



Pipeline and Hazardous  
Materials Safety Administration

# **PHMSA Guidelines for Integrity Assessment of Cased Pipe**

**Public Workshop  
Baltimore, Maryland**

**April 28, 2010**



## Pipeline and Hazardous Materials Safety Administration

# Welcome

**Alan Mayberry**  
**PHMSA, Deputy Associate Administrator**



## Pipeline and Hazardous Materials Safety Administration

# Agenda

- **Background**
- **Review of Guidelines**
- **FAQs**
- **Stakeholder Comments**
- **Q&A**
- **Recommended Practice for Uncased Crossings**
- **Recent Developments in R & D Related to ECDA for Cased Pipe**



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# 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**
- **ASME B31.8S committee addressed line pipe, but no special provisions for cased pipe**
- **NACE RP 0502 committee addressed ECDA for line pipe, but no special provisions for cased pipe**



## **Background**

- **ECDA is a 4 Step Process that is one of three Specified Assessment Methods**
- **Per NACE RP0502, Adopted by PHMSA as referenced standard, each step must be completed**
- **The Steps are:**
  - **Pre-assessment**
  - **Indirect Inspection**
  - **Direct Examination, and**
  - **Post Assessment**



## **Background**

- **ECDA difficult for cased pipe, BUT**
  - **May be only practical alternative if line is 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**





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# Timeline

- 3/08: Correspondence from industry on concerns with integrity assessment of cased pipe**
- 7/08: PHMSA sponsored public workshop**
- 2009: Casing Assessment Quality Action Team (CASQAT)**
  - NAPSR
  - AGA
  - Operators
  - Service Providers
  - PHMSA



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# Timeline

### **7/09: CASQAT Developed Input for:**

- **Performing ECDA on Pipe in Filled Casings**
- **Recommended Practices for Filling Casings**
- **Recommended Practices for Monitoring Filled Casings**

### **8/09: PHMSA Developed Guidelines**

- **Technical Review**
- **Legal Review**

### **12/09: Guidelines Released for Public Review**



## Pipeline and Hazardous Materials Safety Administration

# Thank You

## CASQAT Team Members

### Industry

**Andrew Lu**

**Victoria Plotkin**

**Dane Spillers**

**Mary Holzmann**

**Garry Matocha**

**Bob Fassett**

**Virgil Wallace**

**Larry Rankin**

**Alan Eastman**

### NAPSR

**Harry Bryant**

**David Chislea**

### PHMSA

**Alan Mayberry**

**Max Kieba**

**Bob Smith**

**John West**

**Bill Lowry**

**Joe Mataich**

**Steve Nanney**

**Dave Berger**



## Pipeline and Hazardous Materials Safety Administration

- **Guidance meets the regulatory requirements of:**
  - **2002 PSIA**
  - **2006 PIPES Act**
  - **49 CFR 192 Subpart O**
  - **49 CFR 192 Subpart I**
  - **49 CFR 195.588 and 195.452**
  - **NACE RP0502-2002 (Incorporated by reference)**
  - **ASME B31.8S-2004 (Incorporated by reference)**



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- **Guidelines reflect PHMSA's current application of the regulations to the specific implementation scenarios presented**
- **Guidance materials do not create legally enforceable rights or obligations**
- **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**



## Pipeline and Hazardous Materials Safety Administration

# Casing Assessment Guidance

- **Outstanding Issues**
  - **Guided Wave “less than 100% Carrier Pipe inspection”**
    - Guidelines only address ECDA
    - Need to be supported by additional research data
    - Would require GWUT 18-point checklist revision
    - May have to be on a case by case basis
  - **Small operators with few casings and/or stress below 30% SMYS**
    - Part 192/NACE RP0502 contain no exceptions to min. no. of direct examinations required for each assessment
    - Special Permit/Waiver to avoid multiple excavations of the same casing during re-assessments



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# Thank you