Draft Environmental Assessment for a Special Permit Application from Veolia ES Technical Solutions, LLC, for Requested Relief of Certain Packaging Requirements for Highway Motor Vehicles for the Transport of Precursor Chemicals from Syria in Port Arthur, Texas

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

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The National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321, *et seq.* (NEPA), requires Federal agencies to consider the environmental impacts of proposed actions in the decision-making process. For those actions where the agency does not anticipate significant environmental impacts, the Council on Environmental Quality (CEQ) regulations implementing NEPA require Federal agencies to develop an environmental assessment (EA) that includes (1) the need for the proposed action, (2) alternatives to the proposed action as required by 42 U.S.C. § 4332(2)(E), (3) the environmental impacts of the proposed action and alternatives, and (4) a list of the agencies and persons consulted (40 CFR § 1508.9(b)).

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is responsible for regulating and ensuring the safe and secure movement of hazardous materials (hazmat) by all modes of transportation. To minimize threats to life, property, or the environment due to hazmat related incidents, PHMSA's Office of Hazardous Materials Safety develops regulations and standards for the classifying, handling, and packaging of shipments of hazmat within the United States. When a shipper of a hazardous material is unable to comply with the Hazardous Materials Regulations, 49 CFR parts 171-180, (HMR), it may request a special permit from PHMSA. Typically, PHMSA only issues a special permit when the special permit achieves a level of safety at least equal to that required by the regulation. However, PHMSA may also issue a special permit when doing so is consistent with the public interest (49 U.S.C. § 5117; 49 CFR §107.105(d)). PHMSA is serving as lead agency for this EA.

The Department of Commerce's Bureau of Industry and Security (BIS), a cooperating agency for this EA, is responsible for implementing the provisions of the Chemical Weapons Convention Implementation Act of 1998 (22 U.S.C. § 6701, *et seq.*) (CWC), as it applies to commercial industry. These provisions include the development of facility agreements, which are agreements between the Organisation for the Prohibition of Chemical Weapons (OPCW) and the United States, which provide the details of the verification activities under the CWC for a specific commercial facility. The CWC requires that destruction-related activities assign the highest priority to ensuring the safety of people and to protecting the environment, and inspectors carry out their verification activities in accordance with safety requirements, which are included in detail or by reference in the facility agreement.

As a Federal agency with jurisdictional interest in the proposed action, the U.S. Coast Guard (USCG) also serves as a cooperating agency for this EA. The USCG's applicable authorities to enforce certain Federal laws relating to waterfront facilities and hazmat packaging include assisting PHMSA with enforcement of the HMR with regards to movement of hazmat by vessel. Captains of the Port (COTPs) are authorized to direct the handling, loading, unloading, storage, and shipment of hazardous cargoes on or through waterfront facilities regulated under 33 CFR part 126 ("126 Facilities") in order to protect life, property, and the environment. COTPs are also authorized to waive HMR requirements for hazmat transported on or through 126 Facilities, but do not issue special permits.

The Department of the Treasury is a cooperating agency and is responsible for issuing a license to authorize transactions involving these chemicals that would otherwise be prohibited pursuant to Executive Orders issued under the authority of the International Emergency Economic Powers Act (50 U.S.C. §§ 1701-06), consistent with foreign policy guidance from the Department of State.

I. Need for Proposal and Background

The OPCW and the Department of State have informed PHMSA that an operation is underway to eliminate Syria's chemical weapons program, including the removal of 19 different chemicals from Syria used as precursors to chemical weapons. Five of these chemicals are bound for Port Arthur, Texas, where they will be destroyed and disposed (the "operation"). These five chemicals have been transferred to a Norwegian sovereign immune cargo vessel, which is ultimately bound for Port Arthur, Texas. There are no explosives or munitions associated with the chemicals, and these chemicals have not been assembled into weapons or mixed for weapons purposes. OPCW informed PHMSA that these five chemicals are being shipped in 16 20-ft International Organization for Standardization (ISO) maritime shipping containers.

According to the OPCW, the Syrian authorities, who were responsible for the packaging of these materials, received advice and support from the United Nations Environment Programme and the World Health Organization on securely packaging the chemicals. United Nations experts trained the Syrians in International Maritime Dangerous Goods (IMDG) Code. The United Nations (UN)/OPCW Joint Mission, including IMDG subject matter experts, supervised some of the packaging.[1] The OPCW also has conducted x-ray scans of some maritime shipping containers prior to loading at the Syrian port to ensure configuration is appropriate for transportation. Containers were scanned with a handheld chemical detector to detect leaks or vapors. However, due to incomplete information from international officials, PHMSA cannot confirm the integrity of the UN packagings containing the chemicals, or that they are compliant with the HMR.

Veolia ES Technical Solutions LLC (Veolia) is the private company that the OPCW selected for the destruction and disposal of the chemicals. The OPCW selected Veolia in part because of its long-standing experience in the hazmat industry and its reputation as a safe entity. Veolia selected Bed Rock Inc., d/b/a/ Tri State Motor Transit Company (Tri State), as its subcontractor to carry out the transport from the Port of Port Arthur to Veolia's Port Arthur destruction/disposal facility. In its "Company Safety Profile," the Federal Motor Carrier Safety Administration (FMCSA) gives Tri State a "satisfactory" rating, and this report also shows that Tri State is routinely in the top 15 percent of carriers for hazmat safety when comparing hazmat

[1] See https://www.opcw.org/special-sections/syria-and-the-opcw/frequently-asked-questions/.

violations cited by FMCSA. FMCSA officials, who best understand the metrics of the report, agreed that Tri State is a very competent hazmat carrier.

On May 29, 2014, Veolia representatives were part of a technical team that was able to inspect the chemicals bound for Port Arthur on board the sovereign immune vessel that will transport the five chemicals to Port Arthur, Texas. Other team members that participated in the inspection included the UN/OPCW Joint Mission in Damascus; Ekokem, a Finnish firm that will be destroying other chemicals on board; the OPCW Technical Secretariat; an independent IMDG expert, contracted by the Secretariat for this purpose; a Norwegian IMDG expert; and Danish and Finish representatives from the Danish cargo vessel Ark Futura, which is also transporting chemicals for destruction. At the time of the inspection, the vessel was loaded with most, but not all, of the chemicals ultimately expected to be removed from Syria and destroyed and disposed of in the United States.

The team's report stated that the ton tanks containing hydrogen fluoride did not carry any IMDG/UN codes. Therefore, there is no possibility that they can be considered HMR or IMDG compliant. Nonetheless, the report stated that the type and condition of the hydrogen fluoride tanks renders them safe for transportation.

The team's report stated that the drums containing the other three chemicals were compliant with the IMDG Code, which is similar and in many cases equivalent to the HMR.

Upon arrival to the Port of Port Arthur, the chemicals in the sealed ISO shipping containers will be offloaded from the vessel. Tri State will then transport the containers 15 miles overland from the Port of Port Arthur to Veolia's approved disposal site in Port Arthur, Texas (the "overland transport"). Due to the lack of compliance assurance with the packaging specifications in the HMR, Veolia has requested a special permit from PHMSA. According to the Department of Defense's Defense Threat Reduction Agency, the chemicals to be transported and their reported packagings are as follows:

1) UN1052, hydrogen fluoride, anhydrous (HF), Class 8 (6.1), PG I, RQ, Toxic-Inhalation Hazard, Zone C. 99%-w, gas; Five 20-foot ISO shipping containers transporting 86 packages (31,850 kg chemical); 333-kg tanks, 205 cm x 83 cm; "ton containers" (multi-unit tank car tank).

2) UN1340, diphosphorus pentasulfide, free from yellow or white phosphorus, Division 4.3(4.1), PG II, RQ. One 20-foot ISO shipping container transporting 45 packages (11,250 kg chemical); 250-liter steel drums, 1A2.

3) UN1809, phosphorus trichloride, Division 6.1(8), PG I, RQ, Toxic-Inhalation Hazard, Zone B. Two 20-foot ISO shipping containers transporting 45 packages (15,300 kg chemical); 55-gal drums, 1H1 with 95-gal poly overpacks.

4) UN1810, phosphorus oxychloride; Division 6.1 (8), PG I, RQ, Toxic-Inhalation Hazard, Zone B. Two 20-foot ISO shipping containers transporting 35 packages (12,145 kg chemical); 55-gal plastic drums, 1H1.

5) UN1789, Hydrochloric acid, Class 8, PG II, RQ. Six 20-foot ISO shipping containers transporting 200 packages (44,000 kg chemical); 55 gal plastic drums, 1H1.

The above packaging descriptions provided to PHMSA are incomplete, such that PHMSA cannot confirm that the packagings are compliant with the requirements in the HMR.

Prior to or upon the vessel's arrival in Port Arthur, the U.S. Customs and Border Protection (CBP) and USCG have the authority to inspect the packages described above located inside the maritime shipping containers. However, USCG and CBP may choose not to exercise this authority unless it is necessary or the risk posed by offloading and transporting the containers in the condition they arrive exceeds the risk posed by inspecting the containers on the vessel. In no case would the packages inside the containers be opened due to their hazardous contents. PHMSA does not yet know if it would have the opportunity to participate in an inspection process. As partner enforcers of the HMR, USCG could inspect for HMR compliance with or without the assistance of PHMSA. If an inspection for HMR compliance takes place, PHMSA or USCG could require or recommend any non-compliant or unsafe packages be placed in salvage drums, in accordance with 49 CFR § 173.3(c), to ensure safety and compliance with the HMR. However, there would be no way to place the ton tanks containing hydrogen fluoride into drums or otherwise repackage them because of their size. Because PHMSA will not determine its involvement in this portion of the operation, its discretion is limited. In any event, once an inspection is concluded, the maritime shipping containers, with the packagings inside, would be resealed. The packagings will remain sealed inside the ISO maritime shipping containers during offloading and overland transport.

If there is no inspection of the packages for HMR compliance, PHMSA's involvement in this operation will be limited to operational controls of the 15-mile overland transport of the containers. Although it is still unclear whether PHMSA will need to issue a special permit, PHMSA believes the scope will be one of the following:

- The offloading of the sealed maritime shipping containers from the vessel and the 15-mile overland transport of the sealed maritime shipping containers.
- The inspection of the packagings and the placement of any non-compliant packagings (except ton tanks containing hydrogen fluoride) into drums prior to arrival in Port Arthur, the offloading of the sealed maritime shipping containers from the vessel, and the 15-mile overland transport of the sealed maritime shipping containers.

Upon arrival of the chemicals to Veolia's Port Arthur facility, the containers will be unloaded and moved to the staging floor to be inspected, counted, and weighed. The chemicals will then be transferred within the facility to either a dedicated storage area for the OPCW waste or immediately to the applicable direct feed line for processing and destruction in accordance with the site's standard operating procedures. The chemicals will be treated and disposed of via high temperature incineration at the on-site incinerator at Veolia's Port Arthur facility. Veolia will treat and dispose of the chemicals and related materials in isolation from the other chemicals handled at the facility as much as possible to facilitate the verification process conducted by the OPCW inspection team. More detailed information about the destruction process for each chemical can be found in Veolia's special permit application, located in the docket.[2]

Veolia's facility handles a wide range of hazardous waste in bulk and non-bulk quantities. The facility is fully permitted by the Texas Commission on Environmental Quality (TCEQ) to manage hazardous waste, and it is authorized by the U.S. Environmental Protection Agency (EPA) to manage polychlorinated biphenyl (PCB) waste. Stack emissions testing in 2006 and 2011 demonstrated the facility's Destruction and Removal Efficiency (DRE) at 99.99999 percent. Incineration residues are managed off-site. Material removed from incinerator's air pollution control scrubber (i.e. Air Pollution Control train) is managed by deep well injection. More information about Veolia's facility and incinerator are available in Veolia's special permit application, located in the docket.

The OPCW will conduct verification activities (inspections) at Veolia's facility to ensure the chemicals have been properly disposed of. These inspections will be carried out under a facility agreement, the terms of which are consistent with the CWC. BIS will escort the OPCW inspectors through the facility as the inspectors verify the destruction of the chemicals. The purpose of the facility agreement and BIS's accompaniment is to ensure the OPCW inspectors achieve their inspection mandate through access to designated areas, documents, and other elements associated with the chemical destruction. Neither the facility agreement nor the inspections address the sufficiency of the packaging containing the chemicals.

II. Proposed Action and Alternatives

As noted above, Veolia is proposing to obtain relief from the packaging requirements in the HMR through a PHMSA special permit. Veolia's proposal corresponds to Alternatives 2, 3, and 4 below. The other alternative that PHMSA is considering is the No Action Alternative (Alternative 1).

[2] The docket may be accessed at www.regulations.gov with Docket No. PHMSA-2014-0085; Notice 14-9.

Alternative 1: No action. Do not have the chemicals enter or be destroyed in the United States and do not issue a special permit.

If the chemicals are not permitted to enter the country or to be offloaded from the ship, they will need to be transported to some other destination. Presumably, the OPCW would need to identify and contract with another entity in another country to accomplish the destruction of the chemicals. This would be inconsistent with the United States' commitment to ensure the destruction of the Syrian chemical weapons program, and the existing internationally-agreed destruction plans.

Alternative 2: Do not issue a special permit and use agency discretion to forgo enforcement of the HMR for the 15-mile overland transport.

Given the compelling public policy reasons for the shipment, the reputation of Veolia and its contracted motor carrier, Tri State, as experienced and reliable transporters and handlers of hazmat, but insufficient information to confirm HMR compliance, PHMSA could opt to allow Veolia and Tri State to perform offloading and transport of the chemicals without additional operational controls or oversight. However, at this time, this is not PHMSA's preferred alternative because of the types of chemicals to be transported. PHMSA also believes it is important to require compliance with the terms of a special permit because the operational controls are intended to increase safety and facilitate dissemination of information and public involvement.

Alternative 3: Issue a special permit, inspect drums for HMR compliance prior to arrival in Port Arthur, and require any non-compliant or unsafe drums to be placed into salvage drums.

If an inspection for HMR compliance occurs, PHMSA or USCG could require repackaging, if necessary, of non-compliant or unsafe drums/packagings containing diphosphorus pentasulfide, phosphorus trichloride, phosphorus oxychloride, or hydrochloric acid. These drums/packagings would be placed in larger salvage drums in accordance with 49 CFR § 173.3(c) to achieve compliance with the HMR.

PHMSA has information confirming that the hydrogen fluoride ton tanks are not HMR compliant, and that no means are available to repackage these to achieve compliance. Therefore, even if full HMR compliance were achieved for all drums, PHMSA would still issue a special permit for the ton tanks, as described in Alternative 4.

Alternative 4: Issue a special permit for relief from the HMR (preferred alternative).

In this alternative, PHMSA would only have involvement with/jurisdiction over the unloading and overland transport to the disposal facility. In this alternative, PHMSA would grant Veolia a

special permit to exempt packaging requirements for the above-listed materials, as long as the herein described operational controls as added safety measures are implemented.[3]

PHMSA typically grants special permits when the transportation conditions provide an equivalent level of safety to full compliance with the HMR. Because PHMSA does not have complete information about the packagings containing the chemicals, PHMSA is unable to issue a special permit based on an equivalent level of safety. In addition to the equivalent level of safety standard, the Federal hazardous materials transportation law and the HMR allow PHMSA to grant a special permit when doing so is consistent with the public interest (49 USC § 5117; 49 CFR §107.105(d)). PHMSA believes that granting this request for a special permit would be consistent with the public interest, as PHMSA wishes to assist the OPCW and other participating Federal agencies and international organizations in the operation to remove and destroy components of chemical weapons in the hopes of preventing their proliferation to other parties or their contributing to further loss of life in the ongoing conflict in Syria.

Operational controls that PHMSA would impose for added safety in the special permit for each of the five materials that Veolia will handle include:

(1) The materials may be off-loaded from the vessel and loaded onto motor vehicles for transportation to the Veolia disposal facility in Port Arthur, Texas. This special permit is only valid for this one-way transport.

(2) Only the minimum number of shipments required to transport the materials described above are allowed. The overland transport from the Port of Port Arthur to the destruction facility in Port Arthur, Texas is a distance of approximately 15 miles. The contract carrier is Tri State; no other contract carrier is authorized to perform this function.

(3) Transportation must be completed in the shortest timeframe possible while adhering to all Federal, state and local regulations applicable to the operation of a commercial motor vehicle on a public highway at all times. As much as possible, transportation must be conducted so as to avoid rush-hour traffic and high density traffic.

(4) Transportation must be conducted on highways and avoid residential areas as much as possible.

(5) No other hazardous materials may be transported on the vehicle.

(6) The PHMSA Hazardous Materials Safety Southwest Region Office must be notified at least 48 hours in advance of any shipment.

(7) A statement must be provided to PHMSA via email (specialpermits@dot.gov) when the shipment arrives at the destruction facility.

(8) Tristate must hold a valid Hazardous Materials Safety Permit from FMCSA.

[3] The specific packaging provisions that would be exempted are: 49 CFR §§ 173.212, 173.227, 173.244, 173.304, and 173.304a. All other provisions of the HMR apply to the transport of the containers from offloading to arrival at the disposal facility.

III. Environmental Risks or Possible Impacts of the Proposed Action and Alternatives

A. Environmental/Human Health Hazards of the Chemicals to be Transported for Disposal

The five chemicals described in this EA have many industrial uses and are commonly and safely transported in commerce daily in the United States. In comparison to the frequency with which they are transported, the movement of hazmat, even dangerous ones, rarely results in release or impacts human health or the environment. Nonetheless, the following is a description of each of the materials to be transported and the hazards the material could pose to human health and the environment in the unlikely event of a release.

Hydrogen fluoride, anhydrous (Hazard Zone C).[4] Upon contact with moisture, including tissue, hydrogen fluoride immediately converts to hydrofluoric acid, which is highly corrosive and toxic, and requires immediate medical attention upon exposure. Breathing in hydrogen fluoride at high levels or in combination with skin contact can cause death from an irregular heartbeat or from fluid buildup in the lungs. Vapor from this material is heavier than air, which means it takes longer to dissipate than other gases. When heated or in the event of ignition, hydrogen fluoride emits highly corrosive fumes that can attack glass, concrete, certain metals, and organic material. Therefore, hydrogen fluoride is highly dangerous and toxic to humans, animals, and bodies of water.

When transported in compliance with the HMR, bulk packages of hydrogen fluoride must be packaged in accordance with 49 CFR § 173.244, which requires a Class 106 multi-unit tank car tank or other DOT Specification cargo tank or DOT Specification or UN Standard portable tanks.

Phosphorus pentasulfide. This is a highly flammable material that may heat and spontaneously ignite in presence of moisture. Reaction with water forms toxic hydrogen sulfide gas, phosphoric acid, and phosphorous pentoxide. Hydrogen sulfide gas formed by reaction with moisture can cause irritation to the respiratory system and eyes, and death by respiratory failure at high concentrations. Symptoms may be delayed for several hours. Powder and dust of the material poses an explosion hazard. Therefore, phosphorus pentasulfide is highly dangerous to humans, animals, and bodies of water.

[4] Hazard zone means one of the four levels of hazard (Zones A though D) assigned to gases, as specified in 49 CFR §173.116(a), and one of two levels of hazards (Hazard Zones A and B) assigned to liquids that are poisonous by inhalation. A hazard zone is based on the lethal concentration value for acute inhalation toxicity of gases and vapors, as specified in 49 CFR § 173.133(a). Level of hazard is descending from A to D.

When transported in compliance with the HMR, non-bulk packages of phosphorus pentasulfide must be packaged in accordance with 49 CFR § 173.212, which requires a UN 1A1 drum that is certified to the Packing Group II level.[5]

Phosphorus trichloride. This is a toxic and corrosive material that is toxic by inhalation and skin absorption, with a concentration of 600 parts per million being lethal in just a few minutes. It may be fatal if swallowed or inhaled due to severe digestive and respiratory tract burns. It causes severe eye and skin burns. This material will react violently with water to create heat and corrosive and toxic fumes. Therefore, phosphorus trichloride is highly dangerous to humans, animals, and bodies of water.

When transported in compliance with the HMR, non-bulk packages of phosphorus trichloride must be packaged in accordance with 49 CFR § 173.227, which specifies the requirements for Hazard Zone B poisonous by inhalation (PIH) materials. This requires the material to be packaged in a drum-within-a-drum where both the inner and outer drums must conform to the performance test requirements of 49 CFR part 178, subpart M at the Packing Group I performance level.

Phosphorus oxychloride. Human health risks are nearly identical to phosphorus trichloride.

When transported in compliance with the HMR, non-bulk packages of phosphorus oxychloride must be packaged in accordance with 49 CFR § 173.227, which specifies the requirements for Hazard Zone B PIH materials. This requires the material to be packaged in a drum-within-a-drum where both the inner and outer drums must conform to the performance test requirements of 49 CFR part 178, subpart M at the Packing Group I performance level.

Hydrochloric acid. This material is hazardous in case of skin contact (corrosive, irritant, permeator), eye contact (irritant, corrosive), and ingestion. It is slightly hazardous in case of inhalation (lung sensitizer), but it is non-corrosive for lungs. Liquid or spray mist may produce tissue damage particularly on mucous membranes of the eyes, mouth, and respiratory tract. Severe over-exposure can result in death. Hydrochloric acid also has high mobility in soil and can persist in dry soil for long periods. The material does volatilize from water bodies after a period of two to three days. The rate of volatilization is faster for bodies of moving water. Therefore, hydrochloric acid is dangerous to humans, animals, soil, and bodies of water.

When transported in compliance with the HMR, non-bulk packages of hydrochloric acid must be packaged in accordance with 49 CFR §§ 173.304 and 173.304a, which require the material to be packaged in a DOT specification cylinder.

[5] Packing group means a grouping according to the degree of danger presented by hazardous materials. Packing Group I indicates great danger; Packing Group II, medium danger; Packing Group III, minor danger. See 49 CFR § 171.8.

Mixture of two or more of any of the above hazardous materials could result in further health and environmental hazards. Reactions could be toxic, explosive, flammable, corrosive, or heat-producing. Other mixtures would produce no reaction.

B. Emergency Planning

In the highly unlikely event of a release, hydrogen fluoride, anhydrous would require the largest evacuation and isolation zone. Depending on the quantity of material released, the evacuation and isolation zone could be as large as 1.2 miles for daytime and 2.4 miles for nighttime. These distances are conservative and assume low wind speeds. Veolia and Tri State's teams are experienced hazmat handlers and transporters, and PHMSA's operational controls require that Tri State hold a Hazardous Materials Safety Permit from FMCSA. Port Arthur and Jefferson Country officials are also prepared for emergency situations, as demonstrated by Jefferson County's "Annex Q," which documents local authorities' emergency response procedures for hazardous material and oil spill releases. Port Arthur is home to many chemical plants and oil refineries, which process and transport hazmat as part of their business. Because of this reality, Port Arthur's emergency and first responders are well-equipped and knowledgeable in dealing with hazmat incidents.

C. Description of the Local Environment and Anticipated Environmental Impacts in the Unlikely Event of a Release

1. Protected Species

Due to its coastal location and extensive wetland habitat, the Port Arthur area is home to diverse and abundant wildlife, including federally protected species under the Endangered Species Act (ESA). The area serves as a stopover and staging area for much of the waterfowl of the Central Flyway and provides high quality waterfowl habitat. The following is a list of protected species that occur in Jefferson County and could potentially be affected by a release of the above-described chemicals:

Mammals

West Indian manatee: The potential for West Indian manatees occurring around the offloading and transport area is very low. Manatees are rarely reported on the Texas coast, and local wildlife officials consulted for this EA were not aware of any recent manatee reports.

Whales are not included here, as this EA only covers offloading and overland transport.

Reptiles

Kemp's ridley sea turtle

Loggerhead sea turtle
Green sea turtle
Hawksbill sea turtle
Leatherback sea turtle

The above-listed sea turtles spend the majority of their lives at sea and only come ashore for a few hours for nesting. Therefore, the likelihood of any impact to sea turtles during this offloading and transport operation, even in the unlikely event of a release, is estimated to be extremely low.

Birds

Piping plover: Of all the ESA-listed species here, the piping plover is the most likely to occur in the area where the offloading and transport operation are to take place. Although routing decisions are not final, PHMSA understands that the shipment will be routed through an area dominated by heavy industry, where conditions are not likely to attract individuals of this species.

Red-cockaded woodpecker: This species mainly occurs in inland pine forests, as it exclusively nests in certain species of live pine. The coastal area where the offloading and transport operation will occur does not include this habitat.

In the highly unlikely event of a release, the amount of hazardous material released would likely be relatively small. Four of the five chemicals that are to be transported are packaged in drums that range in capacity from 18.5 gallons/70 liters to 66 gallons/250 liters. If one of these drums were to fail, it is unlikely any of these rare species would occur in the relatively small impact area that would result from this size release. While the failure of more than one packaging simultaneously during the overland transport is a possibility, PHMSA expects that the likelihood of this is extremely remote, but would result in greater environmental impact.

PHMSA believes that the likelihood of release from a ton tank containing hydrogen fluoride is also very remote but could result in a release of up to 698 kg of material. This is less than a release that could occur from a cargo tank but could result in an impact zone of .9 miles in the day and 2 miles at night. Hydrogen fluoride in gas form can dissolve into water to form hydrofluoric acid, which is corrosive. If high levels of hydrogen fluoride gas dissolve in a water body, aquatic organisms will be harmed and could be killed. Hydrogen fluoride gas can attach itself to particles in the air, which are then deposited on soils or plants. Due to the high solubility of hydrofluoric acid, the risk would decrease as dilution occurred, and as levels decreased, the risk would change to "fluorosis," which can negatively affect the teeth and bones due to over-absorption of fluoride, but this exposure generally has to be chronic for fluorosis to develop.

PHMSA believes the likelihood of impact to any of listed species is extremely remote. First, the likelihood of a release during the brief 15-mile transport is remote, and even in this unlikely possibility, the likelihood that one of these species would occur along the mostly industrial transport route is even more remote. Finally, the likelihood that one of these species would occur in the relatively small impact area that could result from a release from one of the above described packages is makes the possibility of impact to one of the listed species extremely remote.

2. Water Resources

As mentioned above, because of the coastal nature of the Port Arthur area, there are many water bodies and wetlands in the area. It is likely that the trucks would have to cross Federal waters during the course of the approximately 15-mile trip to the approved disposal site. In the unlikely event of a release, any of these chemicals could enter waterways. If this were to happen, damage to wildlife and habitat could be expected to be proportional to the size of the release. Drinking water in the Port Arthur area comes from the Lower Neches Valley Authority Canal, Terminal Reservoir, and Port Arthur Reservoir, and the routing of the chemicals will not pass over or adjacent to these resources. None of the chemicals are classified as "marine pollutants," as defined by the 1973 International Convention for Prevention of Pollution from Ships.

3. Environmental Justice Communities

As part of the operational controls, Veolia will not travel through any residential areas. Therefore, PHMSA does not anticipate any impacts to environmental justice communities in the vicinity of Port Arthur.

D. Environmental Impacts of Alternatives

Alternative 1: No action. Do not have the chemicals enter or be destroyed in the United States and do not issue a special permit.

This alternative is inconsistent with the internationally-agreed approach to the destruction of these chemicals. The international community has determined that the existing destruction plans are environmentally appropriate and will address a range of hazards and human health associated with these materials in their current location. It would also require that the chemicals be transported to and destroyed in some other, yet to be identified facility. It is unclear whether the other facility would have comparable environmental safeguards or expertise in chemicals management and destruction that Veolia and Tri State possess. We do not believe that this option requires extensive analysis in light of this broader context. Currently, this alternative is PHMSA's least preferred alternative because it believes the other alternatives offer higher levels of safety assurance.

Alternative 2: Do not issue a special permit and use agency discretion to forgo enforcement of the HMR for the 15-mile overland transport.

PHMSA believes that if it selected this alternative, given what PHMSA knows about the shipment and Veolia and Tri State's expertise in transporting and overseeing the transport of hazmat, it is unlikely that there would be any environmental impact. However, without the operational controls in place as dictated in the special permit, in the unlikely event that an incident were to occur, the impacts could be greater because the requirements to have a hazmat team and to avoid residential areas would not be in place.

Alternative 3: Issue a special permit, inspect drums for HMR compliance prior to arrival in Port Arthur, and require any non-compliant or unsafe drums to be placed into salvage drums.

Under this Alternative, PHMSA or USCG would have additional information about the condition of the packagings and may be able to correct any packaging deficiencies, except those related to ton tanks. However, this option would be less safe for those on the ship. Under this alternative, the likelihood of release of hydrogen fluoride would be equivalent to the other alternatives, but the likelihood of release of the other four chemicals on the ship would be greatest, while the likelihood of release on the ground would be the lowest. The operational controls of the special permit would be in place to account for existing risks and would decrease the likelihood of exposure to the public by reducing the likelihood of any traffic incident by avoiding high traffic areas where such incidents are more likely. The operational controls also prohibit the movement of the chemicals through residential areas. Finally, the operational controls require a trained hazmat team available to respond to and mitigate any incident in the unlikely event that one were to occur.

Alternative 4: Issue a special permit for relief from the HMR.

Under this alternative, PHMSA's knowledge about the packagings would be limited to what is conveyed to it by Veolia and international officials as observed prior to disembarkation. The risk of release of hydrogen fluoride from the ton tanks would be equivalent, but the risk of release of the other four chemicals from the drums during landside transport is potentially higher because non-compliant drums would not be rectified.

The operational controls of the special permit would be in place to account for existing risk and would decrease the likelihood of exposure to the public by reducing the likelihood of any traffic incident by avoiding high traffic areas where incidents are more likely. The operational controls also prohibit the movement of the chemicals through residential areas. Finally, the operational controls require a trained hazmat team available to respond to and mitigate any incident in the unlikely event that one were to occur.

IV. Public Outreach

A public meeting was held on April 3, 2014 at 6:00 p.m., at the West Side Development Center, 601-A W. Rev. Dr. Ransom Howard St., Port Arthur, TX 77640. The City of Port Arthur Office of Emergency Management, Jefferson County Local Emergency Planning Committee, and EPA Region 6 hosted the meeting. During the meeting, the impending shipment from Syria was discussed, including the nature and hazards of the chemicals. Local and Federal officials and Veolia also provided emergency planning information. Thirty-five people attended the meeting, including representatives from EPA Region 6, the City of Port Arthur, the Port of Port Arthur, Jefferson County, the State of Texas, USCG, CBP, and community members. No major opposition was expressed during the meeting. The agenda and post-meeting write-up appear in the docket.

V. Agencies and Persons Consulted

PHMSA has been in discussion with various international, Federal, and local agencies throughout the course of the planning of this project, including:

Organisation for the Prohibition of Chemical Weapons
U.S. Environmental Protection Agency, Region 6
U.S. Department of Commerce
    Bureau of Industry and Security
U.S. Department of the Treasury
U.S. Department of Homeland Security
    U.S. Coast Guard
    U.S. Customs and Border Protection
Port Arthur local government officials
Federal Motor Carrier Safety Administration
U.S. Department of Justice
U.S. Department of State
U.S. Department of Defense
    Defense Threat Reduction Agency

VI. Conclusion

PHMSA and the cooperating agencies believe that there are no significant environmental impacts associated with the granting of a license to Veolia to enter the United States and granting of the special permit to Veolia because the likelihood of release is minimal. The USCG believes the impacts of the exercise of the COTP's authority to enforce or waive applicable HMR are sufficiently analyzed and addressed in the options and alternatives set out in this EA. The information provided by BIS does not indicate that its activities or agreements would result in any environmental impacts, individually or cumulatively, which would arise to any level of environmental significance or alter this assessment of the alternatives. The packaging protocols, along with Veolia and Tri State's experience and expertise in hazmat handling and transport, and

the operational controls imposed in the special permit will provide a high level of safety to transport workers, emergency responders, and the human environment, including public health and the natural environment. The measures in place are designed to ensure safe transport and hazard communication in both normal and accident conditions.