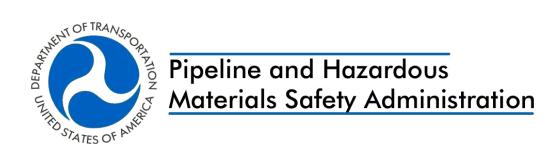


PHMSA Guidelines for Integrity Assessment of Cased Pipe

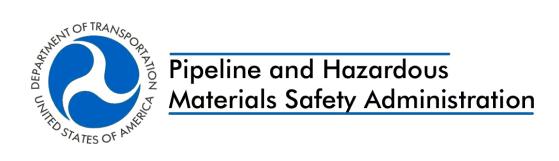
Public Workshop Baltimore, Maryland

April 28, 2010



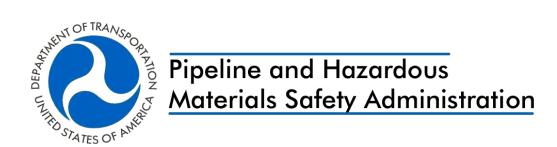
Welcome

Alan Mayberry
PHMSA, Deputy Associate Administrator

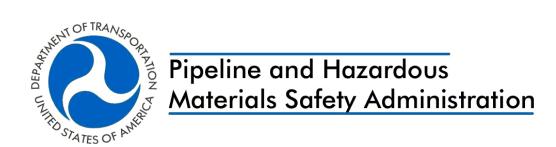


Agenda

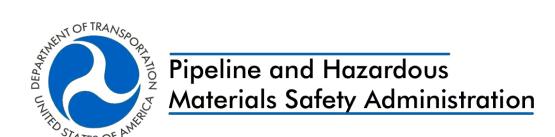
- Background
- Review of Guidelines
- FAQs
- Stakeholder Comments
- Q&A
- Recommended Practice for Uncased Crossings
- Recent Developments in R & D Related to ECDA for Cased Pipe



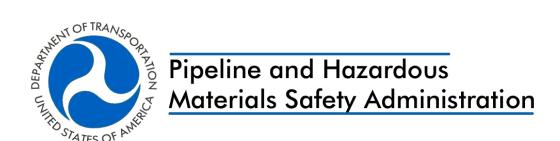
- 2002 Pipeline Safety Improvement Act:
 - Assess all transmission pipe in HCA (this includes carrier pipe in casings)
 - 12/17/12 (Gas)
 - 2/17/09 (Hazardous liquid)
 - Reassessment
 - Every 7 years (Gas)
 - Every 5 years (Hazardous liquid)



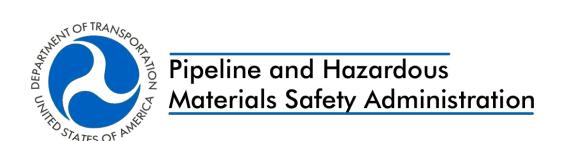
- IMP rules apply to all transmission lines in HCAs
- ASME B31.8S committee addressed line pipe, but no special provisions for cased pipe
- NACE RP 0502 committee addressed ECDA for line pipe, but no special provisions for cased pipe



- 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



- 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



- 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



Timeline

3/08: Correspondence from industry on concerns with

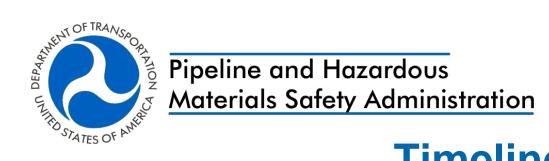
integrity assessment of cased pipe

7/08: PHMSA sponsored public workshop

2009: Casing Assessment Quality Action Team

(CASQAT)

- •NAPSR
- •AGA
- Operators
- Service Providers
- •PHMSA



Timeline

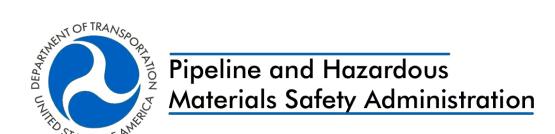
7/09: CASQAT Developed Input for:

- 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



Thank You

CASQAT Team Members

Industry Andrew Lu

NAPSR

PHMSA

Dane Spillers

Garry Matocha

Virgil Wallace

Alan Eastman

Harry Bryant

Alan Mayberry

Bob Smith

Bill Lowry

Steve Nanney

Victoria Plotkin

Mary Holzmann

Bob Fassett

Larry Rankin

David Chislea

Max Kieba

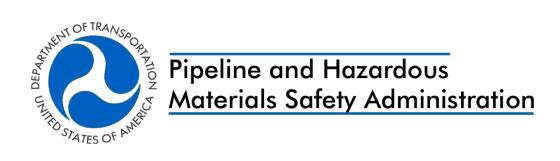
John West

Joe Mataich

Dave Berger

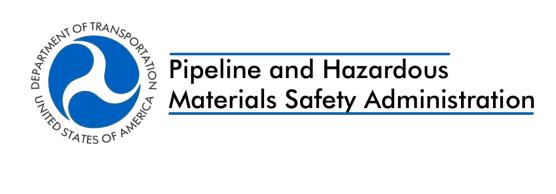
- Guidance meets the regulatory requirements of:
 - 2002 PSIA
 - 2006 PIPES Act
 - 49 CFR 192 Subpart O
 - 49 CFR 192 Subpart I
 - 49 CFR 195.588 and 195.452
 - NACE RP0502-2002 (Incorporated by reference)
 - ASME B31.8S-2004 (Incorporated by reference)

- 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



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



Thank you