



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration



# Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (Periodic Standards Update Rule)



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PHMSA: Your Safety is Our Mission



# Periodic Standards Update Rule

## Joint Meeting of the Gas and Liquid Pipeline Advisory Committees

October 21, 2021



# Proposed Rule

- PHMSA published the Periodic Standards Update Notice of Proposed Rulemaking (NPRM) on January 15, 2021 (86 FR 3938)
  - This rule is commonly referred to as “Standards Update I”
  - The comment period closed on March 16, 2021
  - PHMSA proposed the incorporation by reference of more than 20 consensus standards
  - PHMSA also proposed miscellaneous non-substantive edits



# Outline

## Introduction and Background

- **Vote 1:** Proposed Rule (GPAC)
- **Vote 2:** Proposed Rule (LPAC)
- **Vote 3:** API Recommended Practice (RP) 651 (LPAC)
- **Vote 4:** ASME B31.8S (GPAC)
- **Vote 5:** API Standard (Std) 2350 (LPAC)
- **Vote 6:** Report of the Proceeding (GPAC)
- **Vote 7:** Report of the Proceeding (LPAC)



# General Background

- Voluntary consensus standards are technical standards developed or adopted by domestic and international standards-development organizations (SDOs)
- Approximately every 2 to 5 years, these organizations use agreed-upon procedures to revise and update their published standards to reflect modern technology and technical practices
- New or updated pipeline standards often incorporate new technologies, materials, management practices, and other innovations that improve the safety and operations of pipelines and pipeline facilities



# General Background

- PHMSA incorporates more than 80 standards and specifications by reference into the pipeline safety regulations (PSRs), which are located in 49 Code of Federal Regulations (CFR) Parts 190-199
- PHMSA regularly reviews newer editions of currently referenced consensus standards and amends the regulations to incorporate updated standards that will enhance or maintain pipeline safety
  - This ensures that the PSRs incorporate and facilitate use of the latest safety innovations and improved safety standards
- Adopting more recent editions of consensus standards can improve regulatory certainty, particularly when pipeline operators and their suppliers already voluntarily comply with the latest standards
- The most recent standards update published on January 5, 2015





# General Background

- National Technology Transfer and Advancement Act (NTTAA) of 1995
  - The NTTAA (15 U.S.C. § 3701 et seq.) directs federal agencies to, “when practical and consistent with applicable laws, use technical standards developed by voluntary consensus standard bodies instead of government-developed technical standards.”
- OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Standards
  - The Office of Management and Budget (OMB) sets the policy for federal use and development of voluntary consensus standards in OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities



# Implementing 49 U.S.C. 60102(p)

- 49 U.S.C. 60102 includes a section that states:
  - “Beginning 3 years after the date of enactment of this subsection, the Secretary may not issue a regulation pursuant to this chapter that incorporates by reference any documents or portions thereof unless the documents or portions thereof are made available to the public, free of charge.”
- This requirement originated in Section 24 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, which stated that:
  - “...the Secretary may not issue a regulation pursuant to this chapter that incorporates by reference any documents or portions thereof unless the documents or portions thereof are made available to the public, free of charge.”
- Next, on November 7, 2014, the Office of the Federal Register issued a final rule, 79 FR 66267, that revised 1 CFR 51.5 to require that every federal agency must:
  - “discuss, in the preamble of the proposed rule, the ways that the materials it proposes to incorporate by reference are reasonably available to interested parties or how it worked to make those materials reasonably available to interested parties.”





# SDOs with Agreements

- PHMSA negotiated agreements with all but one of the SDOs whose standards PHMSA incorporates by reference in the PSRs to provide viewable copies of the standards available to the public at no cost
- The following SDOs provide viewable copies of the standards that PHMSA incorporates by reference:
  - American Petroleum Institute (API)
  - The American Gas Association (AGA)
  - ASTM International
  - The American Society for Nondestructive Testing (ASNT)
  - The Gas Technology Institute
  - The Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. (MSS)
  - NACE International (NACE)
  - The National Fire Protection Association (NFPA)
  - The Plastics Pipe Institute (PPI)



# PHMSA's SDO Participation

- PHMSA participates in meetings held by approximately 25 national SDOs that address the design, construction, maintenance, inspection, operation, and repair of pipeline facilities
- PHMSA attends meetings with these SDOs to ensure that the agency's safety priorities are considered and to avoid the need to develop separate, government-unique standards
- PHMSA's participation does not imply that the agency agrees with or endorses all decisions reached by such organizations



# Next Standards Update Rule

- PHMSA is currently working on another Standards Update rule, Standards Update II, that will update many standards that are not included in Standards Update I
- PHMSA is currently reviewing more than 20 standards that are currently incorporated by reference for potential inclusion in Standards Update II
  - In addition, this NPRM will include other minor clarifying and editorial changes



# Proposed Updates



# Standards Proposed for Incorporation in Part 192

PHMSA proposed the incorporation of 16 standards into Part 192.

▪ **American Petroleum Institute**

- API Spec 5L, April 2018
- API Spec 6D, August 2014
- API Std 1104, September 2013

▪ **American Society of Mechanical Engineers**

- ASME B31.8, November 20, 2018
- ASME B31.8S, October 31, 2016
- ASME B36.10M, October 12, 2018

▪ **Manufacturers Standardization Society of the Valve and Fittings Industry, Inc.**

- MSS SP-44, April 2020

▪ **American Society for Testing and Materials**

- ASTM A53/A53M, July 1, 2020
- ASTM A106/A106M, November 1, 2019
- ASTM A333/A333M, November 1, 2018
- ASTM A381/A381M, November 1, 2018
- ASTM A671/A671M, March 1, 2020
- ASTM A691/A691M, November 1, 2019

▪ **National Fire Protection Association**

- NFPA 58, October 25, 2019
- NFPA 59, August 17, 2017
- NFPA 70, August 23, 2016



# Miscellaneous Edits: Part 192

## PHMSA proposed editorial amendments and corrections to the PSRs

- One proposed change clarifies that operators of liquefied petroleum gas facilities must only meet the requirements for the NFPA standard that is applicable to the type of facility they operate, based on the scope and applicability statements in those standards
  - The AGA suggested that PHMSA incorporate the most recent edition of NFPA 59 by reference and suggested edits to 49 CFR 192.11 to clarify the scope of NFPA 58 and NFPA 59
  - The regulations currently require operators of liquefied petroleum plants and pipelines to meet the requirements of both NFPA 58 and NFPA 59





# Miscellaneous Edits: Part 192

- Another revision modifies the minimum wall thickness tables in § 192.121 for plastic pipe made of polyethylene, polyamide 11, and polyamide 12 to include specifications for pipe with a copper tubing size of 1¼ inches
  - Stakeholders requested that PHMSA also consider including 1¼-inch copper tubing size pipe
  - PHMSA did not intend to exclude specifications such as 1¼-inch copper tubing size pipes, as the revised design factor is already permitted for similar, adjacent sizes, such as 1¼-inch iron pipe size pipes



# Miscellaneous Edits: Part 192

- Miscellaneous edits in Part 192 include:
  - Updated references to the PHMSA website in 49 CFR 191.22 (b) and (c)
  - The addition of the definition for a master-meter system, as defined in Part 191, to Part 192
  - Correction of the placement of the word “in” in 49 CFR 192.153(d)
  - Removal of a reference to an inactive phone number in 49 CFR 192.727(g)
  - The addition of the building number to the DOT headquarters address in 49 CFR 192.805



# Standards Proposed for Incorporation in Part 195

PHMSA proposed the incorporation of 18 updated standards in Part 195

▪ **American Petroleum Institute**

- API RP 651, September 2014
- API RP 2026, June 2017
- API Spec 5L, April 2018
- API Spec 6D, August 2014
- API Std 620, October 2013
- API Std 650, March 1, 2020
- API Std 1104, September 2013
- API Std 2000, March 2014
- API Std 2350, September 1, 2020

▪ **American Society of Mechanical Engineers**

- ASME B31.8, November 20, 2018

▪ **American Society for Testing and Materials**

- ASTM A53/A53M, July 1, 2020
- ASTM A106/A106M, November 1, 2019
- ASTM A333/A333M, November 1, 2018
- ASTM A381/A381M, November 1, 2018
- ASTM A671/A671M, March 1, 2020
- ASTM A691/A691M, November 1, 2019

▪ **Manufacturers Standardization Society of the Valve and Fittings Industry, Inc.**

- MSS SP-75, December 2019

▪ **NACE International**

- NACE SP0204, March 14, 2015



# Miscellaneous Edits: Part 195

- Miscellaneous edits in Part 195 include:
  - Updated references to PHMSA's website in 49 CFR 195.64
  - Removal of a reference to an inactive phone number in 49 CFR 195.59(a)
  - Correction of 49 CFR 195.3(c)(3) to reflect that ASME B31.4 is no longer referenced in 49 CFR 195.452(h)
  - Removal of references to 49 CFR 195.242(c) and (d) in 49 CFR 195.1(c) because this section no longer exists in the regulations



# Comment Summary



# Comment Submissions

Eleven individuals and organizations submitted eight comments or documents containing background materials. Of these eight comments, one was anonymous, one came from an individual, one was a joint comment, and organizations submitted the remaining five.

- Aaron Adamczyk
- Alyeska Pipeline Service Company
- Anonymous
- American Fuel & Petrochemical Manufacturers
- American Petroleum Institute
- Joint Comment: American Petroleum Institute, Interstate Natural Gas Association of America, GPA Midstream, American Gas Association, and American Public Gas Association
- American Society of Mechanical Engineers
- National Propane Gas Association





# General Comments: Support and Retroactivity

- PHMSA received several comments in support of the rule
- PHMSA received a comment regarding retroactivity:
  - The Alyeska Pipeline Service company expressed concerns with the proposed API Specification 6D
    - Alyeska noted that the proposed API Spec 6D does not allow for flanged valves with intermediate pressure ratings
    - Alyeska recommended that PHMSA include allowances for legacy designs that incorporate flanged valves with intermediate design pressures
  - Alyeska further noted that that their flange connections exceed ASME B16.47—but not API Spec 6D—by “using special bolting dimensions as an extra safety measure not required” by API Spec 6D
  - PHMSA’s Response:
    - If incorporated, API Spec 6D will apply only to new construction, not existing pipelines



# General Comments: Delayed Applicability

- PHMSA received a number of general suggestions from a joint comment submitted by the American Petroleum Institute, Interstate Natural Gas Association of America, GPA Midstream, American Gas Association, and American Public Gas Association
- The joint comment requested that PHMSA allow operators to comply with the 45<sup>th</sup> edition of API 5L and the 2019 edition of MSS SP-44 until January 1, 2022
- PHMSA Response:
  - At this time, it is unlikely that the final rule will publish prior to January 1, 2022



# General Comments: Standards Outside of the NPRM

- PHMSA received several comments requesting the inclusion of standards that were not proposed in the NPRM
  - The joint comment requested that PHMSA incorporate the second edition of API RP 80
  - The joint comment also requested that PHMSA incorporate API RP 1181
  - Finally, the joint comment requested that PHMSA update API Stds 620, 650, and 653
  
- PHMSA Response:
  - PHMSA will consider such standards for inclusion in future rules



# General Comments:

## More Frequent Standards Update Rules

- The joint comment recommended that PHMSA should issue a standards-update rule at least every 2 years
- PHMSA Response:
  - PHMSA will issue standards-update rules as efficiently as possible



# General Comments: API RP 1130 Correction

- The joint comment recommended that PHMSA should correct a reference to API RP 1130 in 49 CFR 195.3(b)(7)
  - 49 CFR 195.3(b)(7) currently references the third edition of API RP 1130, but the first edition is still the most recent edition
- PHMSA reviewed this section and determined that it references an incorrect edition of API RP 1130
- PHMSA Response:
  - PHMSA will revise 49 CFR 195.3(b)(7) to reference the first edition of API RP 1130



# General Comments: MSS SP-44

- The joint comment supported PHMSA's recommended change stating that a flange or flange accessory that meets the minimum requirements of either ASME B16.5 or MSS SP-44 complies with 49 CFR Section 192.147(a)





# Recommended Committees Vote

- Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments (also known as Standards Update I)
  - PHMSA recommends that the GPAC and LPAC vote on the proposed rule, including all standards in this rule, **except for API 2350, ASME B31.8S, and API RP 651**, which will be discussed shortly.
  - PHMSA recommends that the GPAC and LPAC vote to approve the proposed rule, including all of the following standards:
    - API RP 2026
    - API Spec 5L
    - API Spec 6D
    - API Std 620
    - API Std 650
    - API Std 1104
    - API Std 2000
    - ASME B31.8
    - ASME B36.10M
    - ASTM A53/A53M
    - ASTM A106/106M
    - ASTM A333/A333M
    - ASTM A381
    - ASTM A671/671M
    - ASTM A691/691M
    - MSS SP-44
    - MSS SP-75
    - NACE SP0204
    - NFPA 58
    - NFPA 59
    - NFPA 70



# Public Comment:

## Proposed Rule (Except for API 2350, ASME B31.8S, and API RP 651)



# GPAC/LPAC Discussion:

## Proposed Rule (Except for API 2350, ASME B31.8S, and API RP 651)



# Committee Action

- The committees are to consider each proposed natural gas or hazardous liquid pipeline safety standard published in the Federal Register (including new standards and amendments to existing standards) for technical feasibility, reasonableness, cost-effectiveness, and practicability.
- Committee action: members will consider the proposed rule and the draft regulatory evaluation.
- Each committee will vote separately on the proposed rule and identify recommended changes, if any.
- Any motion should include terminology from the statute to indicate that the committee has carried out its responsibilities.



# Chairperson

- When the committee must make a decision or recommendation, the committee chairperson will request a motion for a vote.
- Any member, including the chairperson, 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.



# GPAC Vote: Proposed Rule (Except for ASME B31.8S)





# Proposed Rule (Except for Certain Standards): Recommended GPAC Voting Language

- Regarding the standards and miscellaneous amendments related to 49 CFR Part 192 (except for issues related to ASME B31.8S), the Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments proposed rule and the Draft Regulatory Evaluation, as published in the Federal Register, are technically feasible, reasonable, cost-effective, and practicable.



# Standards and Miscellaneous Amendments in Part 192

## *Except for ASME B31.8S*

### Standards:

- API Spec 5L, April 2018
- API Spec 6D, August 2014
- API Std 1104, September 2013
- ASME B31.8, November 20, 2018
- ASME B36.10M, October 12, 2018
- ASTM A53/A53M, July 1, 2020
- ASTM A106/A106M, November 1, 2019
- ASTM A333/A333M, November 1, 2018
- ASTM A381/A381M, November 1, 2018
- ASTM A671/A671M, March 1, 2020
- ASTM A691/A691M, November 1, 2019
- MSS SP-44, April 2020
- NFPA 58, October 25, 2019
- NFPA 59, August 17, 2017
- NFPA 70, August 23, 2016

### Miscellaneous Amendments:

- Edit 49 CFR 192.11 to clarify the scope of NFPA 58 and NFPA 59
- Revise the minimum wall thickness tables in 49 CFR 192.121 for plastic pipe made of polyethylene (PE), polyamide (PA) 11, and polyamide 12 to include specifications for pipe with a copper tubing size of 1¼ inches
- Update references to PHMSA's website in 49 CFR 191.22 (b) and (c)
- Add the definition for "master meter system" used in Part 191 to Part 192
- Correct the placement of the word "in" in 49 CFR 192.153(d)
- Remove a reference to an inactive phone number in 49 CFR 192.727(g)
- Edit the address for DOT headquarters in 49 CFR 192.805



# LPAC Vote:

## Proposed Rule

(Except for API 2350 and API RP 651)



# Proposed Rule (Except for Certain Standards): Recommended LPAC Voting Language

- Regarding the standards and miscellaneous amendments related to 49 CFR Part 195 (except for issues related to API 2350 and API RP 651), the Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments proposed rule and the Draft Regulatory Evaluation, as published in the Federal Register, are technically feasible, reasonable, cost-effective, and practicable.



# Standards and Miscellaneous Amendments in Part 195

## *Except for API 2350 and API RP 651*

### Standards:

- API RP 2026, June 2017
- API Spec 5L, April 2018
- API Spec 6D, August 2014
- API Std 620, October 2013
- API Std 650, March 1, 2020
- API Std 1104, September 2013
- API Std 2000, March 2014
- ASME B31.8, November 20, 2018
- ASTM A53/A53M, July 1, 2020
- ASTM A106/A106M, November 1, 2019
- ASTM A333/A333M, November 1, 2018
- ASTM A381/A381M, November 1, 2018
- ASTM A671/A671M, March 1, 2020
- ASTM A691/A691M, November 1, 2019
- MSS SP-75, December 2019
- NACE SP0204, March 14, 2015

### Miscellaneous Amendments:

- Update references to PHMSA's website in 49 CFR 195.64
- Remove a reference to an inactive phone number in 49 CFR 195.59(a)
- Correct 49 CFR 195.3(c)(3) to reflect that ASME B31.4 is no longer referenced in 49 CFR 195.452(h)
- Remove references to 49 CFR 195.242(c) and (d) in 49 CFR 195.1(c)



# Topic:

# API Std 2350 (LPAC)



# API Std 2350 Background

- Current Incorporated Edition: API RP 2350: Overfill Protection for Storage Tanks in Petroleum Facilities, 3<sup>rd</sup> Edition
- Location of Incorporation: 49 CFR 195.428(c)
- Proposed Standard: API Std 2350: Overfill Prevention for Storage Tanks in Petroleum Facilities, 5<sup>th</sup> Edition
- Description of Standard:
  - Designed for storage tanks associated with facilities that receive flammable and combustible petroleum liquids
  - Addresses minimum overfill and damage-prevention practices for aboveground storage tanks in petroleum facilities
- Changes
  - New requirements for:
    - A written management system for overfill-prevention processes
    - Overfill risk-assessment processes
    - Expanded requirements for testing OPP systems/related procedures
    - The use of safety-instrumented systems on new automatic overfill prevention systems
  - Includes dedicated pipeline relief tanks on breakout tanks





# API Std 2350 Comment

- American Fuel & Petrochemical Manufacturers
  - Stated operators might have to expand their programs and make changes to their operational parameters if we incorporate API Std 2350
    - Expressed confusion regarding how incorporation of this standard will impact existing tank overflow systems
  - Noted that Section 195.428(c) states that operators must only install systems in accordance with API RP 2350 but fails to specify which sections of API Std 2350 operators should reference for installations
    - They stated that the lack of specificity causes confusion regarding whether the operation and maintenance section of API Std 2350 would also apply
    - They noted that Section 195.428(c) implies that other parts of the document are also required
  - Requested:
    - Clarification in the regulatory text for 49 CFR 195.428 regarding which sections of API Std 2350 relate to installation
    - Clarification regarding how this will impact existing tank overflow systems



# API Std 2350 Proposed Resolution

- PHMSA Response:
  - 49 CFR 195.428(c) states that:
    - “[o]ther aboveground breakout tanks with 600 gallons (2271 liters) or more of storage capacity that are constructed or significantly altered after October 2, 2000, must have an overfill protection system installed according to API RP 2350 (incorporated by reference, see § 195.3)”
    - The requirements in 195.428(c) are specific to installation, not to the operation or maintenance of the relevant aboveground breakout tanks
  - PHMSA recommends incorporating the proposed API Standard 2350 without edit



# Public Comment: API Std 2350



# LPAC Discussion: API Std 2350



# LPAC Vote: API Std 2350



# API Std 2350 Recommended Voting Language

- Regarding API Std 2350, the Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments proposed rule and the Draft Regulatory Evaluation, as published in the Federal Register are technically feasible, reasonable, cost-effective, and practicable.



# Topic:

# ASME B31.8S (GPAC)





# ASME B31.8S Background

- Current Incorporated Edition: ASME/ANSI B31.8S-2004: Supplement to B31.8 on Managing System Integrity of Gas Pipelines
- Location of Incorporation: §§ 192.903 note to the definition of Potential impact radius; 192.907 introductory text, (b); 192.911 introductory text, (i), (k), (l), (m); 192.913(a), (b), (c); 192.917 (a), (b), (c), (d), (e); 192.921(a); 192.923(b); 192.925(b); 192.927(b), (c); 192.929(b); 192.933(c), (d); 192.935 (a), (b); 192.937(c); 192.939(a); and 192.945(a)
- Proposed Standard: ASME B31.8S-2016: Managing System Integrity of Gas Pipelines, Supplement to ASME B31.8
- Description of Standard:
  - Describes the foundations for an effective integrity-management (IM) program for gas transmission pipelines
    - Along with Subpart O of Part 192, ASME B31.8S provides the essential features of an IM program
    - Applies to onshore pipeline systems constructed with ferrous materials (such as iron and steel) that transport gas
  - Designed to provide operators with the information necessary to develop and implement an effective integrity management program utilizing proven industry practices and processes
  - Intended to improve the effectiveness of the Federal gas transmission integrity-management requirements
- Changes
  - Additional information on Stress Corrosion Cracking Direct Assessments, also known as SCCDA
  - Guidance on managing cracking threats
  - Additional performance metrics for block-valve failures
  - Requirements regarding examinations for immediate and 1-year repair conditions
  - Additional/updated references
  - Other minor technical changes, editorial revisions, and added or revised guidance



# ASME B31.8S Background

- PHMSA proposed the 2016 edition for incorporation
  - The 2018 edition includes several acceptable editorial changes
  - The 2018 edition removed nearly all communications plan requirements from Section 10
  - PHMSA requested comments regarding whether incorporation of the 2018 edition was appropriate



# ASME B31.8S Comments

- The joint comment
  - Supported the incorporation of the 2016 edition of ASME B31.8S, but also recommended that PHMSA incorporate the 2018 edition
  - Noted the communications plan requirements were not removed entirely, but simply moved from Section 10 of ASME B31.8S to Chapter V, Paragraph 850.9 of ASME B31.8
    - ASME B31.8 is the companion standard to ASME B31.8S
    - B31.8S now includes a reference in Section 10 that points to the communications plan requirements in ASME B31.8
    - Previously, some communications requirements were found in ASME B31.8 Section 850 and others were in ASME B31.8S Section 10; now they are all in one place
  - Recommended that PHMSA revise 49 CFR 192.911(m) to directly reference the communications plan requirements in Paragraph 850.9 of the 2018 edition of ASME B31.8
- The American Society of Mechanical Engineers' comment
  - Recommended that PHMSA incorporate the 2018 edition
  - Also noted that the communications plan requirements were moved and that there is now a reference to the location of these requirements in Section 10 of B31.8S
  - Recommended that PHMSA add a reference to 49 CFR 192.911(m) in the proposed language for 49 CFR 192.7(c)(5)



# ASME B31.8S Proposed Resolution

- PHMSA Response:
  - PHMSA recommends the incorporation of the 2018 edition of ASME B31.8S given the fact that the communication plan requirements are still contained in the code and were merely moved from ASME B31.8S to ASME B31.8
  - In addition, PHMSA recommends the revision of 49 CFR 192.911(m) to directly reference the communications plan requirements



# Public Comment: ASME B31.8S



# GPAC Discussion: ASME B31.8S



# GPAC Vote: ASME B31.8S





# ASME B31.8S Recommended Voting Language

- Regarding ASME B31.8S, the Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments proposed rule and the Draft Regulatory Evaluation, as published in the Federal Register, will be technically feasible, reasonable, cost-effective, and practicable if the following changes are made:
  - Incorporate the 2018 edition of ASME B31.8S by reference
  - Revise 49 CFR 192.911(m) to directly reference the communications plan requirements in Paragraph 850.9 of the 2018 edition of ASME B31.8



# Topic:

# API RP 651 (LPAC)



# API RP 651 Background

- Current Incorporated Edition: ANSI/API RP 651: Cathodic Protection of Aboveground Petroleum Storage Tanks, 3<sup>rd</sup> Edition
- Location of Incorporation: 49 CFR 195.565 and 195.573(d)
- Proposed Standard: API RP 651: Cathodic Protection of Aboveground Petroleum Storage Tanks, 4<sup>th</sup> Edition
- Description of Standard:
  - Contains:
    - Procedures and practices for effective corrosion control on aboveground storage tank bottoms that use cathodic protection;
    - Provisions for the application of cathodic protection to existing and new aboveground storage tanks; and
    - Information and guidance for cathodic protection specific to aboveground metallic storage tanks in hydrocarbon service
- Changes
  - Primarily minor technical improvements and editorial revisions
  - More specific details throughout
  - More conservative consideration of cathodic protection based on pad material, product temperature, and tank size



# API RP 651 Comment

- The American Fuel & Petrochemical Manufacturers
  - Stated PHMSA should not consider double-bottomed tanks with an interstitial fill of concrete (not soil) or tanks on continuous concrete pads to be subject to cathodic-protection installation requirements
    - They stated that such tanks do not allow any part of the pipe through which hazardous liquid moves to come into contact with the upper layer of the earth
    - They would like PHMSA to state that cathodic protection isn't required if API RP 651 advises against it, such as for tanks that are not in contact with soil, double-bottomed tanks, and tanks on continuous concrete pads
- The joint comment
  - Asked PHMSA to clarify requirements for the cathodic protection of double-bottom breakout tanks
  - Asked PHMSA to allow operators to protect double-bottom breakout tanks without requiring cathodic protection



# API RP 651 Proposed Resolution

## ■ PHMSA Response:

- The comments and recommendations were outside of the scope of this rule
- For the purpose of this rule, PHMSA did not propose or consider any changes in the application of the standard
- PHMSA is currently considering an interpretation request from Chemoil Energy regarding the out-of-scope issues associated with API RP 651
- PHMSA recommends incorporating the proposed API RP 651 without edit



# Public Comment: API RP 651



# LPAC Discussion: API RP 651





# LPAC Vote: API RP 651



# API RP 651 Recommended Voting Language

- Regarding API RP 651, the Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments proposed rule and the Draft Regulatory Evaluation, as published in the Federal Register, are technically feasible, reasonable, cost-effective, and practicable.



# Report of the Proceeding (GPAC)



# Report of the Proceeding (GPAC) Recommended Voting Language

- The transcript of this meeting (duly recorded and accurately transcribed), together with the presentation slides documenting the committees' votes during this meeting, shall serve as the report for this proceeding.



# Report of the Proceeding (LPAC)



# Report of the Proceeding (LPAC) Recommended Voting Language

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# Thank You



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

**PHMSA: Your Safety is Our Mission**

