Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments

Background

- National Technology Transfer and Advancement Act of 1995.
- OMB Circular A-119 *Federal Participation in the Development and Use of Voluntary Standards.*
- Voluntary consensus standards are generally updated every three to five years.
- There are 64 standards and specifications incorporated by reference in 49 CFR Parts 192, 193, and 195.
- PHMSA's previous technical standards update rule was published in August 11, 2010.

The NPRM

- Notice of Proposed Rulemaking published on August 16, 2013.
- PHMSA is proposing to incorporate by reference (IBR):
  - Two new standards
    1. API RP 5LT – 2012 (Truck Transportation of Line Pipe)
    2. Partially incorporate ASTM D2513-09a- PE gas pressure pipe, tubing & Fitting (except section 4.2 pertaining to rework materials)
  - Update 20 currently referenced standards and specifications in 49 CFR Parts 192, 193, and 195.
- PHMSA is also proposing non-substantive edits and clarifies regulatory language in certain provisions.

Implementing Section 24

- Section 24 of the "Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011" added a limitation on documents incorporated by reference - After **[**January 3, 2013**]** January 3, 2015
  - The Secretary may not issue **[**guidance or**]** a regulation that incorporates by reference any documents or portions thereof unless they are made available to the public, free of charge, **[**on an internet Website**]**.

Standards Organizations with Agreements

- The following organizations will provide “read only” versions of documents incorporated by reference in the Pipeline Safety Regulations on their Web sites.

  - AGA Pipeline Research Committee (AGA)

  - American Petroleum Institute (API)

  - American Society for Testing and Materials (ASTM),

  - Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. (MSS)

  - NACE International (NACE)

  - National Fire Protection Association (NFPA)

Proposed Standards for Incorporation

- **American Petroleum Institute**
- - API RP 5L1 (2009) (new)
- - API RP 5LT – (2012)
- - API RP 5LW (2009)
- - ANSI/API Spec 5L/ISO 3183 (2012)
- - ANSI/API Spec 6D (2011)
- - API Spec 12F (2008)
- - API Std 620 (2008, addendum 1 &2)
- - API Std 650 (2007, addendum 1,2,3 errata)
- - API Std 2000 (2009)

- **American Society for Testing and Materials**
- - ASTM A53/A53M–10
- - ASTM A106/A106M–10
- - ASTM A333/A333M–11
- - ASTM A372/A372M–10
- - ASTM A671/A671M–10
- - ASTM A672–09
- - ASTM A691–09
- - ASTM D 2513-09a – (2009) (new)

- **Manufacturers Standardization Society**
- **of the Valve and Fittings Industry, Inc.**
- - MSS SP–44–2010, Standard Practice
- - MSS SP–75–2008

- **NACE International**
- - NACE Std SP0502–2010

- **National Fire Protection Association**
- - NFPA-30 (Fire) (2012)
- - NFPA-70 (2011)

Updated Standards Not to be Incorporated

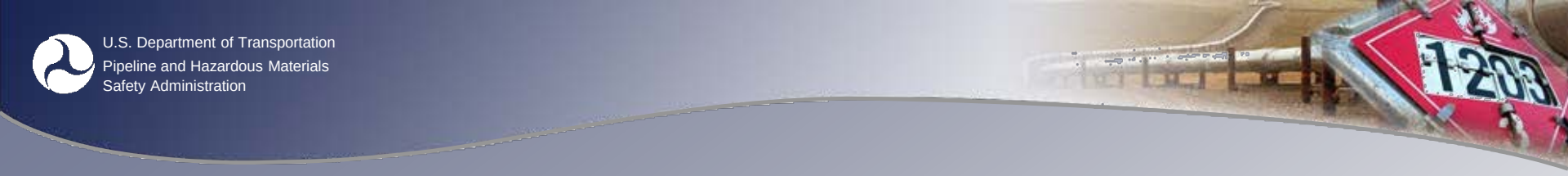
- API Recommended Practice 1162, “Public Awareness Programs for Pipeline Operators,” (2st edition, December 2010) (API RP 1162)
  - Retaining (1st edition, December 2003)
- API Standard 653, “Tank Inspection, Repair, Alteration, and Reconstruction” (4th edition) (2009) and Addendum (2010).
  - PHMSA proposed to retain the 3rd edition, 2001, eliminate the incorporation of section 6.4.3 as it applies to risk-based inspection (RBI) intervals (49 CFR 195.432).

Comments received from -

- American Gas Association
- American Petroleum Institute
- National Fire Protection Association
- Manufacturers Standardization Society
- Southwest Gas Corporation
- Pipeline Plastics, LLC
- Chevron Phillips Chemical Company–Performance Pipe
- Plastics Pipe Institute

Comments

- Several commenters recommended updates to standards finalized after the draft NPRM was initiated.
- Major comments received were concerned with ASTM D2513 and rework issues (to be discussed separately).



Miscellaneous Amendments

- Removes in § 192.283 (a)(1)(i), the language “or paragraph 8.9 (Sustained Static Pressure Test)” as the reference is an error.
- Clarifies § 195.452(l) by specifying that records for IM compliance must be maintained for the useful life of the pipe.
- Corrects the reference from the first edition to the third edition of API Standard 653.
- Removes an incorrect reference to ASME Boiler & Pressure Code, Section VIII, Division 2 in § 193.2321.
- Removes § 199.111 because the requirements conflict with 49 CFR Part 40.

Committee Vote
Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments

- Gas and Liquid Committees will vote on the miscellaneous changes and all of the standards to be incorporated except ASTM D2513 concerns.
- Gas Committee will vote separately on ASTM D2513 issues following the next presentation.

Committee Action:

- The Committees are to consider each proposed natural gas or hazardous liquid pipeline safety standard published in the Federal Register (including both new standards and amendments to existing standards) for its technical feasibility, reasonableness, cost-effectiveness, and practicability.
- Committee Action: Members consider each proposed rule and the draft regulatory evaluation.
- Each Committee votes separately on any proposed rule.
- Any motion should include terminology from the Statute to indicate the committee has carried out its responsibilities.

Chairman

- When a decision or recommendation of the Committee is required, the Committee Chair will request a motion for a vote.
- Any member, including the Committee Chair, may make a motion for a vote.
- A quorum is required for a vote - a majority of the current members of the Committee must be present at a meeting to perform the Committee's statutory duties.

Sample language – agree as proposed.

"The proposed rule, ***Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (except issues related to ASTM D2513)***, as published in the *Federal Register* and the Draft Regulatory Evaluation are technically feasible, reasonable, cost-effective, and practicable."

Sample language – propose a change.

"The proposed rule, ***Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (except issues related to ASTM D 2513),*** as published in the *Federal Register* and the Draft Regulatory Evaluation are technically feasible, reasonable, cost-effective, and practicable if the following changes are made **(*members insert language of proposed change*)."** A member shall prepare written language to DFO for insertion.

Sample language – not in agreement.

"The proposed rule, ***Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (except issues related to ASTM D 2513),*** as published in the *Federal Register* and the Draft Regulatory Evaluation are not (or cannot be made) made technically feasible, reasonable, cost-effective, and practicable."

Proposed Standards for Incorporation Part 192

- **American Petroleum Institute**
- - API RP 5L1 (2009) (new)
- - API RP 5LT – (2012)
- - API RP 5LW (2009)
- - ANSI/API Spec 5L/ISO 3183 (2012)
- - ANSI/API Spec 6D (2011)

- **American Society for Testing and Materials**
- - ASTM A53/A53M–10
- - ASTM A106/A106M–10
- - ASTM A333/A333M–11
- - ASTM A372/A372M–10
- - ASTM A671/A671M–10
- - ASTM A672–09
- - ASTM A691–09
- - ASTM D 2513-09a – (2009) (new)

- **Manufacturers Standardization Society**
- **of the Valve and Fittings Industry, Inc.**
- - MSS SP–44–2010, Standard Practice

- **NACE International**
- - NACE Std SP0502–2010

- **National Fire Protection Association**
- - NFPA-30 (Fire) (2012)
- - NFPA-70 (2011)

Proposed Standards for Incorporation Part 195

- **American Petroleum Institute**
- - API RP 5L1 (2009) (new)
- - API RP 5LT – (2012)
- - API RP 5LW (2009)
- - ANSI/API Spec 5L/ISO 3183 (2012)
- - ANSI/API Spec 6D (2011)
- - API Spec 12F (2008)
- - API Std 620 (2008, addendum 1 &2)
- - API Std 650 (2007, addendum 1,2,3 errata)
- - API Std 2000 (2009)

- **American Society for Testing and Materials**
- - ASTM A53/A53M–10
- - ASTM A106/A106M–10
- - ASTM A333/A333M–11
- - ASTM A671/A671M–10
- - ASTM A672–09
- - ASTM A691–09

- **Manufacturers Standardization Society**
- **of the Valve and Fittings Industry, Inc.**
- - MSS SP–75–2008

- **NACE International**
- N/A

- **National Fire Protection Association**
- - NFPA-30 (Fire) (2012)

Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments

ASTM D2513 and rework issues

ASTM D2513-87 vs. 99

- PHMSA proposal -
  - For non-PE plastic materials, continue to reference ASTM D2513-87
    - (for §192.63 only, marking of materials)
  - ASTM D2513-99 (except section 4.2 pertaining to rework material)
- One comment -
  - Suggested PHMSA to eliminate ASTM D2513-87 in favor of incorporating ASTM D2513-99 for marking of non-polyethylene plastic materials only.

PHMSA Proposal – ASTM D 2513-09a and rework concerns

- Incorporate by reference ASTM D2513-09a, "Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings," for PE materials, except for section 4.2 which addresses rework material.
- Section 4.2 states: "Clean rework material of the same commercial designation, generated from the manufacturer's own pipe and fitting production shall not be used unless the pipe and fitting produced meets all the requirements of this specification. The use of these rework materials shall be governed by the requirements of 4.3 and PPI TN-30/2006 In pipe, rework materials shall be limited to a maximum of 30 % by weight."

Comments - AGA

- Recommends an alternative to the elimination of rework, e.g.
  - No rework material is allowed for pipe two inches Iron Pipe Size (IPS) and below in diameter and the requirements in ASTM D2513-09a, section 4.2 would be acceptable for pipe larger than two inches IPS in diameter.
- AGA indicated there are material issues with rework.
- Risks are greater with smaller diameter, thinner wall pipe, specifically, pipe smaller than 2-inches.
- Operators have used 2-inches as their threshold for prohibiting rework; other operators require virgin plastic for all piping.

Comments - Pipeline Plastics, LLC

- Supports incorporation of ASTM D2513-09a however, they are not supportive of the exclusion of section 4.2 on the use of rework.
- Noted a study, OTD Project No. 2.ff , concluded that the proper handling and use of rework does not have a negative effect on any of the three performance parameters for PE gas pipe.
- The report recommendations included adherence to PPI Technical Note-30, which provides guidance for manufacturers and end-users on the safe and proper use of rework.

Comments - Chevron Phillips Chemical Company – Performance Pipe

- Supports incorporating ASTM D2513-09a; however, not exclusion of section 4.2 on the use of rework.
- Also cited the OTD Project and PPI Technical Note-30.
- Proposed adopting a size restriction, such as limiting the use of rework to pipes with wall thicknesses greater than 0.170 inch, if any restriction is needed.

Comments - Plastics Pipe Institute

- Supports incorporating ASTM D2513-09a, however, not exclusion of rework.
- Rework materials have not been identified as the cause of any field failures.
- PPI-30/2006 & 2013 publication provides rework/regrind material characteristics and written process control requirements shown to produce PE pipe that meets ASTM-2513-09a.
- Suggested added costs to PE pipe manufacturers for PE scrap in blow molding versus regrind in pipe production could potentially increase PE pipe manufacturer costs by $1,000,000 to $3,000,000 annually.

Committee Vote
Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments

- Separate vote – Gas Pipeline Safety Advisory Committee
- Incorporation of ASTM D2513 and issues related to rework.

Committee Action:

- The Committees are to consider each proposed natural gas or hazardous liquid pipeline safety standard published in the Federal Register (including both new standards and amendments to existing standards) for its technical feasibility, reasonableness, cost-effectiveness, and practicability.
- Committee Action: Members consider each proposed rule and the draft regulatory evaluation.
- Each Committee votes separately on any proposed rule.
- Any motion should include terminology from the Statute to indicate the committee has carried out its responsibilities.

Chairman

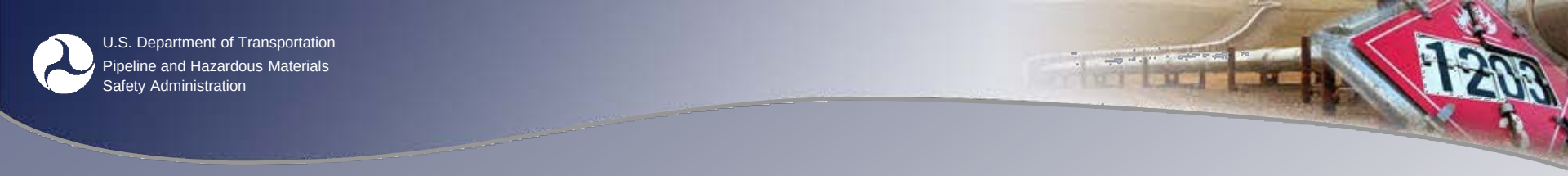
- When a decision or recommendation of the Committee is required, the Committee Chair will request a motion for a vote.
- Any member, including the Committee Chair, may make a motion for a vote.
- A quorum is required for a vote - a majority of the current members of the Committee must be present at a meeting to perform the Committee's statutory duties.

Sample options for this rule.

- Agree as proposed: Rework/regrind not allowed for any plastic piping
- Propose a change
  - Based on AGA comment
    - Rework/regrind material not allowed for plastic piping two inches Iron Pipe Size (IPS) and below in diameter
  - Other alternatives? (based on committee input here)
- Not in agreement: Rework/regrind allowed for all plastic piping

Sample language – agree as proposed.

"The proposed rule, ***Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (issues related to ASTM D2513 and rework)***, as published in the *Federal Register* and the Draft Regulatory Evaluation are technically feasible, reasonable, cost-effective, and practicable."



Sample language – propose a change.

"The proposed rule, ***Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (issues related to ASTM D 2513 and rework),*** as published in the *Federal Register* and the Draft Regulatory Evaluation are technically feasible, reasonable, cost-effective, and practicable if the following changes are made **(*members insert language of proposed change*)."** A member shall prepare written language to DFO for insertion.

Sample language – not in agreement.

"The proposed rule, ***Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (issues related to ASTM D 2513 and rework issues),*** as published in the *Federal Register* and the Draft Regulatory Evaluation are not (or cannot be made) made technically feasible, reasonable, cost-effective, and practicable."