properly transferred to the appropriate laboratory, and documented.
f. Track samples to ensure that sample analysis are completed according to requested schedule, and determine reasons for delays.

SAMPLE DISSEMINATION TEAM – During a significant Hazardous Substance release there are many occasions when several parties will need the information obtained from a sample analysis. It will be the responsibility of this team to ensure that all parties with a legitimate need for a copy of an analysis obtain it as soon as the information is available. They will coordinate this activity with the Sample Documentation Team and the Sample Tracking Team to ensure that the original analysis document is retained in the Documentation Section for the historical event file.

HUMAN HEALTH ASSESSMENT TEAM – The effects of the release on human health will be a primary concern during the incident. The Human Health Assessment Team will be responsible for:

a. Coordinating activities involving the release to determine the risk to humans, including acute and chronic public health threats, and to advise the UC on their findings.
b. They will coordinate and provide advice to city/county and state health agencies having responsibility for human and public health.

CLEANUP TECHNICAL TEAM – During the emergency phase of the release incident, the primary goal for the operation will be to secure the source of the release,

and to minimize effects of the release on the public and environment. These efforts will usually involve firefighting, plugging and patching tanks, evacuation of threatened persons, search and rescue, etc. However, it is important that while these efforts are in progress, work begins on determining appropriate cleanup methods for the effected areas. This team will:

a. Research the state of the art approaches for mitigating the hazardous substance product released.
b. Determine the most reasonable and economical approach for remediating the effects of the release.
c. Determine the most qualified and reasonable contractor(s) for accomplishing the remediation work and coordinate obtaining their services with the Logistics and Finance Sections.
d. Develop a Remediation Plan for approval by the UC.
e. Review information obtained throughout the emergency phase, and modify the remediation plan as required so it is up to date at the time of implementation.

CHAPTER 21

MARINE FIRE

1. Contents 21-1

2. Introduction 21-2

3. Marine Fire Scenario and Modular Organization Development 21-3

4. Specific Marine Fire ICS Positions and Task Descriptions 21-9

5. Situations Requiring Special Attention 21-12

CHAPTER 21

MARINE FIRE

References:
(a) National Response Plan (NRP)
(b) National Incident Management System (NIMS)

INTRODUCTION

The marine fire chapter is designed to provide an organization structure that will provide supervision and control for the essential functions required at marine fire incidents. The response and organizational structure to a marine fire can vary widely depending on the location of the vessel and proximity to fire fighting resources, capabilities of the municipal and industrial fire departments, type of vessel, and nature of the cargo and source of the fire.

UNIFIED COMMAND

A marine fire can bring together a variety of entities depending on the variables discussed above. Although the Coast Guard does not directly conduct fire fighting, it does have a major role in coordination and support. For this reason, a vessel fire would most likely be managed under UC. A marine fire could bring to the scene fire departments, law enforcement, public health, technical cargo experts, industrial fire departments, and private fire fighting and salvage experts. If pollution and hazardous materials were involved, the agencies and complexity would escalate dramatically.

MARINE FIRE SCENARIO AND MODULAR ORGANIZATION DEVELOPMENT

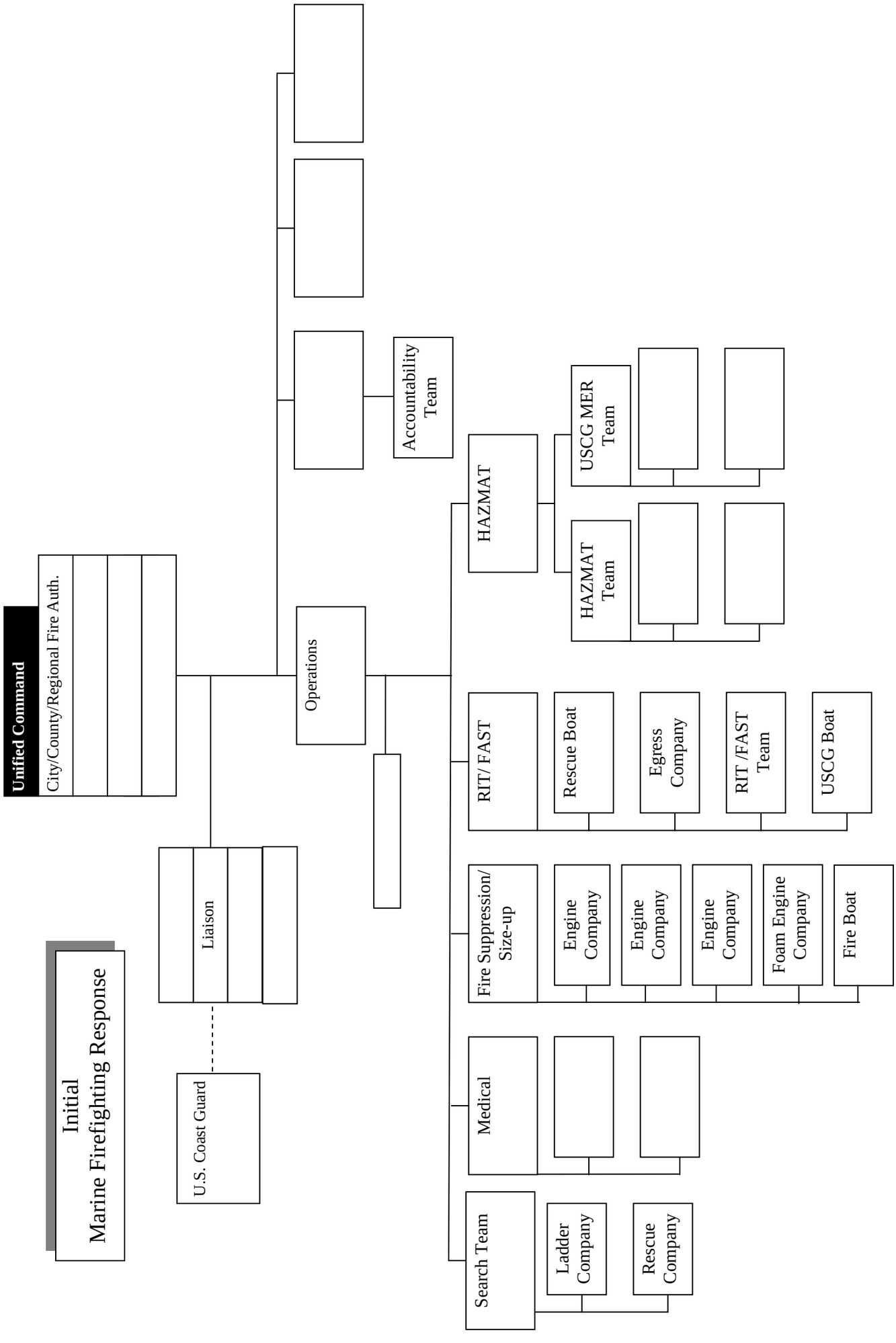
MODULAR DEVELOPMENT - A series of examples of modular development are included to illustrate methods of expanding the incident organization.

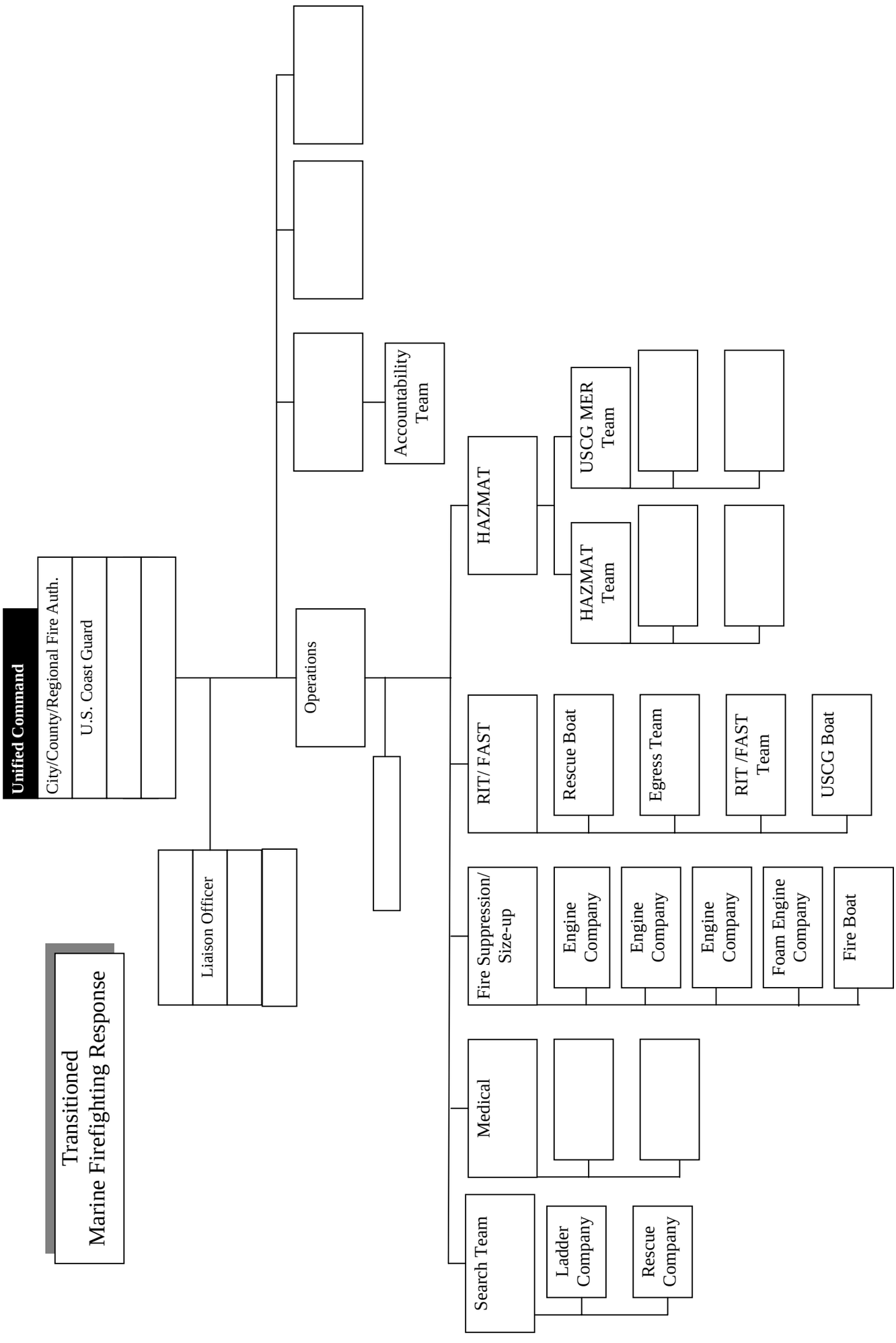
INITIAL RESPONSE ORGANIZATION - The first to arrive Fire Department Company Officer will assume command of the incident as the IC. The IC will assume all Command and General Staff functions and responsibilities and manages initial response resources. See Page 21-4 for an example of the Initial Response Organization.

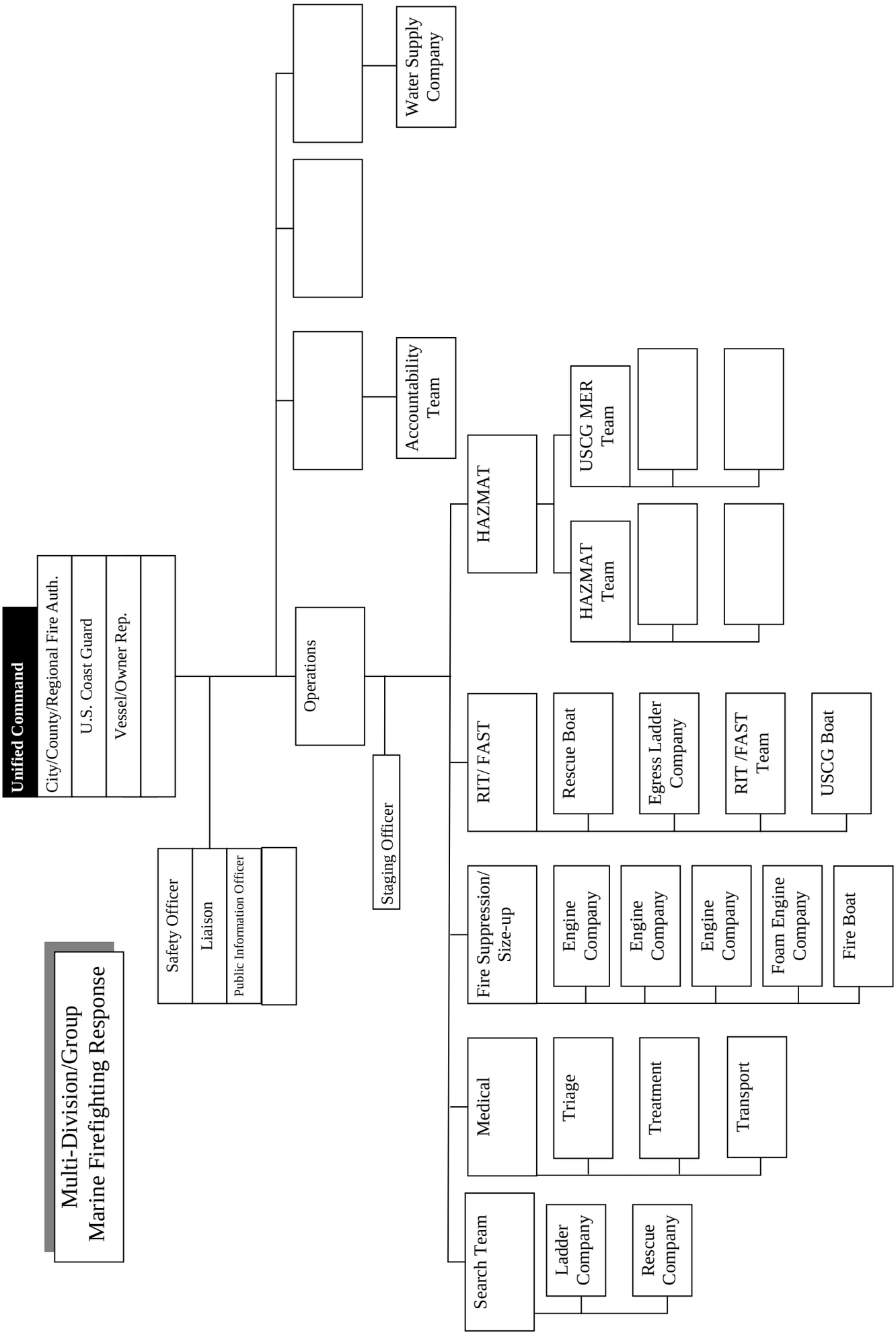
TRANSITIONED RESPONSE ORGANIZATION - The Coast Guard and Fire Department IC have met and established a UC. They have established Fire and Medical Groups. Waterborne resources have arrived and a SOFR has been assigned. See Page 21-5 for an example of the Transitioned Response Organization.

MULTI-DIVISION/GROUP ORGANIZATION - The UC has activated most Command and General Staff positions and has established a combination of divisions and groups. A water division and land staging area have been established. See Page 21-6 for an example of the Multi-Division/Group Organization.

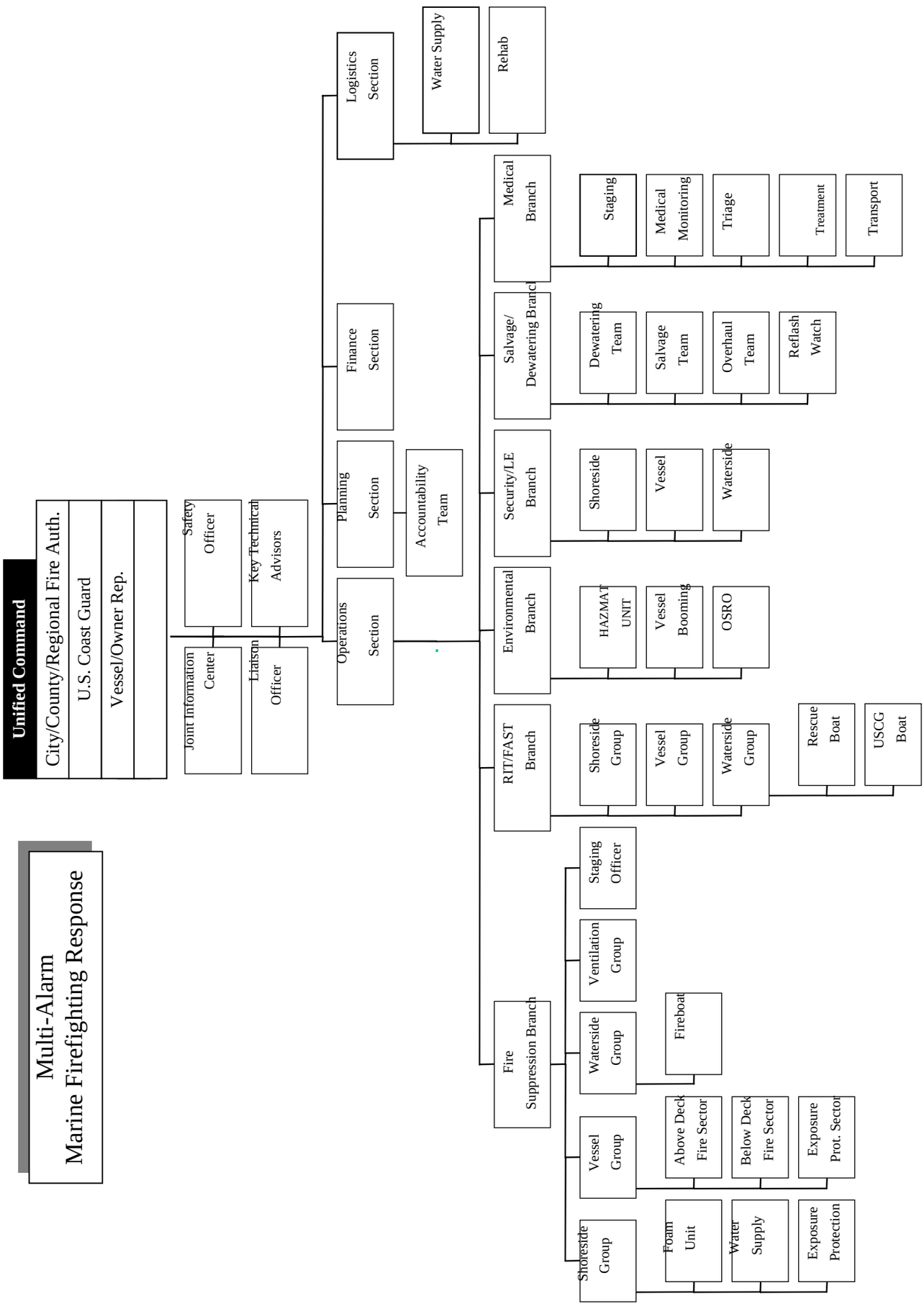
MULTI-ALARM ORGANIZATION - The UC has activated all Command and General Staff positions and has established multiple divisions. Branches would be created if span of control issues warranted. Water staging and stability/salvage groups were implemented. A Coast Guard Officer may serve as Deputy OSC. See Page 21-7 for an example of a Multi-Alarm Organization.


Initial
Marine Firefighting Response
Unified Command
City/County/Regional Fire Auth.
Liaison
U.S. Coast Guard
Operations
Accountability Team
HAZMAT
USCG MER Team
HAZMAT Team
RIT/ FAST
Rescue Boat
Egress Company
RIT /FAST Team
USCG Boat
Fire Suppression/ Size-up
Engine Company
Engine Company
Engine Company
Foam Engine Company
Fire Boat
Medical
Search Team
Ladder Company
Rescue Company


Transitioned
Marine Firefighting Response
Unified Command
City/County/Regional Fire Auth.
U.S. Coast Guard
Liaison Officer
Operations
Accountability Team
HAZMAT
USCG MER Team
HAZMAT Team
RIT/ FAST
Rescue Boat
Egress Team
RIT /FAST Team
USCG Boat
Fire Suppression/ Size-up
Engine Company
Engine Company
Engine Company
Foam Engine Company
Fire Boat
Medical
Search Team
Ladder Company
Rescue Company


Multi-Division/Group
Marine Firefighting Response
Unified Command
City/County/Regional Fire Auth.
U.S. Coast Guard
Vessel/Owner Rep.
Safety Officer
Liaison
Public Information Officer
Staging Officer
Operations
Accountability Team
Water Supply Company
HAZMAT
HAZMAT Team
USCG MER Team
RIT/ FAST
Rescue Boat
Egress Ladder Company
RIT /FAST Team
USCG Boat
Fire Suppression/ Size-up
Engine Company
Engine Company
Engine Company
Foam Engine Company
Fire Boat
Medical
Triage
Treatment
Transport
Search Team
Ladder Company
Rescue Company

MARINE FIRE


Multi-Alarm
Marine Firefighting Response
Unified Command
City/County/Regional Fire Auth.
U.S. Coast Guard
Vessel/Owner Rep.
Safety Officer
Key Technical Advisors
Joint Information Center
Liaison Officer
Operations Section
Planning Section
Accountability Team
Finance Section
Logistics Section
Water Supply
Rehab
Medical Branch
Staging
Medical Monitoring
Triage
Treatment
Transport
Salvage/ Dewatering Branch
Dewatering Team
Salvage Team
Overhaul Team
Reflash Watch
Security/LE Branch
Shoreside
Vessel
Waterside
Environmental Branch
HAZMAT UNIT
Vessel Booming
OSRO
RIT/FAST Branch
Shoreside Group
Vessel Group
Waterside Group
Rescue Boat
USCG Boat
Fire Suppression Branch
Staging Officer
Ventilation Group
Waterside Group
Fireboat
Vessel Group
Above Deck Fire Sector
Below Deck Fire Sector
Exposure Prot. Sector
Shoreside Group
Foam Unit
Water Supply
Exposure Protection

MARINE FIRE SPECIFIC ICS POSITIONS AND TASK DESCRIPTIONS

Only those ICS positions and tasks specific and unique to Marine Firefighting missions will be described in this section. Persons assigned the common positions consistent with the NIMS organization should refer to the position job aids and Chapters 5 through 11 of this Manual for their position/task descriptions and checklists.

ACCOUNTABILITY TEAM – The Accountability Team is responsible for signing in and out all personnel that board a vessel. There must be team members at each entry point to log the entry and exit of all personnel that board the vessel during an incident. Accountability for all resources is the responsibility of the IC/UC and is typically delegated to the Planning Section.

FIRE SUPPRESSION BRANCH - The Fire Suppression Branch Director, when activated, is under the direction of the OSC. The Fire Department's initial Operations Section Chief at a maritime fire is often re-designated the Fire Suppression Branch Director under a UC. The Director is responsible for the assigned portion of the IAP that deals with fire suppression activities, assignment of resources within the branch, and reporting progress of control activities, and status of resources within the branch.

SHORESIDE DIVISION - The Shoreside Division Supervisor is responsible for all shoreside fire suppression activities under the Fire Suppression Branch. The supervisor is responsible for the assigned portion of the IAP that deals with fire suppression activities and exposure protection on shore, assignment of resources within the division, and reporting progress

of control of activities, and status of resources within the division.

VESSEL DIVISION - The Vessel Division Supervisor is responsible for all vessel fire suppression activities under the Fire Suppression Branch. The supervisor is responsible for the assigned portion of the IAP that deals with fire suppression activities and exposure protection on a vessel, assignment of resources within the division, and reporting progress of control of activities, and status of resources within the division.

WATERSIDE DIVISION - The Waterside Division Supervisor is responsible for all waterside fire suppression activities under the Fire Suppression Branch. The supervisor is responsible for the assigned portion of the IAP that deals with fire suppression activities and exposure protection on the water, assignment of resources within the division, and/or group, and reporting progress of control of activities and status of resources within the division and/or group. This includes all fireboat activities.

VENTILATION GROUP - The Ventilation Group Supervisor is responsible for coordination of vessel CO_2 suppression systems, coordinating the securing of ventilation, use of positive and/or negative pressure ventilation strategies in coordination with the vessel's crew, as required by the Fire Suppression Branch Director reference in the IAP.

RAPID INTERVENTION TEAM - The Rapid Intervention Team (RIT) is contingency team responsible for performing search and rescue of trapped or injured fire fighters. A RIT will normally be assigned in each area the fire activities are taking place, including Shoreside, Vessel and Waterside Branches. On a vessel, a RIT

will be assigned at each separate entry point where below deck activities are being conducted. The RIT leader is responsible for the assigned portion of the IAP that deals with fire fighter rescue activities.

RIT TEAM LEADER – The RIT Team Leader is responsible for development and implementation of rescue strategies pertaining to each assigned area.

SALVAGE/DEWATERING BRANCH - The Salvage/Dewatering Branch Director, when activated, is under the supervision of the OSC. This branch is responsible for development of a plan to stabilize the vessel, identify equipment/resources needed, and remove water that is being used in suppression activities. The Salvage/Dewatering Branch should be established as soon as firefighting activities are initiated to ensure control of vessel stability. The Salvage/Dewatering Branch Director is responsible for the assigned portion of the IAP that deals with salvage and dewatering activities, the status of assigned resources within the Branch, and reporting progress to the OSC.

DEWATERING TASK FORCE - The Dewatering Task Force is responsible for implementing the dewatering plan developed for the incident. This may include pumping water using portable pumps, draining of water through scuppers made in the vessel, or transferring water to other areas of the vessel.

SITUATIONS REQUIRING SPECIAL ATTENTION

There will be times where special situations develop that will require actions at either a reduced or more elevated level than the previously addressed conditions. In order to facilitate understanding of these situations brief descriptions are provided without organizational structure charts. The descriptions in this section will address several of the situations that have been identified.

MARITIME INCIDENT RESPONSE TEAM – ADVANCE MFF RESPONSE TEAM:

There will be incidents where the Coast Guard will be notified of a fire that may or may not have been contained by the crew on board a vessel enroute to a local port. This will provide the Coast Guard and Fire Department the opportunity to plan for the response. It is often advantageous to send an Advance MFF Response Team to the vessel as soon as possible, and PRIOR to it entering port. This will permit the UC to collect the information needed to make informed decisions, to mitigate the impact of incident, and have adequate appropriate resources available prior to the vessel entering port. The nature of the incident will determine the specific makeup of the team and equipment needed for evaluation.

MULTI-JURSIDICTIONAL RESPONSE – UNIFIED COMMAND:

There may be incidents that, due to the magnitude of the fire or outside influences (e.g. flood, earthquake, hurricane), extend the fire incident outside the original jurisdiction. This will require the rapid establishment of a UC and organization that includes all affected states, counties, jurisdictions, agencies, and organizations. While this organization will be very similar to the Oil Spill

response organizations listed in Chapter 19, the rapid spread of fire into other jurisdictions requires an organization that can manage often limited and scarce specialized resources, within a region, and/or in a timely fashion. Establishment of appropriate divisions, groups, and branches will be required to coordinate activities over a large area.

CHAPTER 22

MULTI-CASUALTY

TABLE OF CONTENTS

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3.	Multi-Casualty Scenario and Modular Organization Development	22-3
4.	Multi-Casualty Specific ICS Positions and Task Descriptions	22-10

CHAPTER 22

MULTI-CASUALTY

References:

(a) National Response Plan (NRP)
(b) National Incident Management System (NIMS)
(c) IMO/ICAO International Aeronautical and Maritime Search & Rescue Manual, Vols. I & II
(d) U.S. National Search and Rescue Supplement to the International Aeronautical and Maritime Search & Rescue Manual
(e) National Search and Rescue Plan, 1999
(f) Addendum to the National Search and Research Manual, COMDTINST 16130.2 (series)

INTRODUCTION

The Coast Guard may become involved in various incidents where the casualty may result in the need to handle numerous medical patients or victims. This situation may apply to any of the incidents covered in the previous chapters. The Multi-Casualty Branch Structure is designed to provide the Incident Commander with a basic expandable system for handling any number of patients in a multi-casualty incident.

One or more additional Medical Group/Divisions may be established under the Multi-Casualty Branch Director, if geographical or incident conditions warrant. The degree of implementation will depend upon the complexity of the incident.

MULTI-CASUALTY SCENARIO AND MODULAR ORGANIZATION DEVELOPMENT

MODULAR DEVELOPMENT

A series of examples of modular development are included to illustrate one possible method of expanding the incident organization to deal with multi-casualty, mass patient and victim incidents.

INITIAL RESPONSE ORGANIZATION

Initial response resources are managed by the IC who will handle all Command and General Staff responsibilities. The first arriving resource with the appropriate communications capability should establish communications with the appropriate hospital or other coordinating facility and become the Medical Communications Coordinator. Other first arriving resources would become triage personnel. See Page 22-5 for an example of the Initial Response Organization.

REINFORCED RESPONSE ORGANIZATION

In addition to the initial response, the IC designates a Triage Supervisor, a Treatment Supervisor, Treatment Teams and a Ground Ambulance Coordinator. See Page 22-6 for an example of the Reinforced Response Organization.

MULTI-LEADER RESPONSE ORGANIZATION

The IC has now established an OSC who has in turn established a Medical Supply Coordinator, a Manager for each treatment category and a Patient Transportation Group Supervisor. The Patient Transportation Group Supervisor was needed in order for the OSC to maintain a manageable span of control, based on the assumption that other operations are concurrently happening in the Operations Section. See

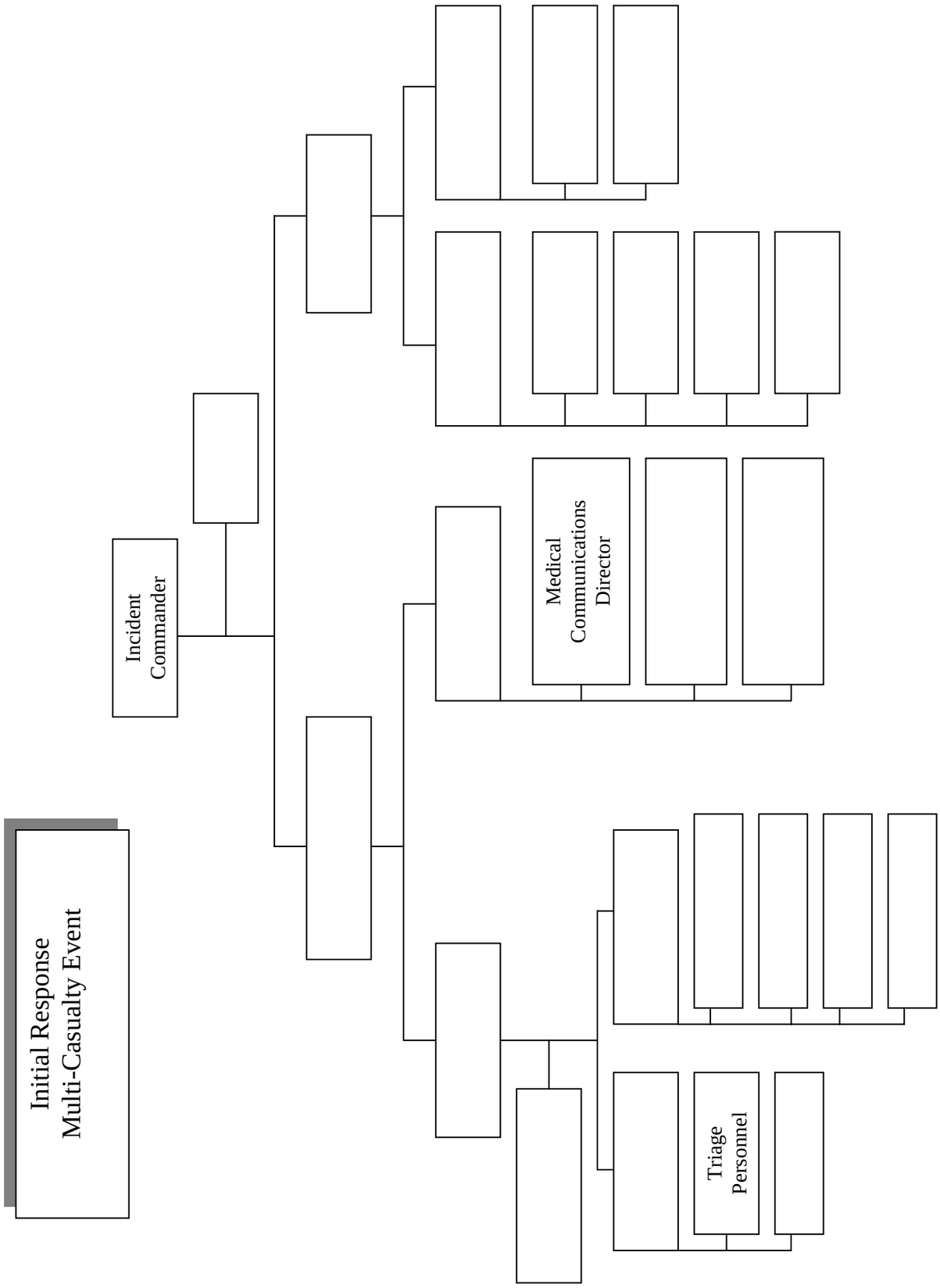
Page 22-7 for an example of the Multi-Leader Response Organization.

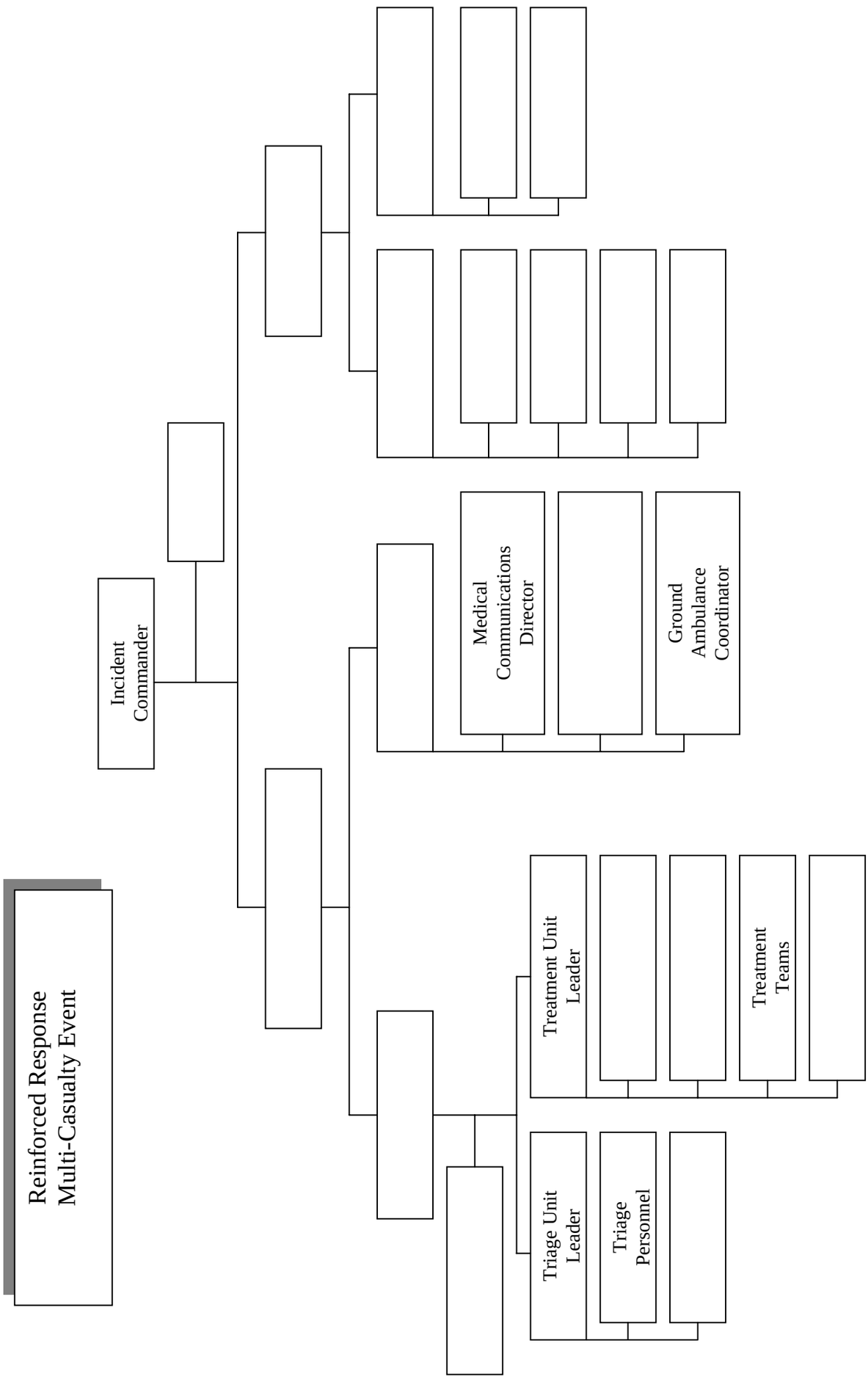
MULTI-GROUP RESPONSE ORGANIZATION

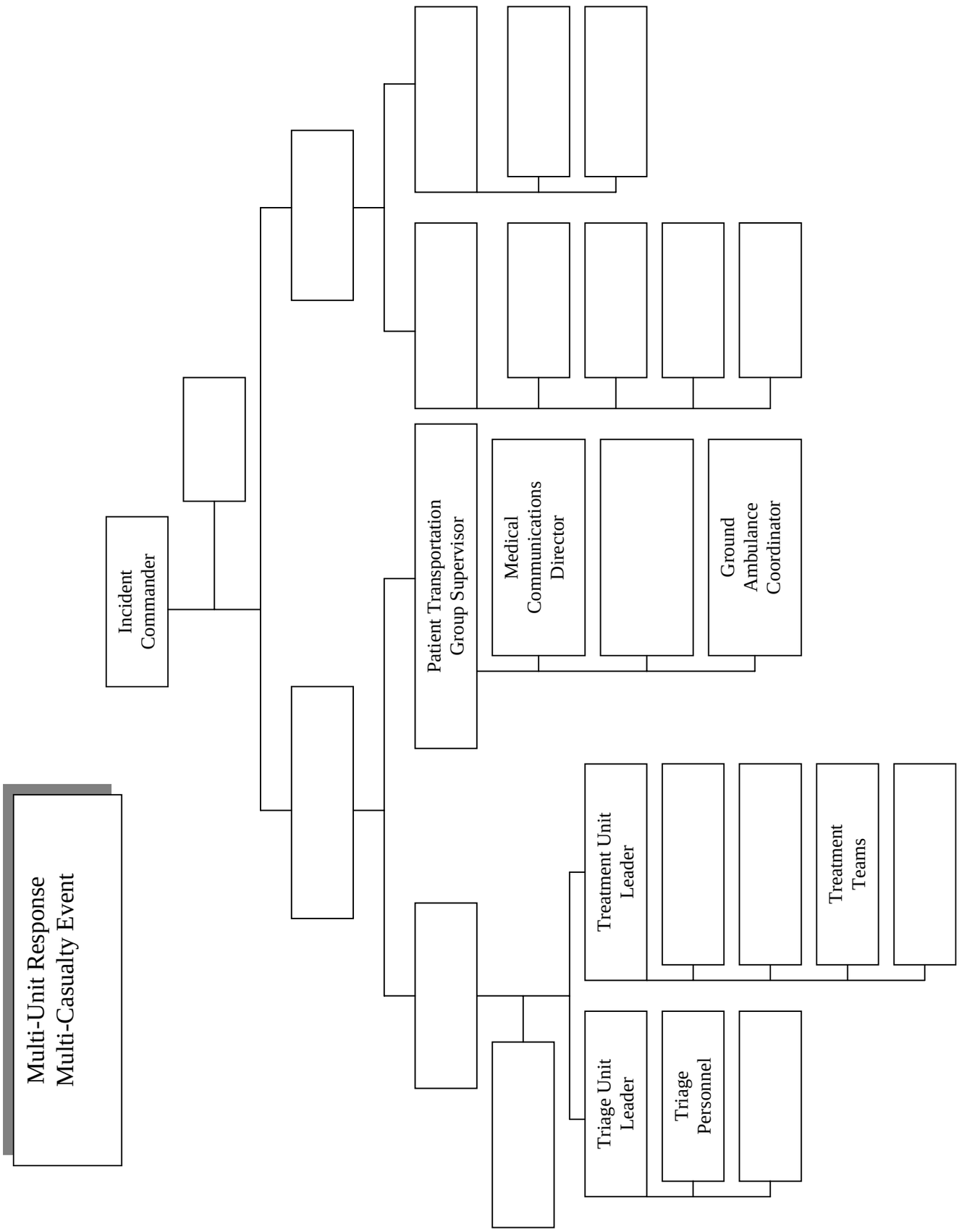
All positions within the Medical Group and Patient Transportation Group are now filled. The Air Operations Branch is shown to illustrate the coordination between the Air Ambulance Coordinator and the Air Operations Branch. An Extrication Group is freeing trapped victims. See Page 22-8 for an example of the Multi-Group Response Organization.

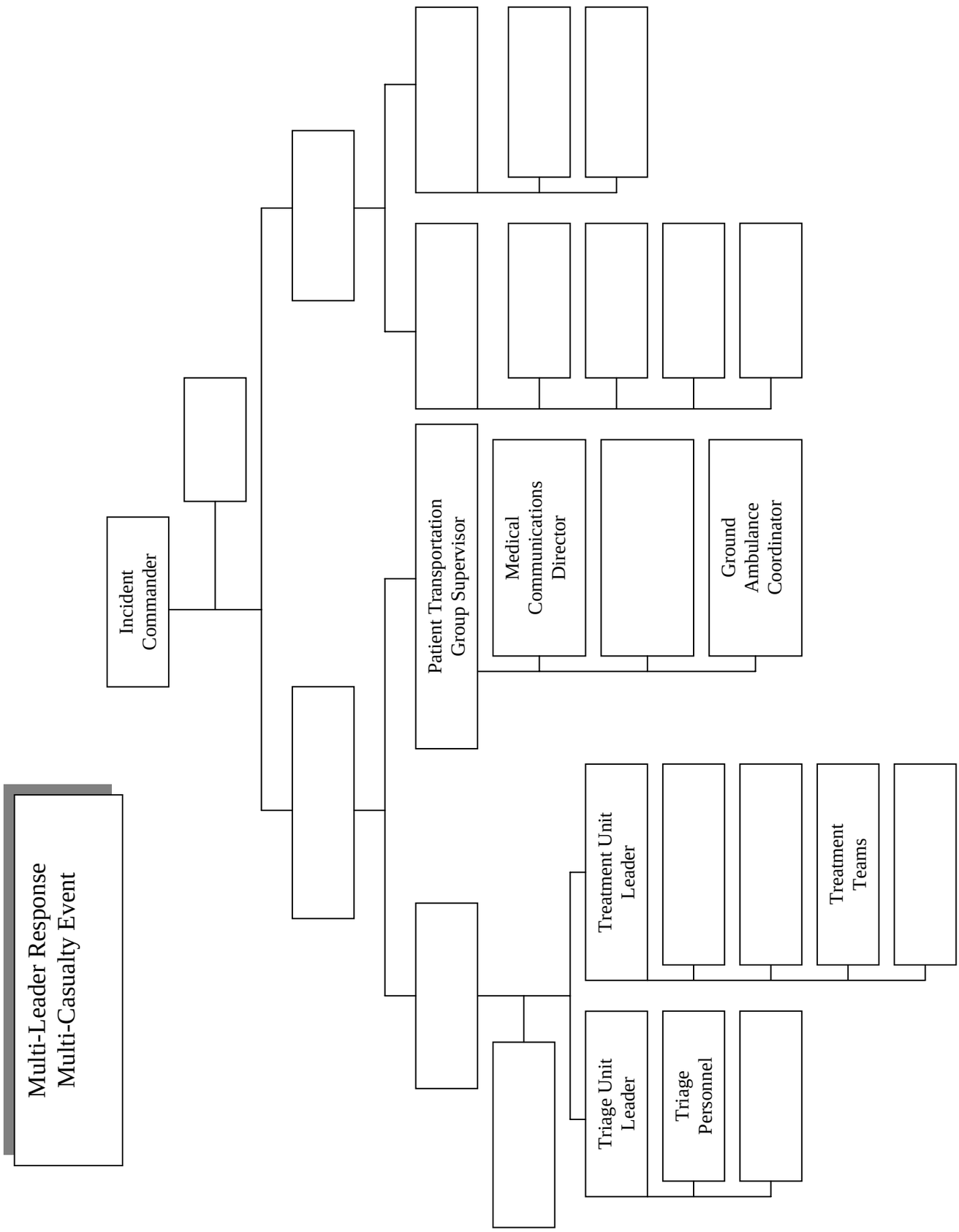
COMPLETE INCIDENT RESPONSE ORGANIZATION

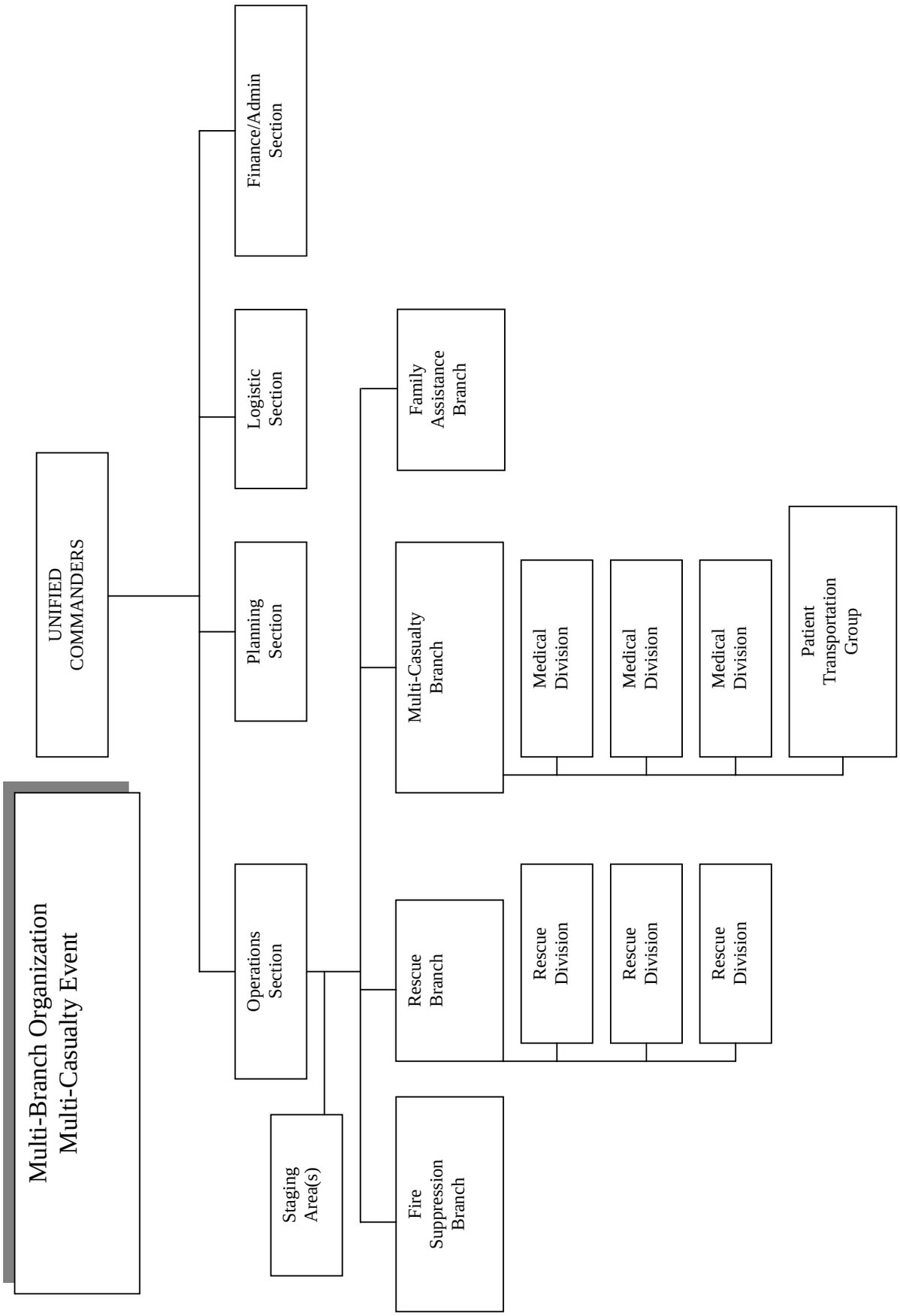
The complete incident response organization shows the Multi-Casualty Branch and other Branches with which there may be interaction. The Multi-Casualty Branch now has three (3) Medical Divisions (geographically separate), but only one Patient Transportation Group. This is because all patient transportation must be coordinated through one point to avoid overloading hospitals or other medical facilities. See Page 22-9 for an example of the Complete Incident Response Organization.


Initial Response
Multi-Casualty Event
Incident
Commander
Medical
Communications
Director
Triage
Personnel


Reinforced Response
Multi-Casualty Event
Incident
Commander
Medical
Communications
Director
Ground
Ambulance
Coordinator
Treatment Unit
Leader
Treatment
Teams
Triage Unit
Leader
Triage
Personnel


Multi-Unit Response
Multi-Casualty Event
Incident Commander
Patient Transportation Group Supervisor
Medical Communications Director
Ground Ambulance Coordinator
Treatment Unit Leader
Treatment Teams
Triage Unit Leader
Triage Personnel


Multi-Leader Response
Multi-Casualty Event
Incident Commander
Patient Transportation Group Supervisor
Medical Communications Director
Ground Ambulance Coordinator
Treatment Unit Leader
Treatment Teams
Triage Unit Leader
Triage Personnel



MULTI-CASUALTY

MULTI-CASUALTY SPECIFIC ICS POSITIONS AND TASK DESCRIPTIONS

Only those ICS positions and tasks specific and unique to multi-casualty missions will be described in this section. Persons assigned the common positions consistent with the NIMS organization should refer to the position job aids and Chapters 5 through 11 of this Manual for their position/task descriptions and checklists.

MULTI-CASUALTY BRANCH DIRECTOR - The Multi-Casualty Branch Director is responsible for the implementation of the IAP within the Branch. This includes the direction and execution of branch planning for the assignment of resources within the Branch.

a. Review Branch Director Responsibilities in Chapter 7.
b. Review Group/Division Assignments for effectiveness of current operations and modify as needed.
c. Provide input to OSC for the IAP.
d. Supervise Branch Activities.
e. Maintain Unit Log (ICS 214-CG).

MEDICAL GROUP/DIVISION SUPERVISOR - The Medical Group/Division Supervisor supervises the Triage Team Leader, Treatment Team Leader and Medical Supply Coordinator. The Medical Group/Division Supervisor establishes command and controls the activities within a Medical Group/Division, in order to assure the best possible emergency medical care to patients during a multi-casualty incident.

a. Review Division Group responsibilities in Chapter 7.
b. Participate in Multi-Casualty Branch/Operations Section Planning Activities.

c. Establish Medical Group/Division with assigned personnel. Request additional personnel and resources sufficient to handle the magnitude of the incident.
d. Designate Treatment Team Leaders and treatment area locations as appropriate.
e. Isolate Morgue and Minor Treatment Area from Immediate and Delayed Treatment Areas.
f. Request law enforcement/coroner involvement as needed.
g. Determine amount and types of additional medical resources and supplies needed to handle the magnitude of the incident (medical caches, backboards, litters, cots).
h. Establish communications and coordination with the Patient Transportation Group Supervisor.
i. Ensure activation of hospital alert system, local EMS/health agencies.
j. Direct and/or supervise on-scene personnel from agencies such as Coroner's Office, Red Cross, law enforcement, ambulance companies, county health agencies, and hospital volunteers.
k. Ensure proper security, traffic control, and access for the Medical Group/Division area.
l. Direct medically trained personnel to the appropriate team leader.
m. Maintain Unit Log. (ICS 214-CG).

TRIAGE TEAM LEADER - The Triage Team Leader supervises Triage Personnel/Litter Bearers and the Morgue Manager. The Triage Team Leader assumes responsibility for providing triage management and movement of patients from the triage area. When triage has been completed, the Triage Team Leader may be reassigned as needed.

a. Review Common Responsibilities in Chapter 2.

b. Develop organization sufficient to handle assignment.
c. Inform Medical Group/Division Supervisor of resource needs.
d. Implement triage process.
e. Coordinate movement of patients from the Triage Area to the appropriate Treatment Area.
f. Give periodic status reports to the Medical Group/Division Supervisor.
g. Maintain security and control of the Triage Area.
h. Establish Morgue.

TRIAGE PERSONNEL - Triage Personnel appropriately treat patients on-scene and assign them to treatment areas.

a. Review Common Responsibilities in Chapter 2.
b. Report to designated on-scene triage location.
c. Triage and tag injured patients. Classify patients while noting injuries and vital signs if taken.
d. Direct movement of patients to proper Treatment Areas.
e. Provide appropriate medical treatment (ABC's) to patients prior to movement as incident conditions dictate.

TREATMENT TEAM LEADER - The Treatment Team Leader supervises the Treatment Managers and the Treatment Dispatch Manager. The Treatment Team Leader assumes responsibility for treatment, preparation for transport, and coordination of patient treatment in the Treatment Areas and directs movement of patients to loading location(s).

a. Review Common Responsibilities in Chapter 2.
b. Develop organization sufficient to handle assignment.
c. Direct and supervise Treatment Dispatch, Immediate Delayed, and Minor Treatment Areas.

d. Coordinate movement of patients from Triage Area to Treatment Areas with Triage Team Leader.
e. Request sufficient medical caches and supplies as necessary.
f. Establish communications and coordination with Patient Transportation Group.
g. Ensure continual triage of patients throughout Treatment Areas.
h. Direct movement of patients to ambulances loading area(s).
i. Give periodic status reports to Medical Group/Division Supervisor.

TREATMENT DISPATCH MANAGER - The Treatment Dispatch Manager is responsible for coordinating with Patient Transportation Group, the transportation of patients out of the Treatment Area.

a. Review Common Responsibilities in Chapter 2.
b. Establish communications with the Immediate, Delayed, and Minor Treatment Managers.
c. Establish communications with Patient Transportation Group.
d. Verify that patients are prioritized for transportation.
e. Advise Medical Communications Coordinator of patient readiness and priority for dispatch.
f. Coordinate transportation of patients with the Medical Communications Coordinator.
g. Assure that appropriate patient tracking information is recorded.
h. Coordinate ambulance loading with Treatment Manager and ambulance personnel.

IMMEDIATE TREATMENT MANAGER - The Immediate Treatment Manager is responsible for

treatment and re-triage of patients assigned to Immediate Treatment Area.

a. Review Common Responsibilities in Chapter 2.
b. Request or establish Medical Teams as necessary.
c. Assign treatment personnel to patients received in the Immediate Treatment Area.
d. Ensure treatment of patients triaged to the Immediate Treatment Area.
e. Assure that patients are prioritized for transportation.
f. Coordinate transportation of patients with Treatment Dispatch Manager.
g. Notify Treatment Dispatch Manager of patient readiness and priority for transportation.
h. Assure that appropriate patient information is recorded.

DELAYED TREATMENT MANAGER - The Delayed Treatment Manager is responsible for treatment and re-triage of patients assigned to the Delayed Treatment Area.

a. Review Common Responsibilities in Chapter 2.
b. Request or establish Medical Teams as necessary.
c. Assign treatment personnel to patients received in the Delayed Treatment Area.
d. Assure that patients are prioritized for transportation.
e. Coordinate transportation of patients with Treatment Dispatch Manager.
f. Notify Treatment Dispatch Manager of patient readiness and priority for transportation.
g. Assure that appropriate patient information is recorded.

MINOR TREATMENT MANAGER - The Minor Treatment Manager is responsible for treatment and re-triage of patients assigned to the Minor Treatment Area.

a. Review Common Responsibilities in Chapter 2.
b. Request or establish Medical Teams as necessary.
c. Assign treatment personnel to patients received in the Minor Treatment Area.
d. Assure that patients are prioritized for transportation.
e. Coordinate transportation of patients with Treatment Dispatch Manager.
f. Notify Treatment Dispatch Manager of patient readiness and priority for transportation.
g. Assure that appropriate patient information is recorded.
h. Coordinate volunteer personnel/organizations through Agency Representatives and Treatment Team Leader.

PATIENT TRANSPORTATION GROUP SUPERVISOR

The Patient Transportation Group Supervisor supervises the Medical Communications Coordinator and the Air and Ground Ambulance Coordinators. The Patient Transportation Group Supervisor is responsible for the coordination of patient transportation and maintenance of records relating to patient identification, injuries, mode of off-incident transportation and destination.

a. Review Common Responsibilities in Chapter 2.
b. Review Division Group Supervisor responsibilities in Chapter 7.
c. Establish communications with hospital(s).
d. Designate ambulance staging area(s).
e. Direct the transportation of patients as determined by Treatment Team Leaders.

f. Assure that patient information and destination is recorded.
g. Establish communications with Ambulance Coordinator(s).
h. Request additional ambulances, as required.
i. Notify Ambulance Coordinator(s) of ambulance requests.
j. Coordinate requests for air ambulance transportation through the Air Operations Director.
k. Establish Air Ambulance Helispot with the Multi-Casualty Branch Director and Air Operation Director.
l. Maintain Unit Log (ICS 214-CG).

MEDICAL COMMUNICATION COORDINATOR - The Medical Communications Coordinator supervises the Transportation Recorder and maintains communications with the hospital alert system and/or other medical facilities to assure proper patient transportation and destination. The Medical Communication Coordinator coordinates information through the Patient Transportation Group Supervisor and the Transportation Recorder.

a. Review Common Responsibilities in Chapter 2.
b. Establish communications with hospital alert system.
c. Determine and maintain current status of hospital/medical facility availability and capability.
d. Receive basic patient information and injury status from Treatment Dispatch Manager.
e. Communicate hospital availability to Treatment Dispatch Manager.
f. Coordinate patient off-incident destination with the hospital alert system.
g. Communicate patient transportation needs to the Ambulance Coordinators based upon requests from Treatment Dispatch Manager.

h. Maintain appropriate records.

AIR/GROUND AMBULANCE COORDINATOR - The Air/Ground Ambulance Coordinators are responsible for managing the Air/Ground Ambulance Staging Areas, and for dispatching ambulances as requested.

a. Review Common Responsibilities in Chapter 2
b. Establish appropriate staging area for ambulances.
c. Establish routes of travel for ambulances for incident operations.
d. Establish and maintain communications with the Air Operations Branch Director.
e. Establish and maintain communications with the Medical Communications Coordinator and the Treatment Dispatch Manager. Provide ambulances upon request from the Medical Communications Coordinator.
f. Maintain records as required.
g. Assure that necessary equipment is available in the ambulance for patient needs during transportation.
h. Establish immediate contact with ambulance agencies at the scene.
i. Request additional transportation resources as appropriate.
j. Provide an inventory of medical supplies at the ambulance staging area for use at the scene.

FAMILY ASSISTANCE BRANCH – The Family Assistance Branch provides services to the victims' family members; coordinates activities, lodging, food, spiritual and emotional needs, and transportation to special events (press conferences, memorial services to the scene of the incident when authorized, etc.), and any special needs that arise during the incident that may assist the victims' family members. NOTE: The

National Transportation Safety Board (NTSB) typically provides this assistance for major transportation disasters.

The major responsibilities of the Family Assistance Branch are:

a. Review Common Responsibilities in Chapter 2.
b. Review Branch Director responsibilities in Chapter 7.
c. Coordinate with local and state authorities, to include the medical examiner, local law enforcement, emergency management, hospitals, and other emergency support personnel.
d. Conduct daily coordination meetings with the local and Federal government representatives to review daily activities, resolve problem areas, and synchronize future family support operations and activities.
e. Coordinate and provide briefings to families at the site and those who decide not to be at the site.
f. Ensure adequate number of Family Assistance Team members present at all times to allow for rest, exercise and proper rotation.
g. Establish and maintain working relationship with the CERT and CISM teams to cross-reference needs of the victims' families.
h. Attend all staff briefings and planning meetings as required.
i. Request necessary equipment and supplies through LSC.
j. Ensure adequate lodging and/or sleeping arrangements.
k. Ensure that security needs for the victims' family members are addressed.
l. Ensure that all communications are centrally coordinated.
m. Ensure that all transportation scheduling is centrally coordinated.

n. Maintain Unit Log (ICS 214-CG).
o. The following agencies provide similar assistance during emergencies and may be of assistance:
   - American Red Cross (ARC)
   - Department of Health and Human Services (DHHS)
   - Federal Emergency Management Agency (FEMA)
   - NTSB

MEDICAL SUPPLY COORDINATOR - The Medical Supply Coordinator is responsible for acquiring and maintaining control of appropriate medical equipment and supplies from units assigned to the Medical Group.

a. Review Common Responsibilities in Chapter 2.
b. Acquire, distribute and maintain status of medical equipment and supplies within the Medical Group/Division.
c. Request additional medical supplies (medical caches). If the Logistics Section is established, the Medical Supply Coordinator will coordinate needs with the Supply Unit Leader.
d. Distribute medical supplies to Treatment and Triage Teams.
e. Maintain Unit Log (ICS 214-CG).

MORGUE MANAGER - The Morgue Manager is responsible for Morgue Area activities until relieved of that responsibility by the Office of the Coroner.

a. Review Common Responsibilities in Chapter 2.
b. Assess resource/supply needs and order as needed.
c. Coordinate all Morgue Area activities.
d. Keep area off limits to all but authorized personnel.

e. Coordinate with law enforcement and assist the Coroners Office as necessary.
f. Keep identity of deceased persons confidential.
g. Maintain appropriate records.
h. Maintain Unit Log (ICS 214-CG).

HOSPITAL EMERGENCY RESPONSE TEAM (HERT)

A Hospital Emergency Response Team is recommended to consist of a minimum of three (3) medical personnel, optimum of five (5) medical personnel, which includes a team leader and any combination of physicians, nurses or physicians' assistants. HERT Teams will be requested through the Incident Commander. HERT Teams report to the Treatment Team Leader and assume responsibility for patient assessment and treatment as assigned.

a. Review Common Responsibilities in Chapter 2.
b. Report to the Incident Command Post for assignment.
c. Perform medical treatment and other duties as assigned.
d. Remain at assigned Treatment Area unless otherwise reassigned.
e. Respond to scene with appropriate emergency medical equipment.
f. Maintain Unit Log (ICS 214-CG).

CHAPTER 23

EVENT MANAGEMENT AND NATIONAL SPECIAL SECURITY EVENTS (NSSEs)

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AUGUST 2006

EVENT MANAGEMENT AND NATIONAL SPECIAL SECURITY EVENTS (NSSEs)

References:

(a) Presidential Decision Directive 62 (PDD-62), May 1998
(b) Homeland Security Presidential Directive 5 (HSPD – 5)
(c) Homeland Security Presidential Directive 7 (HSPD – 7)
(d) National Response Plan (NRP)
(e) National Incident Management System (NIMS)
(f) Event Management Job Aid

NOTE: This chapter provides a very brief overview of Natiional Special Security Event (NSSE) and Event Management. For more information, please see references (a) through (c).

INTRODUCTION

Event Management is becoming more significant in daily operations. Planned Events can vary from a local Opsail to large scale National Special Security Events (NSSE's) as described in reference (a). Events while in they may require a significant organization to run; the possible contingencies associated with events must also be planned for (such as protests and terrorist actions). Because of the flexibility and structure of NIMS ICS, planning and executing Events using NIMS ICS can make the event run smoother and make contingency execution simpler.

Presidential Decision Directive 62 (PDD – 62) established NSSE's as a designated event that by virtue of its political, economic, social, or religious significance

may be the target of terrorism or criminal activity. Homeland Security Presidential Directive 5 (HSPD – 5) directs DHS responsibility for domestic incident management and coordination of the Federal Government's operational response resources in preparing for and responding to terrorist attacks. Under Homeland Security Presidential Directive 7 (HSPD-7), the Secretary of DHS will make the final determination to designate an event as an NSSE in consultation with the Homeland Security Council.

The NSSE designation process is initiated by a formal request from the governor of the state hosting the event to the Secretary of the Department of Homeland Security (DHS). In situations where the event is federally sponsored (e.g., State of the Union Address), an appropriate federal official will make the request. Additionally, Secretary DHS retains full authority to directly designate NSSE events.

Formal requests are reviewed by the NSSE Working Group, comprised of representatives from the US Secret Service (USSS), Federal Bureau of Investigation (FBI), DHS Emergency Preparedness and Response (EP&R), Federal Emergency Management Agency (FEMA), Department of Defense (DOD) and other DHS agencies with USCG members from COMDT (G-RPC). The NSSE Working Group provides a consensus recommendation to the Secretary DHS regarding NSSE designation. Factors typically considered:

- Federal participation.
- Anticipated attendance by dignitaries.
- Size, significance, and duration of the event.
- Location and recurring nature of the event.
- Anticipated media coverage.

- State and local resources available to support the event.
- Multiplicity of jurisdictions.
- Adequacy of security absent NSSE designation.
- Available threat assessments.

Once NSSE designation has been made, the USSS contacts the relevant federal, state, and local officials to begin planning, coordinating, and implementing a comprehensive security plan for the event. Events that fail to meet required criteria for NSSE designation are considered Special Event Homeland Security (SEHS) under categorized levels I thru IV. The SEHS Working Group is comprised of all DHS agencies including USCG members from COMDT (G-RPC). The SEHS process is similar to NSSE designation for determining the level and thereby the appropriate support given to an event.

NSSE and SEHS working groups provide lists of designated events to their membership identified on the Prioritized Special Event List compiled by DHS. When COMDT (G-RPC) receives the list of events, the list is then forwarded to the Areas for review and action to continue support as required. A designated Federal Coordinator (FC) directs jointly conducted detailed planning and coordination of all assets and resources allocated from participating organizations throughout event execution until conclusion, by way of submitting a consolidated final report to DHS.

When activated to support an NSSE or other security coordination function, the DHS/U.S. Secret Service (USSS) Multi-agency Command Center (MACC) and the FBI JOC are collocated at the JFO when possible.

These agencies work together using the principles of Unified Command, with a pre-designated PFO facilitating interagency incident management coordination during NSSE planning and execution. For these situations, the JFO combines the functions of the DHS/USSS MACC, the FBI JOC, and the Response and Recovery Operations Branch.

EVENT MANAGEMENT AND NATIONAL SPECIAL SECURITY EVENT (NSSE) SPECIFIC ICS POSITIONS AND TASK DESCRIPTIONS

Figure 9 of the NRP (reference (a)) shows the structure for an NSSE.

For NSSE's, a third branch, the Security Operations Branch, may be added to coordinate protection and security efforts.

Security Operations Branch: The Security Operations Branch coordinates protection and site security efforts, and incorporates the functions of the DHS/USSS MACC during NSSE's.

Multi-agency Command Center (MACC). An interagency coordination center established by DHS/USSS during NSSE's as a component of the JFO. The MACC serves as the focal point for interagency security planning and coordination, including the coordination of all NSSE-related information from other intra-agency centers (e.g., police command posts, Secret Service security rooms) and other interagency centers (e.g., intelligence operations centers, joint information centers).

Operational supplements typically are detailed plans relating to specific incidents or events. Operational supplements routinely are developed to support NSSE's.

NOTE: For more information on Event Management, please see references (a) through (c).

CHAPTER 24

COAST GUARD NIMS ICS FORMS LIST
For Incident Management Team and Area Command

Note: Forms noted with * have NIIMS equivalent forms

Incident Management Team Forms

ICS Form #	Form Title	Prepared By
ICS 201-CG*	Incident Briefing	Initial Incident Commander
ICS 202-CG*	Incident Objectives	Planning Section Chief
ICS 203-CG*	Organization Assignment List	Resources Unit Leader
ICS 204-CG*	Assignment List	Resources Unit Leader & Operations Section Chief
ICS 204a-CG	Assignment List Attachments	Operations & Planning Sections Staff
ICS 205-CG*	Incident Radio Communications Plan	Communications Unit Leader
ICS 205a-CG	Communications List	Communications Unit Leader
ICS 206-CG*	Medical Plan	Medical Unit Leader
ICS 207-CG*	Incident Organization Chart	Resources Unit Leader
ICS-208-CG	Site Safety Plan	Safety Officer
ICS 209-CG	Incident Status Summary	Situation Unit Leader
ICS-210	Status Change Card	On-scene Incident Dispatcher

ICS Form #	Form Title	Prepared By
ICS 211-CG*	Check-In List	Resources Unit/ Check-in Recorder
ICS 213	General Message	Any message originator
ICS-213 RR CG	Resource Request Message	Any Resource Requester
ICS 214-CG*	Unit Log	All Sections and Units
ICS 215-CG*	Operational Planning Worksheet	Operations Section Chief
ICS 215a-CG	Hazard/Risk Analysis Worksheet	Safety Officer
ICS 218	Support Vehicle/Vessel Inventory	Ground/Vessel Support Unit Leaders
ICS-219	Resource Status Card	Resources Unit Leader
ICS 220-CG*	Air Operations Summary Worksheet	Operations Section Chief or Air Branch Director
ICS 221-CG*	Demobilization Checkout	Demobilization Unit Leader
ICS 230-CG	Daily Meeting Schedule	Situation Unit Leader
ICS 232-CG	Resources at Risk Summary	Environmental Unit Leader
ICS 233-CG	Open Action Tracking	Situation Unit Leader
ICS 234-CG	Work Analysis Matrix	Operations & Planning Section Chiefs

Area Command Team Forms

ICS Form #	Form Title	Prepared By
ICS AC202-CG	Area Command Objectives/Priorities	Planning Section Chief
ICS AC205-CG	Area Command Communications List	Communications Unit Leader
ICS AC207-CG	Area Command Organization Chart	Resource Unit Leader
ICS AC209-CG	Area Command Status Summary	Situation Unit Leader
ICS 211-CG*	Check-in List	Resource Unit Leader
ICS 214-CG*	Unit Log	All Sections and Units
ICS AC215-CG	Resource Allocation & Prioritization Worksheet	Command & Planning Section Chief
ICS AC230-CG	Area Command Daily Meeting Schedule	Situation Unit Leader
ICS 233-CG	Open Action Tracking	Situation Unit Leader
ICS AC235-CG	Area Command Log Of significant Events	Planning Section Chief

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CHAPTER 25

GLOSSARY AND ACRONYMS

ACCESS CONTROL POINT – The point of entry and exit from control zones at a Hazardous Substance Incident. This physical location is controlled by response personnel limiting access to and from work areas.

AGENCY – A division of government with a specific function, or a non-governmental organization.

AGENCY REPRESENTATIVE (AREP) – Individual assigned to an incident from an assisting or cooperating agency that has been delegated full authority to make decisions on all matters affecting their agency's participation at the incident. Agency Representatives report to the incident LNO.

ALL RISK – Any incident or event, natural or human caused, that warrants action to protect life, property, environment, public health or safety to minimize disruption of government, social, or economic activities.

ALL-HAZARD – Any incident or event, natural or human caused, that requires an organized response by a public, private, and/or governmental entity in order to protect life, public health and safety, values to be protected, and to minimize any disruption of governmental, social, and economic services.

ALTERNATIVE RESPONSE TECHNOLOGIES (ART) – Response methods or techniques other than mechanical containment or recovery. ART may include use of chemical dispersants, in-situ burning,

bioremediation, or other alternatives. Application of ART must be authorized and directed by the OSC.

AREA COMMAND – An organization established to: (1) oversee the management of multiple incidents that are each being handled by an ICS Incident Management Teams (IMT) organization or (2) oversee the management of large or multiple incidents to which several IMTs have been assigned. Area Command has the responsibility to set overall strategy and priorities, allocate critical resources according to priorities, ensure that incidents are properly managed, and ensure that objectives are met and strategies followed. (See also: Unified Area Command).

ASSIGNED RESOURCES – Resources checked-in and assigned work tasks on an incident.

ASSIGNMENTS – Tasks given to resources to perform within a given operational period, based upon tactical objectives in the IAP.

ASSISTANT – Title for subordinates of the Command Staff positions assigned to assist the Command Staff person manage their workload. In some cases, assistants are also assigned to unit leader positions in the planning, logistics, and finance/administration sections.

ASSISTING AGENCY – Is an agency directly contributing or providing tactical or service resources to another agency.

AVAILABLE RESOURCES – Incident-based resources that are immediately available for assignment.

BASE – That location at which the primary logistics functions are coordinated and administered. (Incident name or other designator will be added to the term "Base.") The ICP may be collocated with the Base. There is only one Base per incident.

BRANCH – The organizational level having functional and/or geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section and between Section and Units in the Logistics Section. Branches are identified by roman numerals or by functional name (e.g. service, support).

BUYING TEAM – A team that supports incident procurement and is authorized to procure a wide range of services, supplies, and equipment rentals.

CACHE – A pre-determined complement of tools, equipment, and/or supplies stored in a designated location, and available for incident use.

CAMP – Geographical site(s) within the general incident area, separate from the incident base, equipped and staffed to provide sleeping, food, water, and sanitary services to incident personnel.

CHECK-IN – Process whereby resources first report to incident response. Check-in locations include: Incident Command Post (Resources Unit), Incident Base, Camps, Staging Areas, Helibases, Helispots, or Division/Group Supervisors (for direct tactical assignments).

CHIEF – The ICS title for individuals responsible for the command of functional Sections: Operations, Planning, Logistics, and Finance/Administration.

CLEAR TEXT – The use of plain English in radio communications transmission. Neither 10 Codes nor agency-specific codes are used when using Clear Text.

COMMAND – The act of directing, ordering, and/or controlling resources by virtue of explicit legal, agency, or delegated authority. May also refer to an IC or to the UC.

COMMAND POST – See Incident Command Post.

COMMAND STAFF – The Command Staff consists of the PIO, SOFR, and LNO, who report directly to an IC. May also include Intelligence Officer. They may have an assistant or assistants, as needed.

COMMON OPERATING PICTURE – Is a broad view of the overall situation as reflected by situation reports, aerial photography and other information and intelligence.

COMPLEX – Two or more individual incidents located in the same general proximity, which are assigned to a single IC or UC to facilitate management.

CONTAMINANT – See Pollutant.

CONTAMINATION CONTROL LINE (CCL) – The established line around the Contamination Reduction Zone that separates the Contamination Reduction Zone from the Support Zone.

CONTAMINATION REDUCTION CORRIDOR (CRC) – A CRC is that area within the Contamination Reduction Zone where the actual decontamination is to take place. Exit from the Exclusion Zone is through the

Contamination Reduction Corridor (CRC). The CRC will become contaminated as people and equipment pass through to the decontamination stations.

CONTAMINATION REDUCTION ZONE (CRZ) – That area between the Exclusion Zone and the Support Zone. This zone contains the Personnel Decontamination Station. This zone may require a lesser degree of personnel protection than the Exclusion Zone. This area separates the contaminated area from the clean area and acts as a buffer to reduce contamination of the clean area.

CONTINGENCY PLAN – The portion of an IAP or other plan that identifies possible but unlikely events and the contingency resources needed to mitigate those events.

CONTROL ZONES – The geographical areas within the control lines set up at a hazardous substance incident. The three zones most commonly used are the Exclusion Zone, Contamination Reduction Zone, and Support Zone.

COOPERATING AGENCY – An agency supplying assistance other than direct tactical or support functions or resources to the incident control effort (e.g., Red Cross, law enforcement agency, telephone company, etc.).

COORDINATION CENTER – Term used to describe any facility that is used for the coordination of agency or jurisdictional resources in support of one or more incidents.

COST SHARING AGREEMENTS – Agreements between agencies or jurisdictions to share designated costs related to incidents. Cost sharing agreements are

normally written but may also be verbal between an authorized agency or jurisdictional representatives at the incident.

CRITICAL INFRASTRUCTURES – Systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters.

DEMOBILIZATION – Release of resources from an incident in strict accordance with a detailed plan approved by the IC/UC.

DEPUTY – A fully qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior and, therefore, **must be fully qualified** in the position. Deputies can be assigned to the Incident Commander, General Staff, and Branch Directors.

DIRECTOR – ICS title for individuals responsible for supervision of a Branch.

DIVISION – Organization level used to divide an incident into geographical areas of operation. The Division level is established when the number of resources exceeds the span-of-control of the OSC and is organizationally between the Task Force/Team and the Branch. (See also: Group.)

EMERGENCY OPERATIONS CENTER (EOC) – The pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency.

The EOC coordinates information and resources to support domestic incident management activities.

EMERGENCY SUPPORT FUNCTION (ESF) – The National Response Plan (NRP) details 15 ESFs in place to coordinate operations during Federal involvement in an incident including transportation, communications, public works, engineering, firefighting, information and planning, mass care, resource support, health and medical services, urban search and rescue, hazardous materials, food, and energy.

EVENT – A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g. NSSES, Opsail, parades, concerts, or sporting activities. The event IAP usually includes contingency plans for possible incidents that might occur during the event.

EXCLUSION ZONE – The area immediately around a spill or release where contamination does or could occur. The innermost of the three zones of a hazardous substance/material incident. Special protection is required for all personnel while in this zone.

EXPANDED ORDERING – An organization that is authorized to set up outside of the ICP to assist the Logistics Section with ordering supplies, services and resources to support the incident. The expanded ordering does not decide allocation of critical resources because they are dealt with by Area Command.

FACILITY OWNER (FO) – FO is the owner/operator of the facility or source which precipitated an incident.

FEDERAL COORDINATING OFFICER (FCO) – The Federal officer who is appointed to manage Federal

resource support activities related to Stafford Act disasters and emergencies. The FCO is responsible for coordinating the timely delivery of Federal disaster assistance resources and programs to the affected State and local governments, individual victims, and the private sector.

FEDERAL ON-SCENE COORDINATOR (FOSC) – The Federal official pre-designated by the EPA or the USCG to coordinate responses under subpart D of the NCP (40 CFR 300) or the government official designated to coordinate and direct removal actions under subpart E of the NCP. A FOSC can also be designated as the Incident Commander.

FEDERAL RESOURCE COORDINATOR (FRC) – The Federal official appointed to manage Federal resource support activities related to non-Stafford Act incidents. The FRC is responsible for coordinating support from other Federal departments and agencies using interagency agreements and MOU's.

FEDERAL INCIDENT RESPONSE SUPPORT TEAM (FIRST) – A forward component of the ERT-A that provides on-scene support to the local Incident Command or Area Command structure.

FINANCE/ADMINISTRATION SECTION – The section responsible for all administrative and financial considerations on an incident.

GENERAL STAFF – The group of incident management personnel reporting to the IC and are comprised of: OSC, PSC, LSC, and FSC. They may each have a deputy/deputies.

GEOGRAPHIC INFORMATION SYSTEM (GIS) – A GIS is an electronic information system, which provides a geo-referenced database to support management decision-making.

GROUP – An organizational level established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. A Group is located between Branches (when activated) and Resources in the Operations Section. (See also: Division)

HAND CREW – A number of individuals that have been organized and trained and are supervised principally for operational assignments on an incident.

HAZARDOUS CATEGORIZATION TEST (HAZ CAT) – A field analysis to determine the hazardous characteristics of an unknown substance.

HAZARDOUS MATERIAL – For the purposes of ESF #1, hazardous material is a substance or material, including a hazardous substance, that has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated (see 49 CFR 171.8). For the purposes of ESF #10 and the Oil and Hazardous Materials Incident Annex, the term is intended to mean hazardous substances, pollutants, and contaminants as defined by the NCP.

HAZARDOUS SUBSTANCE – As defined by the NCP, any substance designated pursuant to section 311(b)(2)(A) of the Clean Water Act; any element, compound, mixture, solution, or substance designated

pursuant to section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act (42 U.S.C. § 6901 et seq.) has been suspended by act of Congress); any toxic pollutant listed under section 307(a) of the Clean Water Act; any hazardous air pollutant listed under section 112 of the Clean Air Act (42 U.S.C. § 7521 et seq.); and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act (15 U.S.C. § 2601 et seq.).

HELIBASE – A location within the general incident area for parking, fueling, maintenance, and loading of helicopters.

HELISPOT – A location where a helicopter can take off and land. Some helispots may be used for temporary loading.

INCIDENT– An occurrence either human-caused or natural phenomenon, that requires action or support by emergency service personnel to prevent or minimize loss of life or damage to property and/or natural resources.

INCIDENT ACTION PLAN (IAP) – An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods.

INCIDENT BASE – Location at the incident where the primary logistics functions are coordinated and administered. The ICP may be collocated with the base. There is only one base per incident.

INCIDENT COMMANDER (IC) – The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site. (See also: Unified Command).

INCIDENT COMMAND POST (ICP) – The field location at which the primary tactical-level, on-scene incident command functions are performed. The ICP may be collocated with the incident base or other incident facilities.

INCIDENT COMMAND SYSTEM (ICS) – A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

INCIDENT MANAGEMENT TEAM (IMT) – The Incident Commander and appropriate Command and General Staff personnel assigned to an incident.

INCIDENT OF NATIONAL SIGNIFICANCE (INS) – An actual or potential high-impact event that requires a coordinated and effective response by an appropriate combination of Federal, State, local, tribal, non-governmental, and/or private-sector entities in order to

save lives and minimize damage and provide the basis for long-term community recovery and mitigation activities.

INCIDENT OBJECTIVES – Statements of guidance and direction necessary for the selection of appropriate strategies, and the tactical direction of resources. Tactical incident objectives address the tactical response issues while management incident objectives address the incident management issues. Tactical incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

INCIDENT OVERHEAD – All supervisory positions described in the Incident Command System.

INCIDENT SUPPORT ORGANIZATION – Includes any off-incident support provided to an incident. Examples would be EOCs, airports, expanded ordering, etc.

INCIDENT SITUATION DISPLAY – The Situation Unit is responsible for maintaining a display of status boards, which communicate critical incident information vital to establishing an effective command and control environment.

INITIAL ACTION – The actions taken by the first resources to arrive at the incident. Initial actions may be to size up, patrol, monitor, withhold from any action, or take aggressive initial measures.

INITIAL RESPONSE – Resources initially committed to an incident.

INLAND ZONE – As defined in the NCP, the environment inland of the coastal zone excluding the Great Lakes and specified ports and harbors on the inland rivers. The term “coastal zone” delineates an area of Federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in Regional Contingency Plan’s (RCPs).

INTELLIGENCE AND INFORMATION – National security, classified information, or other operational information necessary for incident decision making. Traditionally located in the Planning Section but may be moved to other parts of the ICS organization based on Command needs.

JOINT FIELD OFFICE (JFO) – A temporary Federal facility established locally to provide a central point for Federal, State, local, and tribal executives with responsibility for incident oversight, direction, and/or assistance to effectively coordinate protection, prevention, preparedness, response, and recovery actions. The JFO will combine the traditional functions of the JOC, the FEMA DFO, and the JIC within a single Federal facility.

JOINT INFORMATION CENTER (JIC) – A facility established within or near the ICP where the PIO and staff can coordinate and provide information on the incident to the public, media, and other agencies. The JIC is normally staffed with representation from the FOSC, SOSC, and FO.

JOINT INFORMATION SYSTEM (JIS) – Integrates incident information and public affairs into a cohesive organization designed to provide consistent,

coordinated, timely information during a crisis or incident operations.

JOINT OPERATIONS CENTER (JOC) – The JOC is the focal point for all Federal investigative law enforcement activities during a terrorist or potential terrorist incident or any other significant criminal incident, and is managed by the SFLEO. The JOC becomes a component of the JFO when the NRP is activated.

JURISDICTION – The range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, state or federal boundary lines) or functional (e.g., police department, health department, etc.). (See also: Multi-jurisdiction Incident.)

LEADER – The ICS title for an individual responsible for a Task Force/Strike Team or functional unit.

LOGISTICS SECTION – The Logistics Section is responsible for providing facilities, services, and materials in support of the incident.

MAJOR DISASTER – As defined by the Stafford Act, any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought) or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this act to supplement the efforts and available

resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

MANAGEMENT BY OBJECTIVES – In ICS, this is a top-down management activity which involves the following steps to achieve the incident goal: (1) establishing incident objectives, (2) selection of appropriate strategy(s) to achieve the objectives, and (3) the tactical direction associated with the selected strategy.

MANAGERS – Individuals within ICS organizational units that are assigned specific managerial responsibilities (e.g., Staging Area Manager).

MESSAGE CENTER – The Message Center is part of the Communications Center and collocated with or adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status, and handles administration, and tactical traffic.

MISSION ASSIGNMENT – The vehicle used by DHS/EPR/FEMA to support Federal operations in a Stafford Act major disaster or emergency declaration. It orders immediate, short-term emergency response assistance when an applicable State or local government is overwhelmed by the event and lacks the capability to perform, or contract for, the necessary work.

MITIGATE – Any action to contain, reduce, or eliminate the harmful effects of a spill or release of a hazardous substance/material.

MOBILIZATION CENTER – An off-incident location at which emergency service personnel and equipment are temporarily located pending assignment, release, or reassignment.

MORGUE (Temporary On-Incident) – Is an area designated for temporary placement of the dead. The Morgue is the responsibility of the Coroner's Office when a Coroner's Representative is on-scene.

MULTI-AGENCY COORDINATION (MAC) – A generalized term which describes the functions and activities of representatives of involved agencies and/or jurisdictions who come together to make decisions regarding the prioritizing of incidents, and the sharing and use of critical resources. The MAC organization is not a part of the on-scene ICS and is not involved in developing incident strategy or tactics.

MULTI-AGENCY INCIDENT – Is an incident where one or more agencies assist a jurisdictional agency or agencies. May be single or Unified Command.

MULTIJURISDICTIONAL INCIDENT – Is an incident requiring action from multiple agencies that each have jurisdiction to manage certain aspects of an incident. In ICS, these incidents will be managed under Unified Command.

NATIONAL INFRASTRUCTURE COORDINATING CENTER (NICC) – Managed by the DHS Information Analysis and Infrastructure Protection Directorate, the NICC monitors the Nation's critical infrastructure and key resources on an ongoing basis. In the event of an incident, the NICC provides a coordinating vehicle to share information with critical infrastructure and key resources information-sharing entities.

NATIONAL RESPONSE CENTER (NRC) – A national communications center for activities related to oil and hazardous substance response actions. The NRC, located at DHS/USCG Headquarters in Washington, DC, receives and relays notices of oil and hazardous substances releases to the appropriate Federal OSC.

NATIONAL RESPONSE PLAN (NRP) – A document that describes the structure and processes comprising a national approach to domestic incident management designed to integrate the efforts and resources of Federal, State, local, tribal, private-sector, and nongovernmental organizations.

NATIONAL RESPONSE SYSTEM (NRS) – Pursuant to the NCP, the NRS is a mechanism for coordinating response actions by all levels of government (40 CFR § 300.21) for oil and hazardous substances spills and releases.

NATIONAL RESPONSE TEAM (NRT) – The NRT, comprised of the 16 Federal agencies with major environmental and public health responsibilities, is the primary vehicle for coordinating Federal agency activities under the NCP. The NRT carries out national planning and response coordination and is the head of a highly organized Federal oil and hazardous substance emergency response network. EPA serves as the NRT Chair, and DHS/USCG serves as Vice Chair.

NATIONAL SPECIAL SECURITY EVENT (NSSE) – A designated event that, by virtue of its political, economic, social, or religious significance, may be the target of terrorism or other criminal activity.

NATIONAL STRIKE FORCE (NSF) – The NSF consists of three strike teams established by DHS/USCG on the Pacific, Atlantic, and Gulf coasts. The strike teams can provide advice and technical assistance for oil and hazardous substances removal, communications support, special equipment, and services.

NOAA WEATHER STATION – A mobile weather data collection and forecasting facility (including personnel) provided by the National Oceanic and Atmospheric Administration (NOAA), which can be utilized within the incident area.

NONGOVERNMENTAL ORGANIZATION (NGO) – A nonprofit entity that is based on interests of its members, individuals, or institutions and that is not created by a government, but may work cooperatively with government to serve a public purpose, i.e., faith-based charity organizations, American Red Cross.

NUCLEAR INCIDENT RESPONSE TEAM (NIRT) – Created by the Homeland Security Act to provide DHS with a nuclear/radiological response capability. When activated, the NIRT consists of specialized Federal response teams drawn from DOE and/or EPA.

OFFICER – The ICS title for personnel responsible for the Command Staff positions of Safety, Liaison, and Public Information.

OPERATIONAL PERIOD – The period of time scheduled for execution of a given set of operation actions as specified in the IAP. Operational Periods can be various lengths, usually not over 24 hours. The Operational Period coincides with the completion of one planning “P” cycle (see Chapter 3 planning cycle).

OPERATIONS COORDINATION CENTER (OCC) – The primary facility of the Multi-Agency Coordination System. It houses staff and equipment necessary to perform MAC functions.

OPERATIONS SECTION – The Section responsible for all operations directly applicable to the primary mission. Directs the preparation of Branch, Division, and/or Unit operational plans, requests or releases resources, makes expedient changes to the IAP as necessary and reports such to the IC.

OUT-OF-SERVICE RESOURCES – Resources assigned to an incident, but they are unable to respond for mechanical, rest, or personnel reasons.

OVERHEAD PERSONNEL – Personnel who are assigned to supervisory positions that includes: Incident Commander, Command Staff, General Staff, Directors, Supervisors, and Unit Leaders.

PERSONAL PROTECTIVE EQUIPMENT (PPE) – That equipment and clothing required to shield or isolate personnel from the chemical, physical, and biological hazards that may be encountered at a hazardous substance/material incident. 33 CFR 154.1026, 33 CFR 155.1026

PLANNING SECTION – The section that is responsible for the collection, evaluation, and dissemination of tactical information related to the incident, and for the preparation and documentation of incident action plans. The section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident.

POLLUTANT OR CONTAMINANT – As defined in the NCP, includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions, or physical deformations in such organisms or their offspring.

PRINCIPAL FEDERAL OFFICIAL (PFO) – The Federal official designated by the Secretary of Homeland Security to act as his/her representative locally to oversee, coordinate, and execute the Secretary's incident management responsibilities under HSPD-5 for Incidents of National Significance.

QUALIFIED INDIVIDUAL (QI) – The person authorized by the responsible party to act on their behalf, authorize expenditures, and obligate resources.

RADIOLOGICAL EMERGENCY RESPONSE TEAMS (RERT's) – Teams provided by EPA's Office of Radiation and Indoor Air to support and respond to incidents or sites containing radiological hazards. These teams provide expertise in radiation monitoring, radionuclide analyses, radiation health physics, and risk assessment.

REGIONAL RESPONSE TEAMS (RRT's) – Regional counterparts to the National Response Team, the RRT's comprise regional representatives of the Federal agencies on the NRT and representatives of each State within the region. The RRT's serve as planning and preparedness bodies before a response, and provide

coordination and advice to the Federal OSC during response actions.

REGIONAL RESPONSE COORDINATION CENTERS (RRCC) – A standing facility operated by DHS/EPR/FEMA that is activated to coordinate regional response efforts, establish Federal priorities, and implement local Federal program support until a JFO is established in the field and/or the PFO, FCO or FRC can assume their NRP coordination responsibilities.

REPORTING LOCATION – Any one of six facilities/locations where incident assigned resources may check-in. The locations are: Incident Command Post-Resources Unit, Base, Staging Area, Helibase, or Division/Group Supervisors (for direct line assignments). Check-in occurs at one location only.

RESOURCES – All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

RESPONDER REHABILITATION – Also known as "rehab", a treatment of incident personnel who are suffering from the effects of strenuous work and/or extreme conditions.

SAR ON-SCENE COORDINATOR (SAR OSC) – The SAR OSC coordinates the SAR mission on-scene using the resources made available by SMC and should safely carry out the SAR Action Plan. The SAR OSC may serve as a Branch Director or Group Supervisor to manage on-scene operations after the SAR mission is concluded and other missions continue, such as search and recovery.

SECTION – That organization level having functional responsibility for primary segments of an incident such as: Operations, Planning, Logistics and Finance. The Section level is organizationally between Branch and Incident Commander.

SENIOR FEDERAL OFFICIAL (SFO) – A SFO is an individual representing a Federal department or agency with primary statutory responsibility for incident management.

SINGLE RESOURCE – Is an individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

SITE SAFETY AND HEALTH PLAN (SSHP) – Site-specific document required by state and Federal OSHA regulations and specified in the Area Contingency Plan. The SSHP, at minimum, addresses, includes, or contains the following elements: health and safety hazard analysis for each site task or operation, comprehensive operations work plan, personnel training requirements, PPE selection criteria, site-specific occupational medical monitoring requirements, air monitoring plan, site control measures, confined space entry procedures (if needed), pre-entry briefings (tailgate meetings, initial and as needed), pre-operations commencement health and safety briefing for all incident participants, and quality assurance of SSHP effectiveness.

SITUATION ASSESSMENT – The evaluation and interpretation of information gathered from a variety of sources (including weather information and forecasts, computerized models, GIS data mapping, remote sensing sources, ground surveys, etc.) that, when

communicated to emergency managers and decision makers, can provide a basis for incident management decision making.

SPAN OF CONTROL – A Command and Control term that means how many organizational elements may be directly managed by one person. Span of Control may vary from one to seven, and a ratio of five reporting elements is optimum.

STAGING AREA – That location where incident personnel and equipment are assigned awaiting tactical assignment. Staging Areas are managed by the OSC.

STAKEHOLDERS – Any person, group, or organization affected by and having a vested interest in the incident and/or the response operation.

STRATEGIC GOALS – Strategic goals are broad, general statements of intent.

STRATEGY – The general plan or direction selected to accomplish incident objectives.

STRATEGIC PLAN – Is a plan that addresses long-term issues such as impact of weather forecasts, time–phased resource requirements, and problems such as permanent housing for displaced disaster victims, environmental pollution, and infrastructure restoration.

STRIKE TEAM – Are specified combinations of the **same kind and type** of resources with common communications and a leader.

SUPERVISOR – ICS title for individuals responsible for command of a Division or Group.

SUPPORT ZONE – In a hazardous substance response, the clean area outside of the Contamination Control Line is a support zone. Equipment and personnel are not expected to become contaminated in this area. Special protective clothing is not required. This is the area where resources are assembled to support the hazardous substances/materials release operation.

SUPERVISOR OF SALVAGE AND DIVING (SUPSALV) – A salvage, search, and recovery operation established by the Department of Navy with experience to support response activities, including specialized salvage, firefighting, and petroleum, oil, and lubricants offloading.

TACTICAL DIRECTION – Directions given by the OSC that includes: the tactics appropriate for the selected strategy, the selection and assignment of resources, tactics implementation, and performance monitoring for each operational period.

TACTICS – Deploying and directing resources during an incident to accomplish the objectives designated by strategy.

TASK FORCE – A group of resources with common communications and a leader assembled for a specific mission.

T-CARD – Cards filled out with essential information for each resource they represent. The cards are color-coded to represent different types of resources.

TECHNICAL SPECIALISTS (THSP) – Personnel with special skills who can be used anywhere within the ICS organization.

TEMPORARY FLIGHT RESTRICTIONS (TFR) –TFRs are established by the Federal Aviation Administration (FAA) to ensure aircraft safety in the vicinity of the incident which restricts the operation of non-essential aircraft in the airspace around that incident.

TERRORISM – Any activity that: (1) involves an act that (a) is dangerous to human life or potentially destructive of critical infrastructure or key resources and (b) is a violation of the criminal laws of the United States or of any State or other subdivision of the United States; and (2) appears to be intended (a) to intimidate or coerce a civilian population, (b) to influence the policy of a government by intimidation or coercion, or (c) to affect the conduct of a government by mass destruction, assassination, or kidnapping.

UNACCEPTABLE RISK – Level of risk as determined by the risk management process which cannot be mitigated to an acceptable safe level.

UNIFIED COMMAND (UC) – An application of ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish their designated Incident Commanders at a single ICP and to establish a common set of objectives and strategies and a single Incident Action Plan. This is accomplished without losing or abdicating authority, responsibility, or accountability.

UNIFIED AREA COMMAND (UAC) – A unified area command is established when incidents under an area command are multi-jurisdictional.

UNIT – That organizational element having functional responsibility for a specific incident planning, logistics, or finance/administration activity.

VESSEL OWNER (VO) – VO is the owner/operator of the vessel or source which precipitated the incident.

VOLUNTEER – Any individual accepted to perform services by an agency that has authority to accept volunteer services when the individual performs services without promise, expectation, or receipt of compensation for services performed.

WATERSHED REHABILITATION – Is also known as "rehab"; restoration of watershed to as-near-as-possible its pre-incident condition, or to a condition where it can recover on its own.

WEAPON OF MASS DESTRUCTION (WMD) – As defined in Title 18, U.S.C. § 2332a: (1) any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than 4 ounces, or missile having an explosive or incendiary charge of more than one-quarter ounce, or mine or similar device; (2) any weapon that is designed or intended to cause death or serious bodily injury through the release, dissemination, or impact of toxic or poisonous chemicals or their precursors; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

ACRONYMS

AC	Area Command
A/C	Aircraft
ACO	Aircraft or Fixed-Wind Coordinator
ACP	Area Contingency Plan
ADCON	Administrative Control
AMS	Area Maritime Security
AMSC	Area Maritime Security Committee
AMSP	Area Maritime Security Plan
AMIO	Alien Migrant Interdiction Operations
AMVER	Automated Mutual-Assistance Vessel Rescue
AOBD	Air Operations Branch Director
AOIC	Assistant Officer In Charge
APSO	Asylum Pre-Screening Officer (INS)
ARC	American Red Cross
AREP	Agency Representative
ART	Alternate Response Technologies
ASGS	Air Support Group Supervisor
ATMWU	Air Transportable Mobile Weather Unit
ATOI	Air Target of Interest
ATC	Air Traffic Control
ATGS	Air Tactical Group Supervisor
BCMG	Base Manager
BO	Boarding Officer
BTM	Boarding Team Member
C2	Command and Control
C3	Command, Control, and Communications
CANUS	Canadian United States Joint Marine Pollution Contingency Plan
CAP	Civil Air Patrol
CASP	Computer-Assisted Search Planning
CASPER	C-130 Airborne Surveillance with Palletized Electronic Reconnaissance

CBDR	Constant Bearing, Decreasing Range
CBP	U.S. Customs and Border Protection
CC	Contributing Command
CCL	Contamination Control Line
CD	Counter Drug
CHET	Customs High Endurance Tracker (Cheyenne III aircraft)
CIC	Combat Information Center
CJCS	Chairman of the Joint Chiefs of Staff
CLMS	Claims Specialist
CO	Commanding Officer
COML	Communication Unit Leader
COMP	Compensation /Claims Unit Leader
COST	Cost Unit Leader
COTP	Captain of the Port
CRA	Coordinating Review Authority
CRC	Contamination Reduction Corridor
CRWD	Crew Boss/Crew Supervisor
CRZ	Contamination Reduction Zone
CSC	Combat Support Center
CTF	Commander Task Force
CTU	Commander Task Unit
D&M	Detention and Monitoring
DAN	Divers Alert Network
DCM	Dangerous Cargo Manifest
DEA	Drug Enforcement Administration
DFM	Diesel Fuel Marine
DHHS	Department of Health & Human Services
DHS	Department of Homeland Security
DIVS	Division/Group Supervisor
DMB	Datum Marker Buoy
DMOB	Demobilization Unit Leader
DOCL	Documentation Unit Leader
DOD	Department of Defense
DOT	Department of Transportation
DOSC	Deputy Operations Section Chief

DPIC	Deputy Incident Commander
DPRO	Display Processor
EEI	Essential Elements of Information
EEZ	Exclusive Economic Zone
ELT	Emergency Locator Transmitter
EMCON	Emission Control
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
ENSP	Environmental Specialist
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency, US
EPIC	El Paso Intelligence Center
EPIRB	Emergency Position Indicating Radio Beacon
EQPM	Equipment Manager
EQTR	Equipment Time Recorder
ERT	Emergency Response Team
ES	Electronic Surveillance
ESF	Emergency Support Functions
EUL	Environmental Unit Leader
EXCOM	Extended Communication Search
FAA	Federal Aviation Administration
FACL	Facilities Unit Leader
FC	Federal Coordinator
FDUL	Food Unit Leader
FEMA	Federal Emergency Management Agency
FLIR	Forward-Looking Infrared
FMSC	Federal Maritime Security Coordinator
FO	Facility Owner
FOB	Field Observer
FOD	Foreign Object Damage
FOG	Field Operations Guide
FOSC	Federal On-Scene Coordinator
FSC	Finance/Administration Section Chief

F/V	Fishing Vessel
GIS	Geographic Information System
GMDSS	Global Maritime Distress and Safety System
GSUL	Ground Support Unit Leader
H/C	Historic/Cultural
HAZ CAT	Hazardous Categorization Test
HAZMAT	Hazardous Materials
HAZSUB	Hazardous Substances
HCO	Helicopter Coordinator
HF	High Frequency
HLSA	Homeland Security Act
HSAS	Homeland Security Advisory System
HSPD-5	Homeland Security Presidential Directive No. 5
HSPD-7	Homeland Security Presidential Directive No. 7
HSPD-8	Homeland Security Presidential Directive No. 8
IAP	Incident Action Plan
IC	Incident Commander
ICE	U.S. Immigration and Customs Enforcement
ICP	Incident Command Post
ICS	Incident Command System
IECO	Immigration Emergency Coordinating Officer
IG	Immune Globulin
IMAT	Incident Management Assist Team
INCM	Incident Dispatcher
INJR	Compensation for Injury Specialist
INS	Incident of National Significance
IR	Infrared
ISB	In-situ Burn

JFO	Joint Field Office
JIC	Joint Information Center
JIS	Joint Information System
JRCC	Joint (aeronautical and maritime) Rescue Coordination Center
JRSC	Joint Rescue Sub-center
KIAS	Knots Indicated Air Speed
KT	Knot(s)
LCPL	Landing Craft Personnel, Large
LCU	Landing Craft, Utility
LE	Law Enforcement
LEA	Law Enforcement Agency
LEDET	Law Enforcement Detachment (USCG)
LEL	Lower Explosive Limit
LEU	Law Enforcement Unit
LKP	Last Known Position
LLLTV	Low Light Level Television
LNO	Liaison Officer
LPOC	Last Port of Call
LSC	Logistics Section Chief
M/V	Motor Vessel
MAC	Multi-agency Coordination
MARSEC	Maritime Security
MEDEVAC	Medical Evacuation
MEDICO	Medical Advice, Usually By Radio
MEDL	Medical Unit Leader
MEXUS	Mexican United States Joint Marine Pollution Contingency Plan
MINIRAD	Minimum Radiation
MLB	Motor Lifeboat
MLE	Maritime Law Enforcement
MOA	Memorandum of Agreement
MOOTW	Military Operations Other Than War

MOU	Memorandum of Understanding
MPA	Maritime Patrol Craft
MRCC	Maritime Rescue Coordination Center
MSST	Maritime Safety and Security Team
MTS	Marine Transportation System
MTSL	Marine Transportation System Recovery Unit
NCP	National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)
NDP	Naval Doctrine Publication
NIC	NIMS Integration Center
NIIMS	National Interagency Incident Management System
NIMS	National Incident Management System
NM	Nautical Mile
NMMSS	Naval Mast Mounted Sight System
NOAA	National Oceanic and Atmospheric Administration
NOTAM	Notice to Airmen
NPFC	National Pollution Funds Center
NPOC	Next Port of Call
NRC	National Response Center (Phone number (800)424-8802)
NRP	National Response Plan
NRDAR	Natural Resource Damage Assessment
NRS	National Response System
NSSE	National Special Security Event
NTSB	National Transportation Safety Board
NVD	Night Vision Devices
NVG	Night Vision Goggles
NWP	Naval Warfare Publication
OC	Oleoresin Capsicum (Pepper Spray)
OCC	Operations Coordination Center
OIC	Officer-In-Charge

OPA 90	Oil Pollution Act of 1990
OPBD	Operations Branch Director
OPCEN	USCG Operations Center
OPCON	Operational Control
OPLAN	Operation Plan
OPORDER	Operation Order
OPSEC	Operations Security
ORDM	Ordering Manager
O/S	On-Scene
OSC	Operations Section Chief
OSC	SAR On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
P/C	Pleasure Craft
PA	Programmatic Agreement (Historical/ Cultural Protection)
PD-27	Presidential Directive 27
PDW	Personal Defense Weapon
PFD	Personal Flotation Device
PIO	Public Information Officer
PIW	Person(s) in Water
PML	Personal Marker Light
POB	Persons On Board
POC	Point-of-Contact
POD	Probability of Detection
POS	Probability of Success
PPE	Personal Protective Equipment
PQS	Personnel Qualification Standard
PRA	Primary Review Authority
PRECOM	Preliminary Communication Search
PRFA	Pollution Removal Funding Authorization
PROC	Procurement Unit Leader
PSC	Planning Section Chief
PTRC	Personnel Time Recorder
PWCS	Ports, Waterways and Coastal Security

QI	Qualified Individual
QRT	Quick Reaction Team
R&A	Rescue and Assistance
RAR	Resources at Risk
RB-M	Response Boat - Medium
RB-S	Response Boat - Small
RBDF	Royal Bahamian Defense Force
RCC	Rescue Coordination Center
RCP	Regional Response Plan
RCDM	Receiving and Distribution Manager
RDD	Radiological Dispersal Device
REHB	Responder Rehabilitation Manager
RESL	Resource Unit Leader
RIB/RHIB	Rigid Hull Inflatable Boat
RIT	Rapid Intervention Team
ROE	Rules of Engagement
RRBT	Rapid Response Boarding Team
RRD	Radiological Dispersion Devise
RRT	Regional Response Team
RSC	Rescue Sub-Center
SAR	Search and Rescue
SART	Search and Rescue Transponder
SARTEL	SAR Telephone (private hotline)
SATCOM	Satellite Communications
SC	SAR Coordinator
SCAT	Shoreline Cleanup Assessment Team
SCKN	Status/Check-In Recorder
SECM	Security Manager
SEHS	Special Event Homeland Security
SELEX	Selected Exercise
SITL	Situation Unit Leader
SLAR	Side Looking Airborne Radar
SLDMB	Self-Locating Datum Marker Buoy
SMC	SAR Mission Coordinator
SNO	Statement of No Objection

SOFR	Safety Officer
SOLAS	Safety of Life at Sea
SONS	Spill of National Significance
SOSC	State On-Scene Coordinator
SPUL	Supply Unit Leader
SRA	Safe Refuge Area
SRB	Surf Rescue Boat
SRIE	Safety Rules of Engagement
SROE	Standing Rules of Engagement
SRR	Search and Rescue Region
SRU	Search Rescue Unit
SS	Expanding Square Search
SSI	Sensitive Security Information
SSC	Scientific Support Coordinator
SSHP	Site Safety and Health Plan
STAM	Staging Area Manager
STVE	Strike Team Leader, Vessel
SUBD	Support Branch Director
SURPIC	Surface Picture
S/V	Sailing Vessel
SVBD	Service Branch Director
T/V	Tank Vessel
TACLET	Tactical Law Enforcement Team
TACON	Tactical Control
TB	Tuberculosis
TDS	Time, Distance and Shielding
TFLD	Task Force Leader
TFR	Temporary Flight Restrictions
THC	Tetrahydrocannibanol
THSP	Technical Specialist
TIME	Time Unit Leader
TOI	Target of Interest
TRACEM	Thermal, Radioactive, Asphyxiation, Chemical, Etiological, and Mechanical
TSA	Transportation Security Administration
TSI	Transportation Security Incident

TTP	Tactics, Techniques, and Procedures
UAC	Unified Area Command
UC	Unified Command
UHF	Ultra-High Frequency
UMIB	Urgent Marine Information Broadcast
USC	United States Code
USCG	United States Coast Guard
USMC	United States Marine Corps
USN	United States Navy
UTL	Utility Boat
VERTREP	Vertical Replenishment
VESS	Vessel Support Unit Leader
VHF	Very High Frequency
VO	Vessel Owner
VS	Sector Search
WTD	Water-Tight Door

CONVERSIONS AND EQUIVALENTS

AREA- (s=statute, n=nautical)		
Multiply	by	to derive
meters^2	10.76	feet^2
feet^2	0.0929	meters^2
kilometers^2	0.386	s. miles^2
s. miles^2	2.59	kilometers^2
s. miles^2	0.7548	n. miles^2
n. miles^2	1.325	s. miles^2
kilometers^2	0.2916	n. miles^2
n. miles^2	3.430	kilometers^2

TEMPERATURE-	
Calculate	To derive
5/9(°F-32°)	°C
9/5°C+32°	°F

VOLUME		
multiply	by	to derive
barrels	42	gallons
barrels	5.615	feet^3
barrels	158.9	liters
barrels	0.1589	meters^3
feet^3	7.481	gallons
gallons	3.785	liters

WEIGHT-		
multiply	by	to derive
kilograms	2.205	pounds
metric tons	0.984	long tons
metric tons	1,000	kilograms
metric tons	2,205	pounds
long tons	1,016	kilograms
long tons	2240	pounds
short tons	907.2	kilograms
short tons	2,000	pounds

DENSITY ESTIMATIONS-

	Barrels/Long Ton	
	Range	Average
Crude Oils	6.7 - 8.1	7.4
Aviation Gasolines	8.3 - 9.2	8.8
Motor Gasolines	8.2 - 9.1	8.7
Kerosenes	7.7 - 8.3	8.0
Gas Oils	7.2 - 7.9	7.6
Diesel Oils	7.0 - 7.9	7.5
Lubricating Oils	6.8 - 7.6	7.2
Fuel Oils	6.6 - 7.0	6.8
Asphaltic Bitumens	5.9 - 6.5	6.2

Notes:

- 1 Long Ton equals 2,200 lbs.
- As a general approximation, use 7 bbl. (300 U.S. gallons) per metric ton of oil.
- 6.4 barrels/long ton is neutrally buoyant in fresh water. Open ocean neutral buoyancy values are generally in the 6.21-6.25 barrels/long ton range.

Specific Gravity of 1 or an API of 10 equals the density of fresh water.
Specific Gravity < 1 or an API > 10 indicates product is lighter than fresh water.
API Gravity = (141.5/Specific Gravity) – 131.5

Weight of Fresh Water: pounds/gallon	8.3
Weight of Sea Water: pounds/gallon	8.5

Note: Exact weight depends on temperature and salinity.

OIL THICKNESS ESTIMATIONS-

Standard Term	Approx. Film Thickness		Approx. Quantity of Oil in Film	
	Inches	Mm		
Barely Visible	0.0000015	0.00004	25 gals/mile^2	44 liters/km^2
Silvery	0.000003	0.00008	50 gals/mile^2	88 liters/km^2
Slight Color	0.000006	0.00015	100 gals/mile^2	176 liters/km^2
Bright Color	0.000012	0.0003	200 gals/mile^2	351 liters/km^2
Dull	0.00004	0.001	666 gals/mile^2	1,168 liters/km^2
Dark	0.00008	0.002	1,332 gals/mile^2	2,237 liters/km^2

Thickness of light oils: 0.0010 inches to 0.00010 inches.
Thickness of heavy oils: 0.10 inches to 0.010 inches.

COMMONLY-USED EQUATIONS-

Circle:
Area = 3.14 x radius^2
Circumference = 3.14 x diameter

Sphere/Tank
Area = 4 x 3.14 x radius^2
Volume = 1.33 x 3.14 x radius^3

Cylinder/Pipe/Tank
Volume = 3.14 x radius^2 x length

Rectangle/Square
Area = length x width

Cube/Block/Tank
Volume = length x width x height

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KINDER MORGAN ICS FORMS WORKBOOK		
ICS Form #:	**Form Title:**	**Prepared By:**
Initial Incident Response and Assessment/Incident Brief		
ICS 201	Incident Briefing	Initial Incident Commander
	KM Site Health and Safety Plan	Safety Officer
ICS 214	Activity Log	All Sections and Units
ICS 211/211p	Incident Check-In List (Equip/Pers)	Planning Section - Resource Unit
Initial Unified Command Meeting/Objectives Meeting		
ICS 230	Daily Meeting Schedule	Planning Section
ICS 202*	Incident Objectives	Planning Section
Command and General Staff Meeting		
ICS 202*	Incident Objectives	Planning Section (From previous meeting)
ICS 203/207*	Organization Assignment List/Chart	Planning Section - Resource Unit
ICS 233	Open Actions Tracker	Planning Section & Operations Section (2nd Operational Period)
Preparing for Tactics Meeting/Tactics Meeting		
ICS 202*	Incident Objectives	Planning Section (From previous meeting)
ICS 233	Open Actions Tracker	Planning Section & Operations Section (From previous meeting)
ICS 234	Work Analysis Matrix	Planning Section & Operations Section
ICS 215	Operational Planning Worksheet	Operations Section
ICS 215a	Hazard Risk Analysis Worksheet	Safety Officer
ICS 232	Resources at Risk Summary	Planning Section – Environmental Unit
ICS 232a	ACP Site Index	Planning Section – Environmental Unit
Preparing for Planning Meeting/Planning Meeting		
ICS 233	Open Actions Tracker	Planning Section & Operations Section (From previous meeting)
ICS 215	Operational Planning Worksheet	Operations Section

KINDER MORGAN ICS FORMS WORKBOOK		
ICS Form #:	**Form Title:**	**Prepared By:**
IAP Preparation and Approval		
	Incident Action Plan	Planning Section
ICS 202*	Incident Objectives	Planning Section (From previous meeting)
ICS 204*	Assignment List	Planning Section - Resource Unit & Operations Section
ICS 203/207*	Organization Assignment List/Chart	Planning Section - Resource Unit
ICS 205*/205a*	Incident Radio Communications Plan/ Communications List	Logistics Section - Communications Unit
ICS 206*	Medical Plan	Logistics Section - Medical Unit (Reviewed by Safety Officer)
ICS 208*	Site Safety Plan or KM Site Health and Safety Plan	Safety Officer
As Needed Forms		
ICS 213RR	Resource Request Message	Section submitting request
ICS 209	Incident Status Summary	Planning Section - Situation Unit
ICS 216	Radio Requirements Worksheet	Logistics Section – Communications Unit
ICS 217	Radio Frequency Assignment Worksheet	Logistics Section – Communications Unit
ICS 218	Support Vehicle Inventory	Logistics Section – Ground Support Unit
ICS 220	Air Operations Summary	Operations Section - Air Operations Branch
ICS 221	Demobilization Check-Out	Planning Section - Demobilization Unit
ICS 231	Meeting Summary	Planning Section
ICS 235	Facility Needs Assessment	Logistics Section – Support Branch – Facilities Unit
	Executive Summary	Planning Section – Situation Unit
	General Plan	Planning Section – Situation Unit

* - A component of the Incident Action Plan

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

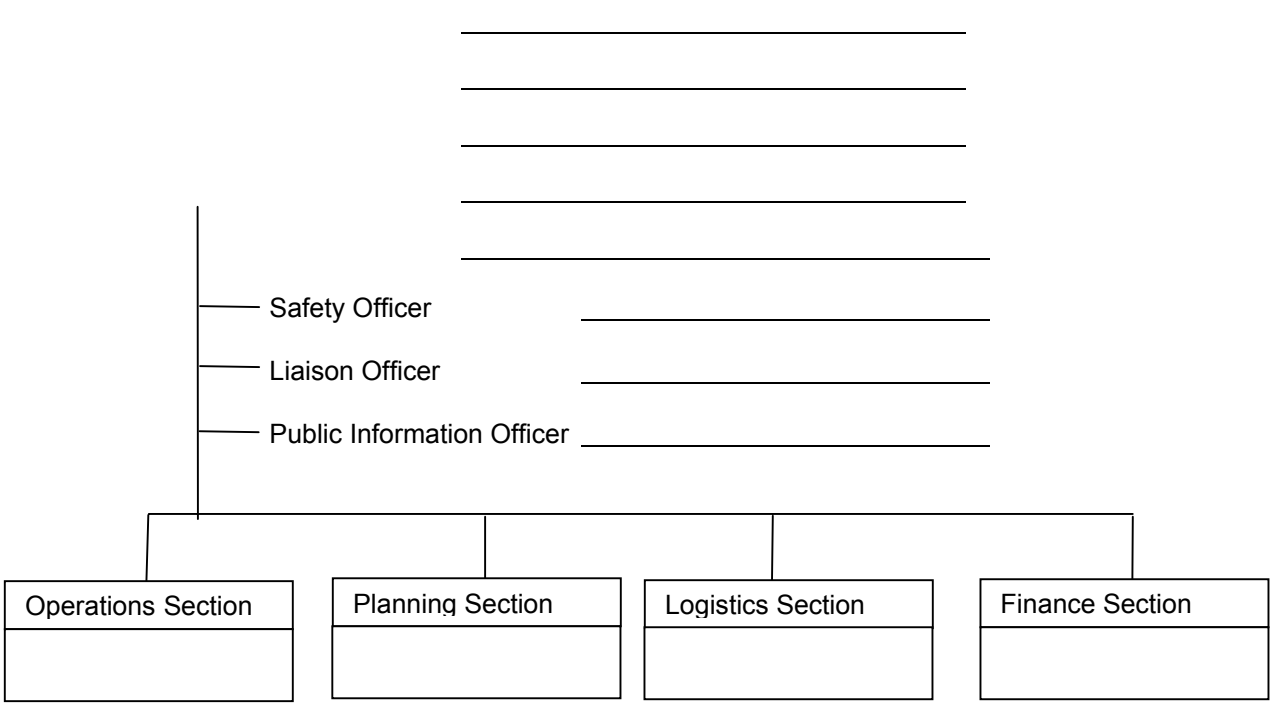
4. Current Situation:

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

5. Initial Response Objectives, Current Actions, Planned Actions

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

6. Current Organization (fill in additional appropriate organization)



1. Incident Name	**2. Prepared by:** (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary

Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

Complete Boxes 1 - 6 First

KINDER MORGAN ENERGY PARTNERS, L.P.

EMERGENCY RESPONSE SITE SPECIFIC HEALTH & SAFETY PLAN

Date / Time:_____/_____

1. Incident Information:

Incident Type:

- ❑ **Fire / Explosion**
- ❑ **Spill / Release**
- ❑ **Rescue**
- ❑ **Injury**

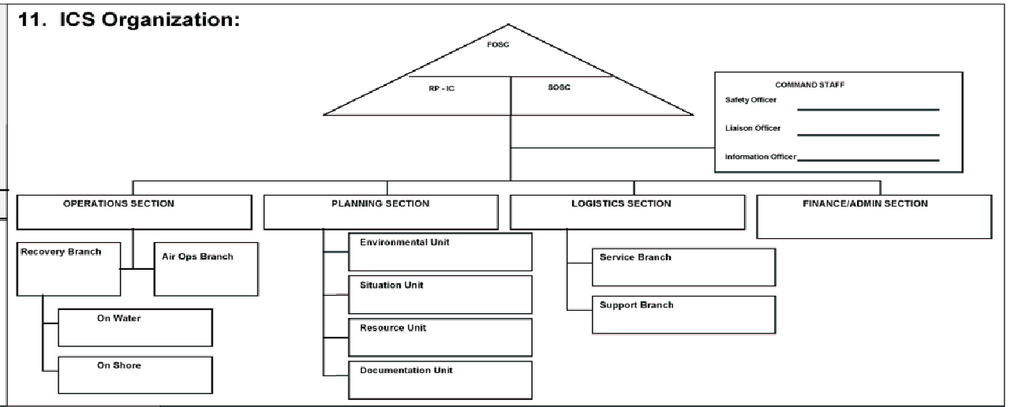
Date: _____
Location: _____
_____
Time of Incident: _____
Incident Name: _____
_____

2. Products / Chemical Involved:

❑ Gasoline ❑ Diesel ❑ Jet Fuel ❑ Methanol ❑ DRA
❑ Fuel Additive ❑ Ethanol ❑ Ethane ❑ Butane
❑ Natural Gas ❑ Isobutane ❑ MCC Lubricity
❑ Crude Oil ❑ Propane ❑ Ethyl Mercaptan
❑ Other _____
(see Table 1 on back for chemical & physical properties)

MSDS available and reviewed: ❑ Yes

11. ICS Organization:



3. Primary Hazards:

❑ Fire ❑ Vapor ❑ Respiratory ❑ Skin

4. Personal Protective Equipment:

Cold Zone / Staging - ❑ Hardhat ❑ Safety Boots ❑ Traffic Vest
Warm Zone / Decon - Level ❑ A ❑ B ❑ C ❑ D
Hot Zone - Level ❑ A ❑ B ❑ C ❑ D
(see Table 2 on back for description of PPE by Level)

Incident Priority Checklist:

- ❑ 1. Evacuate self and others
- ❑ 2. Secure area/restrict access
- ❑ 3. Notification: Internal/External
- ❑ 4. Eliminate ignition sources
- ❑ 5. Initiate ICS
- ❑ 6. Conduct Site Assessment (H&S Plan)
- ❑ 7. Meet with arriving authorities
- ❑ 8. Mobilize response resources

5. Hot Zone Authorized Entrants:

❑ Fire Dept. ❑ KM
❑ Agency Reps. ❑ Contractors

6. Site Map:

Wind Direction (out of the ___)

❑ Weather Conditions: _____ ❑ Wind Direction ❑ Hazard Zones ❑ Staging
❑ Command Post ❑ Decon ❑ Cross streets ❑ Sensitive receptors (drainage, roadways, environmental sensitivity)

7. Secondary Hazards:

- ❑ Fire
- ❑ Excavations
- ❑ Confined Spaces
- ❑ Cold Stress
- ❑ Heavy Equipment
- ❑ Noise
- ❑ Heat Stress
- ❑ Rain/Lightning
- ❑ General (slip, trip, fall, established smoking area)
- ❑ Other: _____

(see Table 3 on back for secondary hazard precautions)

8. Evacuation Plan:

Evacuation signal : _____
Primary Evac. Area: _____
Secondary Evac. Area: _____

9. Nearest Hospital: Notified: ❑ Yes ❑ No

Address: _____
_____
Phone #: _____
Directions: _____
_____

10. PROP 65 Notices: (California only)

- ❑ Incident is within Terminal or Station; notice(s) are posted at facility entrance(s).
- ❑ Incident of outside KM property; notice(s) are posted along incident site boundaries.

12. Enforcement / Regulatory Agencies (On Site):

Agency (Fed/State/Local)	Name	Contact Number	Time of Arrival

13. Contractors (On Site):

❑ Environ. _____ ❑ Clean up _____
❑ Repair _____ ❑ Consultant _____

14. Hot Zone Entry Objectives:

Objectives:
Why are people entering the Hot Zone? What is their objective?

_____
_____
_____

15. Decon Checklist:

- ❑ Establish and communicate location
- ❑ Plastic tarps and trash bags provided
- ❑ Supervision of decon provided
- ❑ Entrant log maintained
- ❑ Container of absorbent material provided
- ❑ Boot brush provided
- ❑ Folding chairs provided
- ❑ Lighting provided (if needed)

16. Atmospheric Monitoring:

Completed by - ❑ KM ❑ Fire Dept. ❑ Contractor ❑ Other: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____
Results: %LEL _____ PPM _____ Time: _____ Location: _____

17. Authorization Signatures: Incident Commander: Safety Officer:

INCIDENT COMMANDER PRIORITIES - SAFETY of ❑ KMEP PERSONNEL ❑ SURROUNDING COMMUNITY ❑ ENVIRONMENT

Table 1. Chemical & Physical Properties

Chemical Hazards	Flammability Range		Toxicity	Chemical / Physical Properties				NFPA 704 Health/Flammable/Reactive
	LEL	UEL	PEL[a]/TLV[b]	Flash Pt.	Vapor Pressure	Vapor Density	Specific Gravity	
❑ Gasoline	1.3%	7.6%	300 ppm[a]	-45°F	~300 mmHg	5	0.74	1 / 3 / 0
❑ Diesel	0.9%	7.0%	NA	~150°F	~1 mmHg	>5	0.86	1 / 2 / 0
❑ Jet Fuel	~0.8%	~6.0%	500 ppm[a]	~110°F	5	>5	0.81	1 / 2 / 0
❑ Ethanol	3.3%	19.0%	1,000 ppm[b]	48°F	44 mmHg	>1	0.79	0 / 3 / 0
❑ Fuel Additive*								
❑ Drag Reducing Agent (DRA)*								2 / 2 / 0
❑ MCC Lubricity	Not Available	Not Available		>140°F	1.37 mmHg	>1	.93 - .94	2 / 2 / 0
❑ Natural Gasoline	1.4%	7.6%	--	-50°F	12-26 psi	2.7	0.66-0.75	1 / 3 / 0
❑ Butane	1.6%	8.4%	800 ppm[a]	-101°F	43 psi	2.05	.58	1 / 4 / 0
❑ Ethane	2.9%	13.0%	not established	-275°F	800 psi	1.1	0.36	
❑ Isobutane	1.8%	8.4%	800 ppm[a]	-126°F	62 psi	2.0	0.563	1 / 4 / 0
❑ Propane	2.1%	9.5%	1000 ppm[a]	-156°F	288 psi	1.53	0.51	1 / 4 / 0
❑ Crude Oil								
❑ Methanol	6.0%	36%	200 ppm	52°F	96 mm HG	1.1	.792	1 / 3 / 0
❑ Ethyl Mercaptan	2.8%	18%	10 ppm[a]/ .5 ppm[b]	-55°F	16.2 psi	2.1	.845	2 / 4 / 0
❑ Other*								

* Describe:

1 atm = 760 mmHg = 14.7 psi

Table 2. PPE Levels

LEVEL A	LEVEL B	LEVEL C	LEVEL D
Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Totally encapsulating, gas tight chemical resistant suit ❑ Inner chemical resistant gloves ❑ Chemical resistant safety boots Optional Equipment ❑ Hearing protection ❑ Hard Hat ❑ Disposable glove & boot covers	Respiratory Protection ❑ SCBA or Air Line ❑ Positive pressure full face piece supplied air w/ escape SCBA Required Equipment ❑ Non-encapsulating chemical resistant suit (Tyvek/Nomex) ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ Full / Half Face respirator w/: ❑ cartridge (gas/vapor): _____ ❑ filter (particulate): _____ Required Equipment ❑ Non-encapsulating chemical resistant suit ❑ Tyvek ❑ Nomex ❑ Inner & outer chemical resistant gloves ❑ Chemical resistant safety boots ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Coveralls ❑ Disposable boot covers ❑ Face shield/safety glasses	Respiratory Protection ❑ None Required Equipment ❑ Coveralls ❑ Safety Boots ❑ Safety Glasses ❑ Hard Hat Optional Equipment ❑ Hearing protection ❑ Gloves ❑ Face shield/safety glasses

Table 3. Secondary Hazards

Hazards	Recommended Precaution(s)
❑ Fire (potential)	• Remain safe distance away • Eliminate ignition sources • Keep upwind of vapor/smoke • Provide vapor suppression (if safe) • Do not impede Fire Dept. efforts
❑ Heavy Equipment	• Qualified operators only • Hardhats and safety boots needed around heavy equip. • Minimum 10ft. clearance from power lines • Make "one call" if excavating • Proper machine guarding in place
❑ Excavations	• Trenches/excavations equal to or greater than 5ft. deep must meet OSHA requirements • No one allowed to enter excavation > 5ft. unless shored, sloped or protected • Excavations < 5ft. and judged by competent person as cave-in hazard must also follow OSHA requirements
❑ Noise	• Portable generators & heavy equip. can generate potentially high noise levels • Hearing protection available to workers • Hearing protection must be worn in area with noise levels above 85dBA.
❑ Confined Spaces	• Site Safety Officer will determine whether confined space will be entered • All confined space entries must meet OSHA requirements (permits, atmospheric monitoring, attendants, etc.)
❑ Heat Stress	• Potential hazard when temp >80°F • Workers should take more breaks and drink plenty of appropriate liquids • More PPE = higher risk • Be aware of heat cramps (stomach cramps), heat exhaustion (excessive sweating, flushed/clammy skin) – treat with rest and liquids. Heat stroke (dry, hot, pale skin; no sweating) can be deadly – get medical help immediately, reduce core body temp by applying cold water to body & fanning.
❑ Cold Stress	• Skin takes on gray-glossy look • Appendages become non-responsive • Blisters or sores may appear • Do not rub • Submerse affected areas in warm water or wrap in warm cloth.
❑ Rain / Lightning	• Stop excavation activities during excessive rainfall • Avoid shock hazards by stopping work during thunderstorm or lightening • Prevent & control erosion & transport of soils out of incident area.
❑ General	• Slip, trip & fall hazards • Keep work area clear of debris • Smoking not permitted in work areas • Use hand tools safely
❑ Other:	

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

CHECK-IN LIST	1. INC DENT NAME:	2. CHECK-IN LOCATION:	3. DATE/TIME:

CHECK-IN INFORMATION

4. LIST PERSONNEL (OVERHEAD) BY AGENCY NAME – OR LIST EQUIPEMENT BY THE FOLLOWING FORMAT: S=Supplies H=Helicopter O=Overhead VL=Vessels E=Equipment C=Crew A=Aircraft VH=Vehicle			5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
AGENCY	**RESOURCE IDENTIFIER**	KIND	ORDER/ NUMBER	DATE/TIME CHECK-IN	LEADER'S NAME	TOTAL NO. PERSONNEL	INCIDENT CONTACT INFORMATION	INCIDENT LODGING INFO/ CONTACT INFO	HOME UNIT	METHOD OF TRAVEL	INCIDENT ASSIGNMENT	SENT TO RESTAT TIME/INT
15. ICS 211-CG PAGE _____ of _____			16. PREPARED BY (Name and Position) USE BACK FOR REMARKS OR COMMENTS									

1. Incident Name	2. Operational Period (Date / Time) From: To:	3. Check-in Location ☐ Command Post ☐ Other ☐ Staging Area ____ _____	CHECK-IN LIST (Personnel) ICS 211p-OS

Personnel Check-in Information				8. Initial Incident Check-In?	9. Time	
4. Name	5. Company / Agency	6. ICS Section / Assignment / Quals.	7. Contact Information	(X)	In	Out
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10. Prepared by: Date / Time	11. Date / Time Sent to Resources Unit

CHECK-IN LIST (Personnel) June 2000 ICS 211p-OS

Electronic version: NOAA 1.0 June 1, 2000

CHECK-IN LIST Personnel (ICS FORM 211p-OS)

Special Note. This form is used for personnel check-in only.

Purpose. Personnel arriving at the incident can be checked in at various incident locations. Check-in consists of reporting specific information that is recorded on the form.

Preparation. The Check-In List is initiated at a number of incident locations including staging areas, base, camps, helibases, and ICP. Managers at these locations record the information and give it to the Resources Unit as soon as possible.

Distribution. Check-In Lists are provided to both the Resources Unit and the Finance/Administration Section. The Resources Unit maintains a master list of all equipment and personnel that have reported to the incident. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Check-in Location	Check the box for the check-in location.
4.	Name	Enter the name of the person.
5.	Company/Agency	Enter the company or agency with which the individual is associated.
6.	ICS Section / Assignment / Quals.	Enter ICS Section and assignment, if known, and note any other ICS qualifications, if needed.
7.	Contact Information	Enter the contact information for the person.
8.	Initial Incident Check-in?	Check if this is the first time a person has checked in for this incident.
9.	Time In/Out	Enter the time the person checks in and/or out (24-hour clock).
10.	Prepared By Date/Time Prepared	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
11.	Date/Time Sent to Resources Unit	Enter date (month, day, year) and time (24-hour clock) the form is sent to the Resources Unit.

1. Incident Name	2. Operational Period (Date/Time) From: To:	DAILY MEETING SCHEDULE ICS 230-CG

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	
	Command & General Staff Meeting	IC/UC gives direction to Command & General staff including incident objectives and priorities	IC/UC, Command & General Staff	
	Tactics Meeting	Develop/Review primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OSC, LSC, RESL & SITL	
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period.	Determined by the IC/UC	
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command & General Staff, Branch Directors, Div/Gru Sups., Task Force/Strike Team Leaders and Unit Leaders	

4. Prepared by: (Situation Unit Leader) **Date/Time**

DAILY MEETING SCHEDULE (ICS 230-CG)

Purpose. The Daily Meeting Schedule records information about the daily scheduled meeting activities.

Preparation. This form is prepared by the Situation Unit Leader and coordinated through the Unified Command for each operational period or as needed. Commonly-held meetings are already included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of these standard meetings are not scheduled, they should be crossed out on the form.

Distribution. After coordination with the Unified Command, the Situation Unit Leader will duplicate the schedule and post a copy at the Situation Status Board and distribute to the Command Staff, Section Chiefs, and appropriate Unit Leaders. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Meeting Schedule	For each scheduled meeting, enter the date/time, meeting name, purpose, attendees, and location. Note: Commonly-held meetings are included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of the standard meetings are not scheduled, they should be deleted from the form (normally the Situation Unit Leader).
4.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT OBJECTIVES ICS 202-CG

3. Objective(s)

Ensure the safety of citizens and response personnel;

Control the source of the spill;

Manage a coordinated response effort;

Maximize protection of environmentally sensitive areas;

Contain and recover spilled material;

Recover and rehabilitate injured wildlife;

Remove oil from impacted areas;

Minimize economic impacts;

Keep stakeholders and public informed of response actions.

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

Approved Site Safety Plan Located at:

5. Prepared by: (Planning Section Chief) **Date/Time**

INCIDENT OBJECTIVES (ICS 202-CG)

Purpose. The Incident Objectives form describes the basic incident strategy, control objectives, command emphasis/priorities, and safety considerations for use during the next operational period.

Preparation. The Incident Objectives form is completed by the Planning Section following each Command and General Staff Meeting conducted in preparing the Incident Action Plan.

Distribution. The Incident Objectives form will be reproduced with the IAP and given to all supervisory personnel at the Section, Branch, Division/Group, and Unit levels. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Objective(s)	Enter clear, concise statements of the objectives for managing the response. These objectives are for the incident response for this operational period and for the duration of the incident. Include alternatives.
4.	Operational Period Command Emphasis	Enter clear, concise statements for safety message, priorities, and key command emphasis/decisions/directions. Enter information such as known safety hazards and specific precautions to be observed during this operational period. If available, a safety message should be referenced and attached. At the bottom of this box, enter the location where approved Site Safety Plan is available for review.
	Site Safety Plan	Note location of the approved Site Safety Plan.
5.	Prepared By	Enter the name of the Planning Section Chief completing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

NOTE: ICS 202-CG, Incident Objectives, serves as part of the Incident Action Plan (IAP)

1. Incident Name	2. Operational Period (Date/Time) From: To:	ORGANIZATION ASSIGNMENT LIST ICS 203-CG

3. Incident Commander(s) and Staff

Agency	IC	Deputy

Safety Officer:	
Information Officer:	
Liaison Officer:	

4. Agency Representatives

Agency	Name

5. PLANNING/INTEL SECTION

Chief	
Deputy	
Resources Unit	
Situation Unit	
Environmental Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION

Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Vessel Support Unit	
Ground Support Unit	
b. Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION

Chief		
Deputy		
Deputy		
Staging Area Manager		
Staging Area Manager		
Staging Area Manager		
a. Branch – Division Groups		
Branch Director		
Deputy		
Division Group		
Division Group		
Division Group		
Division/Group		
Division/Group		
b. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
c. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
d. Air Operations Branch		
Air Operations Br. Dir		
Helicopter Coordinator		

8. FINANCE/ADMINISTRATION SECTION

Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit) **Date/Time**

ORGANIZATION ASSIGNMENT LIST (ICS 203-CG) Instructions for filling out the form

Purpose. The Organization Assignment List provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit. It is used to complete the Incident Organization Chart (ICS form 207-CG) which is posted on the Incident Command Post display. An actual organization will be event-specific. **Not all positions need to be filled.** The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary.

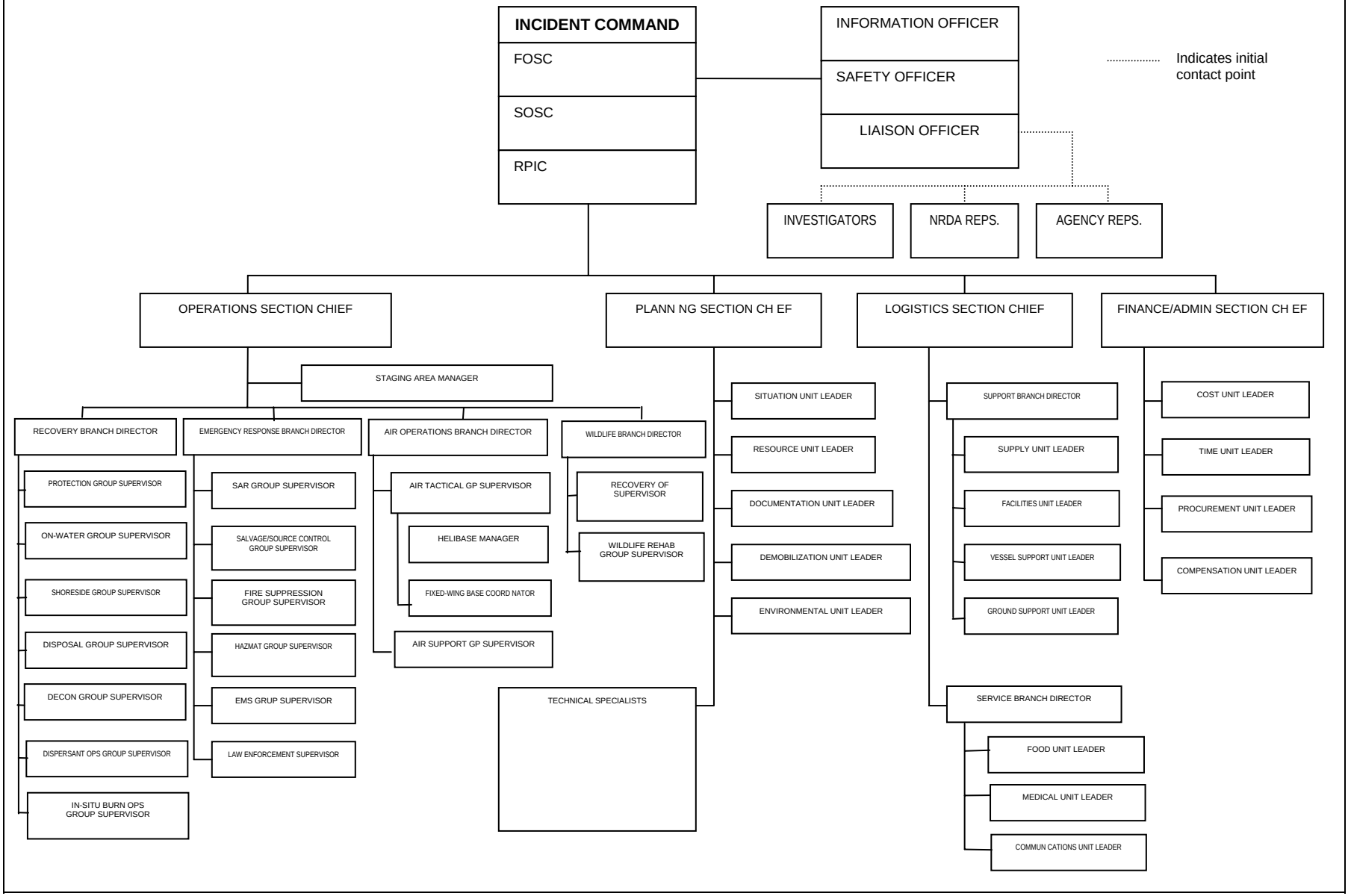
Preparation. The Resources Unit prepares and maintains this list under the direction of the Planning Section Chief.

Note: Depending on the incident, the Intelligence and Information function may be organized in several ways: 1) within the Command Staff as the Intelligence Officer; 2) As an Intelligence Unit in Planning Section; 3) As an Intelligence Branch or Group in the Operations Section; 4) as a separate General Staff Intelligence Section; and 5) as an Intelligence Technical Specialist. The incident will drive the need for the Intelligence and Information function and where it is located in the ICS organization structure. The Intelligence and information function is described in significant detail in NIMS and in the Coast Guard Incident Management Handbook (IMH).

Distribution. The Organization Assignment List is duplicated and attached to the Incident Objectives form (ICS 202-CG) and given to all recipients of the Incident Action Plan. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Incident Commander and Staff	Enter the names of the Incident Commander and Staff. Use at least the first initial and last name.
4.	Agency Representative	Enter the agency names and the names of their representatives. Use at least the first initial and last name.
5. thru 8.	Section	Enter the name of personnel staffing each of the listed positions. Use at least the first initial and last name. For Units, indicate Unit Leader and for Divisions/ Groups indicate Division/Group Supervisor. Use an additional page if more than three branches are activated. If there is a shift change during the specified operational period, list both names, separated by a slash.
9.	Prepared By	Enter the name and position of the person completing the form
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT ORGANIZATION CHART ICS 207-CG



1. Incident Name					**INCIDENT OPEN ACTION TRACKER ICS 233-CG**		
2. No.	3. Item	4. For/POC	5. POC Briefed	6. Start Date	7. Status	8. Target Date	9. Actual Date
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Open Actions Tracker (ICS 233-CG)

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	No.	Enter number of task in sequential order (1, 2, 3, …).
3.	Item	Enter short descriptive of the task.
4.	For/POC	Enter responsible section/person.
5.	Briefed to POC	When the tasker has been briefed to the POC after initially assigned, an "X" is placed in the brief column. This was to ensure that taskers identified outsie of the POC's presence (during UC Meeting for example) were assigned the to identified POC.
6.	Start Date	Enter the date the tasker was initially assigned under "Start Date."
7.	Status	Enter status of item. This includes things like: "Awaiting LE Gear", "Update needed", "Awaiting Feedback". When the item is completed, the word "completed" is entered and if working in MS Excel, the task is cut and pasted into the worksheet labeled "COMPLETED."
8.	Target Date	Target date is another way of saying deadline. When the target date is one day away, the block turns yellow. When it is overdue it turns red. When it is yellow, it serves as a reminder to the UC that the target date needs to be changed or the responsible section needs to complete the task.
9.	Actual Date	The block to the right of the Target Date (Actual Date) will always have today's date. It is merely the formula "=today()" inserted into the cell.

NOTE: In order to ensure the red and yellow reminders work for new tasks, the user simply copies a task line, inserts it into the worksheet and overtypes the new task information.

		WORK ANALYSIS MATRIX ICS 234-CG
1. Incident Name	2. Operational Period From: To:	
3. Operation's Objectives DESIRED OUTCOME	4. Optional Strategies HOW	5. Tactics/Work Assignments WHO, WHAT, WHERE, WHEN
6. Prepared by: (Operations Section Chief)		7. Date/Time:

OPERATIONAL PLANNING WORKSHEET

1.INCIDENT NAME

2. DATE & TIME PREPARED

3. OPERATIONAL PERIOD (DATE & T ME)

4. DIVISION/ GROUP/ OTHER LOCATION	5. WORK ASSIGNMENTS	6. KINDS OF RESOURCES	7. OVERHEAD	8. SPECIAL EQUIPMENT & SUPPL ES	9. REPORTING LOCATION	10. REQUESTED ARRIVAL TIME
		REQ				
		HAVE				
		NEED				
		REQ				
		HAVE				
		NEED				
		REQ				
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		REQ				
		HAVE				
		NEED				

11. TOTAL RESOURCES REQUIRED	
12. TOTAL RESOURCES ON HAND	
13. TOTAL RESOURCES NEEDED	

ICS 215 USCG 12-02

14. PREPARED BY (NAME & POSITION)

1. Incident Name	2. Operational Period (Date / Time) From:	3. Date	4. Time

RISKS												RISK MITIGATION										
Division/Group	Weather	B ohazard	Hazardous Mater als	Commun cat ons	R ver/Water Hazard	SHA	Fat gue	D v ng Hazards/Bends	Dehydrat on	C SM												

Prepared by (Name and Position)

INCIDENT ACTION PLAN SAFETY ANALYSIS

November 2003

ICS 215A-OS

Electronic version: NOAA 1.0 November 1, 2003

INCIDENT ACTION PLAN SAFETY ANALYSIS (ICS FORM 215A-OS)

Purpose. This form communicates to the the Operations and Planning Section Chiefs safety and health issues identified by the Safety Officer. The Worksheet is used by the Planning section Chief to complete Operations briefings.

Preparation. This form is principally crafted by the Safety Officer. Use additional sheets, as needed.

Distribution. When the safety analysis is completed, the form is distributed to the Planning Section Chief to help prepare Operations briefing packages. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Date	Enter date (MMDDYYYY) prepared.
4.	Time	Enter time prepared (24-hour clock).
	Division/Group	Enter Division/Group indentifiers.
	Blank Risk Header	Enter appropriate title for risk.
	Blank Risk Mitigation Header	Enter appropriate information for risk mitigation.
	Blank Risk Cells	Enter an X to indicate a risk type of concern in a division/group.
	Blank Risk Mitigation Cells	Enter an X to indicate mitigation for risk to division/group.
	Prepared By	Enter name and title of the person preparing the form.

1. Incident Name	2. Operational Period (Date/Time) From: To:	ACP Site Index ICS 232a-CG

3. Index to ACP/GRP sites shown on Situation Map

Site #	Priority	Site Name and/or Physical Location	Action	Status

Note: This form is designed to be posted next to the situation map. Use additional sheets, as needed.

4. Prepared by: **Date/Time**

ACP SITE INDEX (ICS 232a-CG)

Special Note. This optional form is designed to be a key to the site numbers or site names shown on the Situation Map. The information on priorities for environmentally-sensitive areas and archaeo-cultural and socio-economic issues from the ICS 232-CG may be transferred to ICS 232a-CG, which provides more information on the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) site numbers or names shown on the Situation Map.

Purpose. If used, this form is posted next to the Situation Map, providing a key to the ACP/GRP sites shown on the map.

Preparation. The Situation Unit personnel responsible for the Situation Map prepare this form, using ICS 232-CG prepared by the Environmental Unit.

Distribution. This form is posted next to the Situation Map and copies of this form should accompany any distributed copies of the Situation Map. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Index to ACP/GRP sites	Enter site information from the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or other sources specific to this incident.
	Site Number	Can come from an Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or can be created during an incident.
	Priority	Priority specific to this incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Action	Actions to be taken for designated protection and collection strategies or for other sites identified specifically for this incident.
	Status	Status of site action implementation (e.g., scheduled, in progress, completed).
4.	Prepared By	Enter name and title of the person preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	**RESOURCES AT RISK SUMMARY** **ICS 232-CG**

3. Environmentally-Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

5. Prepared by: (Environmental Unit Leader) **Date/Time**

RESOURCES AT RISK SUMMARY (ICS 232-CG)

Purpose. The Resources at Risk Summary provides information about sites in the incident area which are sensitive due to environmental, archaeo-cultural, or socio-economic resources at risk, and identifies incident-specific priorities and issues. The information recorded here may be transferred to ICS 232a-CG, which acts as a key to the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) site numbers shown on the Situation Map.

Preparation. The Environmental Unit Leader, with input from resource trustees, will complete this form for each operational period. It should be updated prior to the Planning Meeting.

Distribution. This form must be forwarded to the Planning Section Chief for possible inclusion in the IAP. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Env- Sensitive Area & Wildlife Issues	
	Site Number	Enter site number. Can come from Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or can be created during an incident.
	Priority	Priority specific to this incident. Can come from an ACP/GRP or can be created during an incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Site Issues	Environmental concerns associated with this site and season.
	Narrative	Use the Narrative section to clarify any issues.
4.	Archaeo-cultural and Socio-economic Issues	
	Site Number	Enter site number. Can come from an ACP/GRP or can be created during an incident.
	Priority	Priority specific to this incident. Can come from an ACP/GRP or can be created during an incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Site Issues	Archaeo-cultural or socio-economic concerns associated with this site and season.
	Narrative	Use the Narrative section to clarify any issues.
5.	Prepared By	Enter name and title of the person preparing the form (normally the Environmental Unit Leader).
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time) From: To:	CG IAP COVER SHEET

3. Approved by Incident Commander(s):

ORG	NAME

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☐ ICS 202-CG (Response Objectives)
- ☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- ☐ ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- ☐ ICS 205-CG (Communications Plan)
- ☐ ICS 206-CG (Medical Plan)
- ☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____
- ☐ Map/Chart
- ☐ Weather forecast / Tides/Currents

Other Attachments

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	**Assignment List** **ICS 204-CG**
3. Branch	**4. Division/Group/Staging**	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	▼
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

ASSIGNMENT LIST (ICS 204-CG)

Purpose. The Assignment List(s) informs Division and Group supervisors of incident assignments. Once the Unified Command and General Staff agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The Assignment List is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202-CG), Operational Planning Worksheet (ICS 215-CG), and the Operations Section Chief. The Assignment List must be approved by the Planning Section Chief and Operations Section Chief. When approved, it is included as part of the Incident Action Plan (IAP). Specific instructions for specific resources may be entered on an ICS 204a-CG for dissemination to the field. A separate sheet is used for each Division or Group. The identification letter of the Division is entered in the form title. Also enter the number (roman numeral) assigned to the Branch.

Special Note. The Assignment List, ICS 204-CG submits assignments at the level of Divisions and Groups. The Assignment List Attachment, ICS 204a-CG shows more specific assignment information, if needed. The need for an ICS 204a-CG is determined by the Planning and Operations Section Chiefs during the Operational Planning Worksheet (ICS 215-CG) development.

Distribution. The Assignment List is duplicated and attached to the Incident Objectives and given to all recipients of the Incident Action Plan. In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Branch	Enter the Branch designator.
4.	Division/Group/Staging	Enter the Division/Group/Staging designator.
5.	Operations Personnel	Enter the name of the Operations Chief, applicable Branch Director, and Division Supervisor.
6.	Resources Assigned	Each line in this field may have a separate Assignment List Attachment (ICS 204a-CG). Enter the following information about the resources assigned to Division or Group for this period:
	Identifier	List identifier
	Leader	Leader name
	Contact Information	Primary means of contacting this person (e.g., radio, phone, pager, etc.). Be sure to include area code when listing a phone number.
	# Of Persons	Total number of personnel for the strike team, task force, or single resource assigned.
	Reporting Info/Notes/ Remarks	Special notes or directions, specific to this strike team, task force, or single resource. Enter an "X" check if an Assignment List Attachment (ICS 204a-CG) will be prepared and attached. The Planning and Operations Section Chiefs determine the need for an ICS 204a-CG during the Operational Planning Worksheet (ICS 215-CG) development.
7.	Work Assignment	Provide a statement of the tactical objectives to be achieved within the operational period by personnel assigned to this Division or Group.
8.	Special Instructions	Enter a statement noting any safety problems, specific precautions to be exercised, or other important information.
9.	Communications	Enter specific communications information (including emergency numbers) for this division /group. If radios are being used, enter function (command, tactical, support, etc.), frequency, system, and channel from the Incident Radio Communications Plan (ICS 205-CG). Note: Phone numbers should include area code.
10.	Prepared By	Enter the name of the person completing the form, normally the Resources Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
11.	Reviewed by (PSC)	
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
12.	Reviewed by (OSC)	Enter the name of the operations person reviewing the form, normally the Operations Section Chief.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

9. Other Attachments (as needed)

☐ **Map/Chart** ☐ **Weather Forecast/Tides/Currents** ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

1. Incident Name	2. Operational Period (Date / Time) From: To:	INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared by: (Communications Unit) **Date / Time**

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205-CG)

Special Note. This form, ICS 205-CG, is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period; whereas, the Communications List, ICS 205a-CG is used to list methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.).

Purpose. The Incident Radio Communications Plan is a summary of information obtained from the Radio Requirements Worksheet (ICS 216) and the Radio Frequency Assignment Worksheet (ICS 217). Information from the Radio Communications Plan on frequency assignments is normally noted on the appropriate Assignment List (ICS 204-CG).

Preparation. The Incident Radio Communications Plan is prepared by the Communications Unit Leader and given to the Planning Section Chief. Detailed instructions on the preparation of this form may be found in ICS Publication 223-5, Communications Unit Position Manual.

Distribution. The Incident Radio Communications Plan is duplicated and given to all recipients of the Incident Objectives form, including the Incident Communications Center. Information from the plan is placed on Assignment Lists. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Radio Channel	Enter the following information about radio channel use:
	System	Radio cache system(s) assigned and used on the incident.
	Channel	Radio channel numbers assigned.
	Function	Function each channel is assigned (e.g., command, support, division tactical, and ground-to-air).
	Frequency	Radio frequency tone number assigned to each specified function (e.g., 153.400)
	Assignment	ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	COMMUNICATIONS LIST ICS 205A-CG

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

COMMUNICATIONS LIST (ICS 205a-CG)

Special Note. This optional form is used in conjunction with the Incident Radio Communications Plan, ICS 205-CG. Whereas the ICS 205-CG is used to provide information on all radio frequencies down to the Division/Group level, the Communications List, ICS 205a-CG, lists methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Purpose. The Communications List records methods of contact for personnel on scene.

Preparation. The Communications List can be filled out during check-in and is maintained and distributed by Communications Unit personnel.

Distribution. The Communications List is distributed within the ICS and posted, as necessary. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Local Comms Information	Enter the communications methods assigned and used for each assignment.
	Assignment	Enter the ICS Organizational assignment.
	Name	Enter the name of the contact person for the assignment.
	Method(s) of contact	Enter the radio frequency, telephone number(s), etc. for each assignment.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	**MEDICAL PLAN** **ICS 206-CG**

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared by: (Medical Unit Leader) Date/Time	8. Reviewed by: (Safety Officer) Date/Time

MEDICAL PLAN (ICS 206-CG)

Purpose. The Medical Plan provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

Preparation. The Medical Plan is prepared by the Medical Unit Leader and reviewed by the Safety Officer.
Distribution. The Medical Plan may be attached to the Incident Objectives (ICS 202-CG), or information from the plan pertaining to incident medical aid stations and medical emergency procedures may be taken from the plan and noted on the Assignment List (ICS 204-CG) or on the Assignment List Attachment (ICS 204a-CG). All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Medical Aid Stations	Enter name, location, and telephone number of the medical aid station(s) (e.g., Cajon Staging Area, Cajon Camp Ground) and indicate if paramedics are located at the site.
4.	Transportation	List name and address of ambulance services. Provide phone number and indicate if ambulance company has paramedics.
5.	Hospitals	List hospitals that could serve this incident. Enter hospital name, address, phone number, the travel time by air and ground from the incident to the hospital, and indicate if the hospital has a burn center and/or a helipad.
6.	Medical Emergency Procedures	Note any special emergency instructions for use by incident personnel.
7.	Prepared By Date/Time	Enter the name of the Medical Unit Leader preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
8.	Reviewed By Date/Time	Enter the name of the Safety Officer who must review the plan. Enter date (month, day, year) and time reviewed (24-hour clock).

Resource Request Message

ICS-213 RR CG (05/06)

Requestor

1. Incident Name: | 2. Date/Time: | 3. Resource Request No:

4. ORDER Note: Use additional forms when requesting different resource sources of supply

a. Qty.	b. Kind	c. Type	d. Detailed item description (Vital characteristics, brand, specs, experience, etc. & if applicable describe purpose/use, attach diagrams, & other amplifying info)	e. Requested Reporting Location:	e. Requested Reporting Date/Time:	f. ETA (LSC):	g. Cost (FSC):

5. Suggested source(s) of Supply - POC phone no. if known & suitable subtitutes:

6. Requested by Name/Position/Phone: | 7. Date/Time: | 8. Section Chief Approval: | Date/Time:

☐ 9. Check box if request is for tactical/personnel resources & Submit to RESL, otherwise submit directly to Logistics

10. RESL Review/Signature:

☐ Resources as noted are Available ☐ Resources Not Available

Logistics

11. Logistics Order No.: | 12. Supplier Name/Phone/Fax/Email:

13. Notes:

14. Approval Signature of Auth Logistics Rep: | 15. Date/Time:

16. Order placed by (check box): ☐ SPUL ☐ PROC

Finance

17. Reply/Comments from Finance:

18. Finance Section Signature: | 19. Date/Time:

Full Instructions on back page. Requestor fills out # 1-9 & keeps yellow copy (bottom). If applicable, RESL reviews if resource available & signs # 10. Logistics fills in remainder of # 4 & # 10-15 & keeps pink copy. Finance, if needed fills out appropriate items & keeps green copy. Blue original is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL.

Instructions for filling out the ICS-213RR CG Form (5/06)

REQUESTOR: The requestor must fill in Blocks 1 through 9:

Block # 1	Incident name: This is the same as the name stated on the ICS-201 Form and/or the Incident Action Plan (IAP).
Block # 2	Current date and time when submitting request
Block # 3	Resource Request Number: This is to be assigned by the Section submitting request (i.e. CMD, OPS, PLAN, LOG, FIN)
Block # 4	Fill in blocks 4a through 4e. Items requested: Must include Quantity, Kind and Type (if applicable) and detailed description of requirements. **BE SPECIFIC AS POSSIBLE**. The request should focus on capability rather than naming the brand or specific item (e.g. helicopter capable of carrying 4 personnel from location A to B rather than requesting a Coast Guard H-65 helicopter). This gives the logistics section the ability to find the best resource to meet the need. 4.e Requested Reporting Location/Date/Time: This is self-explanatory and is required for ordering official. Leave blocks 4.f. ETA (LSC) and 4.g. Cost (FSC) blank. These will be filled in later by Logistics and Finance.
Block # 5	Suggested sources of supply and suitable substitutes: Enter applicable information if known.
Block # 6 & 7	Requestor: Print Name and Signature and date/time.
Block # 8	Approval: This must be approved by the Section Chief or Deputy Section Chief.
Block # 9	Check box if request is for tactical or personnel resource(s) and submit request to Resources Unit Leader (RESL) to review and approve since RESL tracks all tactical and personnel resources.

Request goes to RESOURCES UNIT if requesting Tactical/Personnel Resource(s):

Block # 10	Resources reviews request and checks to see if resource is available. If the resource is available, reassigns resource as appropriate and sends request back to requester with information noted as to reporting time, etc. The request form is then sent to Documentation Unit Leader (DOCL) for filing. If the resource is not available, RESL sends request to Logistics.

LOGISTICS SECTION: The following blocks are to be filled out be the Supply Unit (SPUL).

Block # 11	Logistics Order Number: To be assigned by Supply Unit.
Block # 12	Supplier Point of Contact, Phone Number and Fax Number: This information is needed for Credit Card purchases and/or Purchase Orders.
Block # 13	Notes: Enter applicable information as need for request.
Block # 4	ETA and Cost: SPUL or PROC fills in Estimated time of arrival (ETA) when determined and cost if known.
Block # 14 & 15	Approval: This must be approved by the Logistics Section Chief or Deputy Logistics Section Chief, printed name and signature is required with Date and Time of approval. Bottom Copy (pink) is retained.

FINANCE SECTION: The following blocks are to be filled out be the Procurement Unit (PROC), if applicable.

Block # 16	Indicates who is to place order as necessary.
Block # 17	Comments concerning request from Finance Section Chief or Deputy Finance Section Chief.
Block # 18 & 19	Approval: This must be approved by the Finance Section Chief or Deputy Section Chief, printed name and signature is required with Date and Time of approval. Bottom copy (green) is retained.
FILING	Original blue copy is returned to RESL for tactical/personnel resources ordered, and the requester for non-tactical. RESL will inform requester of status of request when form received. The white copy is sent to DOCL.

Note: Cost associated requests will not be ordered without approval from the Finance Section Chief or Deputy Finance Section Chief.

Form Filing: Blue (Original) – final disposition to RESL or originator for non-tactical resources, White (copy 1) to DOCL, Green (copy 2) to FIN, Pink (copy 3) to LOG, Yellow (copy 4) to Originator

1. Incident Name	2. Operational Period (Date / Time) From: To:	Time of Report	INCIDENT STATUS SUMMARY ICS 209-OS

3. Spill Status (Estimated, in Barrels) [Ops & EUL/SSC]

Source Status: ☐ Secured ☐ Unsecured

Remaining Potential (bbl): _____

Rate of Spillage (bbl/hr): _____

	Since Last Report	Total
Volume Spilled		
Mass Balance / Oil Budget		
Recovered Oil		
Evaporation		
Natural Dispersion		
Chemical Dispersion		
Burned		
Floating, Contained		
Floating, Uncontained		
Onshore		
Total spilled oil accounted for:		

4. Waste Management (Estimated) [Ops / Disposal]

	Recovered	Stored	Disposed
Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

5. Shoreline Impacts (Estimated, in miles) [PSC / EUL / SSC]

Degree of Oiling	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

6. Wildlife Impacts [Ops / Wildlife Br.]

Numbers in ( ) indicate subtotal that are threatened / endangered species.

	Captured	Cleaned	Released	DOA	Died in Facility: Euth.	Died in Facility: Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

7. Safety Status [Safety Officer]

	Since Last Report	Total
Responder Injury		
Public Injury		

8. Equipment Resources [RUL]

Description	Ordered	Available / Staged	Assigned	Out of Service
Spill Resp. Vsls				
Fishing Vessels				
Tugs				
Barges				
Other Vessels				
Skimmers				
Boom (ft.)				
Sbnt/Snr Bm. (ft.)				
Vacuum Trucks				
Helicopters				
Fixed Wing				

9. Personnel Resources [RUL]

Description	People in Cmd. Post	People in the Field	Total People On Scene
Federal			
State			
Local			
RP			
Contract Personnel			
Volunteers			
Total Response Personnel from all Organizations:			

10. Special Notes

11. Prepared by: (Situation Unit Leader)

INCIDENT STATUS SUMMARY (ICS FORM 209-OS)

Purpose. The Status Summary:
1. Is used by Situation Unit personnel for posting information on Status Boards.
2. Is duplicated and provided to Command Staff members, giving them basic information for planning for the next operational period.
3. Provides information to the Information Officer for preparing news media releases.
4. Summarizes incident information for local and off-site coordination centers.

Preparation. The Status Summary is prepared by the Situation Unit. Resources information should be obtained from the Resources Unit. It may be scheduled for presentation to the Planning Section Chief and other General Staff members prior to each Planning Meeting and may be required at more frequent intervals by the Unified Command or Planning Section Chief. Suggested sources of information are noted in brackets.
Note: The values on the ICS form 209-OS are the best available estimates at the Time of Report (Item # 2 on form). This form is usually in high demand and should be filled out early and often. A suggested source within the ICS organization is noted in brackets [ ] at the top right of each section of the form. All fields need not be completed in order to distribute the form.
Distribution. When completed, the form is duplicated and copies are distributed to the Unified Command and staff, and all Section Chiefs, Planning Section Unit Leaders, and the Joint Information Center. It is also posted on a status board located at the ICP. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times. Enter time for which this information applies.
	Time of Report	Enter the Time (24-hour clock) the form was prepared.
3.	Spill Status [Ops & EUL/SSC]	Indicate whether the spill source is secured or unsecured and estimate the remaining potential and the rate of spillage discharge or release. Enter the estimated amounts in barrels for each category. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
4.	Mass Balance/Oil Budget	These fields are designed to account for all spilled oil whether recovered, evaporated, dispersed, burned, floating, or on shore. The total of these estimates should approximate the total volume spilled, discharged, or released. Values for evaporation, dispersion, etc. can be obtained from the Environmental Unit and/or the Scientific Support Coordinator.
5.	Waste Management [Ops/Disposal]	Enter the estimated amounts in barrels or tons for each category. Oil (bbl) is the sum of the estimate of oil in oily liquids and oil in oily solids, and is the value to be entered under "Total Recovered Oil" in Item 3.
6.	Shoreline Impacts [PSC/EUL/SSC]	Enter the total miles in each category for each degree of oiling. Definitions for Light, Medium, and Heavy oiling can be obtained from the EUL/SSC and should be consistent throughout the incident.

Item #	Item Title	Instructions
7.	Wildlife Impacts [Ops/Wildlife Br.]	This information is only tracked after an animal is captured. Indicate the actual number of oiled wildlife in each category. Use numbers in parentheses to indicate the subtotal of threatened / endangered species included in the numbers given.
	Safety Status [Safety Officer]	Indicate the number of serious injuries. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
8.	Equipment Resources [RUL]	Indicate the number of each type of resource in each status category. There are blank lines below each general type of resource for additional equipment.
	Ordered	Ordered but not yet arrived/available.
	Available/Staged	Arrived on scene, stored in staging, not assigned to any task, available for use.
	Assigned	Assigned to a specific task.
	Out of Service	Not working and not assigned to any task (e.g., skimmer being repaired, boom broken, personnel off-duty for rest).
9.	Personnel Resources [RUL]	Indicate, by agency, the numbers of personnel assigned. There are blank lines for additional personnel, as needed.
10.	Special Notes	Use this area for any special notes or other information related to this reporting period. This could include financial/cost information, specific endangered species notes, significant events that occurred, etc.
11.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

RADIO REQUIREMENTS WORKSHEET	1. Incident Name	2. Date	3. Time
4. Branch	5. Agency	6. Operational Period	7. Tactical Frequency

8. Division/Group	Division/Group	Division/Group	Division/Group
Agency	Agency	Agency	Agency

9. Agency	ID No.	Radio Requirements	Agency	ID No.	Radio Requirements	Agency	ID No.	Radio Requirements	Agency	ID No.	Radio Requirements

Page 1 of	10. Prepared by (Name and Position)

RADIO FREQUENCY ASSIGNMENT WORKSHEET

1 INCIDENT NAME	2 DATE	3 OPERATIONAL PERIOD (DATE/TIME) From:

4 INCIDENT ORGANIZATION 5 RADIO DATA				BRANCH	DIVISION	DIVISION	DIVISION	BRANCH	DIVISION	DIVISION	DIVISION	BRANCH	DIVISION	DIVISION	DIVISION	INCIDENT COMMAND	SAFETY OFFICER	OPERATIONS SECTION CHIEF	AIR OPERATION	AIR TACTICAL SUPERVISOR	PLANNING SECTION CHIEF	GROUND SUPPORT UNIT	BASE UNIT							COMM. CENTER	TOTAL BY REQ
SOURCE	FUNCTION	CH#	FREQUENCY																												
6 AGENCY ID		CH#	FREQUENCY																												
7 TOTAL RADIOS REQUIRED																															
217 ICS																								8 PREPARED BY (NAME/POSITION)								

SUPPORT VEHICLE INVENTORY (USE SEPARATE SHEET FOR EACH VEHICLE CATEGORY)	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

VEHICLE INFORMATION

a. TYPE	b. MAKE	c. CAPACITY/SIZE	d. AGENCY/OWNER	e. I.D. NO.	f. LOCATION	g. RELEASE TIME

218 ICS 8-78	PAGE	5. PREPARED BY (GROUND SUPPORT UNIT)

NFES 1341

1. Incident Name	2. Operational Period (Date / Time) From: To:	AIR OPERATIONS SUMMARY ICS 220-CG

3. Distribution

☐ Fixed-Wing Bases _____ ☐ Helibase _____

4. Personnel and Communications

	Air Operations Director	Air / Air Frequency	Air / Ground Frequency
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			
____ ____		____	____

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. Location / Function	7. Assignment	8. Fixed-Wing		9. Helicopter		10. Time		11. Aircraft Assigned	12. Operating Base
		NO.	TYPE	NO.	TYPE	Available	Commence		
	13. TOTALS								

14. Air Operation Support Equipment

15. Prepared by **Date / Time**

AIR OPERATIONS SUMMARY (ICS 220-CG)

Purpose. The Air Operations Summary provides the Air Operations Branch with the number, type, location, and specific assignments of aircraft.

Preparation. The Operations Section Chief or the Air Operations Branch Director completes the summary during each Planning Meeting. General air resource assignment information is obtained from the Operational Planning Worksheet (ICS 215-CG). The Air and Fixed-Wing Support Groups provide specific designators of the air resources assigned to the incident.

Distribution. After the summary is completed by Air Operations personnel (except item 11), the form is given to the Air Support Group Supervisor, who completes the form by indicating the designators of the helicopters and fixed-wing aircraft assigned missions during the specified operational period. This information is provided to Air Operations personnel who, in turn, give the information to the Resources Unit. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Distribution	Check the block and enter the time and date when ICS 220-CG and attachments were sent to all fixed-wing bases and helibases supporting the incident.
4.	Personnel and Communications	List the names of those assigned to each position, and the air-air and air-ground frequencies to be used.
5.	Remarks	Enter the special instructions or information, including safety notes, hazards, and priorities for Air Operations personnel.
6.	Location/Function	Enter the assigned location and function of the aircraft.
7.	Assignment	Enter the scope of work the aircraft is assigned to complete.
8.	Fixed Wing	Indicate the number and type of fixed-wing aircraft available for this Location / Function.
9.	Helicopters	Indicate the number and type of helicopters available for this Location / Function.
10.	Time	Indicate when aircraft will be available for use and when operations commence (use 24 hour clock).
11.	Aircraft Assigned	Enter the designators of the aircraft assigned. Gather information from Resources Unit, helibases, and fixed-wing bases.
12.	Operating Base	Enter the base (helibase, helispot, fixed-wing base) from which each air resource is expected to initiate operations.
13.	Totals	Enter the total number of fixed-wing and helicopter aircraft assigned to the incident in the Number columns. Enter the total number of each type of aircraft assigned in the Type columns.
14.	Air Operations Support Equipment	List the designators and location of other support resources assigned to Air Operations.
15.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	DEMOB. CHECK-OUT ICS 221-CG
3. Unit / Personnel Released	4. Release Date / Time	

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. Unit Leader "X" appropriate box(es))

Logistics Section

☐ Supply Unit _____

☐ Communications Unit _____

☐ Facilities Unit _____

☐ Ground Unit _____

Planning Section

☐ Documentation Unit _____

Finance / Admin. Section

☐ Time Unit _____

Other

☐ _____ _____

☐ _____ _____

☐ _____ _____

6. Remarks

_____

_____

_____

_____

7. Prepared by: **Date / Time**

DEMOB. CHECK-OUT (ICS 221-CG)

Purpose. This form provides the Planning Section information on resource releases from the incident.

Preparation. The Demobilization Unit Leader or the Planning Section initiates this form. The Demobilization Unit Leader completes the top portion of the form after the resource supervisor has given written notification that the resource is no longer needed.

Distribution. The individual resource will have the unit leader initial the appropriate box(es) in item 5 prior to release from the incident. After completion, the form is returned to the Demobilization Unit Leader or the Planning Section. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Strike Team / Unit / Personnel Released	Enter name of Strike Team, Unit or personnel being released.
4.	Release Date/Time	Enter date (month, day, year) and time (24-hour clock) of anticipated release.
5.	Strike Team / Unit / Personnel	Demobilization Unit Leader will enter an "X" in the box to the left of those units requiring check-out. Identified Unit Leaders are to initial to the right to indicate release. NOTE: Blank boxes are provided for any additional unit requirements as needed, (e.g., Safety Officer, Agency Rep., etc.)
6.	Remarks	Enter any additional information pertaining to demobilization or release (e.g., transportation needed, destination, etc.).
7.	Prepared By	Enter name and title of the person preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Meeting Date / Time	MEETING SUMMARY ICS 231-OS

3. Meeting Name

4. Meeting Location

5. Facilitator

6. Attendees

7. Notes (with summary of decisions and action items)

8. Prepared by: **Date / Time**

MEETING SUMMARY (ICS FORM 231-OS)

Purpose. The Meeting Summary provides more detailed information concerning the attendees and notes from a particular meeting.

Preparation. This form is prepared under the direction of the facilitator of the meeting and coordinated through the Unified Command.

The following lists the usual facilitator for each meeting:
Unified Command Meeting - Facilitated by a member of the Unified Command.
Initial Incident ICS 201 Briefing - Facilitated by the initial Incident Commander.
Tactics Meeting - Facilitated by the Planning Section Chief.
Planning Meeting - Facilitated by the Planning Section Chief.
Operations Briefing - Facilitated by the Planning Section Chief.
Command Staff Meeting - Facilitated by a member of the Unified Command.
Business Management Meeting - Facilitated by a member of the Unified Command.
Agency Representative Meeting - Facilitated by the Liaison Officer.
Press Briefing - Facilitated by the Information Officer.

Distribution. After completion and approval by Unified Command, the Situation Unit Leader will distribute a copy of the Meeting Summary to the attendees and post it at the Situation Display. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Meeting Date/Time	Enter date and time of meeting.
3.	Meeting Name	Enter name of meeting.
4.	Meeting Location	Enter location of meeting.
5.	Facilitator	Enter the name and position of the meeting facilitator.
6.	Attendees	List the personnel who need to attend the meeting.
7.	Notes	List a summary of decisions and action items addressed in the meeting.
8.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

FACILITY NEEDS ASSESSMENT WORKSHEET ICS-235-CG (Rev 5/06)

1.INC DENT NAME

2. LOCATION	3. FACILITIES	4. Requirements	# Expected Personnel	Internal/Building Workspace Sq Ft (80 sq ft/pers)	Wall Space Linear Sq Ft	Multi-Purpose Mtg Rm Sq Ft (20 sq ft/pers + display space)	External/Outside Laydown Sq Ft	Parking Space Sq Ft (120 sq ft/vehicle x 1.4 circulation factor)	Climate Control (HVAC) needed -	Toilet Rooms	Work Tables	Conf Table	Chairs	Telephones	Speaker Phone	Fax Machines	Power Outlets	Comp Workstations	Printers	Chart Printer/ChartPro	Video Projectors	Copy Machines	Paper Shredders				
ICP	Unified Command	REQ																									
	Liaison Officer & Agency Reps	REQ																									
	Safety Officer	REQ																									
	Public Information Officer	REQ																									
	Planning Section	REQ																									
	Operations Section	REQ																									
	Logistics Section	REQ																									
	Finance/Admin Section	REQ																									
	Common Areas	REQ																									
Base	Base	REQ																									
		REQ																									
JIC	JIC	REQ																									
		REQ																									
Staging		REQ																									
		REQ																									
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		REQ																									
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		REQ																									
		REQ																									
		REQ																									
5. Prepared By:																											
6. Date/Time Prepared																											

1. Incident Name	2. Operational Period (Date / Time) From: To:	EXECUTIVE SUMMARY

3. Operations

4. Environmental

5. Planning

6. Other

7. Prepared by **Date / Time**

EXECUTIVE SUMMARY

Purpose. The Executive Summary communicates significant response issues during the current operational period, summarizing the daily activities for all sections in a brief format to Senior Managers, Administrators, Senior Agency Staff, and Civic Leaders.

Preparation. The Situation Unit Leader prepares this form with input from Section Chiefs. Final authorization is provided by the Unified Command prior to dissemination outside the ICS organization.

Distribution. After authorization by the Unified Command, the Documentation Unit Leader will duplicate and post a copy on the Situation Status Display Board in the Command Post. Single copies may then be distributed to the Unified Command, Command Staff, Joint Information Center, and Section Chiefs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Operations	Operations Section Chief will summarize the tactical accomplishments for the previous operational period.
4.	Environmental	Environmental Unit Leader will summarize any significant impacts identified or mitigated during the previous operational period.
5.	Planning	Planning Section Chief will summarize the critical actions to be carried out during the next operational period.
6.	Other	Situation Unit Leader will indicate any anomalies to previous Executive Summaries, special meetings, community impacts, or items of special interest.
7.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	GENERAL PLAN
2. Prepared By Date / Time Prepared	3. Operational Period (Date / Time) From: To:
4. Notification (Date and time completed)	5. Response Initiation (Date and time completed)

6. Plan Item Timeframe ==> (Enter days or weeks)	
Site Characterization, Forecasts, and Analysis	
Site Safety	
Site Security	
Source Stabilization, Salvage, and Lightering	
Surveillance	
On Water Containment and Recovery	
Sensitive Areas / Resources at Risk	
Alternative Response Technology	
Shoreline Protection and Recovery	
Wildlife Protection and Rehabilitation	
Logistics Support	
Response Organization	
Communications	
Public Information	
Financial Management and Cost Documentation	
NRDA and Claims	
Training	
Information Management	
Restoration / Mitigation	
Waste Management	
Demobilization	

GENERAL PLAN-OS

Purpose. The General Plan form displays the progress and planned start and end dates for various incident response activities. Some standard activities have been listed on the form and blank lines are provided at the bottom of the form for planning and tracking additional incident-specific activities.

Preparation. The Planning Section completes the General Plan form when requested by the Unified Command.

Distribution. The General Plan form will be given to the Unified Command and all General Staff as part of the incident summary. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Prepared By	Enter the name of the Planning Section Chief completing the form.
3.	Date/Time	Enter the Date (month, day, year) and Time (24-hour clock) the form was prepared.
4.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
5.	Notification	Enter the date and time that required notifications were completed.
6.	Response Initiation Plan Item and Timeframe	Enter the date and time that the Response Initiation is completed. Enter specific dates, or day number or week number in the top row to indicate the timeframe being covered by this form. Then enter either descriptive text or shading to the right of each activity to indicate the beginning and estimated end for that activity during this incident response.

Site Safety and Health Plan ICS-208-CG (rev 9/06)

Incident Name: _____ Date/Time Prepared: _____ Operational Period: _____

Purpose. The ICS Compatible Site Safety and Health Plan is designed for safety and health personnel that use the Incident Command System (ICS). It is compatible with ICS and is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response regulation (Title 29, Code of Federal Regulations, Part 1910.120). The plan avoids the duplication found between many other site safety plans and certain ICS forms. It is also in a format familiar to users of ICS. Although primarily designed for oil and chemical spills, the plan can be used for all hazard situations.

Questions on the document should be addressed to the Coast Guard Office of Incident Management and Preparedness (G-RPP).

Table of Forms

FORM NAME	FORM #	USE	REQUIRED	OPTIONAL	ATTACHED
Emergency Safety and Response Plan	A	Emergency response phase (uncontrolled)	X		
Site Safety Plan	B	Post-emergency phase (stabilized, cleanup)	X		
Site Map	C	Post-emergency phase map of site and hazards	X		
Emergency Response Plan	D	Part of Form B, to address emergencies	X		
Exposure Monitoring Plan	E	Exposure monitoring Plan to monitor exposure	X		
Air Monitoring Log	E-1	To log air monitoring data	X*		
Personal Protective Equipment	F	To document PPE equipment and procedures	X*		
Decontamination	G	To document decon equipment and procedures	X*		
Site Safety Enforcement Log	H	To use in enforcing safety on site		X	
Worker Acknowledgement Form	I	To document workers receiving briefings		X	
Form A Compliance Checklist	J	To assist in ensuring HAZWOPER compliance		X	
Form B Compliance Checklist	K	To assist in ensuring HAZWOPER compliance		X	
Drum Compliance Checklist	L	To assist in ensuring HAZWOPER compliance		X	
Other:					

** Required only if function or equipment is used during a response*

EMERGENCY SAFETY and RESPONSE PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Attachments: **Attach MSDS for each Chemical:**
5. Organization IC/UC:	Safety: Div/Group Supv:	Entry Team:	Backup Team:	Decon Team:
6.a. Physical Hazards and Protection	6.b. Confined Space ☐ Noise ☐ Heat Stress ☐ Cold Stress ☐ Electrical ☐ Animal/Plant/Insect ☐ Ergonomic ☐ Ionizing Rad ☐ Slips/Trips/Falls ☐ Struck by ☐ Water ☐ Violence ☐ Excavation ☐ Biomedical waste and/or needles ☐ Fatigue ☐ Other (specify)			

6.c. Tasks & Controls	6d Entry Permit	6.e. Ventilate	6f. Hearing Protection	6g. Shoes (type)	6.h. Hard Hats	6i. Clothing (cold wx)	6j. Life Jacket	6l. Work/ Rest (hrs)	6.m. Fluids (amt/time)	6.n. Signs & Barricade	6.p. Fall Protect	6.q. Post Guards	6.r. Flash Protect	6.s. Work Gloves	6.t. Other

7.a. Agent	7.b. Hazards		7.c. Target Organs	7.d. Exposure Routes	7.f. PPE	7.g. Type of PPE
	Explosive ☐ Flammable ☐ Reactive ☐ Biomedical ☐ Toxic ☐	Radioactive ☐ Carcinogen ☐ Oxidizer ☐ Corrosive ☐ Specify Other: ☐	Eyes ☐ Nose ☐ Skin ☐ Ears ☐ Central Nervous System ☐ Respiratory ☐ Throat ☐ Lungs ☐ Heart ☐ Liver ☐ Kidney ☐ Blood ☐ Lungs ☐ Circulatory ☐ Gastrointestinal ☐ Bone ☐ Other Specify: ☐	Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	Face Shield ☐ Eyes ☐ Gloves ☐ Inner Suit ☐ Splash Suit ☐ Level A Suit ☐ SCBA ☐ APR ☐ SAR ☐ Cartridges ☐ Fire Resistance ☐	

8. Instruments:	8.a. Action Levels	8.b. Chemical Name(s):	8.c. LEL/UEL %	8.d. Odor Thresh Ppm	8.e. Ceiling/ IDLH	8.f. STEL/TLV	8.g. Flash Pt/ Ignition Pt (F or C)	8.h. Vapor Pressure (mm)	8.i. Vapor Density	8.j. Specific Gravity	8.l. Boiling Pt F or C
O2 ☐											
CGI ☐											
Radiation ☐											
Total HCs ☐											
Colorimetric ☐											
Thermal ☐											
Other ☐											

EMERGENCY SAFETY and RESPONSE PLAN (Cont)	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Attachments: **Attach MSDS for each Chemical**

9. Decontamination:				
Instrument Drop Off ☐	Suit Wash ☐	Bottle Exchange ☐	SCBA/Mask Rinse ☐	Intervening Steps ☐ Specify:
Outer Boots/Glove Removal ☐	Decon Agent: Water ☐	Outer Suit Removal ☐	Inner Glove Removal ☐	
Suit/Gloves/Boot Disposal ☐	Other ☐	Inner Suit Removal ☐	Work Clothes Removal ☐	
	Specify:	SCBA/Mask Removal ☐	Body Shower ☐	

10. Site Map. Include: Work Zones, Locations of Hazards, Security Perimeter, Places of Refuge, Decontamination Line, Evacuation Routes, Assembly Point, Direction of North
☐ Attached, ☐ Drawn Below:

11.a. Potential Emergencies:	11.b. Evacuation Alarms:	11.c Emergency Prevention and Evacuation Procedures:
Fire ☐	Horn ☐ # Blasts ☐	Safe Distance:
Explosion ☐	Bells ☐ #Rings ☐	
Other ☐	Radio Code ☐	
	Other:	

12. a. Communications:	12.b. Command #:	12.c. Tactical #:	12.d. Entry #:
Radio ☐ Phone ☐ Other ☐			

13.a. Site Security: Personnel Assigned	13.b. Procedures:	13.c. Equipment:
14.a. Emergency Medical: Personnel Assigned	14.b. Procedures:	14.c Equipment:
15. Prepared by:	16. Date/Time Briefed:	**ICS-208-CG SSP-A Page 2. (rev 9/06):** Page _____ of _____

EMERGENCY SAFETY AND RESPONSE PLAN (ICS-208-CG SSP-A)

Purpose: The Emergency Safety and Response Plan provides the Safety Officer and ICS personnel a plan for safeguarding personnel during the initial emergency phase of the response. *It is only used during the emergency phase of the response, which is defined as a situation involving an uncontrolled release.* It is also intended to meet the requirements of the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation, Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Safety Officer or his/her designated staff starts the Emergency Site Safety and Response Plan. They initially address the hazards common to all operations involved in the response (initial site characterization). Outside support organizations must be contacted to ensure the plan is consistent with other plans (local, state, other federal plans). Form ICS-208-CG SSP-G need not be completed if this form is used. When the operation proceeds into the post-emergency phase (site stabilized and cleanup operations begun) forms ICS-208-CG SSP-B and ICS-208-CG SSP-G should be used. For large incidents, the Emergency Site Safety and Response Plan complements the Incident Action Plan. For smaller incidents, the Emergency Site Safety and Response Plan complements ICS-201.

Distribution: The Emergency Safety and Response Plan completed by the Safety Officer is forwarded to the Planning Section Chief. Copies are made and attached to the Assignment List(s) (ICS Form 204). The Operations Section Chief, Directors, Supervisors or Leaders get a copy of the plan. They must ensure it is available on site for all personnel to review. The Safety Officer is responsible for ensuring that the Emergency Site Safety and Response Plan properly addresses the hazards of the operation. The Safety Officer accomplishes this through on site enforcement and feedback to the operational units.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Attachments	Enter attachments. Material Safety Data Sheets are mandatory under 1910.120. Safe Work Practices may also be attached.
5	Organization	List the personnel responsible for these positions. IC and Safety Officer are mandatory.
6	Physical Hazards & Protection	Check off the physical hazards at the site. Identify the major tasks involved in the response (skimming, lightering, overpacking, etc.). Check off the controls that would be used to safeguard workers from the physical hazards for each major task.
7	Chemical/Agent	List the chemicals involved in the response. Chemicals may be listed numerically. Check off the hazards, potential health effects, pathway of dispersion, and exposure route of the chemical. Numbers corresponding to the chemical may be entered into the check blocks to differentiate. Check off the PPE to be used. Identify the type of PPE selected (for example: gloves: butyl rubber).
8	Instruments	Indicate the instruments being used for monitoring. List the action levels adjacent to the instruments being used. Identify the chemicals being monitored (2). List the physical parameters of the chemicals. Use a separate form for additional chemicals monitored.

EMERGENCY SAFETY AND RESPONSE PLAN (FORM ICS-208-CG SSP-A) (Instructions Continued)

9	Decontamination	Check off the decontamination steps to be used. Numbers may be entered to indicate the preferred sequence. Identify any intervening steps necessary on the form or in a separate attachment.
10	Site Map	Draw a rough site map. Ensure all the information listed is identified on the map.
11	Potential Emergencies	Identify any potential emergencies that may occur. If none, so state. Check off the appropriate alarms that may be used. Identify emergency prevention and evacuation procedures in the space provided or on a separate attached sheet.
12	Communications	Indicate type of site communications (phone, radio). Indicate phone numbers or frequencies for the command, tactical and entry functions.
13	Site Security	Identify the personnel assigned. Identify security procedures in the space provided or on a separate attached sheet. Identify the equipment needed to support security operations.
14.	Emergency Medical	Identify the personnel assigned. Identify emergency medical procedures in the space provided or on a separate attached sheet. Identify the equipment needed to support security operations.
15.	Prepared by:	Enter the name and position of the person completing the worksheet.
16.	Date/time briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SITE SAFETY PLAN (SSP) HAZARD ID/EVAL/CONTROL	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility Land☐ Water☐ Air ☐ Comments:	8. For Emergencies Contact:	9. Attachments: **Attach MSDS for each Chemical**

10.a. Job Task/Activity	10.b. Hazards***** ⇨	10.c. Potential Injury & Health Effects	10.d. Exposure Routes	10.e. Controls: Engineering, Administrative, PPE
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	

11. Prepared By:	12. Date/Time Briefed:	***HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	**ICS-208-CG SSP-B (rev 9/06):** Page _____ of _____

SITE SAFETY PLAN (FORM ICS-208-CG SSP-B)

Purpose: The Site Safety Plan provides the Safety Officer and ICS personnel a plan for safeguarding personnel during the post-emergency phase of an incident. The post-emergency phase is when the situation is stabilized and cleanup operations have begun. ICS-208-CG SSP-B is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation, Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Safety Officer or his/her designated staff starts the Site Safety Plan. They initially address the hazards common to all operations involved in the response (initial site characterization). The plan is then reproduced and as a minimum sent to ICS Group/Division Supervisors. They amend it according to unique job or on-scene hazards with support from the Safety Officer and/or his/her staff (detailed site characterization). The plan is continuously updated to address changing conditions. During the first hours of the response, where most response functions are in the emergency phase, the Safety Officer may chose to use the Emergency Safety and Response Plan (ICS-208-CG SSP-A) in place of the Site Safety Plan. For large incidents, ICS-208-CG SSP-B compliments the Incident Action Plan (IAP). For smaller incidents, ICS-208-CG SSP-B compliments ICS Form 201. The Safety Officer is encouraged to use the HAZWOPER Compliance Checklist (Form ICS-208-CG SSP-K) to ensure the IAP and the 201 address the requirements and all other pertinent ICS forms (203, 205, 206, etc.) are completed.

Distribution: The initial Site Safety Plan completed by the Safety Officer is forwarded to the Planning Section Chief. Copies are made and attached to the Assignment List(s) (ICS Form 204). The Operations Section Chief, Directors, Supervisors or Leaders get a copy and make on site amendments specific to their operation. They must also ensure it is available on site for all personnel to review. The Safety Officer provides personnel from his/her staff to assist in the detailed site characterization. The Safety Officer is responsible for ensuring that the Site Safety Plan for each assignment properly addresses the hazards of the assignment. The Safety Officer must ensure that the safety plans on site are consistent. The Safety Officer accomplishes this through on site enforcement and feedback to the operational units.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Group/Division Supv Strike Team/TF Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	Site Accessibility	Check the block(s) if the site is accessible by land, water, air, etc.
8	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
9	Attachments	Enter attachments. Material Safety Data Sheets are mandatory under 1910.120. Safe Work Practices may also be attached.
10	Job/Task Activity	Enter Job/Task & Activities, list hazards, list potential injury and health effects, check exposure routes and identify controls. If more detail is needed for controls, provided attachments.
11	Prepared by	Enter the name and position of the person completing the worksheet.
12	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: SITE MAP	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility Land☐ Water☐ Air ☐ Comments:	8. For Emergencies Contact:	9. Include: - Work Zones - Locations of Hazards - Security Perimeter - Places of Refuge - Decontamination Line - Evacuation Routes
10. Sketch of Site: ☐ Attached. ☐ Drawn Here				
11. Prepared By:	12. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving		**ICS-208-CG SSP-C (rev 9/06):** Page _____ of _____

SITE MAP FOR SITE SAFETY PLAN (ICS-208-CG SSP-C)

Purpose: The Site Map for the Site Safety Plan is required by Title 29 Code of Federal Regulations Part 1910.120. It provides in 1 place a visual description of the site which can help ICS personnel locate hazards, identify evacuation routes and places of refuge.

Preparation: The Site Map for the Site Safety Plan can be completed by the Safety Officer, his/her staff or by ICS field personnel (Group Supervisors, Task Force/Strike Team Leaders) working at a site with unique and specific hazards. One or several maps may be developed, depending on the size of the incident and the uniqueness of the hazards. The key is to ensure that the workers using the map(s) can clearly identify the work zones, locations of hazards, evacuation routes and places of refuge.

Distribution: This form must be located with the Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	Site Accessibility	Check the block(s) if the site is accessible by land, water, air, etc.
8	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
9	Include	Ensure the map includes the listed items provided in this block.
10	Sketch of Site	Sketch of site for work. May attach map or chart.
10	Prepared by	Enter the name and position of the person completing the worksheet.
11	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: EMERGENCY RESPONSE PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Attachments: **INCLUDE ICS FORM 206 and EMT Medical Response Procedures**
9. Emergency Alarm (sound and location)	10. Backup Alarm (sound and location)	11. Emergency Hand Signals	12. Emergency Personal Protective Equipment Required:	

13. Emergency Notification Procedures	14. Places of Refuge (also see site map form 208B)	15. Emergency Decon and Evacuation Steps	16. Site Security Measures

17. Prepared By:	18. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	**ICS-208-CG SSP-D (rev 9/06)** Page _____ of _____

EMERGENCY RESPONSE PLAN (ICS-208-CG SSP-D)

Purpose: The Emergency Response Plan provides information on measures to be taken in the event of an emergency. It is used in conjunction with the Site Safety Plan (Form ICS-208-CG SSP-B). It is also required by Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Safety Officer, his/her staff member or the Site Supervisor/Leader prepares the Emergency Response Plan. A copy of the Medical Plan (ICS Form 206) must always be attached to this form.

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
8	Attachments	Enter attachments. ICS Form 206 must be included.
9	Emergency Alarm	Enter a description of the sound of the emergency alarm and it's location.
10	Backup Alarm	Enter a description of the sound of the emergency alarm and it's location.
11	Emergency Hand Signals	Enter the emergency hand signals to be used.
12	Emergency Personal Protective Equipment Required	Enter the emergency personal protective equipment that may be needed in the event of an emergency.
13	Emergency Notification Procedures	Enter the procedures for notifying the appropriate personnel and organizations in the event of an emergency.
14	Places of Refuge	Enter by name the place of refuge personnel can go to in the event of an emergency.
15	Emergency Decon & Evacuation Steps	Enter emergency decontamination steps and evacuation procedures.
16	Site Security Measures	Enter site security measures needed for emergencies.
17	Prepared by	Enter the name and position of the person completing the worksheet.
18	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: Exposure Monitoring Plan	1. Incident Name	2. Date/Time Prepared:	3. Operational Period:	4. Safety Officer (Method of Contact):

5. Specific Task/Operation	6. Survey Location	7. Survey Date/Time	8. Monitoring Methodology	9. Direct-Reading Instrument	10. Air Sampling	11. Hazard(s) to Monitor	12. Monitoring Duration	13. Reasons to Monitor	14. Laboratory Support for Analysis
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	

15. Prepared By:	16. Date/Time Briefed:	**HAZARD LIST**: Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning
18. Safety Officer Review:	Reporting: Monitoring results shall be logged in the ICS-208-CG SSP-E-1 form (Air Monitoring Log) and attached as part of a current Site Safety Plan and Incident Action Plan. Significant Exposures shall be immediately addressed to the IC and General Staff for immediate correction.	**ICS-208-CG SSP-E (rev 9/06)** Page _____ of _____

EXPOSURE MONITORING PLAN (FORM ICS-208-CG SSP-E)

Purpose: The Exposure Monitoring Plan provides plan of monitoring conducted during an incident. The plan is a supplement to the Site Safety Plan (ICS-208-CG SSP-B). It is only required when performing monitoring operations.

Preparation: The Safety Officer, his/her staff member or the Site Supervisor/Leader prepares the Exposure Monitoring Plan. If there is a decision not to monitor during a response, the reasons must be stated clearly in the Site Safety Plan (ICS-208-CG SSP-B).

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Specific Task / Operation	Enter specific task or operation.
6	Survey Location	Enter the location to be monitored.
7	Survey Date/Time	Enter the date/time for the monitoring teams to survey.
8	Monitoring Methodology	Enter/Check the monitoring method to be used.
9	Direct-Reading Instrument	Enter the instrument model, manufacturer, last calibration date.
10	Air Sampling	Enter Air Sampling analysis method
11	Hazards to Monitor	Enter the hazards to monitor
12	Monitoring Duration	Enter duration of monitoring
13	Reasons to Monitor	Enter Reasons to Monitor
14	Laboratory Support for Analysis	Enter Laboratory Support needed for analysis of samples
15	Prepared by	Enter the name and position of the person completing the worksheet.
16	Date/Time Briefed	Enter the date/time the document was briefed to the appropriate workers and by whom.
17	Safety Officer Review	The Safety Officer must review and sign the form.

CG ICS SSP: AIR MONITORING LOG	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)	
5. Site Location	6. Hazards of Concern	7. Action Levels (include references):		8. Weather: Temperature: Precipitation: Wind: Relative Humidity: Cloud Cover:	
9.a. Instrument, ID Number Calibrated? Indicate below.	9.b. Monitoring Person Name(s)	9.c. Results (units)	9.d. Location	9 f. Time	9.g. Interferences and Comments
10. Safety Officer Review:		Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning		**ICS-208-CG SSP-E-1 (rev 9/06):** Page _____ of _____	

DAILY AIR MONITORING LOG (FORM ICS-208-CG SSP-E-1)

Purpose: The Exposure Monitoring Log provides documentation of air monitoring conducted during a spill. The log is a supplement to the Site Safety Plan (ICS-208-CG SSP-B). It is only required when performing air monitoring operations. The information used from the log can help update the Site Safety Plan.

Preparation: Persons conducting monitoring complete the Daily Air Monitoring Log. Normally these are air monitoring units under the Site Safety Officer. If there is a decision not to monitor during a spill, the reasons must be stated clearly in the Site Safety Plan (ICS-208-CG SSP-B).

Distribution: The Daily Air Monitoring Log when completed is copied and forwarded to the Site Safety Officer who must review and sign the form. The original form must be available on site, readily available and briefed to all impacted ICS personnel.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Location & size of site	Enter the geographical location of the site and the approximate square area.
6	Hazards of Concern	Enter the hazards being monitored.
7	Action Levels	Enter the action levels/readings for the monitoring teams.
8	Weather	Enter weather information. Ensure units of measure are listed.
9	Air Monitoring Data	Enter the instrument type and number, persons monitoring, results with appropriate units, location of reading, time of reading and interferences and comments.
10	Safety Officer Review	The Safety Officer must review and sign the form.

CG ICS SSP: PERSONAL PROTECTIVE EQUIPMENT	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Hazards Addressed:		8. For Emergencies Contact:

9. Equipment:				10. References Consulted:

11. Inspection Procedures:	12. Donning Procedures:	13. Doffing Procedures:	14. Limitations and Precautions (include maximum stay time in PPE):

15. Prepared By:	16. Date/Time Briefed:	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, Eye Burning	**ICS-208-CG SSP-F: (Rev 9/06)** Page _____ of _____

PERSONAL PROTECTIVE EQUIPMENT (ICS-208-CG SSP-F)

Purpose: The Personal Protective Equipment form is a list of personal protective equipment to be used in operations. The listing of personal protective equipment is required by Title 29 Code of Federal Regulations Part 1910.120.

Preparation: The Personal Protective Equipment form is completed by the Site Safety Officer, or his/her staff. Personal protective equipment common to all ICS Operations personnel is addressed first. Jobs with unique personal protective equipment requirements (fall protection) are addressed next. When the form is delivered on site, the ICS Director, Supervisor, or Leader may amend the list to ensure personnel are adequately protected from job hazards. It must be completed prior to the onset of any operations, unless addressed elsewhere by Standard Operating Procedures.

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	Hazard(s) Addressed:	Enter the hazards that need to be safeguarded.
8	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
9	Equipment	List the equipment needed to address the hazards. If pre-designed Safe Work Practices are used, indicate here and attach to form.
10	References consulted	List the references used in making the selection for PPE.
11	Inspection Procedures	Enter the procedures for inspecting the Personal Protective Equipment prior to donning. If pre-designed Safe Work Practices are used, indicate here and attach to form.
12	Donning Procedures	Enter the procedures for putting on the PPE. If pre-designed Safe Work Practices are used, indicate here and attach to form.
13	Doffing Procedures	Enter the information for removing the PPE. If pre-designed Safe Work Practices are used, indicate here and attach to form.
14	Limitations and Precautions	List the limitations and precautions when using PPE. Include the maximum time to be inside the PPE, Heat Stress concerns, psychomotor skill detraction and other factors.
15	Prepared by	Enter the name and position of the person completing the worksheet.
16	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: DECONTAMINATION	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Hazard(s) Addressed:

9. Equipment:				10. References Consulted:

11. Contamination Avoidance Practices:	12. Decon Diagram: ☐ Attached, ☐ Drawn below	13. Decon Steps

14. Prepared By:	15. Date/Time Briefed:	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, Eye Burning	**ICS-208-CG SSP-G (rev 9/06):** Page _____ of _____

DECONTAMINATION (ICS-208-CG SSP-G)

Purpose: The Decontamination form provides information on how workers can avoid contamination and how to get decontaminated. It is a supplemental form to the Site Safety Plan.

Preparation: The Decontamination Form can be completed by the Site Safety Officer, a member of his/her staff or by the Group/Division Supervisor, Task Force/Strike Team Leader on the site

Distribution: This form must be located with Site Safety Plan (ICS-208-CG SSP-B). It therefore follows the same distribution route.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
8	Hazard(s) Addressed:	Enter the hazards that need to be safeguarded.
9	Equipment	Enter the decontamination equipment needed for the site. If pre-designed Safe Work Practices are used, indicate here and attach to this form.
10	References consulted	List the references used in making the selection for PPE.
11	Contamination Avoidance Practices	Enter procedures for personnel to avoid contamination. If pre-designed Safe Work Practices are used, indicate here and attach to form.
12	Decon Diagram	Draw a diagram for the decontamination operation. If pre-designed Safe Work Practices are used, indicate here and attach to form.
13	Decon Steps	List the decontamination steps.
14	Prepared by	Enter the name and position of the person completing the worksheet.
15	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP: ENFORCEMENT LOG	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)	
5. Supervisor/Leader	6. For Emergencies Contact:			7. Attachments:	
8.a. Job Task/Activity	8.b. Hazards	8.c. Deficiency	8.d. Action Taken	8.e. Safety Plan Amended?	8 f. Signature of Supervisor/Leader
9. Prepared By:	10. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving			**ICS-208-CG SSP-H (rev 9/06):** Page _____ of _____

SITE SAFETY ENFORCEMENT LOG (ICS-208-CG SSP-H)

Purpose: The Site Safety Plan Enforcement Log is used to help enforce safety during an incident.

Preparation: The Safety Officer and/or his/her staff complete the Site Safety Plan Enforcement Log. The log is completed as Safety personnel are on scene reviewing the site. It should be completed at a minimum once per day. The number of enforcement logs to be completed depends on the size of the incident. Enough should be completed to ensure that site safety is being adequately enforced.

Distribution: The Site Safety Plan enforcement log when completed is delivered to the Safety Officer. The Safety Officer can use the form to amend the Site Safety Plan (ICS-208-CG SSP-A or B).

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
7	Attachments	List any attached supporting documentation.
8 a	Job/Task Activity	Enter only those Job Task/activities for which a deficiency is noted.
8 b	Hazards	Enter the hazard not being sufficiently addressed.
8 c	Deficiency	Enter the deficiency.
8 d	Action Taken	Enter the corrective action taken to address the deficiency.
8 e	Safety Plan Amended?	Enter whether the on site safety plan was amended.
8 f	Signature of Supervisor/Leader	Ensure the Supervisor/Leader signs the form to acknowledge the deficiency.
9	Prepared by	Enter the name and position of the person completing the worksheet.
10	Date/Time Briefed:	Enter the date/time the document was briefed to the appropriate workers and by whom.

CG ICS SSP WORKER ACKNOWLEDGEMENT FORM	1. Incident Name	2. Site Location:	3. Attachments:	
4. Type of Briefing	5. Presented By:		6. Date Presented	7. Time Presented
Safety Plan/Emergency Response Plan ☐ Start Shift ☐ Pre-Entry ☐ Exit ☐ End of Shift ☐ Specify Other:				
8.a. Worker Name (Print)	8.b. Signature*****		8.c. Date	8.d. Time

***** *By signing this document, I am stating that I have read and fully understand the plan and/or information provided to me.*

WORKER ACKNOWLEDGEMENT FORM (ICS-208-CG SSP-I)

Purpose: The Worker Acknowledgement form is used to document workers who have received safety briefings.

Preparation: Those personnel responsible for conducting safety briefings complete this form initially. Once the briefings are completed, workers who were briefed print their name, sign, date and indicate the time of the briefing.

Distribution: This form is returned to the Safety Officer or designated representative at the end of each operational period.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Site Location	Indicate the location where the briefings are held.
3	Attachments	Indicate any attachments used as part of the briefings.
4	Type of briefing	Check the block next to the type of briefing.
5	Presented by	Enter the name of the person conducting the briefing.
6	Date Presented	Enter the date of the briefing.
7	Time Presented	Enter the time of the briefing.
8	Worker Name, Signature, Date and Time	Workers receiving the briefing print their name, sign, date and enter the time they acknowledge the briefing.

CG ICS SSP: Emergency Safety & Response Plan 1910.120 Compliance Checklist (Form A)	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Site Supervisor/Leader	5. Location of Site

6.a. Cite: 1910.120	6.b. Requirement(sections that duplicate or explain are omitted)	6.c. ICS Form	6.d. Check	6.e. Comments
(**q**)(1)	Is the plan in writing?	SSP-A	☐	
(1)	Is the plan available for inspection by employees?	N/A	☐	Performance based
(**q**)(2)(i)	Does the plan address pre-emergency planning and coordination?	SSP-A	☐	
(ii)	Does it address personnel roles?	SSP-A	☐	
(ii)	Does it address lines of authority?	SSP-A	☐	
(ii)	Does it address communications?	SSP-A	☐	
(iii)	Does it address emergency recognition?	SSP-A	☐	
(iii)	Does it address emergency prevention?	SSP-A	☐	
(iv)	Does it identify safe distances?	SSP-A	☐	
(iv)	Does it address places of refuge?	SSP-A	☐	
(v)	Does it address site security and control?	SSP-A	☐	
(vi)	Does it identify evacuation routes?	SSP-A	☐	
(vi)	Does it identify evacuation procedures?	SSP-A	☐	
(vii)	Does it address decontamination?	SSP-A	☐	
(viii)	Does it address medical treatment and first aid?	SSP-A	☐	
(ix)	Does it address emergency alerting procedures?	SSP-A	☐	
(ix)	Does it address emergency response procedures	SSP-A	☐	
(x)	Was the response critiqued?	N/A	☐	Performance based
(xi)	Does it identify Personal Protection Equipment?	SSP-A	☐	
(xi)	Does it identify emergency equipment?	SSP-A	☐	
(**q**)(3)(ii)	All the hazardous substances identified to the extent possible?	N/A	☐	Performance based
(ii)	All the hazardous conditions identified to the extent possible?	N/A	☐	Performance based
(ii)	Was site analysis addressed?	N/A	☐	Performance based
(ii)	Were engineering controls addressed?	N/A	☐	Performance based
(ii)	Were exposure limits addressed?	N/A	☐	Performance based
(ii)	Were hazardous substance handling procedures addressed?	N/A	☐	Performance based
(iii)	Is the PPE appropriate for the hazards identified?	N/A	☐	Performance based
(iv)	Is respiratory protection worn when inhalation hazards present?	N/A	☐	Performance based
(v)	Is the buddy system used in the hazard zone?	N/A	☐	Performance based
(vi)	Are backup personnel on standby?	N/A	☐	Performance based
(vi)	Are advanced first aid support personnel standing by?	N/A	☐	Performance based
(vii)	Has the ICS designated safety official been identified?	SSP-A	☐	
(vii)	Has the Safety Official evaluated the hazards?	N/A	☐	Performance based
(viii)	Can the Safety Official communicate with IC immediately?	N/A	☐	Performance based
(ix)	Are appropriate decontamination procedures implemented?	N/A	☐	Performance based

Emergency Safety & Response Plan Compliance Checklist Form A (ICS-208-CG SSP-J)

Purpose: The Emergency Safety and Response Plan 1910.120 Compliance Checklist is to ensure that incident response operations are in compliance with Title 29, Code of Federal Regulations Part 1910.120, Hazardous Waste Operations and Emergency Response. It also identifies how form ICS-208-CG SSP-J can be used to satisfy the HAZWOPER requirements. This checklist is an optional form.

Preparation: The Emergency Safety and Response Plan 1910.120 Compliance Checklist is completed by the Safety Officer or his/her staff as frequently as necessary whenever the Safety Officer wants to ensure regulatory compliance. It is best used in conjunction with the Site Safety Plan Enforcement Log (ICS-208-CG SSP-H). Many of the requirements are performance based and are best evaluated on scene by the Safety Officer or his/her staff.

Distribution: The Safety Officer should maintain The Emergency Safety and Response Plan (ERP) 1910.120 Compliance Checklist.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
5	Location of Site	Enter the site location.
6 a	Cites	These are the regulatory cites within 1910.120. The major headings are highlighted in bold. Informational cites or cites that are duplicative are not included.
6 b	Requirement	This lists the requirement in a question format. Some require documentation or some form of action.
6 c	ICS Form	Lists those requirements covered by ICS-208-CG SSP-A.
6 d	Check Block	Enter the check if the site satisfies the requirement.
6 f	Comments	This provides additional information on the requirement. The user may also enter comments.
7	Prepared by	Enter the name and position of the person completing the worksheet.

CG ICS SSP: 1910.120 COMPLIANCE CHECKLIST (Form B)	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Site Supervisor/Leader	5. Location of Site

6.a. Cite: 1910.120	6.b. Requirement(sections that duplicate or explain are omitted)	6.c. ICS Form	6.d. Check	6.e. Comments
1910.120 (**b**)(1)(ii)(A)	Organizational structure?	203	☐	
(B)	Comprehensive workplan?	IAP	☐	Incident Action Plan
(C)	Site Safety Plan?	SSP-B	☐	
(D)	Safety and health training program?	N/A	☐	Responsibility of each employer
(E)	Medical surveillance program?	N/A	☐	Responsibility of each employer
(F)	Employer SOPs?	N/A	☐	Responsibility of each employer
(G)	Written program related to site activities?	N/A	☐	
(**b**)(1)(iii)	Site excavation meets shored or slope requirements in 1926?	N/A	☐	
(**b**)(2)(i)(D)	Lines of communication?	201 203 205	☐	
(**b**)3(iv)	Training addressed?	N/A	☐	Responsibility of each employer
(v)-(vi)	Information and medical monitoring addressed?	N/A	☐	Responsibility of each employer
(**b**)4(i)	Site Safety Plan kept on site?	N/A	☐	
(ii)(A)	Safety and health hazard analysis conducted?	N/A	☐	
(B)	Properly trained employees assigned to right jobs?	N/A	☐	
(C)	Personnel Protective Equipment issues addressed?	SSP-F	☐	
(E)	Frequency and types of air monitoring addressed?	SSP-E	☐	
(F)	Site control measures in place?	SSP-B	☐	
(G)	Decontamination procedures in place?	SSP-G	☐	
(H)	Emergency Response Plan in place?	SSP-D	☐	
(I)	Confined space entry procedures?	SSP-B	☐	
(J)	Spill containment program	SSP-B	☐	
(iii)	Pre-entry briefings conducted?	SSP-I	☐	
(iv)	Site Safety Plan effectiveness evaluated?	SSP-H	☐	
(**c**)(1)	Site characterization done?	N/A	☐	
(**c**)(2)	Preliminary evaluation done by qualified person?	N/A	☐	
(**c**)(3)	Hazard identification performed?	SSP-B	☐	
(**c**)(4)(i)	Location and size of site identified?	SSP-B	☐	
(ii)	Response activities, job tasks identified?	SSP-B	☐	
(iii)	Duration of tasks identified?	SSP-B	☐	Operational period
(iv)	Site topography and accessibility addressed?	SSP-C	☐	
(v)	Health and safety hazards addressed?	SSP-B	☐	
(vi)	Dispersion pathways addressed?	SSP-B	☐	
(vii)	Status and capabilities of medical emergency response teams?	206	☐	
(**c**)(5)(i)(iv)	Chemical protective clothing addressed and properly selected?	SSP-F	☐	
(ii)	Respiratory protection addressed?	SSP-B and F	☐	
(iii)	Level B used for unknowns?	N/A	☐	

CG ICS SSP: 1910.120 COMPLIANCE CHECKLIST Form B (cont)	1. Incident Name	2. Date/Time Prepared	3. Operational Period		
6.a. Cite: 1910.120	6.b. Requirement(sections that duplicate or explain are omitted)		6.c. ICS Form	6.d. Check	6.e. Comments
1910.120 (**c**)(6)(i)	Monitoring for ionization conducted?		SSP-E	☐	
(ii)	Monitoring conducted for IDLH conditions?		SSP-E	☐	
(iii)	Personnel looking out for dangers of IDLH environments?		N/A	☐	
(iv)	Ongoing air monitoring program in place?		SSP-E	☐	
(**c**)(7)	Employees informed of potential hazard occurrence?		SSP-B	☐	
(**c**)(8)	Properties of each chemical made aware to employees?		SSP-B	☐	
(**d**)(1)	Appropriate site control procedures in place?		IAP, SSP-B	☐	
(**d**)(2)	Site control program developed during planning stages?		IAP, SSP-B	☐	
(**d**)(3)	Site map, work zones, alarms, communications addressed?		IAP, SSP-B	☐	
(**g**)(1)(i)	Engineering, admin controls considered?		SSP-B	☐	
(iii)	Personnel not rotated to reduce exposures?		N/A	☐	
(**g**)(5)(i)	PPE selection criteria part of employer's program?		N/A	☐	Responsibility of employer
(ii)	PPE use and limitations identified?		SSP-F	☐	
(iii)	Work mission duration identified?		SSP-F	☐	
(iv)	PPE properly maintained and stored?		N/A	☐	Responsibility of employer
(vi)	Are employees properly trained and fitted with PPE?		N/A	☐	Responsibility of employer
(vii)	Are donning and doffing procedures identified?		SSP-F	☐	
(viii)	Are inspection procedures properly identified?		SSP-F	☐	
(ix)	Is a PPE evaluation program in place?		SSP-F	☐	
(**h**) (3)	Periodic monitoring conducted?		SSP-E	☐	
(**k**)(2)(i)	Have decontamination procedures been established?		SSP-G	☐	
(ii)	Are procedures in place for contamination avoidance?		SSP-G	☐	
(iii)	Is personal clothing properly deconned prior to leaving the site?		SSP-G	☐	
(iv)	Are decontamination deficiencies identified and corrected?		SSP-H	☐	
(**k**)(3)	Are decontamination lines in the proper location?		SSP-C	☐	
(**k**)(4)	Are solutions/equipment used in decon properly disposed of?		N/A	☐	
(**k**)(6)	Is protective clothing and equipment properly secured?		N/A	☐	
(**k**)(7)	If cleaning facilities are used, are they aware of the hazards?		N/A	☐	
(**k**)(8)	Have showers and change rooms provided, if necessary?		N/A	☐	
(**l**)(1)(iii)	Are provisions for reporting emergencies identified?		SSP-D	☐	
(iv)	Are safe distances and places of refuge identified?		SSP-B and C	☐	
(v)	Site security and control addressed in emergencies?		SSP-D	☐	
(vi)	Evacuation routes and procedures identified?		SSP-D	☐	
(vii)	Emergency decontamination procedures developed?		SSP-D	☐	
(ix)	Emergency alerting and response procedures identified?		SSP-D	☐	
(x)	Response teams critiqued and followup performed?		SSP-H	☐	
(xi)	Emergency PPE and equipment available?		SSP-D	☐	

CG ICS SSP: 1910.120 COMPLIANCE CHECKLIST Form B (cont)	1. Incident Name	2. Date/Time Prepared	3. Operational Period		
6.a. Cite:	6.b. Requirement(sections that duplicate or explain are omitted)		6.c. ICS Form	6.d. Check	6.e. Comments
1910.120 (**l**)(3)(i)	Emergency notification procedures identified?		SSP-D	☐	
(ii)	Emergency response plan separate from Site Safety Plan?		SSP-D	☐	
(iii)	Emergency response plan compatible with other plans?		SSP-D	☐	
(iv)	Emergency response plan rehearsed regularly?		SSP-D	☐	
(v)	Emergency response plan maintained and kept current?		SSP-H	☐	
1910.165 (**b**)(2)	Can alarms be seen/heard above ambient light and noise levels?		N/A	☐	
(**b**)(3)	Are alarms distinct and recognizable?		N/A	☐	
(**b**)(4)	Are employees aware of the alarms and are they accessible?		SSP-D	☐	
(**b**)(5)	Are emergency phone numbers, radio frequencies clearly posted?		206	☐	
(**b**)(6)	Signaling devices in place where there are 10 or more workers?		IAP	☐	
(**c**)(1)	Are alarms like steam whistles, air horns being used?		IAP	☐	
(**d**)(3)	Are backup alarms available?		IAP	☐	
(m)	Are areas adequately illuminated?		IAP	☐	
(**n**)(1)(i)	Is an adequate supply of potable water available?		IAP	☐	
(ii)	Are drinking water containers equipped with a tap?		IAP	☐	
(iii)	Are drinking water containers clearly marked?		IAP	☐	
(iv)	Is a drinking cup receptacle available and clearly marked?		IAP	☐	
(**n**)(2)(i)	Are non-potable water containers clearly marked?		IAP	☐	
(**n**)(3)(i)	Are their sufficient toilets available?		IAP	☐	
(**n**)(4)	Have food handling issues been addressed?		IAP	☐	
(**n**)(6)	Have adequate wash facilities been provided outside hazard zone?		IAP	☐	
(**n**)(7)	If response is greater than 6 months, have showers been provided?		IAP	☐	

HAZWOPER 1910.120 COMPLIANCE CHECKLIST FORM B (ICS-208-CG SSP-K)

Purpose: The HAZWOPER 1910.120 Compliance Checklist is to ensure that incident response operations are in compliance with Title 29, Code of Federal Regulations Part 1910.120, Hazardous Waste Operations and Emergency Response. It also identifies how other ICS forms can be used to satisfy the HAZWOPER requirements. This is an optional form.

Preparation: The HAZWOPER 1910.120 Compliance Checklist is completed by the Safety Officer or his/her staff as frequently as necessary whenever the Safety Officer wants to ensure regulatory compliance. It is best used in conjunction with the Site Safety Plan Enforcement Log (ICS-208-CG SSP-H). The Site Safety Plan Forms (A-G) best meet some of the requirements. The Incident Action Plan is suited to address other requirements, and the Safety Officer should ensure the IAP addresses them. Other requirements are performance based and are best evaluated on scene by the Safety Officer or his/her staff.

Distribution: The HAZWOPER 1910.120 Compliance Checklist should be maintained by the Safety Officer.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
5	Location of Site	Enter the site location.
6.a.	Cites	These are the regulatory cites within 1910.120. The major headings are highlighted in bold. Informational cites or cites that are duplicative are not included.
6.b.	Requirement	This lists the requirement in a question format. Some require documentation or some form of action.
6.c.	ICS Form	Lists those ICS Forms that cover the requirement. **IAP designations means it should be covered in IAP, it does not guarantee it is covered. The Safety Officer must ensure this.**
6.d.	Check Block	Enter the check if the site satisfies the requirement.
6.e.	Comments	This provides information on where else the requirement may be met. The user may also enter comments.
7	Prepared by	Enter the name and position of the person completing the worksheet.

CG ICS SSP: 1910.120 DRUM COMPLIANCE CHECKSHEET	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Note: tanks and vaults should also be treated in the same manner as described below [1910.120(j)(9)]. Many can also pose confined space hazards.

9.a. Cite: 1910.120 (Cites that duplicate or explain requirements are omitted)	9.b. Requirement	9.c. Check	9.d. Comments
(**j**)(1)(ii)	Drums meet DOT, OSHA, EPA regs for waste they contain, including shipment?	☐	
(iii)	Drums inspected and integrity ensured prior to movement?	☐	
(iii)	Or drums moved to an accessible location (staging area) prior to movement?	☐	
(iv)	Unlabelled drums treated as unknown until properly identified and labeled?	☐	
(v)	Site activities organized to minimize drum handling?	☐	
(vi)	Employers properly warned about the hazards of moving and handling drums?	☐	
(vii)	Suitable overpack drums are available for addressing leaking and ruptured drums?	☐	
(viii)	Leaking materials from drums properly contained?	☐	
(ix)	Are drums that cannot be moved, emptied of contents with transfer equipment?	☐	
(x)	Are suspect buried drums surveyed with underground detection system?	☐	
(xi)	Are soil and covering material above buried drums removed with caution?	☐	
(xii)	Is the proper extinguishing equipment on scene to control incipient fires?	☐	
(**j**)(2)(i)	Are airlines on supplied air systems protected from leaking drums?	☐	
(ii)	Are employees at a safe distance, using remote equipment, when handling explosive drums?	☐	
(iii)	Are explosive shields in plane to protect workers opening explosive drums?	☐	
(iv)	Is response equipment positioned behind shields when shields are used?	☐	
(v)	Are non-sparking tools used in flammable or potentially flammable atmospheres?	☐	
(vi)	Are drums under extreme pressure opened slowly & workers protected by shields/distance?	☐	
(vii)	Are workers prohibited from standing and working on drums?	☐	
(**j**)(3)	Is the drum handling equipment positioned and operated to minimize sources of ignition?	☐	
(**j**)(5)(i)	For shock sensitive drums, have all non-essential employees been evacuated?	☐	
(ii)	For shock sensitive drums: is handling equipment provided with shields to protect workers?	☐	
(iii)	Are alarms that announce start/finish of explosive drum handling actions in place?	☐	
(iv)	Are continuous communications in place between the drum handling site & command post?	☐	
(v)	Are drums under pressure properly controlled for prior to handling?	☐	
(vi)	Are drums containing packaged laboratory wastes treated as shock sensitive?	☐	
(**j**)(6)(i)	Are lab packs opened by trained and experienced personnel?	☐	
(ii)	Are lab packs showing crystallization treated as shock sensitive?	☐	
(**j**)(8)(ii-iii)	Are drum staging areas manageable with marked access and egress?	☐	
(iv)	Is bulking of drums conducted only after drum contents have been properly identified?	☐	

10. Prepared By:	**Form SSP-L (rev 9/06)** Page _____ of _____

HAZWOPER 1910.120 DRUM COMPLIANCE CHECKLIST (ICS-208-CG SSP-L)

Purpose: The HAZWOPER 1910.120 Drum Compliance Checklist is to ensure that incident response operations are in compliance with Title 29, Code of Federal Regulations Part 1910.120, Hazardous Waste Operations and Emergency Response whenever drums are encountered during an incident. This is an optional form.

Preparation: The HAZWOPER 1910.120 Drum Compliance Checklist is completed by the Safety Officer or his/her staff as frequently as necessary whenever the Safety Officer wants to ensure regulatory compliance. It is best used in conjunction with the Site Safety Plan Enforcement Log (ICS-208-CG SSP-H). The Site Safety Plan Forms (A-G) best meet some of the requirements. Other requirements are performance based and are best evaluated on scene by the Safety Officer or his/her staff.

Distribution: The HAZWOPER 1910.120 Drum Compliance Checklist should be maintained by the Safety Officer.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) prepared.
3	Operational Period	Enter the time interval for which the assignment applies.
4	Safety Officer	Enter the name of the Safety Officer and means of contact.
5	Supervisor/Leader	The Supervisor/Leader who receives this form will enter their name here.
6	Location & size of site	Enter the geographical location of the site and the approximate square area.
7	For Emergencies Contact	Enter the name and way to contact the individual who handles emergencies.
8	Note	Tanks and vaults should also be treated in the same manner as described in the checklist (1910.120((j)(9)).
9.a.	Cites	These are the regulatory cites within 1910.120. The major headings are highlighted in bold. Informational cites or cites that are duplicative are not included.
9.b.	Requirement	This lists the requirement in a question format. Some require documentation or some form of action.
9.c.	Check Block	Enter the check if the site satisfies the requirement.
9.d.	Comments	This provides information on where else the requirement may be met. The user may also enter comments.
10	Prepared by	Enter the name and position of the person completing the worksheet.

NATIONAL PREPAREDNESS

FOR

RESPONSE EXERCISE PROGRAM

(PREP)

GUIDELINES

DEPARTMENT OF TRANSPORTATION
U.S. Coast Guard
Research and Special Programs Administration

ENVIRONMENTAL PROTECTION AGENCY

DEPARTMENT OF THE INTERIOR
Minerals Management Service

August 2002

To the “Response Community”:

This is the first revision since August 1994 to the Preparedness for Response Exercise Program (PREP) when we set out together to design an effective and coordinated exercise program under the Oil Pollution Act of 1990. As before, the revisions are the result of an open dialogue and the incorporation of lessons learned over the past 8 years. We considered issues identified in public meetings and in written comments received to the Department of Transportation regulatory docket (2000-7514). The PREP will evolve as the government and industry continue to meet the challenge of protecting the environment, public health and welfare. We look forward to working with all parties as we continue to improve the PREP process.

Captain David Westerholm
Chief, Office of Response
U.S. Coast Guard

Michael B. Cook
Director, Office of Emergency and Remedial Response
U.S. Environmental Protection Agency

Stacey Gerard
Associate Administrator for Pipeline Safety
Research and Special Programs Administration

Elmer P. Danenberger
Chief, Engineering and **Operations** Division
Minerals Management Service

PREP GUIDELINES

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SECTION 1: INTRODUCTION

Purpose

The National Preparedness for Response Exercise Program (PREP) was developed to establish a workable exercise program which meets the intent of section 4202(a) of the Oil Pollution Act of 1990 (OPA 90), amending section 311 (j) of the Federal Water Pollution Control Act (FWPCA), by adding a new subsection (6) and a new subsection (7) for spill response preparedness [33 U.S.C. 1321 (j)]. The PREP was developed to provide a mechanism for compliance with the exercise requirements, while being economically feasible for the government and oil industry to adopt and sustain. The PREP is a unified federal effort and satisfies the exercise requirements of the Coast Guard, the Environmental Protection Agency (EPA), the Research and Special Programs Administration (RSPA) Office of Pipeline Safety, and the Minerals Management Service (MMS). Completion of the PREP exercises will satisfy all OPA 90 mandated federal oil pollution response exercise requirements.

PREP addresses the exercise requirements for oil pollution response. At this time, Coast Guard is the only one of the four participating federal agencies considering regulations requiring HAZSUB response planning and exercises under the Federal Water Pollution Control Act and the Oil Pollution Act of 1990. Therefore, the HAZSUB exercise standards described in Section 3 of the Guidelines apply only to CG-regulated vessels and facilities in accordance with 33 CFR 154/155. There are additional industry planning and exercise requirements contained in other federal statutes, which are not addressed in these Guidelines.

The PREP represents the **minimum** guidelines for ensuring adequate response preparedness. If personnel within an organization believe additional exercises or an expansion of the scope of the PREP exercises are warranted to ensure enhanced preparedness, they are **highly encouraged** to conduct these exercises.

The PREP exercises should be viewed as an opportunity for continuous improvement of the response plans and the response system. **Plan holders are responsible for addressing any issues that arise from evaluation of the exercises and for making changes to the response plans necessary to ensure the highest level of preparedness.**

Participation in PREP

Plan holders are required to meet the pollution response exercise requirements mandated by the federal agency with regulatory oversight for the specific type of industry involved (e.g., vessels, marine transportation-related facilities, onshore and certain offshore non transportation-related facilities, pipelines, offshore facilities). The PREP satisfies these requirements. **The PREP is a voluntary program**. Plan holders are not required to follow the PREP guidelines and, if they choose not to, may develop their own exercise program that complies with the regulatory exercise requirements.

All plan holders, whether participating in the PREP or following the exercise mandates of relevant agency regulations, will be subject to government -initiated unannounced exercises. Unannounced exercises are mandated by OPA 90. These exercises are further described in these guidelines.

Applicability

The PREP is applicable to all industry response plan holders who elect to follow these guidelines. Area Contingency Plan holders are required to follow the PREP guidelines.

Industry plan holders electing not to adopt the PREP as their exercise program will be responsible for developing and documenting an exercise program that satisfies the appropriate federal oversight agency.

If an industry plan holder has developed one response plan that covers a fleet of vessels or regional operations of offshore platforms, this plan holder would only be required to conduct one "set" of exercises for the plan, with the exception of the qualified individual notification exercises and the emergency procedures exercises, which are required for all manned vessels and unmanned barges (as specified in 33 CFR155.101 5).

Effective Date

THE PREP GUIDELINES BECAME EFFECTIVE JANUARY 1,1994. THE PREP FOLLOWS THE CALENDAR YEAR - THE EXERCISE YEAR IS JANUARY 1 TO DECEMBER 31.

Definitions

- **Area** - That geographic area for which a separate and distinct Area Contingency Plan has been prepared, as described in the Oil Pollution Act of 1990. For EPA Areas with sub - area plans or annexes to the Area Contingency Plan, the EPA Regional Administrator shall decide which sub-area plan is to be exercised within the triennial cycle.

- **Area Committee -** Area Committees are those committees comprised of federal, state and local officials, formed in accordance with section 4202 of the Oil Pollution Act of 1990, whose task is to prepare an Area Contingency Plan for the area for response to a discharge of oil or hazardous substance.

- **Area Spill Management Team -** The Area Spill Management Team is the group of individuals within the Coast Guard or EPA On-Scene Coordinator organization with responsibility for spill response management within the respective area. The Area Spill Management Team should include state and local personnel whenever possible.

- **Barge Custodian -** A barge custodian is the individual that has custody of an unmanned barge. The barge custodian may be affiliated with the towing vessel, fleeting area or facility at which the barge may be moored. The custodian can be the towing vessel operator, the facility operator, the fleet operator, or whoever may be in charge of the entity that has custody of the barge.

- **Certification -** Certification is the act of confirming that an exercise (1) was completed; (2) was conducted in accordance with the PREP guidelines, meeting all objectives listed; and (3) was evaluated using a mechanism that appraised the effectiveness of the response or contingency plan.

- **Complex -** A complex is a facility regulated under section 311 (j) of the Federal Water Pollution Control Act [33 U.S.C. 1321 (j)] by two or more federal agencies.

- **Equipment deployment exercise -** An equipment deployment exercise is an exercise where response equipment is deployed to a specific site and operated in its normal operating medium.

- **Equipment activation -** Equipment activation is the movement, staging, deployment or operation of response equipment, as determined by the plan holder in consultation with the exercise design team.

- **Exercise Design Team -** This team is comprised of federal, state and industry representatives who have responsibility for designing an Area Exercise.

⌑ **Hazardous Substance -** For the purposes of PREP Section 3, the chemicals for which plan holders are required to prepare response plans by the Coast Guard under 33 CFR 154, 155 .

⌑ **Hazardous Substance Response Organization (HSRO) -** For the purposes of PREP Section 3, HSRO refers to companies involved with hazardous substance response, removal, and remediation. This acronym does not suggest the same classification standards that are required by OSROs.

⌑ **Industry -** For the purpose of these guidelines, industry means the vessels, marine transportation-related (MTR) facilities, onshore and certain offshore non - transportation-related facilities, pipelines, and Outer Continental Shelf platforms for which response plans for oil spill response are required to be submitted by owners or operators. The response plan requirements and regulations for these entities are administered by the Coast Guard, EPA, RSPA, and MMS.

⌑ **National Response System -** Under 40 CFR part 300 (The National Oil and Hazardous Substances Pollution Contingency Plan), the National Response System (NRS) includes the National Response Team, Regional Response Teams, Area Committees, On-Scene Coordinators, and state and local government entities involved with response planning and coordination. The PREP, consistent with OPA 90 objectives, specifically involves the private sector with the NRS in order to ensure effective exercise development, delivery and coordination.

⌑ **Oil Spill Removal Organization (OSRO) -** An oil spill removal organization is an entity that provides response resources. An oil spill removal organization includes, but is not limited to, any for-profit or not-for-profit contractor, cooperative, or in-house response resources established in a geographic area to provide required response resources.

⌑ **On-Scene Coordinator (OSC) -** The On-Scene Coordinator is the federal official predesignated by EPA or the USCG prior to an oil spill to coordinate and direct federal responses under subpart D of the National Contingency Plan, or the official designated by the lead agency to coordinate and direct removal actions under subpart E of the National Contingency Plan.

⌑ **Operating Environments -** For the purposes of PREP, there are three types of operating environments [33 CFR 154, 33 CFR 155, 40 CFR 112]:

- River and canals
- Great Lakes/ Inland
- Ocean (nearshore, offshore, and open ocean)

If an OSRO operates in all three environments, the OSRO is required to conduct an exercise of the minimum amount of equipment in each of the environments. If the OSRO only operates in two of the environments, it must conduct the exercises in the two environments.

⌑ **Plan Holder -** The plan holder is the industry (e.g., vessels, MTR facilities, onshore and certain offshore non-transportation-related facilities, pipelines, or offshore facilities) for which a response plan is required by federal regulation to be submitted by a vessel or facility's owner or operator. If an owner or operator is authorized to prepare one plan for a fleet of vessels, that owner or operator is considered to be the plan holder.

Planning Volumes for Oil :

1. **Average Most Probable (USCG) / Small (EPA) Discharge: -** This definition is agency-dependent, and the appropriate definitions are detailed as follows:
   - For Coast Guard-regulated vessels, a discharge of 50 barrels [2,100 gallons] of oil from the vessel during oil transfer operations [33 CFR 155.1020].
   - For Coast Guard-regulated facilities, a discharge of the lesser of 50 barrels [2,100 gallons] or 1 percent of the volume of the worst-case discharge [33 CFR 154.1020].
   - For EPA regulated facilities, a small discharge is a volume of 2,100 gallons [50 barrels]or less, provided this amount is less than the worst-case discharge [40 CFR 112.20].
   - For RSPA - Not applicable
   - For MMS - Not applicable
2. **Maximum Most Probable (USCG) / Medium (EPA) Discharge: -** This definition is agency-dependent, and the appropriate definitions are detailed as follows:

- For Coast Guard-regulated vessels, a discharge of 2,500 barrels [105,000 gallons] of oil for vessels with an oil cargo capacity equal to or greater than 25,000 barrels [1,050,000 gallons], or 10 percent of the vessel's oil cargo capacity for vessels with a capacity of less than 25,000 barrels [1,050,000 gallons] [33 CFR 155.1020].

- For Coast Guard-regulated facilities, a discharge of the lesser or 1,200 barrels [50,400 gallons]or 10 percent of the volume of a worst-case discharge [33 CFR 154.1020].

- For EPA-regulated facilities, a discharge greater than 2,100 gallons [50 barrels] and less than or equal to 36,000 gallons [858 barrels] or 10 percent of the capacity of the largest tank at the facility, whichever is less [40 CFR 112.20].

- For RSPA-Not applicable.

- For MMS-Not applicable.

***Although this type of spill is not included as a spill to be used in any of the exercises, the definition is included to remind the program participants that this spill type is included in the planning process and can be used when conducting the various exercises.**

3. **Worst Case Discharge -** This definition is agency-dependent, and the appropriate definitions are detailed as follows:

   - For Coast Guard-regulated vessels, a discharge in adverse weather conditions of a vessel's entire cargo as defined in 33 CFR 155.1020.

   - For Coast Guard-regulated facilities, the size of the discharge as defined in 33 CFR 154.1020 (in the case of an onshore facility and deepwater port, the largest foreseeable discharge in adverse weather conditions meeting the requirements of 33 CFR 154.1029).

   - For EPA-regulated facilities, the size of the discharge described in 40 CFR 112.20.

   - For RSPA-regulated pipelines, the size of the discharge as defined in applicable regulations [49 CFR 194].

   - For MMS-regulated offshore facilities, the size of the discharge as defined in applicable regulations [30 CFR 254].

   - For Areas, the size of the discharge as defined in the Area Contingency Plan.

   - For complexes regulated by more than one federal agency, the largest of the worst-case discharges calculated for the various regulated components.

   - Planning Volumes for HAZSUB – Applies to Section 3 only.

4. **Worst Case Discharge (vessel)** - means a discharge of a vessel's entire hazardous substance cargo during adverse weather conditions [33 CFR 155. 3030].In addition, planning contingencies should also anticipate situations where a vessel does not lose the entire cargo but the consequences of the release present a significant and substantial risk to human health or the environment. Furthermore, a company must be prepared to respond to any individual chemical it is authorized to carry.

5. **Worst Case Discharge (Coast Guard-regulated facility)** – means a discharge of the entire volume of the largest hazardous substance cargo line (including the content of any associated breakout tanks) measured from the transfer manifold on the dock to the first valve inside the secondary containment of the facility.

⌑ **Personal Protective Equipment** - equipment that meets the requirements contained in OSHA Hazardous Waste Regulations 29 CFR 1910.120.

⌑ **Primary Oversight Agency -** The primary oversight agency is the agency with regulatory authority over a particular industry. For the purposes of the PREP, the four primary oversight agencies and the industries they regulate are the U.S. Coast Guard (vessels, MTR facilities), the Environmental Protection Agency (onshore and certain offshore non transportation-related facilities), the Research and Special Programs Administration (pipelines), and the Minerals Management Service (offshore facilities).

⌑ **Qualified Individual -** A qualified individual is the person located in the United States who meets the requirements identified in the respective federal regulations (USCG, EPA, RSPA, MMS), and who is authorized to do

the following: (1) activate and engage in contracting with oil spill removal organizations; (2) act as a liaison with the On-Scene Coordinator; and (3) obligate funds required to effectuate response activities. The qualified individual will be the individual or a designee identified in the response plan.

- **Self-Certification -** Self-certification is where the plan holder declares he or she has met the following standards: (1) completion of the exercise; (2) conducting of the exercise in accordance with the PREP guidelines, meeting all objectives listed; and (3) evaluation of the exercise using a mechanism that appraises the effectiveness of the response or contingency plan.

- **Self-Evaluation -** Self-evaluation means that the plan holder is responsible for carefully examining the effectiveness of the plan for response during the exercise. The plan holder may choose the mechanism for conducting this appraisal, as long as it appropriately measures the plan effectiveness. The plan holder is responsible for addressing issues that arise in the exercise that would lead to improvements in the response plan or any aspect of preparedness for spill response. The plan holder is responsible for incorporating necessary changes to the response plan as a result of the exercise.

- **Spill Management Team -** The spill management team is the group of personnel identified to staff the appropriate organizational structure to manage spill response implementation in accordance with the response plan.

- **Tabletop Exercise** - For the purpose of the PREP, a tabletop exercise is an exercise of the response plan and the spill management team's response efforts without the actual deployment of response equipment.

- **Timely -** (as used in relation to CG and EPA government-initiated unannounced exercise programs) means the times established in the appropriate response planning regulations issued by the EPA and USCG for providing response resources to a small or average most probable spill.

- **Unified Command -** This entity is a command structure consisting of the On-Scene Coordinator, the State, the Responsible Party and other parties as appropriate. The Unified Command is utilized during a spill response to achieve the coordination necessary to carry out an effective and efficient response.

- **Verification -** Verification is the act of ensuring that an exercise was properly documented and certified. Verification would be conducted by the Coast Guard, EPA, RSPA, or MMS. Verification of the exercise records may be conducted through normal operations of the regulatory agency, such as inspections, boarding, spot checks, or other systems developed to ensure exercises are being conducted and properly documented.

- **Vessel -** For the purpose of the oil spills, a "vessel" is any vessel required by 33 CFR 155.1015 to submit a response plan. For the purpose of hazardous substance releases, a “vessel” is any vessel required by 33 CFR 155. 3030 to submit a response plan. A "vessel" includes unmanned barges.

SECTION 2: GUIDING PRINCIPLES

Internal and External Exercises

→ **Internal Exercises.**

Internal exercises are those that are conducted wholly within the plan holders organization. While the internal exercises include personnel such as the qualified individual and those affiliated with the plan holder's spill management team, OSRO, the internal exercises usually do not involve other members of the response community. The internal exercises are designed to examine the various components of the response plan to ensure the plan is adequate to meet the needs of the organization for spill response.

The **Internal** exercises include --

- Qualified individual notification exercises;
- Emergency procedures exercises for vessels and barges;
- Emergency procedures exercises for facilities (optional);
- Spill management team tabletop exercises; and
- Equipment deployment exercises.

All internal exercises should be **self-evaluated** and **self-certified.**

→ **External Exercises.**

External exercises are exercises that extend beyond the internal focus of the plan holder's organization, and involve other members of the response community. The external exercises are designed to examine the response plan and the plan holder's ability to coordinate with the response community to conduct an effective response to a pollution incident.

The **external** exercises include--

- Area exercises; and
- Government-initiated unannounced exercises.

While the government-initiated unannounced exercises will not usually involve all members of the response community, the involvement of an agency outside of the plan holders' organization places it in the category of an external exercise.

Qualified Individual Notification Exercises

The purpose of the qualified individual notification exercise is to ensure that the qualified individual (or designee, as designated in the response plan) is able to be reached in a spill response emergency to carry out his or her required duties. Contact by telephone, radio, message-pager, or facsimile must be made with the qualified individual, and confirmation must be received from him or her to satisfy the requirements of this exercise.

The qualified individual notification exercise is not intended to verify phone numbers, points of contact or the notification list contained in the plan. The plan holder is expected to update the notification list periodically (recommended at least once every 6 months) as part of the normal course of conducting business.

At least once a year, the qualified individual notification exercise should be conducted during non-business hours.

→ **Vessels.**

For vessels, it is the responsibility of the plan holder to ensure that the qualified individual notification exercise is conducted. If a plan holder has a fleet of vessels covered by one response plan, the plan holder must ensure that each vessel in the fleet conducts this exercise.

For vessels, a telex will be acceptable, but the baseline should be voice communication. If a telex is used for this exercise, confirmation from the qualified individual must be received to properly satisfy the requirements of this exercise.

→ **Unmanned Barges.**

For unmanned barges, it is the responsibility of the plan holder to ensure that the qualified individual notification exercise is conducted. If a plan holder has a fleet of unmanned barges covered by one response plan, during each quarter the plan holder should randomly choose a barge in the fleet to conduct the qualified individual notification exercise.* The plan holder should have the barge custodian of the chosen barge conduct the exercise. The plan holder should choose the barges and the various custodians randomly. This method

will ensure that all barges and custodians are ultimately included in the exercises.

***To require each unmanned barge in a fleet to conduct this exercise quarterly would be extremely difficult and unwieldy to manage.**

Emergency Procedures Exercises

The purpose of the emergency procedures exercises is to ensure that personnel are capable of conducting the initial actions necessary to mitigate the effects of a spill.

→ **Vessels.**

For vessels, it is the responsibility of the plan holder to ensure that the emergency procedures exercise is conducted. If a plan holder has a fleet of vessels covered by one response plan, the plan holder must ensure that each vessel in the fleet conducts this exercise. Since vessels do not always sail with the same crews, it is important that each vessel conducts this exercise quarterly to ensure that the personnel on board are familiar with the procedures for mitigating a spill occurring from that vessel.

→ **Unmanned barges.**

For unmanned barges, it is the responsibility of the plan holder to ensure the emergency procedures exercise is conducted.

***To require each unmanned barge in a fleet to conduct this exercise quarterly would be extremely difficult and unwieldy to manage.**

If a plan holder has a fleet of unmanned barges covered by one response plan, during each quarter the plan holder should randomly choose a barge in the fleet to conduct the emergency procedures exercise. The plan holder should have the barge custodian of the chosen barge conduct the exercise. The plan holder should choose the barges and the various custodians randomly to ensure that all barges and custodians will ultimately be included in the exercises.

→ **Facilities (optional).**

Facilities have the option of conducting emergency procedures exercises. For the purpose of the PREP, emergency procedures for facilities are the procedures established at the facility to mitigate or prevent any discharge or a substantial threat of such discharge of oil resulting from facility operational activities associated with cargo transfers . An emergency procedures exercise conducted unannounced would satisfy the facility's requirement for the annual unannounced exercise.

Spill Management Team Tabletop Exercises

The response plan holder must identify a spill management team in the response plan. This spill management team shall conduct an annual tabletop exercise, in accordance with the PREP guidelines. The response plan must be utilized in the exercise to ensure the spill management team is familiar with the plan and is able to use it effectively to conduct a spill response. At least one spill management team tabletop exercise in a triennial cycle shall involve a worst-case discharge scenario.

If a response plan lists different types of spill management teams for varying sizes of spills - for example a local spill management team for small spills, a regional team for larger spills, and a national team for major spills-each team identified would be required to conduct an annual spill management team tabletop exercise.

→ **Examples of Variations in Spill Management Team Organizations**.

If an organization has one national spill management team identified for all plans within the organization, that spill management team would only have to conduct one spill management team tabletop exercise annually, as long as the TTX addresses individual responses to spill scenarios for all type of industry plan holders covered by the SMT, i.e. vessels, facilities, pipelines and offshore facilities. For the annual spill management team tabletop exercise, the spill management team may use core response management procedures that would cover all plan holders, but the SMT must ensure it is familiar with each response plan for the vessels, facilities, pipelines and offshore facilities for which they are responsible, including the specific spill scenarios identified in each of the plans as well as the specific operations of each of the vessels, facilities, pipelines and offshore facilities. All plan holders that cite this national team in their response plans should take credit for this exercise.

Likewise, if regional spill management teams are set up within the organization, each regional team would only have to conduct one spill management team tabletop exercise annually, as long as the TTX addresses individual responses to spill scenarios for all types of industry plan holders covered by the SMT, i.e. vessels, facilities, pipelines and offshore facilities. The spill management team may utilize core response management procedures that would cover all plan holders, but the spill management team must ensure it is familiar with each response plan for which they are

responsible, including the specific spill scenarios identified in each of the plans as well as the specific operations and unique characteristics of each of the vessels, facilities, pipelines and offshore facilities. All plan holders that cite this regional team in their response plans should take credit for this exercise.

If a plan holder uses a core spill management team to handle most spills and adds personnel to the team as the size of the spill increases, either locally or from regional locations, the entire expanded spill management team must be exercised annually.

The spill management team tabletop exercises should take into account shift changes to ensure that all personnel serving as part of the spill management team during an actual spill have participated in an exercise.

If a plan holder cites a spill management team that is not part of the plan holder's organization, i.e. "SMT for hire", that spill management team would only be required to conduct one spill management team tabletop exercise annually, as long as the TTX addresses individual responses to spill scenarios for all types of industry plan holders covered by the SMT, i.e. vessels, facilities, pipelines and offshore facilities. One or more representatives from each plan holder organization that the spill management team represents must participate in the exercise. During the spill management team tabletop exercise, the spill management team must utilize each response plan to ensure familiarity with the spill scenarios identified in each of the plans as well as the specific operations of each vessel, facility, pipeline, and offshore facility the spill management team represents. The spill management team must also work with each plan holder representative to ensure the spill management team is able to incorporate the response management operations into the plan holder's organization during spill response. The spill management team should provide all plan holders with documentation upon completion of the spill management team tabletop exercise, and each plan holder should take credit for the exercise.

→ **Vessels.**

For vessels, if a plan holder has one response plan for a fleet of vessels and cites the same spill management team for more than one or all of the plans, the spill management team would only have to conduct one spill management team tabletop exercise annually, as long as the core response plan is used in the exercise and the spill management team demonstrates knowledge of the geographic specific annexes of the vessels during the exercise. All vessel plan holders in the fleet citing this spill management team should take credit for the annual exercise.

→ **Pipelines.**

For pipelines, the spill emergency response team is the spill management team.

Equipment Deployment Exercises

The equipment deployment exercise applies to all plan holders. It is the responsibility of the plan holder to ensure that the Equipment Deployment Exercise requirement is met.

The two primary requirements for the equipment deployment exercise are:

1. The personnel that would normally operate or supervise the operation of the response equipment must participate in the exercise. The personnel must demonstrate their ability to deploy and operate the equipment, while wearing appropriate personal protective equipment. All personnel involved in equipment deployment and equipment operators must be involved in a training program.

2. The response equipment must be in good operating condition. The equipment must be appropriate for the intended-operating environment. The equipment must operate during the exercise. All response equipment must be included in a maintenance program.

Although not required as part of the equipment deployment exercises, plan holders are encouraged to use these exercises as an opportunity to validate response strategies detailed in response/contingency plans for the geographic area where the exercise is being conducted.

A plan holder is responsible for ensuring exercise of all equipment types cited in the plan whether plan holder owned or provided through an OSRO.

The purpose of the equipment deployment exercise is to validate that the equipment is appropriate for the operating environment in which it is intended to be used and that operating personnel are trained and capable of its deployment and operation. Thus it is not necessary to deploy every piece of each type of equipment as long as all equipment is included in a periodic inspection and maintenance program intended to ensure the equipment remains in good working order. However, all operating personnel must participate in exercises or responses on an annual basis in order to ensure they remain trained and qualified to operate equipment in the operating environment.

Note that the CG applies the same standards to HSRO owned equipment deployment exercises as described below for OSROs.

→ **OSRO Involvement in Equipment Deployment Exercises.**

The PREP guidelines identify the minimum amount of equipment that must be deployed in an equipment deployment exercise. This amount is considered to be a representative sample of the equipment. The rationale for this approach is that if the representative sample works, then the rest of the equipment could be expected to work since it would be part of the company's maintenance program. For the personnel, if a representative sample of the OSRO's personnel are involved in the deployment exercise and handle their responsibilities effectively, the rest of the personnel could be expected to be knowledgeable and effective since they would be a part of the company's training program. *When selecting the equipment and personnel for the exercise, the* OSRO *should ensure that the same equipment and personnel are not used repeatedly for each exercise. The equipment should be selected on a rotational basis, as with the personnel, with the ultimate goal of eventually exercising all of the* OSRO's *equipment and personnel.*

If an OSRO has separate field response facilities located throughout the country in areas that do not lend themselves to regional consolidation, each staffed field response facility, for the purpose of the PREP, will be considered a separate OSRO and will be required to conduct an annual equipment deployment exercise of the minimum amount of equipment specified in the in the PREP.

In both cases, if the OSRO is classified to deploy equipment to more than one type of operating environment, the OSRO must conduct a deployment exercise in each of the environments.

A few of the larger OSROs have small field response facilities. A field response facility is defined as a location where personnel and equipment are staged. Some of these OSROs have divided their operations into regional response facilities. In some instances, a regional facility will be responsible for several small field response facilities or equipment stockpiles. For the purpose of the equipment deployment exercises under the PREP, **each regional facility** will be considered a separate OSRO and will be required to conduct an annual equipment deployment exercise of the minimum amount of equipment specified in the PREP. The OSRO regional facility would be responsible for coordinating resources from all field facilities within the region for the exercise. In such instances, equipment may be drawn from one or more field facilities, but personnel from each field facility must participate in the equipment deployment exercise. If the OSRO operates using regional facilities, the OSRO will be responsible for defining its regional boundaries and providing information to its plan holders. Generally, however regions should be reasonable in geographic size. At a minimum, plan holders must ensure their OSRO(s) conduct annual equipment deployment exercises in each operating environment in which they expect to operate for each CG District or Regional Response Team Regions and EPA Area Contingency Planning area, or EPA sub-area (where identified), unless adjoining areas or sub-areas authorize an alternative. For example, if an OSRO is located in the First CG District, and provides response assets to the Fifth CG District as well those two might mutually agree to allow the OSRO to conduct fewer exercises due to similarity of operating environments in those areas and opportunity to observe the exercises. The OSRO should request this consideration in writing from the appropriate Contingency Planning Area and sub-area.

If the OSRO is cited in a response plan outside of its normal equipment staging and operating areas (i.e. as a Tier 2 responder), the plan holder citing that OSRO must ensure that the OSRO has the local knowledge relevant to an effective, efficient response in the plan holder's operating area. The plan holder must describe arrangements for providing the OSRO with information such as equipment launching locations, tides and currents of the local area, and any other logistical problems or information specific to the particular area.

The OSRO should provide documentation of completion of the exercise requirements to each plan holder covered by that OSRO. It is the plan holder's responsibility to ensure that the OSRO has completed the equipment deployment exercise requirements and has obtained the necessary documentation. All plan holders identifying an OSRO in their response plans as providing response resources should take and document their credit for completing the equipment deployment exercise requirements once documentation is received from the OSRO. All plan holders must remember that merely citing an OSRO in their response plan is not sufficient to ensure credit for the equipment deployment exercise.

→ **Cooperatives (Co-ops).**

For co-ops that are comprised of several OSROs, **each separate OSRO** that makes up the co-op would be required to conduct an annual equipment deployment exercise of the minimum amount of equipment listed below.

For co-ops that are comprised of facility equipment and personnel pooled together, **for the purposed of the PREP, this type of co-op is considered an OSRO** and would be required to conduct the equipment deployment exercise as outlined in the OSRO section. This co-op, which is formed by a

number of facilities pooling their response equipment and personnel together, would be required to conduct an equipment deployment exercise of the minimum amount of equipment listed below annually. Each facility and the personnel will not have to conduct the exercise individually. The co-op as a whole would conduct one equipment deployment exercise per year. Representatives from all of the facilities comprising this co-op must participate in this exercise.

Co-op personnel that are responsible for deploying the response equipment must be involved in a training program, which prepares them for operating the response equipment. Likewise, the Co-op must have a maintenance program for all of the response equipment.

→ **Vessel and Facility Plan Holder Owned and Operated Equipment.**

Plan holder owned and operated equipment is that equipment owned by a plan holder and operated either by the plan holder's own personnel or other personnel hired by the plan holder to operate this equipment. Whoever operates this equipment must be involved in the equipment deployment exercises.

Plan holders that have plan holder owned and operated equipment, and have this equipment identified in their response plan for spill response, would be required to deploy this equipment twice a year (semiannually). The plan holder would be required to deploy the minimum amount of equipment for deployment specified below or the total amount of equipment that plan holder has available for response, whichever is less. The requirement for semiannual equipment deployment is based on the fact that this equipment is not deployed routinely and that the personnel operating it do not do this as a part of the vessel's or facility's normal operations. The semiannual requirement is necessary to ensure adequate preparedness for spill response.

The plan holder's personnel responsible for deploying the response equipment must be involved in a training program which prepares them for operating the response equipment. Likewise, the vessel/facility plan holder must have a maintenance program for all of the response equipment.

→ **Plan Holders Using a Combination of OSRO Equipment and Plan Holder Owned and Operated Equipment**

Plan holders citing both OSRO equipment and their own equipment in their response plans would be required to exercise both types of equipment at the above described intervals.

→ **Minimum Amount of Equipment to be Deployed in Internal Equipment Deployment Exercises.**

I. Hazardous Substance Incident Assessment Equipment used in the initial assessment and response to hazardous substance releases. Note that this type of equipment is not required by regulation for oil spill response.

a) Monitoring- Air, surface and subsurface plume monitoring equipment.

b) Personal Protective Equipment-Protective clothing, protective breathing apparatus appropriate to protecting responders in the environments to which they might be exposed in responding to a release

c) Technical Equipment - Used for trajectory analysis.

→ **Oil and Hazardous Substance Response Systems.**

A) Mechanical - Skimming/Recovery Systems - One of each type of Skimming System as listed in the plan. A Skimming System includes containment boom, hoses, piping, pumps, prime movers, support vessels, etc. necessary for the effective operation of that system.

Types of Skimming/Recovery Systems include:

- Oleophilic - Brush
- Oleophilic - DiscOleophilic - Paddle Belt
- Oleophilic - Rope Mop
- Oleophilic - Sorbent Lifting Belt
- Oleophilic - Submersion Belt
- Oleophilic - Submersion Plane
- Suction (including vacuum trucks)
- Weir
- Advancing Weir

- Special Purpose skimmers (e.g. fast water)

B) In-Situ Burn Systems – Each ISB package listed in the plan and relied on by the plan holder in meeting response equipment capability requirements - including boom, method of ignition, support vessels and smoke plume monitoring equipment. Deployment or use of in situ-burning should not occur during the exercise unless directed by the Federal On-Scene Coordinator.

C) Dispersant Systems – Each dispersant package listed in the plan and relied on by the plan holder in meeting response equipment capability requirements , including dispersant delivery vehicles, application equipment, and dispersed oil plume monitoring equipment. Deployment or use of the actual dispersant should not occur during the exercise unless directed by the Federal On-Scene Coordinator.

II. Booming Systems (includes protective and containment boom not exercised as part of a skimming or in-situ burning system described above) 1,000 feet (or total amount of boom listed in plan, whichever is less) of each protective or containment boom system listed in the plan and relied on by the plan holder in meeting response equipment capability requirements. Protective boom systems (boom and means of deploying and anchoring) include the following types:

- Fence Boom
- Curtain Boom: internal foam; external foam, self-inflatable and pressure inflatable.
- External Tension Boom
- Tidal Seal Boom **(Only 50 feet of this type of boom need be deployed.)**
- Special Purpose
- -Ice Booms

***Fast Water Booms (Equipment and/or techniques intended to improve spill containment, control in fast water situations).**

→ **Area Equipment Deployment. (Oil only).**

The area equipment deployment exercise involves Coast Guard and EPA "first aid" response equipment and the Coast Guard's prepositioned equipment. All of the "first aid" equipment or that which is necessary to respond to an average most probable discharge in the area, whichever is less, would be deployed annually.

Internal Unannounced Exercises

THIS IS NOT A SEPARATE EXERCISE. THIS SECTION OUTLINES THE REQUIREMENT THAT ONE OF THE PREP EXERCISES USED BELOW MUST BE CONDUCTED UNANNOUNCED.

Annually, each plan holder should ensure that one of the following exercises is conducted unannounced:

- Emergency procedures exercise for vessels and barges;
- Emergency procedures exercise for facilities (optional);
- Spill management team tabletop exercise; or
- Equipment deployment exercise.

An unannounced exercise is where the exercise participants do not have prior knowledge of the exercise, as would be the situation in an actual spill incident.

To ensure that the nation maintains an adequate posture for response preparedness, and to satisfy the OPA 90 requirement for unannounced exercises, it is necessary to have an exercise program, which is comprised of both announced and unannounced exercises. The requirement for the annual unannounced exercise is necessary to maintain the level of preparedness necessary to effectively respond to a spill.

Response to an actual spill should be taken as credit for the unannounced exercise requirement, if the response was evaluated.

The emergency procedures exercise is being offered as an option for facilities, to provide an additional exercise that may be conducted unannounced.

Government-Initiated Unannounced Exercises

The government-initiated unannounced exercises are designed to give the agency with primary regulatory oversight over a particular industry the opportunity to evaluate, on a random basis, the response preparedness of that industry. The PREP has attempted to make this requirement as reasonable as possible. The frequency of these drills for the noted Agencies are as follows:

- For Coast Guard regulated vessels and facilities, the government - initiated unannounced exercises are limited to four per area per year.
- For EPA-regulated facilities, the government-initiated unannounced exercises are limited to 10% of the plan holders per EPA region per year.
- For RSPA-regulated pipelines, the government-initiated unannounced exercises are limited to 20 annually across the nation.
- For MMS-regulated offshore facilities, the number of government-initiated unannounced exercises are determined by the Regional Supervisor and may exceed 50 per year nationally. A facility will not face an MMS unannounced exercise more than once per year, unless the results of previous exercises indicate that follow-up drills are warranted due to poor performance during a drill.

A plan holder directed to participate in a government-initiated unannounced exercise is required to participate as directed unless specific conditions exist that may result in safety hazards. The cost of the unannounced exercise will be borne by the response plan holder.

For complex facilities that are regulated by two or more agencies, it is the responsibility of the exercising agency to notify and invite the participation of the other agency and the responsible On-Scene Coordinator in advance, so as to minimize the possibility of the facility being exercised multiple times during a compressed time period.

A plan holder that has successfully completed a government-initiated unannounced exercise would not be required to participate in another Federal government - initiated unannounced exercise for at least 36 months from the time of the last exercise provided that the drill protocols and method of evaluation are equivalent. The plan holder must maintain documentation of this participation.

Guidelines for determining successful completion of an exercise and for determining enforcement actions (including but not limited to civil penalties) for an unsuccessful exercise are the responsibility of the individual oversight agencies, based on application of their individual agency regulations.

→ **Successful Completion of Government-Initiated Unannounced Exercises.**

A government-initiated unannounced exercise must be successfully completed as determined by the initiating authority. Failure to successfully complete an exercise indicates that either the plan holder could not properly implement its response plan, that the response resources were not available or not in operating condition, or that response personnel were not adequately trained in implementing the response plan. These are all causes for corrective action that may include but is not limited to additional unannounced exercises and revisions to the submitted response plan. For an exercise to be successful it is intuitive that it must meet the Scope and Objectives of the exercise element. It is the responsibility of the agency with oversight of the regulated entity to develop specific guidelines for determining the successful completion of an exercise and for determining appropriate enforcement actions (including but not limited to civil penalties) for an unsuccessful exercise.

One of the objectives for successful completion of an exercise is the concept of demonstrating that the response can be conducted in a timely manner. Note that the connotation of timely remains a planning rather than a performance standard. Timely is **defined** in Section 1 of these guidelines and is further discussed in specific portions of the Guiding Principles and in those sections of the Guidelines which address specific exercise elements for vessels and facilities.

Marine Transportation-Related Facilities and Vessels Regulated by the U.S. Coast Guard.

Coast Guard personnel conducting USCG-initiated unannounced exercises will be guided by the following concepts when determining success of an exercise. Keeping in mind that response time frames in the regulations are planning standards and not performance standards, and that the government initiated unannounced exercise program focuses on average most probable discharges, successful completion cannot be determined by a stopwatch, but by subjective evaluation of a variety of factors including:

1. Response resources located within 17-mile radius of transfer site (boom - 1 hour response time over the road given half hour for mobilization) and 52-mile radius of transfer site (recovery equipment -

2 hour response time over the road given half hour for mobilization) if response personnel are standing by with the equipment during any plan holder transfer operation.

2. For lightering, bunkering etc, on water, Response resources located within 2.5 nautical mile radius of transfer site (boom - 1 hour response time over the road given half hour for mobilization) and 7.5 nautical mile radius of transfer site (recovery equipment - 2 hour response time over the road given half hour for mobilization) if response personnel are standing by with the equipment during any plan holder transfer operation.

3. Personnel to operate the equipment need not be co-located with the equipment, as long as those personnel are located within the same response radii and personnel needed to mobilize and transport the equipment are co-located with the equipment.

4. If plan holder notifies and orders OSRO equipment quickly and the OSRO demonstrates it's capability to mobilize the equipment immediately then the precise time the equipment arrives on scene is not important. USCG exercise personnel may opt to send a team to the OSRO site to observe mobilization as part of the exercise. (E.g., Boom is 7 miles away from transfer site - at 35 miles per hour that boom can be on scene in 12 minutes, so if notification and mobilization can be completed in 45 minutes, it is reasonable to assume that the boom will be on scene in less than one hour. If boom is 17 miles away notification and mobilization must be completed in 30 minutes. If it is 28 miles away, mobilization must be complete in 15 minutes, and so on.).

5. Under the above circumstances is does not matter how soon the equipment and personnel arrive on scene because any delay can reasonably be presumed to have been caused by the instant conditions rather than the average conditions on which the planning travel times are based.

6. Once the equipment is delivered on scene, personnel should be able to deploy and operate the equipment without significant difficulty (people should generally be aware of locations of equipment launch sites, anchoring points and deployment strategies.) However, because specific conditions vary at every site, deployments are not likely to be entirely seamless and deployment personnel may need to make adjustments that will delay completion of deployment. In fact, the ability to adjust to these differing environmental conditions may be an indicator of the competence of response personnel.

7. While it is intended that equipment be in the water and operational before the end of 4-hour exercise period, there are circumstances, particularly related to safety and non-interference with actual operations that may delay completion of deployment beyond that time. In such a case, exercise should continue until equipment is deployed and operated satisfactorily.

→ **Non-transportation-Related Facilities Regulated by the Environmental Protection Agency.**

The measure of an effective unannounced government-initiated exercise will be the overall ability of the responders identified in the facility response plan to rapidly and effectively control a small discharge with particular attention to those actions that afford the best chances to control a spill and minimize its impact in the first few hours of the incident. While recognizing that an effective response to an oil discharge entails the rapid deployment of proper equipment, it is not the intention of the EPA to use timeliness as the sole factor when evaluating the response to a government-initiated unannounced exercise for a small discharge. EPA personnel will evaluate whether the response equipment specified in the response plan arrives at the specified times. These times are listed in the response plan and are based on the response planning requirements in 40 CFR 112 or alternative response times when approved by the Regional Administrator. Whether the containment boom and recovery devices specified in the response plan arrive precisely at the specified times is less relevant than the overall conduct of the exercise and the successful achievement of the exercise objective described in PREP. The objective of a government-initiated unannounced exercise for a small discharge includes the following sub-objectives:

- Conducting proper notifications;
- Arrival of containment boom as specified in the approved response plan within one hour of detection of the discharge and the subsequent successful deployment;
- Arrival of oil recovery devices as specified in the approved response plan within two hours of detection of the discharge and the subsequent successful operation/simulated recovery;

- Demonstrating the availability of adequate storage capacity for recovered oil; and

- Properly conducting the exercise considering the size of a small discharge including skill and competency of responders and material readiness of response equipment.

The failure to achieve any one sub-objective should not automatically indicate that an exercise is a failure. EPA personnel evaluating the exercise should assess: the plan holders ability to conduct proper notifications; material readiness of response equipment; and the overall ability of responding personnel to mobilize, arrive on scene in a timely manner, properly deploy the containment boom, simulate recovery of oil, and demonstrate skill and competency during the 4 hour exercise window.

The EPA exercise evaluator will have a subjective role in determining the success of the exercise based on the achievement of the exercise objectives within the specific time. These evaluations will be dependent on spill site and circumstances. EPA personnel may request to review records of previous facility response plan exercises when there is a concern that the response time is excessive. As the result of an unsuccessful exercise the EPA may require the plan holder to participate in additional unannounced exercises, revise the existing response plan, or both. Unsuccessful unannounced exercises may also result in enforcement action against the plan holder.

→ **Safety During Exercises and Responses.**

The responsibility for safely conducting an exercise or an actual response remains with the plan holder and responding personnel. The response plan should comply with all the regulatory requirements while considering safety factors. Plan holders and responders are never expected to operate in an unsafe or illegal manner during an exercise or actual response. The plan holder is responsible to confirm that the resources identified in the response plan can mount an effective response while operating within all applicable laws and regulations. In short, there is no expectation or justification for placing people at risk during an exercise or response. Conducting the exercise in an unsafe manner is likely to contribute to an unsatisfactory exercise.

Triennial Exercise of the Entire Response Plan.

Every 3 years all components of the entire response plan must be exercised. Rather than requiring each plan holder to conduct a major-exercise every 3 years, the PREP allows for the individual components to be exercised in portions through the required exercises.

The following are the basic types of plan components that must be exercised at least once every 3 years:

Organizational Design

(1) Notifications
(2) Staff mobilization
(3) Ability to operate within the response management system described in the plan

Operational Response

(4) Discharge control
(5) Assessment of discharge
(6) Containment of discharge
(7) Recovery of spilled material
(8) Protection of sensitive areas
(9) Disposal of recovered material and contaminated debris

Response Support

(10) Communications
(11) Transportation
(12) Personnel support
(13) Equipment maintenance and support
(14) Procurement
(15) Documentation

While not all of these components would necessarily be contained in each plan, the plan holder should identify those that are applicable from the list above, and add or delete other components as appropriate. The plan holder would then be responsible for ensuring that all components of the plan are exercised within each 3-year exercise cycle.

To satisfy the requirement of the triennial exercise of the entire response plan, it is not necessary to exercise the entire plan all at one time. The plan may be exercised in segments over a period of 3 years, as long as each component of the plan is exercised at least once within the 3-year period. The required exercises should be developed to ensure that each component is addressed and exercised in the triennial cycle. Appendix A

includes a template for use by plan holders tacking exercise completion over the 3-year PREP cycle.

The plan holder is responsible for documenting the components completed in the exercises.

→ **Triennial Cycle.**

In the triennial cycle, the following internal exercises must be conducted

- **12 qualified individual notification exercises;**
- **12 emergency procedures exercises**--manned vessels and unmanned barges (optional for facilities);
- **3 spill management team tabletop exercises--**one must involve a worst case discharge scenario;
- **3 unannounced exercises--**any of the exercises, with the exception of the qualified individual notification exercise, if conducted unannounced, would satisfy this requirement;
- **Equipment deployment exercises as described below:**
  - For vessel/facility owned and operated equipment-
    - 6 plan holder owned and operated equipment deployment exercises (for plan holders with vessel/facility owned and operated equipment identified in their response plan)
  - For vessels and facilities with OSROs identified for response equipment-
    - 3 OSROs equipment deployment exercises
  - For pipelines -
    - 3 pipeline equipment deployment exercises (using either OSRO and/or operator owned equipment
  - For offshore facilities
    - 3 equipment deployment exercises (for equipment staged onshore)
    - 6 equipment deployment exercises (for equipment staged offshore); and
- **Triennial Exercise of Entire Response Plan -** Each component of the response plan must be exercised at least once in the triennial cycle.

Area Exercises

The purpose of the area exercise is to exercise the entire response community in a particular area. An area is defined as that geographic area for which a separate and distinct Area Contingency Plan has been prepared, as described in OPA 90. The response community includes the federal, state and local government and industry. The area exercises are designed to exercise the government and industry interface for spill response.

The goal of the PREP is to conduct 20 area exercises per year nationwide, 60 within a triennial cycle. This method should ensure that all areas of the country are exercised triennially. Six of the 20 annual area exercises would be led by the government, that is the Area Committee, with a single industry plan holder as exercise partner. Industry plan holders would lead the other 14 with the Area Committee as exercise partner. An exercise design team will develop all of the area exercises. The exercise design team is comprised of representatives from the federal, state, and local government agencies, the local response community and the industry plan holder. A lead plan holder would lead each area exercise. The lead plan holder is the organization (government or industry) that is responsible for the primary plan that is exercised in the area exercise. The lead plan holder would have the final word on designing the scope and scenario of the exercise. The U.S. Coast Guard or the EPA, as Area Committee chair, would be the lead plan holder for the 6 government led exercises, with RSPA and MMS participating as appropriate.

A *suggested* mix of participants for the industry led area exercises would include:

- Vessels (6 exercises);
- Marine transportation-related (MTR) facilities (2 exercises);
- Onshore and certain offshore non-transportation-related facilities (2 exercises)
- Pipelines (2 exercises); and

- Offshore facilities (2 exercises).

The area exercises do not necessarily have to be large-scale productions. The scenario does not always have to involve a worst-case discharge. However at a minimum, the scenario must involve exercise of Tier I Worst-Case discharge capability. The primary purpose of the area exercise is to activate and observe the response infrastructure in the area, and the ability of the entire response community to effectively conduct a spill response. The focus should be on the interaction between the responsible party and the federal, state and local government to exercise both the Area Contingency Plan and the responsible party's response plan. The following are recommendations for the area exercises:

- Each exercise should be approximately 8-12 hours in duration. The exercises may be longer, if agreed to by the exercise design team.

- The area response mechanism would be evaluated in each area exercise. The unified command would be exercised.

- The lead plan holder will have the primary voice and final decision authority in the exercise design. However, exercise design should be conducted as a cooperative effort of the entire exercise design team.

- The exercise scenario will involve some amount of equipment deployment. The extent of equipment deployment should be determined by the lead plan holder after consulting with the exercise design team.

Area exercise equipment deployment should include testing adequacy of various response strategies contained in the plan, including but not limited to: protective booming for shoreline, fish, wildlife, and sensitive environment; fast-water, open-water, or shallow water containment and collection; or dispersant or in-situ burn operations. If the exercise spill scenario involves a maximum most probable or larger spill, a minimum of tier 1 equipment deployment should be conducted.

Equipment deployment need not be conducted simultaneously with the tabletop portion of the exercise. It may be done several weeks or even months prior to or after the tabletop to allow more efficient allocation of exercise planning and execution resources.

An Industry plan holder that participates in an Area Exercise would not be required to participate in another area exercise for a minimum of 6 years.

Plan holders are responsible for funding their participation in the area exercises.

An evaluation report should be completed not later than 60 days after completion of the area exercise. The evaluation report is completed by the joint evaluation team. For USCG Area Exercises, results of these joint evaluations will be entered in CGSAILS.

Area Exercise Scheduling

Scheduling of area exercises will be done under a nationally coordinated system that involves the federal, state and local governments and industry plan holders, and that recognizes the unique needs of specific geographic regions of the country.

→ **NSCC.**

A National Schedule Coordination Committee (NSCC) has been established for scheduling the area exercises. The NSCC is comprised of personnel representing the four federal regulating agencies - the Coast Guard, EPA, RSPA, and MMS.

→ **Scheduling Process.**

The NSCC is charged with developing and publishing a proposed area exercise schedule for each upcoming triennial period. This proposed schedule will be published in the Federal Register annually. The reason the exercises are scheduled three years in advance is to allow both area committees and industry plan holders to allocate sufficient funds and personnel. The NSCC will solicit comments on the proposed schedule and industry plan holders to lead and participate in the Area Exercises. It is important to note that the NSCC only proposes which area plans will be exercised over the three-year period. It is incumbent on the Regional Response Teams and Area Committees with jurisdiction over an area, to validate the proposed timeframe and to identify the industry plan holder who will participate in the exercise. Each Regional Response Team and Area Committee should work with the local industry to identify industry plan holders three years in advance of the scheduled exercise. Industry plan holders may also provide input to the scheduling process through the Area Committees.

Other Credit Issues

→ **Credit for Spill Response.**

Plan holders may take credit for internal exercises conducted in response to actual spills. The spill response must be evaluated. The plan holder must determine which exercises were completed in the spill response. This determination should be based on whether the response effort would meet the objectives of the exercise as listed in the PREP guidelines. The plan holder must document the exercises completed.

The NSCC is responsible for authorizing credit for area exercises, based on the recommendations of the On-Scene Coordinator. Credit should be given to a plan holder for participation in an area exercise if the following circumstances exist (1) the response plan was utilized in an actual spill response; (2) the response involved the entire response community; (3) the objectives of the area exercise were met as outlined in the PREP guidelines; (4) the response was evaluated; and (5) the spill response was properly documented and certified. Note that actual spills must involve, at minimum, deployment of worst-case discharge tier 1 capabilities to be eligible for this credit.

→ **Proper Documentation for Self-Certification.**

Proper documentation for self-certification should include, as a minimum, the following information:

- The type of exercise.
- Date and time of the exercise.
- A description of the exercise.
- The objectives met in the exercise.
- The components of the response plan exercised.
- Lessons learned.

This documentation must be in writing and signed by an individual empowered by the plan holder organization.

Sample documentation forms are attached as Appendix A to the PREP Guidelines.

As a general rule, exercise records should be completed within 30-60 days of the exercise, although this may vary depending on exercise complexity.

Special Issues

→ **Complexes.**

Complexes are facilities that must meet the requirements of more than one federal agency. For example, a facility that has oil storage tanks, a pipeline and a waterfront oil transfer dock is considered a complex since it must meet the requirements of EPA, RSPA and the Coast Guard.

Complexes would only be required to conduct one exercise to meet all agency requirements for that particular type of exercise. For example, if a quarterly notification exercise is required by all three agencies regulating the complex, one notification exercise per quarter would satisfy the requirements for all three regulatory agencies.

→ **Vessels Serving as Secondary Carriers of Oil.**

Vessels serving as secondary carriers of oil should comply with the exercise requirements in 33 CFR 155.1045(h).

→ **TAPAA Vessels and Facilities.**

Trans-Alaska Pipeline Authorization Act (TAPAA) vessels and facilities, in addition to complying with the primary exercise requirements, must comply with the additional exercise requirements identified in the vessel and facility response plan regulations at 33 CFR 155.1125(a)(2) and 33 CFR 154.1125(a)(2), respectively.

→ **LEPC Drill Credit.**

Local Emergency Planning Committees (LEPCs) are required to conduct hazardous substance exercises periodically. Industry plan holders should coordinate their exercises with the LEPCs, whenever possible, and should take credit, as long as the PREP exercise objectives are met.

→ **Foreign Vessels Calling Only Occasionally at U.S. Ports.**

If a vessel plan holder has a response plan, prepared with the intent that the vessel would be calling at U.S. ports, even if only occasionally, the vessel plan

holder must have an exercise program in place and be conducting the required exercises. If the plan holder is following the PREP guidelines, all exercises must be conducted at the frequency listed in the PREP guidelines. The only exception to this requirement is the qualified individual notification exercise, which is only required to be conducted quarterly while operating in U.S. waters, otherwise upon entry into U.S. waters.

If a vessel comes into U.S. waters for the first time, but intends to continue trading, it must conduct the qualified individual notification exercise immediately, and then begin its exercise program. Since the PREP follows the calendar year, the triennial cycle should begin as soon as the vessel enters U.S. waters. The vessel should remain on the calendar year schedule, with the following January 1 beginning the next year of the vessel's triennial cycle. In such cases, the plan holder will only be expected to complete 2 full years of internal exercises during the first triennial cycle. For the first year, the plan holder must complete one QI notification and one emergency procedures exercise each quarter during that year. Spill management team and equipment deployment exercises are recommended as soon as possible, but can be held up to 11 months after the date of the first entry into U.S. Waters.

If the vessel only intends to make one voyage into U.S. waters, the vessel must conduct the qualified individual notification exercise immediately upon entry. If the vessel intends to reenter the U.S. at any time, it must comply with all exercise requirements.

→ Railroad Tank Cars and Motor Vehicle Tank Trucks

There are few individual railroad tank cars or motor vehicle tank trucks transporting sufficient volumes of oil to be subject to the response planning requirements of OPA 90. For additional information on response planning requirements for individual railroad tank cars and motor vehicle tank trucks transporting oil, including training, equipment testing, and drills, see 49 CFR 130. A railroad tank car or a tank truck which transfers oil to or from certain vessels may be considered to be a mobile marine transportation-related facility and may be subject to the response planning requirements in 33 CFR 154. Loading and offloading of railroad tank cars and tank trucks at certain non-transportation related facilities may be covered by response plans prepared by a facility owner or operator subject to the requirements contained in 40 CFR 112.

Section 3:

U.S. Coast Guard – Regulated Vessels and Marine Transportation-Related Facilities

QI Notification Exercise

Coast Guard Marine Transportation-Related (MTR) Facilities

Applicability: Facility.

Frequency: Quarterly.

Initiating Authority: Company policy.

Particip. Elements: Facility personnel, qualified individual.

Scope: Exercise communications between facility personnel and qualified individual.

Objectives: Contact must be made with a qualified individual or designee, as designated in the response plan.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: Records to be kept at the facility.

Evaluation: Self-Evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises, as long as all objectives are met, the exercise is evaluated and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

For plan holders handling both oil and hazardous substances, a single QI notification will

satisfy exercise requirement for both plans, if both plans rely on the same QI. If the plan holder uses two different QIs, the plan holder is required to exercise each separately,

QI Notification Exercise

Manned Vessels

Applicability: Manned vessels.

Frequency: Quarterly while operating in U.S. waters, including the exclusive economic zone (EEZ); otherwise upon entry into U.S. waters, not to exceed four times per year. The qualified individual notification exercise would not be required for ships outside U.S. waters.

Initiating Authority: Master or designee according to plan.

Particip. Elements: Vessel personnel, plan designated shore side personnel, and a vessel's qualified individual.

Scope: Exercise communication between vessel personnel and qualified individual.

Objectives: Contact by telephone, radio, message-pager or facsimile a confirmation must be made with a qualified individual or designee as designated in the plan. A telex may be used only if the other means are not available

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: Logbook entry indicating time of qualified individual notification as provided at 33 CFR 155.1060(e)(1).

Evaluation: Owner or operator should conduct review to determine if objectives have been met.

Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises, as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated and a proper record is generated.

For plan holders handling both oil and hazardous substances, a single QI notification will satisfy exercise requirement for both plans, if both plans rely on the same QI. If the plan holder uses two different QIs, the plan holder is required to exercise each separately,

QI Notification Exercise

Unmanned Barges

Applicability: Unmanned barge.

Frequency: Quarterly while operating in U.S. waters, including the exclusive economic zone; otherwise upon entry into U.S. waters, not required to exceed four times per year. The qualified individual notification exercise would not be required for barges outside U.S. waters.

Initiating Authority: Barge owner or operator or towing vessel captain.

Particip.. Elements: Barge custodian and qualified individual.

Scope: Exercise communication between barge custodian and qualified individual.

Objectives: Contact-by telephone, radio, message-pager, or facsimile and confirmation must be made with the qualified individual or designee, as designated in the response plan.

Exercises should be conducted randomly to ensure that all barge custodians have an equal chance for participation in the notification exercises.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: Records to be kept on board the barge or with the response plan for the barge.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises, as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

For plan holders handling both oil and hazardous substances, a single QI notification will satisfy exercise requirement for both plans, if both plans rely on the same QI. If the plan holder uses two different QIs, the plan holder is required to exercise each separately,

On Board Emergency Procedures Exercise

Manned Vessels

Applicability: Manned vessels.

Frequency: Quarterly.

Initiating Authority: Master or designee according to plan.

Particip. Elements: Vessel personnel.

Scope: Exercise the emergency procedures for the vessel crew to mitigate or prevent any discharge or a substantial threat of such discharge of oil/HAZSUB resulting from shipboard operational activities associated with internal or external cargo transfers.

Objectives: Conduct an exercise of the vessel's emergency procedures to ensure crew knowledge of actions to be taken to mitigate a spill. This exercise may be a walk-through of the crews' actions.

Exercise should involve one or more of the sections of the emergency procedures for spill mitigation. For example -

> Simulation of response to a collision.

> Simulation of response to an oil spill on the deck of the vessel.

> Simulation of response to a vessel fire.

Annually ensure that spill mitigation procedures for all contingencies identified in the response plan have been exercised.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: Logbook entry as provided at 33 CFR 155.1060(e)(1).

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises, as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

On vessels covered by both oil and hazardous substance plans, separate oil and hazardous substance exercises are not required. However, the shipboard personnel should alternate oil and hazardous substance scenarios each quarter.

Emergency Procedures Exercises

Unmanned Barges

Applicability: Unmanned barge(s).

Frequency: Quarterly.

Initiating Authority: Barge owner or operator.

Particip. Elements: Barge custodian.

Scope: Exercise the emergency procedures to be taken for an oil/HAZSUB discharge or substantial threat of such discharge. Such procedures are outlined at33 CFR 155.1040 (a).

Objectives: Conduct a walk-through of the emergency procedures.

Ensure barge custodians know proper actions to take in the event of an oil discharge or substantial threat of such discharge.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: Records to be kept on board the barge or with the response plan for the barge.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit

should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

On vessels covered by both oil and hazardous substance plans, separate oil and hazardous substance exercises are not required. However, the shipboard personnel should alternate oil and hazardous substance scenarios each quarter.

Emergency Procedures Exercises

Facilities (Optional)*

Applicability: Facility.

Frequency: Quarterly.

Initiating Authority: Facility owner or operator.

Particip. Elements: Facility personnel.

Scope: Exercise the emergency procedures for the facility to mitigate or prevent any discharge or a substantial threat of such discharge of oil/HAZSUB resulting from facility operational activities associated with oil transfers.

Objectives: Conduct an exercise of the facility's emergency procedures to ensure personnel knowledge of actions to be taken to mitigate a spill. This exercise may be a walk-through of the emergency procedures.

Exercise should involve one or more of the sections of the emergency procedures for spill mitigation. For example, the exercise should involve a simulation of a response to an oil spill.

The facility should ensure that spill mitigation procedures for all contingencies at the facility are addressed at some time.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: At each facility.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises, as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

***This section describes an optional exercise to provide facilities with an exercise that may be conducted unannounced to fulfill the internal unannounced exercise requirement.**

At facilities covered by both oil and hazardous substance plans, separate oil and hazardous substance exercises are not required. However, the shipboard personnel should alternate oil and hazardous substance scenarios each quarter.

Spill Management Team Tabletop Exercise

U.S. Coast Guard MTR Facilities

Applicability: Facility spill management team

Frequency: Annually.

Initiating Authority: Company policy.

Particip. Elements: Spill management team as established in the response plan.

Scope: Exercise the spill management team's organization, communication, and decision-making in managing a spill response.

Objectives:

Exercise the spill management team in a review of -

> Knowledge of the response plan;

> Proper notifications;

> Communications system;

> Ability to access an OSRO/HSRO;

> Coordination of internal organization personnel with responsibility for spill response;

> An annual review of the transition from a local team to a regional, national, and international team, as appropriate;

> Ability to effectively coordinate spill response activity with the National Response System (NRS) infrastructure. (If personnel from the NRS are not participating in the exercise, the spill management team should demonstrate knowledge of response coordination with the NRS);

> Ability to access information in the Area Contingency Plan for location of sensitive areas, resources available within the area, unique conditions of area, etc

> At least one spill management team tabletop exercise in a triennial cycle would involve simulation of a worst-case discharge scenario.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: At each facility.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Plan holders are responsible for ensuring that SMTs are familiar with Area Committees/Regional Response Teams (*RRTs) and Area Contingency Plans in every area in which the plan holder operates. While it is not practicable to require an SMT to exercise in every area/region in which they offer cover each year, each SMT is expected to review ACPs annually and the make-up of Area Committees/RRTs in all areas in which they offer coverage. Self-certification for exercise credit should include SMT certification that the SMT has completed annual review and is familiar with the ACPs and Area

Spill Management Team Tabletop Exercise

Vessels

Applicability: Vessel spill management team.

Frequency: Annually.

Initiating Authority: Company policy.

Particle. Elements: Spill management team as established in the response plan.

Scope: Exercise the spill management team's organization, communication, and decision-making in managing a spill response.

Objectives:

Exercise the spill management team in a review of -

> Knowledge of the response plan;

> Proper notifications;

> Communications system

> Ability to access an OSRO/HSRO;

> Coordination of internal organization personnel with responsibility for spill response;

> An annual review of the transition from a local team to a regional, national, and international team, as appropriate;

> Ability to effectively coordinate spill response activity with the National Response System (NRS) infrastructure. (If personnel from the NRS are not participating in the exercise, the spill management team should demonstrate knowledge of response coordination with the NRS.); and

> Ability to access information in the Area Contingency Plan for location of sensitive areas, resources available within the Area, unique conditions of Area, etc.

At least one Spill Management Team Tabletop Exercise in a triennial cycle would involve simulation of a worst-case discharge scenario.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: In accordance with 33 CFR 155.1060(e) (2).

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Plan holders are responsible for ensuring that SMTs are familiar with Area Committees and Area Contingency Plans in every area in which the plan holder operates. While it is not practicable to require an SMT to exercise in every area in which they offer cover each year, each SMT is expected to review ACPs annually and the make-up of Area Committees in all areas in which they offer coverage. Self-certification for exercise credit should include SMT certification that the SMT has completed annual review and is familiar with the ACPs and Area Committees in all areas in which the plan holder operates.

For plan holders who handle both oil and hazardous substances, if the same spill management team handles all oil and hazardous substance incidents, only one SMT exercise is required annually. In such cases, at least 1 of the exercises should focus on oil and 1 on hazardous substances every three years. Over the course of six years, at least one worst-case hazardous substance and one worst-case oil scenario should be exercised.

For plan holders who handle both oil and hazardous substances, if the spill management teams are not the same, separate spill management team exercises are required.

Equipment Deployment Exercises

U.S. Coast Guard MTR Facilities

Applicability: Facilities with facility owned and operated response equipment.

Frequency: Semiannually.

Initiating Authority: Company policy.

Particip. Elements: Facility personnel.

Scope: Deploy and operate facility owned and operated response equipment identified in the response plan. The equipment to be deployed would be either (1) the minimum amount of equipment for deployment as described in "Guiding Principles", or (2) the equipment necessary to respond to an average most probable discharge at the facility, whichever is less.

All of the facility's personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the facility's equipment must be included in a comprehensive maintenance program. Credit should be taken for deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. All inspection and maintenance must be documented by the owner.

Objectives: Demonstrate ability of facility personnel to deploy and operate equipment.

Ensure equipment is in proper working order.
deployment should also include testing ACP containment, protection and diversion strategies.

Certification: Self-certification.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Location: Records to be kept at facility.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Note: If a facility with facility owned and operated equipment also identifies OSRO equipment in its response plan, the OSRO equipment must also be deployed and operated in accordance with the equipment deployment requirements for OSRO owned equipment.

Equipment Deployment Exercises

U.S. Coast Guard MTR Facilities

Applicability: Facilities with OSRO/HSRO response equipment cited in their response plan.

Frequency: Annually.

Initiating Authority: Company policy.

Particip. Elements: Facility owner or operator and OSRO/HSRO.

Scope: Deploy and operate response equipment identified in the response plan. The equipment to be deployed would be the minimum amount of equipment as described in "Guiding Principles.

All of the OSRO/HSRO personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the OSRO/HSRO equipment must be Included in a comprehensive maintenance program. Credit should be taken for equipment deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturers recommendations and best commercial practices. The facility owner or operator must ensure that inspection and maintenance by the OSRO/HSRO is documented. The OSRO/HSRO must provide inspection and maintenance information to the owner or operator.

Plan holders must ensure that when a regional OSRO/HSRO is identified in the response plan, the OSRO/HSRO conducts annual equipment deployment exercises in each operating environment for each CG Contingency Planning Area.

Objectives: Demonstrate the ability of the personnel to

deploy and operate equipment.

Ensure the response equipment is in proper working order.

Whenever feasible, equipment deployment should also include testing ACP containment, protection and diversion strategies.

Certification: The facility owner or operator should ensure that the OSRO/HSRO identified in the response plan provides adequate documentation that the requirements for this exercise have been met.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years.

Records to be kept at the facility.

Evaluation: Self-evaluation.

Credits: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when the objectives are met, the response is evaluated, and a proper record is generated.

Equipment Deployment Exercises

Vessels

Applicability: Vessels.

Frequency: Annually.

Initiating Authority: Company policy.

Particip. Elements: Vessel owner or operator, and OSRO/HSRO.

Scope: Deploy and operate response equipment identified in the response plan. The equipment to be deployed would be the minimum amount of equipment for deployment as described in "Guiding Principles."

All of the OSRO personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the OSRO/HSRO equipment must be included in a comprehensive maintenance program. Credit should be taken for equipment deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. The vessel owner or operator must ensure that inspection and maintenance by the OSRO/HSRO is documented. The OSRO/HSRO must provide inspection and maintenance information to the vessel owner or operator.

Plan holders must ensure that when a regional OSRO is identified in the response plan, the OSRO conducts annual equipment deployment exercises in each operating environment for each CG Contingency Planning Area.

Objective: Demonstrate the ability of the personnel to deploy and operate response equipment.

Ensure the response equipment is in proper working order.

Whenever feasible, equipment deployment should also include testing ACP containment, protection and diversion strategies.

Certification: The vessel owner or operator should ensure that the OSRO/HSRO identified in the response plan provides adequate documentation that the requirements for this exercise have been met.

Verification: U.S. Coast Guard.

Records:

Retention: 3 years (see 33 CFR 155.1060 (e)(2)).

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when the objectives are met, the response is evaluated, and a proper record is generated.

Government-Initiated Unannounced Exercises

Vessels and MTR Facility Response Plan Holders

Applicability: Vessel and MTR facility response plan holders within the area.

Frequency: Triennially, if successfully completed. A facility deemed by the CG/EPA not to have successfully completed the exercise may be required to participate in another government initiated unannounced exercise at the discretion of the exercising agency. (Plan holders who have successfully completed a PREP government-initiated unannounced exercise will not be required to participate in another one for at least 36 months from the date of the exercise.)

Initiating Authority: U.S. Coast Guard.

Particip. Elements: Vessel and MTR facility response plan holders.

Scope: Unannounced exercises are limited to a maximum of four exercises per area per year.

Exercises are limited to approximately 4 hours in duration.

Exercises must involve response to an average most probable discharge scenario.

RSPA and MMS would cover unannounced exercises for pipelines and offshore facilities <u>not a part of a complex</u> in their exercise programs.

Objectives: Conduct proper notifications to respond to unannounced scenario of an average most probable discharge.

Demonstrate response is -

> Timely- As a general rule, the regulatory planning standard is containment equipment (e.g., booms)

on scene within one hour of notification and recovery equipment (skimmers and temporary storage) on scene within two hours. Therefore in an government initiated unannounced exercise, plan holder should be able to initiate simulated clean up within approximately two hours of exercise commencement.

> Conducted with adequate amount of equipment for scenario; and

> Properly conducted.

Whenever feasible, equipment deployment should also include testing ACP containment, protection and diversion strategies.

Certification: U.S. Coast Guard.

Verification: U.S. Coast Guard.

Records:

Retention 3 years.

For facilities, at the facility.
For vessels, in accordance with 33 CFR 155.1060(e)(2).

Evaluation: Evaluation to be conducted by initiating agency.

Credit: Credit may be granted by the initiating authority for an actual spill response when the PREP objectives are met, the response is evaluated by the initiating authority and a proper record is generated. Plan holders participating in this exercise may take credit for notification and equipment deployment exercises, if criteria for those exercises are met, the response is evaluated by the plan holder and a proper record is generated.

Section 4

EPA-Regulated Onshore And Certain Offshore Non Transportation-Related Facilities

PREP Guidelines do not create binding legal requirements.

While the PREP Guidelines have been developed with the regulated community, they cannot be considered to be legally binding substantive rules. Plan holders can accept the PREP Guidelines to fulfill the exercise requirements of the Oil Pollution Act of 1990. An alternative program can also be acceptable subject to approval by the Regional Administrator. (See 40 CFR 112.21) Either the PREP Guidelines or the EPA-approved exercise program developed by the plan holder become binding when referenced in the submitted response plan.

QI Notification Exercises

EPA-Regulated Facilities

Applicability: Facility.

Frequency: Quarterly.

Initiating Authority: Company policy.

Particip. Elements: Facility personnel and qualified individual.

Scope: Exercise communications between facility personnel and qualified individual.

Objectives: Contact must be made with a qualified individual or designee, as designated in the response plan.

Certification: Self-certification.

Verification: Environmental Protection Agency (EPA)

Records:

Retention: 5 years.

Location: Records to be kept at the facility.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Emergency Procedures Exercises

Facilities (Optional)*

Applicability: Facility.

Frequency: Quarterly.

Initiating Authority: Facility owner or operator.

Partlcip. Elements: Facility personnel.

Scope: Exercise the emergency procedures for the facility to mitigate or prevent any discharge or a substantial threat of such discharge of oil resulting from facility operational activities associated with oil transfers.

Objectives: Conduct an exercise of the facility's emergency procedures to ensure personnel knowledge of actions to be taken to mitigate a spill. This exercise may be a walk-through of the emergency procedures.

Exercise should involve one or more of the sections of the emergency procedures for, spill mitigation. For example, the exercise may involve a simulation of a response to an oil spill.

The facility should ensure that spill mitigation procedures for all contingencies at the facility are addressed at some time.

Certification: Self-certification.

Verification: EPA.

Records:

Retention: 5 years.

Location: At each facility.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises, as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

***This is offered as an optional exercise to provide facilities with an exercise that may be conducted <u>unannounced</u> to fulfill the internal unannounced exercise requirement.**

Spill Management Team Tabletop Exercise

EPA-Regulated Facilities

Applicability: Facility spill management team.

Frequency: Annually.

Initiating Authority: Company policy.

Particip. Elements: Spill management team as established in the response plan.

Scope: Exercise the spill management team's organization, communication, and decision- making in managing a spill response.

Objectives: Exercise the spill management team in a review of-

> Knowledge of the response plan;

> Proper notifications;

> Communications system;

> Ability to access an OSRO;

> Coordination of internal organization personnel with responsibility for spill response;

> An annual review of the transition from a local team to a regional, national, and international team, as appropriate;

> Ability to effectively coordinate spill response activity with the National Response System (NRS) infrastructure. (If personnel from the NRS are not participating in the exercise, the spill management team should demonstrate knowledge of response coordination with the NRS.)

> Ability to access information in Area Contingency

Plan for location of sensitive areas, resources available within the area, unique conditions of area, etc.

At least one spill management team tabletop exercise in a triennial cycle would involve simulation of a worst-case discharge scenario.

Certification: Self-certification.

Verification: EPA.

Records:

Retention: 5 years.

Location: At each facility.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Equipment Deployment Exercises

EPA-Regulated Facilities

Applicability: Facilities with facility owned and operated response equipment.

Frequency: Semiannually.

Initiating Authority: Company policy.

Particip. Elements: Facility personnel.

Scope: Deploy and operate facility owned and operated response equipment identified in the response plan. The equipment to be deployed would be either (1) the minimum amount of equipment for deployment as described in "Guiding Principles", or (2) the equipment necessary to respond to a small discharge at the facility, whichever is less.

All of the facility personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the facility equipment must be included in a comprehensive maintenance program. Credit should be taken for deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturers recommendations and best commercial practices. All inspection and maintenance must be documented by the owner.

Objectives: Demonstrate ability of facility personnel to deploy and operate equipment.

Ensure equipment is in proper working order.

Certification: Self-certification.

Verification: EPA.

Records:

Retention: 5 years.

Location: Records to be kept at the facility.

Evaluation Self–Evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Note: If a facility with facility owned and operated equipment also identifies OSRO equipment in its response plan, the OSRO equipment must also be deployed and operated in accordance with the equipment deployment requirements for OSRO owned equipment.

Equipment Deployment Exercises

EPA-Regulated Facilities

Applicability: Facilities with OSRO response equipment cited in their response plan.

Frequency: Annually.

Initiating Authority: Company policy.

Particip. Elements: Facility owner or operator and OSRO.

Scope: Deploy and operate response equipment identified in the response plan. The equipment to be deployed would be the minimum amount of equipment for deployment as described in "Guiding Principles."

All of the OSRO personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the OSRO equipment must be included in a comprehensive maintenance program. Credit should be taken for equipment deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. The facility owner or operator must ensure that inspection and maintenance by the OSRO is documented. The OSRO must provide inspection and maintenance information to the owner or operator.

Plan holders must ensure that when a regional OSRO is identified in the response plan, the OSRO conducts annual equipment deployment exercises in each operating environment for each CG or EPA Contingency Planning Area, or EPA sub-area

(where identified).

Objectives: Demonstrate the ability of the personnel to deploy and operate response equipment.

Ensure the response equipment is in proper working order.

Certification: The facility owner or operator should ensure that the OSRO identified in the response plan provides adequate documentation that the requirements for this exercise have been met.

Verification: EPA.

Records:

Retention 5 years, kept at the facility.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when the objectives are met, the response is evaluated, and a proper record is generated.

Government-Initiated Unannounced Exercises

EPA—Regulated Facility Response Plan Holders

Applicability: EPA-regulated facility response plan holders within the region.

Frequency: Triennially, if successfully completed. A facility deemed by the CG/EPA not to have successfully completed the exercise may be required to participate in another government initiated unannounced exercise at the discretion of the exercising agency. (Plan holders who have successfully completed a PREP government-initiated unannounced exercise will not be required to participate in another one for at least 36 months from the date of the exercise).

Initiating Authority: EPA.

Partlcip. Elements: EPA-regulated facility response plan holders.

Scope: Unannounced exercises are limited to a maximum of 10% of response plan holders per EPA Region per year.

Exercises are limited to approximately 4 hours in duration.

Exercises should involve response to a small discharge scenario (assume 2,100 gallons outside secondary containment and discharged into or on navigable waters and adjoining shorelines).

Exercise would involve deployment of response equipment identified in the facility response plan to respond to spill scenario.

RSPA and MMS will cover unannounced exercises for pipelines and offshore facilities not

a part of a complex in their exercise programs.

Objectives: Conduct proper notifications to respond to unannounced scenario of a small discharge.

Demonstrate that the response is -

> Timely as defined in section 1 of these Guidelines;

> Conducted with adequate amount of equipment for scenario; and

> Properly conducted.

Certification: EPA.

Verification: EPA.

Records Retention: 5 years, kept at the facility.

Evaluation: Evaluation to be conducted by initiating agency.

Credit: Credit may be granted by the initiating authority for an actual spill response when the PREP objectives are met, the response is evaluated by the initiating authority and a proper record is generated. Plan holders participating in this exercise may take credit for notification and equipment deployment exercises, if criteria for those exercises are met, the response is evaluated by the plan holder and a proper record is generated.

Section 5

Onshore Transportation-Related Pipelines

Owner or Operator Internal Notification Exercises

Onshore Transportation-Related Pipelines

Applicability: Pipeline owner or operator.

Frequency: As indicated by the response plan and, at a minimum, consistent with the triennial cycle (quarterly).

Party Initiating Exercise: As indicated in response plan.

Participants: Facility response personnel and the facility's qualified individual.

Scope: Exercise notification process between key facility personnel and the qualified individual to demonstrate the accessibility of the qualified individual.

Objectives: Contact by telephone, radio, message-pager, or facsimile and confirmation established as indicated in response plan.

Format: As indicated in response plan.

Certification: Self-certification as indicated in response plan. Each plan should have a written description of the company's certification process.

Verification: Verification conducted by Research and Special Programs Administration (RSPA) during regular inspections* or RSPA tabletop exercises.

*** Verification will not be done by inspections in the near term.**

Records:

Retention: 3 years.

Location: Owner or operator shall retain records as indicated in response plan.

RSPA to retain verification records.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Internal Tabletop Exercises

Onshore Transportation-Related Pipelines

Applicability: Pipeline owner or operator.

Frequency: As indicated by the response plan and, at a minimum consistent with the triennial cycle (annually).

Party Initiating Exercise: As indicated in response plan.

Participants: Designated spill emergency response team members.

Scope: Demonstration of the response team's ability to organize, communicate, and make strategic decisions regarding population and environmental protection during a spill event.

Objectives: Designated emergency response team members should demonstrate -

> Knowledge of facility response plan;

> Ability to organize team members to effectively interface with a unified command;

> Communication capability; and

> Coordination for response capability as outlined in response plan.

Format: Internal tabletop exercise as outlined in response plan.

Certification: Self-certification as indicated in response plan or as defined in the "Guiding Principles" section of this document, whichever is more stringent. Each plan should have a written description of the company's certification process.

Verification: Verification conducted by RSPA during regular inspections* or RSPA tabletop exercises.

*** Verification will not be done by inspections in the near term.**

Records:

Retention: 3 years.

Location: Owner or operator shall retain records as indicated in response plan.

RSPA to retain verification records.

Credits: Plan holders should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Owner/Operator Equipment Deployment Exercises

Onshore Transportation-Related Pipelines

Applicability: Pipeline owner or operator.

Frequency: As indicated by the response plan and, at a minimum, as consistent with the triennial cycle (annually).

***The number of equipment deployment exercises should be such that equipment and personnel assigned to each response zone are exercised at least once per year. If the same personnel and equipment respond to multiple zones, they need only exercise once per year. If different personnel and equipment respond to various response zones, each must participate in an annual equipment deployment exercise.**

Party Initiating Exercises: As indicated in response plan.

Participants: Designated spill emergency response team members.

Scope: Demonstrate ability to deploy spill response equipment* Identified in the FRP.

***May consist entirely of operator owned equipment, or a combination of OSRO and operator equipment.**

Objectives: Designated emergency response personnel should demonstrate---

> (1) Ability to organize; and

> (2) Ability to deploy and operate representative types of key response equipment as described in response plan.

Format: Announced deployment exercise indicated in response plan.

Certification: Self-certification as indicated in response plan. Each plan should have a written description of the company's certification process.

Verification: Verification conducted by RSPA during regular inspections* or RSPA tabletop exercises.

***Verification will not be done by inspection in the near term.**

Records:

Retention: 3 years.

Location: Owner or Operator shall retain records as indicated in response plan.

RSPA to retain verification records.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Unannounced Exercises

Onshore Transportation-Related Pipelines

Applicability: Pipeline owner/operator.

Frequency: Maximum of 20 unannounced RSPA exercises conducted annually for the pipeline industry as a whole. A single owner or operator will not be required to participate in a RSPA- initiated unannounced exercise, if they have already participated in one within the previous 36 months.

Party Initiating Exercise: RSPA.

Participants: Designated spill emergency response team members.

Operations staff.

On-Scene Coordinator (optional).

State and local government (optional).

Scope: Demonstrate ability to respond to a worst-case discharge spill event.

Objectives: Designated emergency response team members should demonstrate adequate knowledge of their facility response plan and the ability to organize, communicate, coordinate, and respond in accordance with that plan.

Format: Unannounced tabletop exercise to discuss strategic issues.

Operations will provide the owner or operator the following information at least 10 working days in advance (1) date, time, and location of exercise; (2) expected exercise duration; and (3) response zone to be exercised.

On the day of the exercise, the pipeline owner or operator will be provided the scenario and post-spill events. This information will be used to explore and discuss strategic issues that will help operators evaluate their response plans.

Certification: Certification can be effectuated by RSPA personnel conducting the exercise. RSPA will provide written certification of the exercise date, participants, and response zone exercised.

Verification: Verification can be made by RSPA personnel conducting the exercise.

Records:

Retention Time: 3 years.

Location: Owner or Operator shall retain records as indicated in response plan.

RSPA to retain verification records.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Section 6

Offshore Facilities

Notification Exercises

Offshore Facilities

Applicability: Offshore facilities.

Frequency: Annual.

Initiating Authority: Owner or operator.

Participating Elements: Facility personnel and qualified individual.

Scope: Exercise and test communications between personnel on each facility manned on a 24-hour basis and qualified individual; information to be provided in the event of a spill must be simulated during this exercise.

Objectives: Voice contact must be made with the qualified individual.

Certification: Self-certification.

Verification: Verification by MMS inspection personnel during site visits.

Records:

Retention: 3 years.

Location: Records to be maintained at the facility or at a corporate location designated in the spill response plan.

Evaluation: Self-evaluation.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

UNANNOUNCED EXERCISES

Offshore Facilities

Applicability: Offshore Facilities.

Frequency: Frequency will be determined by the Regional Supervisor. A facility will not face an agency unannounced exercise more than once per year, unless the results of previous exercises warrant more frequency.

Initiating Authority: MMS.

Participating Elements: Facility personnel, qualified individual, spill management team, oil spill removal organization (OSRO), state and local government and other federal agencies (optional).

Scope: Exercise will require that the owner or operator respond to a spill scenario posed by the MMS Regional Supervisor.

Objectives: Conduct proper notifications to respond to unannounced scenario.

Demonstrate ability to mobilize adequate equipment to respond to scenario.

Demonstrate ability to conduct timely deployment of equipment.

Demonstrate ability to conduct proper deployment to respond to scenario.

Certification: MMS.

Verification: Verification by MMS personnel.

Records:

Retention: 3 years.

Location: MMS will maintain records at the MMS Regional Office. The owner or operator will maintain records at a corporate location identified in the approved spill response plan.

Evaluation: Evaluation to be conducted by MMS.

Credits Plan holder may receive credit for other required exercises if the unannounced exercise is successfully completed, objectives of the other exercise(s) are met, and a proper record is generated.

Spill Management Team Tabletop Exercise

Offshore Facilities

Applicability: Spill management team.

Frequency: Annually.

Initiating Authority: Owner or operator.

Participating Elements: Spill management team as established in response plan.

Scope: Exercise the spill management team annually.

Objectives: Exercise the spill management team's organization, communication, and decision-making in managing a spill response to an unannounced scenario.

Exercise the spill management team in a review of-

> Knowledge of response plan;

> Proper notifications;

> Communications system;

> Ability to access an OSRO;

> Coordination of OSRO containment and recovery activity;

> Coordination of organization or agency personnel with responsibility for spill response;

> Ability to effectively coordinate spill response activity with National Response System infrastructure; and

> Ability to access information in Area Contingency Plan for location of sensitive areas, resources available within the area, unique conditions of area, etc.

Certification: Self-certification.

Verification: Verification by MMS personnel.

Records:

Retention: 3 years.

Location: Records to be maintained at a corporate location designated in the spill response plan.

Evaluation: Self-evaluation. The MMS may evaluate if the exercise is witnessed.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Equipment Deployment Exercises

Offshore Facilities-Equipment Staged Offshore

Applicability: OSRO or owner or operator response equipment required to be staged offshore.

Frequency: Semiannually.

Initiating Authority: OSRO, or owner or operator.

Participating Elements: Facility or OSRO personnel.

Scope: Deploy and operate response equipment that is required to be staged offshore and identified in the response plan. Each type of this equipment is to be deployed annually. Each type need not be deployed at each exercise. Credit will be given for any government-initiated deployment exercise or exercises initiated by OSRO member companies.*

Objectives: Demonstrate ability of spill response personnel to deploy and operate equipment.

Evaluate deployment strategies under various spill scenarios.

Certification: Self-certification (OSRO for OSRO equipment and owner or operator for owner or operator equipment).

Verification: Verification by MMS inspection personnel.

Records:

Retention: 3 years.

Location: Records to be kept at the OSRO or at the facility or a corporate location designated in approved response plan for owner or operator equipment.

Evaluation: Self-evaluation. The MMS may evaluate if the exercise is witnessed.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

***For exploratory wells being drilled from Mobile Offshore Drilling Units (MODUs), at least one deployment exercise will be conducted during drilling of each well, as directed by the Regional Supervisor, if staged response equipment is required by the Regional Supervisor.**

Equipment Deployment Exercises

Offshore Facilities – Equipment Staged Onshore

Applicability: OSRO, or owner or operator response equipment stored at an onshore location.

Frequency: Annually.

Initiating Authority: OSRO, or owner or operator.

Participating Elements: OSRO, or owner or operator personnel.

Scope: Deploy and operate response equipment that is stored onshore and identified in the response plan. Each type of equipment must be exercised during each triennial period. It is not necessary to deploy each piece of equipment.

Objectives: Demonstrate ability of spill response personnel to deploy and operate equipment.

Evaluate deployment strategies under various spill scenarios.

Certification: Self-certification (OSRO for OSRO equipment and owner or operator for owner or operator equipment).

Verification: Verification by MMS inspection personnel.

Records:

Retention: 3 years.

Location: Records to be kept at the OSRO or at the facility or a corporate location designated in approved response plan for owner or operator equipment.

Evaluation: Self-evaluation. The MMS may evaluate if the exercise is witnessed.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Section 7

Area Exercises

Notification Exercise

Area

Applicability: Area.

Frequency: Quarterly.

Initiating Authority: On-Scene Coordinator.

Participating Elements: Key Elements of the unified command (appropriate federal, state and local government agencies).

Scope: Exercise and test communication between On-Scene Coordinator and key elements of the unified command.

Objectives: Ensure that the key elements of the unified command know whom to call in the event of a discharge within the area.

Ensure contact by telephone, radio, message-pager, or facsimile and confirmation is made between the On-Scene Coordinator and key elements of the unified command.

Certification: Self-certification.

Verification: Verification to be conducted by the District or Region.

Records:

Retention: 3 years (USCG).

5 years (EPA).

Location: With the On-Scene Coordinator.

Evaluation: By Area Committee.

Credit: Plan holder should take credit for this exercise when conducted in conjunction with other exercises, as long as all exercise objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Spill management Team Tabletop Exercise

Area

Applicability: Area spill management team.

Frequency: Annually.

Initiating Authority: U.S. Coast Guard District (m) or EPA Region.

Participating Elements: Spill management team for the area (U.S. Coast Guard or EPA and respective response team) and state(s).

Scope: Exercise the spill management team's organization, communication, and decision-making in managing a spill response.

Objectives: Exercise the spill management team in a review of

> Knowledge of the Area Contingency Plan;

> Proper notifications;

> Communications system

> Ability to access response equipment

> Coordination of organization or agency personnel with responsibility for spill response;

> Ability to effectively coordinate spill response activity with National Response System infrastructure;

> Ability to access information in Area Contingency Plan for location of sensitive areas, resources available within the area, unique conditions of the area, etc.; and

Exercise the response management system identified in the ACP and to the extent possible the unified command.

At least one spill management team tabletop exercise in a triennial cycle would involve simulation of a worst-case discharge scenario.

Certification: Self- Certification.

Verification: Verification to be conducted by District or Region.

Records

Retention 3 years (USCG).

5 years (EPA).

Location: With On-Scene Coordinator.

Evaluation: Self-evaluation.

Credit: Credit should be taken for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Equipment Deployment Exercises

Area

Applicability: Area Committee.

Frequency: Annually.

Initiating Authority: On-Scene Coordinator.

Participating Elements: Local area response community (appropriate federal, state and local response agencies).

Scope: Deploy and operate Coast Guard and EPA "first aid" response equipment and the Coast Guard's prepositioned equipment. All of the "first aid" equipment or that which is necessary to respond to an average most probable discharge in the Area, whichever is less, should be deployed annually.

All response personnel must be included in a comprehensive training program, and all response equipment in a comprehensive maintenance program. Credit should be taken for deployment of equipment during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices.

Objectives: Demonstrate the ability of the response personnel to deploy and operate the equipment.

Ensure that the response equipment is in proper working order.

Certification: Self-certification.

Verification: District or Region.

Records:

Retention: 3 years (USCG).

5 years (EPA).

With On-Scene Coordinator.

Evaluation: Self-evaluation.

Credits: Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Area Exercises

Area

Applicability: Area Response community.

Frequency: Triennially for each area.

Initiating Authority: U.S. Coast Guard, EPA and Industry.

Participating Elements: Appropriate Federal, state, and local government, and industry and other members of the response community.

Scope: Area exercises will exercise the Area Response Community.

Objectives: Exercise the Area Contingency Plan, along with selected industry response plans.

Exercise the response management system identified in the ACP and, to the extent possible, the unified command with the appropriate participants.

Exercise the area and industry spill management teams.

Deploy adequate response equipment for the exercise scenario. At a minimum, the scenario must involve exercise of Tier I Worst Case discharge capability.

Format: Total annual exercises would consist of the following-

> 6 government-led exercises; and

> 14 industry-led.

Total = 20 Area Exercises Per Year.

Area exercises should be *approximately* 8 - 12

hours in duration.

Exercise scenario to be developed by the exercise design team.

To simulate realism, the exercise should be conducted in the command post that would be utilized for a spill response, whenever possible.

Exercise may be in real or limited compressed time, and may start at any point during an incident, as determined by the Exercise Design Team. Flexibility should be allowed, to ensure the exercise objectives are met.

Lessons learned from the exercise should be incorporated into the PREP Lessons Learned System (e.g., CGSAILS), whenever possible.

Certification: The On-Scene Coordinator will certify completion of the area exercise. In certifying the area exercise, the On-Scene Coordinator will consider the following-

> The area exercise was conducted.

> The area exercise met the objectives outlined in the PREP guidelines.

> The area response community was exercised for spill response preparedness.

Industry plan holders should take credit for all of the exercises completed during the area exercise. These exercises shall be self-certified by the plan holder.

Verification: Verification to be done by the National Scheduling Coordinating Committee.

Records

Retention: 3 years (USCG).

5 years (EPA).

Location: On Scene Coordinator.

Evaluation: Joint evaluation team to be comprised of the federal government (U.S. Coast Guard, EPA, RSPA or MMS) state and industry.

Scheduling: Scheduling of area exercises will be done by the NSCC, utilizing input from the On-Scene Coordinator, Area Committee and Regional Response Team, in consultation with the industry. A 3-year schedule of PREP Area exercises will be published in the federal register as a public forum for government and industry input to the scheduling process.

Appendix A: Internal Exercise Documentation Forms

The following sample documentation forms are provided to give plan holders an idea of how to document the internal PREP exercises. These sample forms, are provided only as guidance. Plan holders do not have to include all of the information presented on these forms nor do they have to use these exact forms. Plan holders may choose to develop their own forms. Documentation should be completed within 60 days of exercise completion. Documentation should include, as a minimum, the following information:

- The type of exercise;
- Date and time of the exercise;
- A description of the exercise;
- The objectives met in the exercise;
- The components of the response plan exercised; and
- Lessons learned along with procedures and schedules for implementing lessons learned.

Internal Exercise Documentation Form

Notification Exercise

1. Date performed:_____

2. Exercise or actual response?_____

3. Vessel/Facility/Pipeline/Offshore Facility initiating exercise: _____

4. Name of person notified_____
   Is this person identified in your response plan as qualified individual Or designee?_____

5. Time initiated: _____
   Time in which qualified individual or designee responded _____

6. Method used to contact:
   ____Telephone
   ____Pager
   ____Radio
   ____Other _____

7. Description of notification procedure:
   _____
   _____
   _____
   _____
   _____

8. Identify which of the 15 core components of your response plan were exercised during this particular exercise:
   _____
   _____
   _____
   _____

_____
Certifying Signature

Retain this form for a minimum of 3 years (for USCG/RSPA/MMS) or 5 years (for EPA).

For vessel qualified individual notification, ensure log entry is also made and retained for a minimum of 3 years.

Internal Exercise Documentation Form

Emergency Procedures Exercise

1. Date performed: _____
2. Exercise or actual response ? _____
   If an exercise, announced or unannounced? _____
3. Location: _____
4. Vessel/Barge/Facility name: _____
5. Time started: _____
   Time completed: _____
6. Sections of Vessel/Barge/Facility emergency procedures exercised (i.e., response to collision, response to oil spill on deck, response to vessel fire, etc.)? _____
   _____
   _____
   _____
7. Description of exercise: _____
   _____
   _____
   _____
8. Identify which of the 15 core components of your response plan were exercised during this particular exercise: _____
   _____
   _____
   _____
   _____
   _____

Emergency Procedures Exercise (continued)

9. Attach a description of lesson(s) learned, procedures and schedule for implementation, and person(s) responsible for follow up of corrective measures.

_____
Certifying Signature

Retain this form for a minimum of 3 years (for USCG/RSPA/MMS) and 5 years (for EPA).

For manned vessels, ensure log entry is made and retained for 3 years.

Internal Exercise Documentation Form

Spill Management Team Tabletop Exercise

1. Date(s) performed: _____

2. Exercise or actual response? _____
If an exercise, announced or unannounced? _____

3. Location of tabletop: _____

4. Time started: _____
Time completed: _____

5. Response plan scenario used (check one):
_____Average most probable discharge
_____ Maximum most probable discharge
_____ Worst case discharge
_____ Size of (simulated) spill-bbls/gals

6. Describe how the following objectives were exercised:

a) Spill management team's knowledge of oil-spill response plan:
_____
_____
_____
_____
_____
_____

b) Proper notifications:
_____
_____
_____
_____
_____
_____

Spill Management Team Tabletop Exercise (continued)

c) Communications system:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

d) Spill management team's ability to access contracted oil spill removal organizations:

_____
_____
_____
_____
_____
_____
_____
_____

e) Spill management team's ability to coordinate spill response with On-Scene Coordinator, state and applicable agencies:

_____
_____
_____
_____
_____
_____
_____
_____

f) Spill management team's ability to access sensitive site and resource information in the Area Contingency Plan:

_____
_____
_____
_____

Spill Management Team Tabletop Exercise (continued)

_____
_____

7. Identify which of the 15 core components of your response plan were exercised during this particular exercise:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

8. Attach a description of lesson(s) learned, procedures and schedule for implementation, and person(s) responsible for follow up of corrective measures.

_____
Certifying Signature

Retain this form for a minimum of 3 years (for USCG/RSPA/MMS) or 5 years (for EPA).

Internal Exercise Documentation Form

Equipment Deployment Exercise

1. Date(s) performed: _____

2. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

3. Deployment location(s):

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

4. Time started: _____
   Time OSRO/HSRO called_____
   Time on-scene_____
   Time boom deployed_____
   Time recovery equipment arrives on-scene_____

   Time completed: _____

5. Equipment deployed was:
_____Facility-owned
_____OSRO/HSRO-owned if so, which OSRO/HSRO?_____
_____Both

Equipment Deployment Exercise (continued)

6. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

7. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested. (Attach a sketch of equipment deployments and booming strategies):

_____
_____
_____
_____
_____
_____
_____

8. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's average most probable spill?

_____
_____

   Was the equipment deployed in its intended operating environment?

_____
_____
_____
_____
_____

Equipment Deployment Exercise (continued)

9. For deployment of OSRO/HSRO-owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

_____
_____
_____
_____

Was the equipment deployed in its intended operating environment?

_____
_____
_____

10. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

_____
_____
_____

If so, describe the program:_____

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Date of last equipment inspection: _____

11. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

12. Was all deployed equipment operational? If not, why not?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

13. Identify which of the 15 core components of your response plan were exercised during this particular exercise: _____

_____
_____
_____
_____
_____
_____
_____
_____

14. Attach a description of lesson(s) learned, procedures and schedule for implementation, and person(s) responsible for follow up of corrective measures.

_____ _____
Certifying Signature

Retain this form and other documentation related to this exercise on file for a minimum of 3 years (for USCG/RSPA/MMS) or for a minimum of 5 years (for EPA).

Triennial CYLCLE Documentation FORM

	Year												Core Components															
	CY				CY				CY				Notification	Staff Mobilization	Operate in RMS	Discharge Contained	Assessment	Containment	Recovery	Protection	Disposal	Communications	Transportation	Personnel Support	Equipment Maint.	Procurement	Documentation
	Quarters				Quarters				Quarters																		
	1	2	3	4	5	6	7	8	9	10	11	12															
QI Notification																											
Emergency Procedures																											
SMT Tabletop																											
Equipment Deployment																											
OSRO/HSRO Equipment Deployment																											
Gov't-initiated Unnannounced																											
Area Exercise																											

For each quarter in which an exercise was completed, mark that with an "X" then mark each core component tested during an exercise.

APPENDIX B:
RESPONSE PLAN CORE COMPONENTS

During each triennial cycle, all components of a plan holder's response plan must be exercised at least once. The purpose of this requirement is to ensure that all plan components function adequately for response to an oil spill.

The 15 core components listed below are the types of components that must be exercised. However, these components may not be contained in each response plan. As such, the plan holder shall identify those that are applicable from this list, adding or deleting as appropriate.

1. Notifications: Test the notifications procedures identified in the Area Contingency Plan and the associated Responsible Party Response Plan.

2. Staff Mobilization: Demonstrate the ability to assemble the spill response organization identified in the Area Contingency Plan and associated Responsible Party Response Plan.

3. Ability to Operate Within the Response Management System Described in the Plan:

   3.1 **Unified Command:** Demonstrate the ability of the spill response organization to work within a unified command

   3.1.1 Federal Representation: Demonstrate the ability to consolidate the concerns and interests of the other members of the unified command into a unified strategic plan with tactical operations.

   3.1.2 State Representation: Demonstrate the ability to function within the unified command structure.

   3.1.3 Local Representation: Demonstrate the ability to within the unified command structure.

   3.1.4 Responsible Party Representation: Demonstrated(to function within the unified command structure

RESPONSE PLAN CORE COMPONENTS (continued)

   3.2. **Response Management System:** Demonstrate the ability of the response organization to operate within the framework of the response management system identified in their respective plans.

   3.2.1 Operations: Demonstrate the ability to coordinate or direct operations related to the implementation of action plans contained in the respective response and contingency plans developed by the unified command.

   3.2.2 Planning: Demonstrate the ability to consolidate the various concerns of the members of the unified command into joint planning recommendations and specific long-range strategic plans. Demonstrate the ability to develop short-range tactical plans for the operations division.

   3.2.3 Logistics: Demonstrate the ability to provide the necessary support of both the short-term and long-term action plans.

   3.2.4 Finance: Demonstrate the ability to document the daily expenditures of the organization and provide cost estimates for continuing operations.

   3.2.5 Public Affairs: Demonstrate the ability to form a joint information center and provide the necessary interface between the unified command and the media.

   3.2.6 Safety Affairs: Demonstrate the ability to monitor all field operations and ensure compliance with safety standards.

   3.2.7 Legal Affairs: Demonstrate the ability to provide the unified command with suitable legal advice and assistance.

4. **Source Control:** Demonstrate the ability of the spill response organization to control and stop the discharge at the source.

   4.1 Salvage: Demonstrate the ability to assemble and deploy salvage resources identified in the response plan.

   4.2 Firefighting: Demonstrate the ability to assemble and deploy the firefighting resources identified in the response plan.

RESPONSE PLAN CORE COMPONENTS (continued)

4.3 Lightering: Demonstrate the ability to assemble and deploy the lightering resources identified in the response plan.

4.4 Other salvage equipment and devices: (electrical and manual controls and barriers to control the source) Demonstrate the ability to assemble and deploy the other salvage devices identified in the response plan

5. **Assessment:** Demonstrate the ability of the spill response organization to provide an initial assessment of the discharge and provide continuing assessments of the effectiveness of the tactical operations.

6. **Containment:** Demonstrate the ability of the spill response organization to contain the discharge at the source or In various locations for recovery operations.

7. **Recovery:** Demonstrate the ability of the spill response organization to recover, mitigate, and remove the discharged product. Includes mitigation and removal activities, e.g. dispersant use, ISB use, and bioremediation use.

   7.1 On-Water Recovery: Demonstrate the ability to assemble and deploy the on-water response resources identified In the response plans.

   7.2 Shore-Based Recovery: Demonstrate the ability to assemble and deploy the shoreside response resources identified in the response plans.

8. **Protection:** Demonstrate the ability of the spill response organization to protect the environmentally and economically sensitive areas identified in the Area Contingency Plan and the respective industry response plan.

   8.1 Protective Booming: Demonstrate the ability to assemble and deploy sufficient resources to implement the protection strategies contained in the Area Contingency Plan and the respective industry response plan.

RESPONSE PLAN CORE COMPONENTS (continued)

8.2 Water Intake Protection: Demonstrate the ability to quickly identify water intakes and implement the proper protection procedures from the Area Contingency Plan or develop a plan for use.

8.3 Wildlife Recovery and Rehabilitation: Demonstrate the ability to quickly identify these resources at risk and implement the proper protection procedures from the Area Contingency Plan to develop a plan for use.

8.4 Population Protection (Protect Public Health and Safety): Demonstrate the ability to quickly identify health hazards associated with the discharged product and the population at risk from these hazards, and to implement the proper protection procedures from the Area Contingency Plan or develop a plan for use.

9. **Disposal:** Demonstrate the ability of the spill response organization to dispose of the recovered material and contaminated debris.

10. **Communications:** Demonstrate the ability to establish an effective communications system for the spill response organization.

    10.1 Internal Communications: Demonstrate the ability to establish an intra-organization communications system. This encompasses communications at the command post and between the command post and deployed resources.

    10.2 External Communications: Demonstrate the ability to establish communications both within the response organization and other entities (e.g., RRT, claimants, media, regional or HQ agency offices, non-governmental organizations, etc.).

11. **Transportation:** Demonstrate the ability to provide effective multi-mode transportation both for execution of the discharge and support functions.

    11.1 Land Transportation: Demonstrate the ability to provide effective land transportation for all elements of the response.

RESPONSE PLAN CORE COMPONENTS (continued)

11.2 Waterborne Transportation: Demonstrate the ability to provide effective waterborne transportation for all elements of the response.

11.3 Airborne Transportation: Demonstrate the ability to provide the necessary support of all personnel associated with the response.

12. **Personnel Support:** Demonstrate the ability to provide the necessary support of all personnel associated with the response.

12.1 Management: Demonstrate the ability to provide administrative management of all personnel involved in the response. This requirement includes the ability to move personnel into or out of the response organization with established procedures.

12.2 Berthing: Demonstrate the ability to provide overnight accommodations on a continuing basis for a sustained response.

12.3 Messing: Demonstrate the ability to provide suitable feeding arrangements for personnel involved with the management of the response.

12.4 Operational and Administrative Spaces: Demonstrate the ability to provide suitable operational and administrative spaces for personnel involved with the management of the response.

12.5 Emergency Procedures: Demonstrate the ability to provide emergency services for personnel involved in the response.

13. **Equipment Maintenance and Support:** Demonstrate the ability to maintain and support all equipment associated with the response.

13.1 Response Equipment: Demonstrate the ability to provide effective maintenance and support for all response equipment.

RESPONSE PLAN CORE COMPONENTS (continued)

13.2 Response Equipment: Demonstrate the ability to provide effective maintenance and support for all equipment that supports the response. This requirement includes communications equipment, transportation equipment, administrative equipment, etc.

14. **Procurement:** Demonstrate the ability to establish an effective procurement system.

14.1 Personnel: Demonstrate the ability to procure sufficient personnel to mount and sustain an organized response. This requirement includes insuring that all personnel have qualifications and training required for their position within the response organization.

14.2 Response Equipment: Demonstrate the ability to procure sufficient response equipment to mount and sustain an organized response.

14.3 Support Equipment: Demonstrate the ability to procure sufficient support equipment to support and sustain an organized response.

15. **Documentation:** Demonstrate the ability of the spill response organization to document all operational and support aspects of the response and provide detailed records of decisions and actions taken

Quarterly QI Notification Exercise

- **Scope:** Exercise communication between facility personnel and the QI(s) and/or designated alternate(s).

  At least once each year, one notification exercise should be conducted during non-business hours.

  CA OSPR jurisdictional location Notification Exercises must include the OSRO.

- **Objective:** Contact must be made with a QI or designated alternate, as identified in the Plan (Volume 1, Figure 2.3; Volume 2, Figure 8.1 for OSPR/USCG jurisdictional terminals; Volume 2, Figure 9.1 for OSPR jurisdictional pipelines).

- **General:** All personnel receiving notification shall respond to the notification and verify their receipt of the notification. Personnel who do not respond should be contacted to determine whether or not they received the notification.

Notification Drill Form Instructions

- Enter the location conducting the drill.

- Enter the date and time the drill was started.

- Enter the name of the person conducting the drill.

- Enter the telephone number of the person conducting the drill.

- Enter the names and titles of the individuals contacted while conducting the drill.

- Enter the time each individual was contacted or responded to pages or voice mails.

- Select from the drop down menu the contact method used for each individual.

- For OSPR jurisdictional terminals and pipelines (Carson Area, Concord Area, LA Harbor Terminal, Mission Valley Area, Richmond Brisbane Area, Richmond Terminal, Sacramento Area, and Watson Area) the OSRO must be included.

- Note any issues that arise during the drill.

- Print a copy for local records.

- Click the ‘Submit’ button to generate and email form data file to the Manager - Emergency Response Programs. If email is not available, fax to (713) 369-9215.

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