# Assessment of Cased Pipe Guidance Update

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# Assessment of Cased Pipe

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- **Overview**
- **Background**
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# Key Points

- **Provide a method for operators to establish casing regions**
- **Casing pipe conforming to the guidance will likely be lower risk for future assessments**
- **Goal to assure resources are used where most effective**


# Overview

- Correspondence from Industry on concerns with casing pipe integrity issues
- Letters exchanged during 2007
- Public meeting held in July 2008
- PHMSA made contact with industry and NAPSR – Fall 2008
- Meetings held January through June 2009 to develop guidance documents
- PHMSA reviewed with NAPSR guidance documents – Fall 2009


# Overview

- **Casing Assessment Quality Action Team (CASQAT)**
  - **AGA members**
  - **INGAA members**
  - **Service Providers**
  - **NAPSR**
  - **PHMSA**

**http://primis.phmsa.dot.gov/gasimp/casedcrossing.htm**


# Background

- **2002 Pipeline Safety Improvement Act:**
  - **Assess all transmission pipe in HCA (this includes carrier pipe in casings)**
    - **12/17/12 (Gas)**
    - **2/17/09 (Hazardous liquid)**
  - **Reassessment**
    - **Every 7 years (Gas)**
    - **Every 5 years (Hazardous liquid)**


# Background

- **IMP rules apply to all transmission lines in HCAs, but contain no special provisions for casings**
- **ASME B31.8S committee addressed line pipe, but no special provisions for casings**
- **NACE RP 0502 committee addressed ECDA for line pipe, but no special provisions for casings**


# Background

- **ECDA difficult for cased pipe, BUT**
  - **May be only practical alternative if line not piggable and pressure test is problematic**
  - **Especially difficult for gas distribution operators**
    - **Lines not piggable**
    - **Pressure testing disrupts customer gas supplies and introduces water into system**


# Background

- **Industry, mainly AGA, asked for guidance**
  - **AGA members requested guidance for assessing cased pipe by ECDA or other technology**
  - **INGAA members: most gas transmission lines allow for ILI inspection**
  - **API/AOPL members: most liquid transmission pipelines allow for ILI inspection**


# Cased Pipe History

- **PHMSA Guidance for GWUT (Other Tech.)**
  - **2007: GWUT 18 Point Checklist**
- **10/07: PHMSA allowed cased pipe prioritized in lower 50% (Dec. 2012 deadline for baseline assessment)**
- **1/08: PHMSA presentation at GTI mtg**
  - **GWUT appeared to be only method to assess cased pipe**
- **3/08: AGA requested clarification on use of ECDA to assess cased pipe**


# Cased Pipe History

- **4/08: PHMSA indicated use of ECDA may be an acceptable assessment method with additional engineering considerations**
- **7/08: PHMSA: public workshop**
- **1-6 '09: CASQAT: stakeholders committee (NAPSR, AGA, Operators, Service Providers, PHMSA)**
- **7/09: CASQAT: developed input for:**
  - **Performing ECDA on pipe in filled casings**
  - **Filling and monitoring casings**


# Cased Pipe History

- **8/09: PHMSA: internal technical and legal review of draft guidance material**
- **12/09: Final draft guidance material to NAPSR**
- **12/09: PHMSA: release guidance material to CASQAT, AGA, and public**
- **1Q ’10: Public meeting to introduce guidelines and answer questions**


# Guidance Highlights

- **Guidance meets the regulatory requirements of:**
  - **2002 PSIA**
  - **2006 PIPES**
  - **CFR 192 Subpart O**
  - **CFR 195.588 and 195.452**
  - **NACE RP0502-2002 and SP0502-2008**
  - **ASME B31.8S**


# Guidance Highlights

- **Guidelines for integrity assessment of cased pipe reflect PHMSA's current application of the regulations to the specific implementation scenarios presented.**
- **Guidance materials do not create legally enforceable rights or obligations and are provided to help the public understand how to comply with the regulations.**
- **If the operator chooses to address a consideration differently than recommended, the operator needs to develop and document a technical justification for its course of action.**


# Guidance Highlights

- All pipe in HCA be assessed per the timetable in CFR 192.939 or 195.452
- For time dependent threats, 7 year reassessment per Gas IMP (5 year for HL IMP)
- Guidance for ECDA on both unfilled and filled cased pipe
- Guidance follows the 4-step ECDA process of NACE RP 0502.

# Guidance Highlights

- **Identifies additional issues to be addressed in performing a pre-assessment on cased pipe**
  - **Guidance on feasibility reviews (3.1.2)**
  - **Guidance on indirect inspection tool selection (3.1.3 and Appendix A)**
  - **Guidance on region setting (3.1.4)**
    - **Provides 17 points analogous to Table 1 in NACE RP0502 on how / which casings are to be in separate regions (Appendix B)**

# Guidance Highlights

- **Guidance on performing the indirect inspections**
  - **What to expect from various indirect inspection tools (3.2.1 and Appendix C)**
  - **How to fill casings (Appendix D1)**
  - **How to monitor filled and unfilled casings (Appendix D1.2 and D2)**


# Guidance Highlights

- **"Other assessment activities" (3.2.2 and Appendix D)**
  - **Compensate for the limited effectiveness of indirect inspection tools when conducting indirect inspections of cased pipe,**
  - **Assist the analysis of indirect assessment results, and**
  - **Allow the selection the highest risk casings for direct examination.**


# Guidance Highlights

- **Setting priorities for direct examination**
  - **How to prioritize cased pipe within a region (3.3)**
- **Post assessment same as NACE RP0502, no additional guidance provided (3.4)**
  - **Emphasizes importance of good post assessment**


# Guidance Highlights

- **Does NOT allow for skipping casing assessments**
- **Does NOT allow for filled or unfilled casing to be prioritized as having no corrosion threat**
- **Does NOT mandate the use of GWUT or any other specific indirect inspection tools**


# Guidance Highlights

- **Does give guidance on how to review ECDA integrity management procedures for cased pipelines;**
- **Does allow multiple casings in one region;**
- **Does give guidance on how procedures should be set up to effectively monitor casings both filled and unfilled; and**
- **Does give guidance, when followed, that should have prior assessed casings in a low risk category for the region**


# Thank You!

**The guidance material reviewed here is based on 49 CFR Part 192 regulations and does not take additional state regulations, if any, into account.**