Code Sections that have Effect on Composite Materials
January 13, 2000

Rule amended to accommodate composite repairs

- SubPart G - General Construction Requirements for Transmission Lines and Mains

Richard Sanders, Director
PHMSA Training & Qualifications
Code section

192.309 Repair of steel pipe

b) Each of the following dents must be removed from steel pipe to be operated at a pressure that produces a hoop stress of 20 percent, or more, of SMYS, unless the dent is repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe:
SubPart I - Requirements for Corrosion Control

192.485 Remedial measures: Transmission lines

(a) General corrosion. Each segment of transmission line with general corrosion and with a remaining wall thickness less than that required for the MAOP of the pipeline must be replaced or the operating pressure reduced commensurate with the strength of the pipe based on actual remaining wall thickness. However, corroded pipe may be repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion for the purpose of this paragraph.
Sub parts of Code and questions to ask oneself when developing future updates Subparts A to P????
Code Sections that need Further Development

(Performance-based Language vs Specification Language)
ANSI Standards Needed to Address:

- Product Standards
- Testing Protocols
- Design Specifications
- Etc.
Need for long-term & short-term testing based on existing or future developed ANSI standards testing - - -

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Develop a Process to Accept New Materials into the Regs

(Effort Underway by ASTM)

Dr. Thomas Walsh
YOU TELL US WHAT NEEDS TO BE DONE TO ASSURE “SOUND ENGINEERING PRACTICES” ARE FOLLOWED BY ALL
Code Sections that have Effect on Composite Materials
# PIPELINE SAFETY LAWS

1. Pipeline, Inspection, Protection, Enforcement and Safety Act of 2006 (PIPES)
2. Natural Gas Pipeline Safety Act of 1968, as amended
3. Mineral Leasing Act (regulation to inspect on Federal lands)
5. Section 5 of the International Bridge Act of 1972
6. Outer Continental Shelf Lands Act

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### Retroactive Subparts

- **A** General
  - Dates: Jul 31, 1971
  - Aug 1, 1971

- **I** Corrosion
  - Dates: Nov 12, 1970
  - Mar 12, 1971
  - Jul 31, 1977

- **K** Uprating

- **L** Operations

- **M** Maintenance
  - Dates: Nov 12, 1970
  - Mar 12, 1971
  - Jul 31, 1977

- **O** Pipeline Integrity Management

- **P** Distribution Integrity Management

### Non-retroactive Subparts

- **B** Materials
- **C** Pipe Design
- **D** Design of Pipeline Components
- **E** Welding of Steel in Pipelines
- **F** Joining of Materials other than by Welding
- **G** General Construction Requirements for Transmission Lines
- **H** Customer Meters, Services, Regulators and Service Lines
- **J** Testing Requirements
- **N** Operator Qualifications
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**Retroactive Subparts**

- **A** General
- **B** Reporting Accidents and Safety Related Conditions
- **F** Operation and Maintenance
- **H** Corrosion Control

**Non-retroactive Subparts**

- **C** Design Requirements
- **D** Construction
- **E** Pressure Testing
- **G** Operator Qualification
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