



Pipeline and Hazardous  
Materials Safety Administration

# **PHMSA Perspectives on the Construction Process**

TPSSC Joint Meetings  
Alexandria, Virginia

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December 10, 2009

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## Overview

- PHMSA Expectations
  - PHMSA Actions to Date
  - Inspections and Enforcement Review
  - Challenges
  - Looking ahead
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## PHMSA Expectations

- Hold safety paramount
- Protect the public and environment
- Follow the regulations
- Focus on people and processes
  - Quality Management Systems





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# PHMSA Actions to Date

- Summer 2007:** Initial observations during inspections of special permit pipelines
- Summer 2008:** Pipe material (low yield) issues observed
- April 23, 2009:** PHMSA New Construction Workshop
- May 14, 2009:** ADB: Potential Low and Variable Yield and Tensile Strength and Chemical Composition Properties in High Strength Line Pipe
- June 5, 2009:** PHMSA Letter to Industry Trade Associations
- June 22, 2009:** API Standards Conference
- August 2009:** Construction web site established  
<http://primis.phmsa.dot.gov/construction/index.htm>
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## Summary of Construction Issues

| <b>Topic</b>           | <b>Frequency</b> |
|------------------------|------------------|
| Coating*               | 117              |
| Welding*               | 87               |
| Excavation             | 20               |
| Nondestructive testing | 20               |
| Pipe material*         | 12               |
| Bending                | 9                |
| Lowering in*           | 7                |
| Hydrotesting           | 4                |
| Design                 | 3                |
| Other                  | 8                |



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## Pipe Manufacturing

- **Low Strength Pipe**
- **Coating Adhesion**

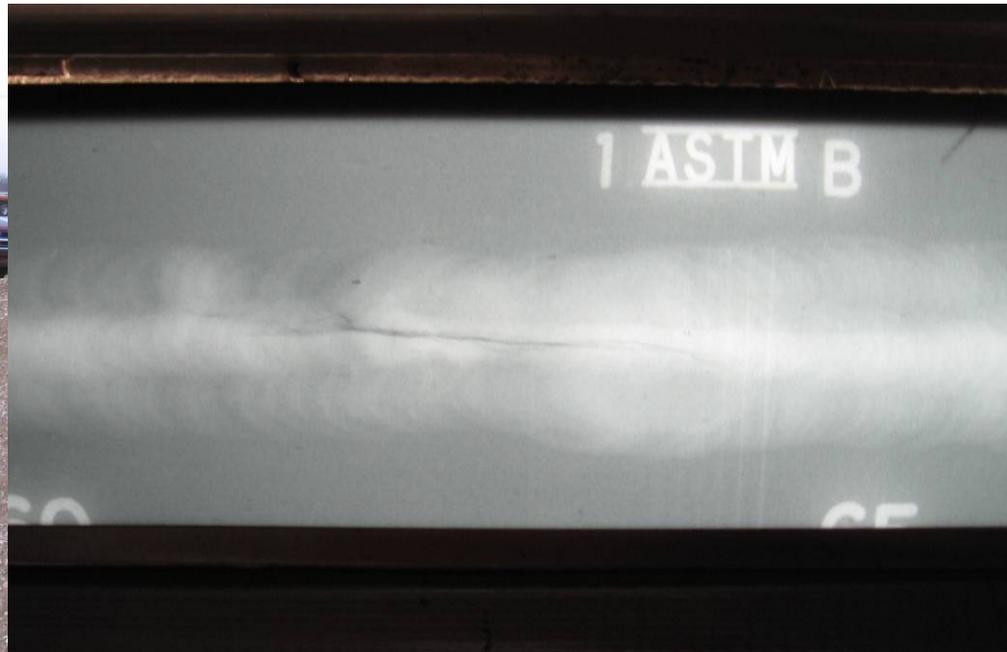




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## Construction

- **Repair Weld Cracking Issues**

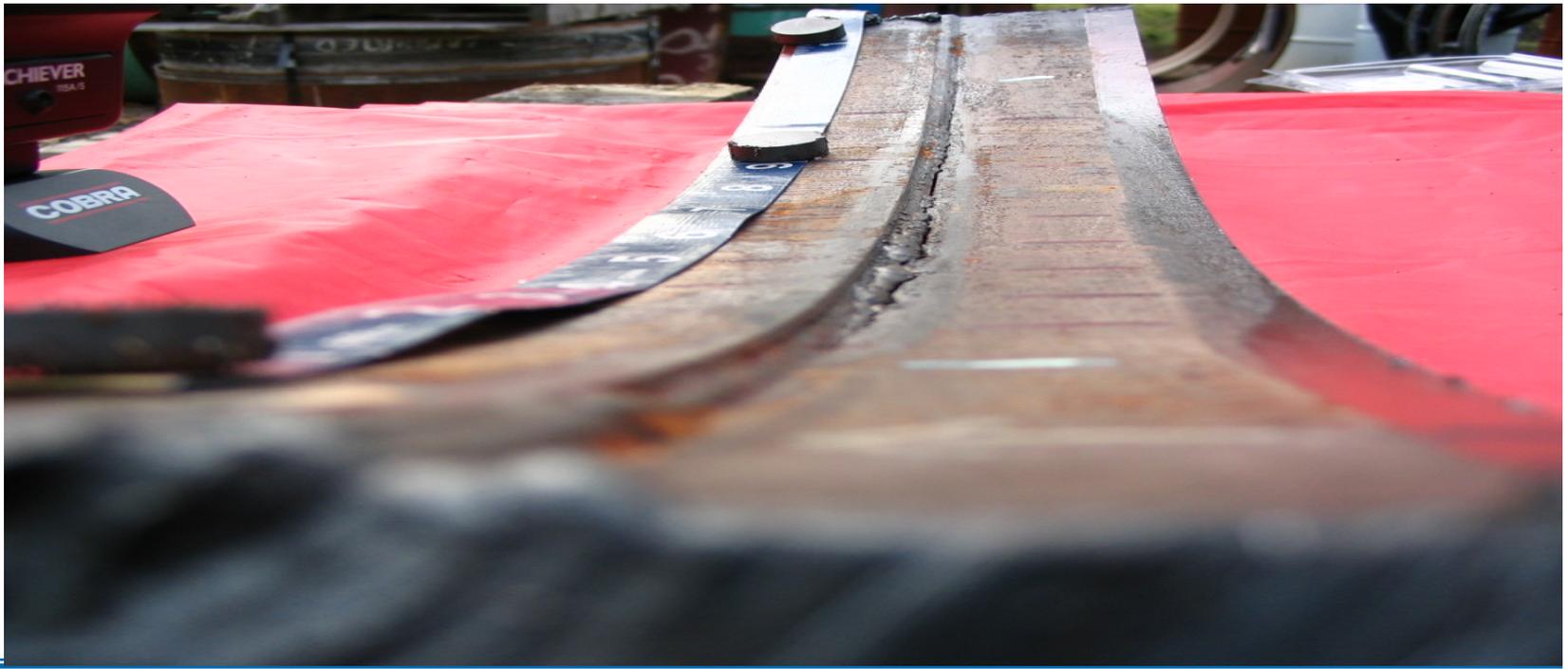




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## Construction

- **Pipe bevel ends – high/low**





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## Construction

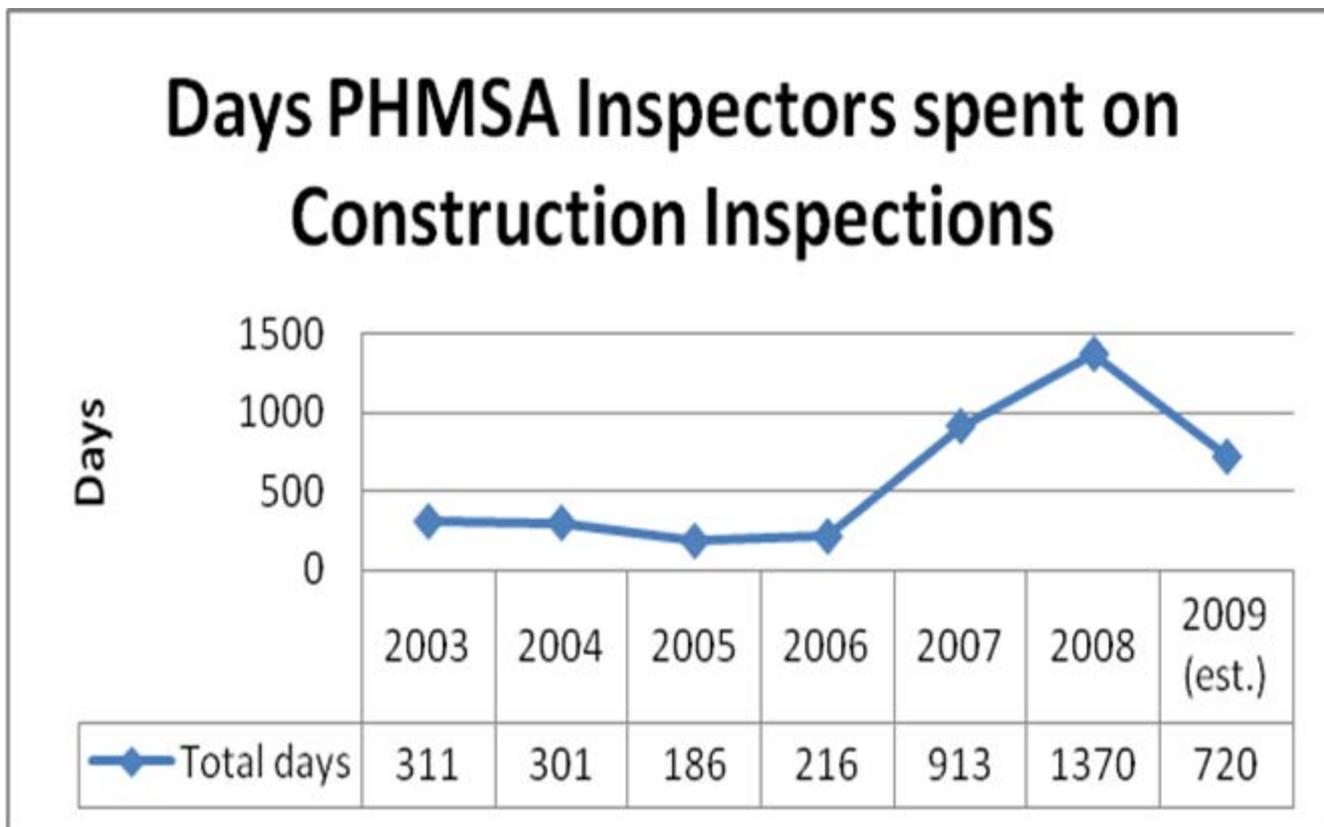
- **Weld failure, high/low, combined stresses**





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# PHMSA: Construction Issues History





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# Challenges

- **People**
    - Getting people to consistently do it right
    - Finding and retaining appropriate skill sets
    - Achieving sustained improvements
  - **Processes**
    - Establishing proper procedures
    - Ensuring a seamless transition between contractors and owners
    - Contracting methods
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## Looking Ahead

- PHMSA construction inspection focus will continue
  - Expect increased use of enforcement actions on construction issues
  - Exploring other options:
    - More effective regulations
    - Operator qualification for construction
    - Timely enforcement actions
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**Thank you**

<http://primis.phmsa.dot.gov/construction/index.htm>

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