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AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS' COMMENTS ON

THE PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION'S NOTICE OF PROPOSED RULEMAKING

"PIPELINE SAFETY: PERIODIC UPDATES OF REGULATORY REFERENCES TO TECHNICAL STANDARDS AND MISCELLANEOUS AMENDMENTS"

DOCKET NO. PHMSA-2016-0002
86 FED. REG. 3938

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March 16, 2021

I. INTRODUCTION

The American Fuel & Petrochemical Manufacturers ("AFPM") welcomes the opportunity to comment on the Pipeline and Hazardous Materials Safety Administration's ("PHMSA") notice of proposed rulemaking entitled, "Pipeline Safety: Periodic Update of Regulatory References to Technical Standards and Miscellaneous Amendments" ("NPRM").[1] On January 15, 2021, PHMSA issued this NPRM soliciting comment on the planned incorporation by reference of more than 20 consensus standards into the Federal pipeline safety regulations, as well as various miscellaneous amendments.

This NPRM would incorporate by reference a new, updated, or reaffirmed edition of each consensus standard and would also make non-substantive corrections to clarify regulatory language in certain provisions. These editorial changes are minor and would not require pipeline operators to undertake new pipeline safety initiatives. AFPM is supportive of PHMSA's proposal and has provided minor clarifications and suggested edits in these comments.

II. AFPM'S INTEREST IN PHMSA'S NOTICE

AFPM is a national trade association representing nearly 90 percent of U.S. refining and petrochemical manufacturing capacity. AFPM's member companies produce the gasoline, diesel, and jet fuel that drives the modern economy, as well as the petrochemical building blocks that are used to manufacture the millions of products that make modern life possible. As such, AFPM members strengthen economic and national security while supporting more than 3 million jobs nationwide.

To produce these essential goods, AFPM members depend on all modes of transportation to move their products to and from refineries and petrochemical facilities and have made significant infrastructure investments to support and improve the safety and efficiency of the transportation system. AFPM member companies depend upon an uninterrupted, affordable supply of crude oil and natural gas as feedstocks for the transportation fuels and petrochemicals they manufacture. Pipelines are the primary mode for transporting crude oil and natural gas to refiners and petrochemical facilities, and refined products from those same facilities to distribution terminals serving consumer markets.

Pipelines provide a safe, reliable, efficient, and cost-effective way to move bulk liquids, particularly over long distances. AFPM member companies own, operate, and rely on pipeline transportation as part of their daily operations. AFPM members are committed to protecting the health and safety of their workers, contractors, customers, and the communities where fuels and petrochemical products are transported. AFPM supports informed, risk-based, and cost-justified regulations related to pipelines, and is committed to working with PHMSA on this issue.

[1] *See* 86 Fed. Reg. 3938 "Pipeline Safety: Periodic Update of Regulatory References to Technical Standards and Miscellaneous Amendments," Docket No. PHMSA-2016-0002, published January 15, 2021, https://www.federalregister.gov/documents/2021/01/15/2020-28785/pipeline-safety-periodic-updates-of-regulatory-references-to-technical-standards-and-miscellaneous.

III. AFPM'S COMMENTS ON PROPOSED STANDARDS TO BE INCORPORATED BY REFERENCE

Voluntary consensus standards are technical standards developed or adopted by domestic and international standards development organizations (SDOs). These organizations use agreed-upon procedures to update and revise their published standards every three to five years to reflect modern technology and best technical practices. The federal government encourages the incorporation of such standards into regulations where appropriate.[2] Further, the Office of Management and Budget (OMB) "Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" sets the policy for Federal use and development of voluntary consensus standards.[3]

Pipeline safety standards are often highly technical. They are frequently developed by SDOs and, upon review by PHMSA, are incorporated by reference into the Hazardous Materials Regulations ("HMR"). Materials that are incorporated by reference into the HMR are treated as if they were published in the *Federal Register* and the Code of Federal Regulations (CFR). Therefore, like any other rule issued in the *Federal Register*, a voluntary consensus standard that has been incorporated by reference has the force and effect of law.

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. PHMSA has incorporated by reference more than 80 standards and specifications into the regulations. PHMSA regularly reviews newer editions of currently referenced consensus standards and issues regulations to incorporate by reference updated standards where appropriate. This ensures that the pipeline safety regulations incorporate and facilitate use of the latest safety innovations and materials. AFPM appreciates PHMSA taking this step to update and modernize the PSRs and the opportunity to provide feedback on these standards.

AFPM supports federal government efforts to incorporate by reference, where appropriate, voluntary consensus standards developed or adopted by domestic and international SDOs. This is particularly important for the pipeline industry, which relies on innovation and best industry practices to improve safety and reduce risk. AFPM members participate in many SDOs that develop pipeline standards to address new technologies, materials, management practices, and other innovations that improve the safety and operations of pipelines and pipeline facilities. To this end AFPM is supportive of PHMSA's efforts to incorporate by reference the standards proposed in the NPRM. While AFPM generally supports the NPRM, as proposed, we highlight two standards that PHMSA should address to improve clarity.

A. API RECOMMENDED PRACTICE 651, CATHODIC PROTECTION OF ABOVEGROUND PETROLEUM STORAGE TANKS

[2] The National Technology Transfer and Advancement Act of 1995 (NTTAA) (Pub. L. 104-113; March 7, 1996) directs Federal agencies to use voluntary consensus standards and design specifications developed by voluntary consensus standard bodies instead of government-developed voluntary technical standards when appropriate.
[3] See "Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" https://www.whitehouse.gov/omb/information-for-agencies/circulars/

PHMSA proposes to incorporate by reference American Petroleum Institute ("API") Recommended Practice ("RP") 651, "Cathodic Protection of Aboveground Petroleum Storage Tanks," 4th edition, September 2014 into §§ 195.565 and 195.573(d). Cathodic protection is a method of protecting metallic pipelines from corrosion. This RP includes:

1) Procedures and practices for effective corrosion control on aboveground storage tank bottoms using cathodic protection;
2) Provisions for the application of cathodic protection to existing and new aboveground storage tanks; and
3) Information and guidance for cathodic protection specific to aboveground metallic storage tanks in hydrocarbon service.

The amendments in the 4th edition of API RP 651 are primarily minor technical improvements and editorial revisions. These improvements include more specific details throughout and a more conservative consideration of when cathodic protection is used based on pad material, product temperature, and tank size. These corrosion-control-requirement updates improve safety and the clarity and technical accuracy of the document.

While AFPM members do not oppose incorporating API RP 651 into the HMR, we have concerns with PHMSA's interpretation and application of this standard during field inspections. Specifically, AFPM members have noted that PHMSA and state pipeline enforcement personnel are interpreting this standard to require all breakout tanks to have cathodic protection per § 195.563(a) including tanks that are not in direct contact with soil, such as double bottomed tanks with an interstitial fill of concrete (i.e., not soil) and tanks on continuous concrete pads.

Cathodic protection is often used to protect steel from corrosion caused when metals are submerged in an electrolytic substance, such as waters and soil. Cathodic protection connects the base metal at risk to a sacrificial metal that corrodes in lieu of the base metal. The technique of providing cathodic protection to steel preserves the metal by providing a highly active metal that can act as an anode and provide free electrons. Applying API RP 651 to tanks that are not in direct contact with soil or other electrolytic substances does not significantly enhance safety because it is not needed to protect metals in contact with corrosive mediums from corrosion or rust.

Moreover, this interpretation also conflicts with the regulatory text associated with this provision. Section 195.563 details sets forth the types of pipelines that must have cathodic protection and specifically notes "[e]ach buried or submerged pipeline that is constructed, relocated, replaced, or otherwise changed after the applicable date in § 195.401(c) must have cathodic protection".[4] Section 195.553 defines "buried" as "covered or in contact with soil." Part 195 does not define soil; however, the Meriam-Webster Dictionary defines soil as "the upper layer of earth that may be dug or plowed and in which plants grow."[5] Read in its entire context, § 195.563(a) requires that "each part of the pipeline facility through which hazardous liquid moves in transportation (i.e. pipeline) and which is in contact with the upper layer of the earth" (i.e.

[4] *See* § 195.563, https://www.law.cornell.edu/cfr/text/49/195.563 as well as § 195.2, https://www.law.cornell.edu/cfr/text/49/195.2 definition of "pipeline" and "pipeline facility" in.
[5] *See* definition of "soil" https://www.merriam-webster.com/dictionary/soil

buried) is required to install cathodic protection.[6] Applying this regulation to double bottomed tanks with an interstitial fill of concrete (i.e., not soil) and tanks on continuous concrete pads, the "pipeline" consists of those parts through which hazardous liquid moves, which includes the new (i.e., active) tank bottom and the existing tank shell. However, in these configurations, hazardous liquids do not move through the portion of the tank that "is in contact with the upper layer of the earth." Therefore, it is not part of the pipeline and, thus, not subject to the cathodic protection requirements of § 195.563(a)). In short, for double bottomed tanks with an interstitial fill of concrete (i.e., not soil) and tanks on continuous concrete pads, no part of the "pipeline" (i.e., parts through which hazardous liquid moves) is buried (i.e., in contact with the upper layer of the earth), and the requirement to install cathodic protection does not apply.

While AFPM supports the incorporation of API RP 651, we suggest that PHMSA take this opportunity to clearly define the scenarios in which application of this standard should be applied. More specifically, PHMSA should note that CP is not required when API RP 651 advises against it, such as for tanks not in contact with soil, double bottomed tanks, and tanks on continuous concrete pads.

B. API STANDARD 2350, OVERFILL PREVENTION FOR STORAGE TANKS IN PETROLEUM FACILITIES

PHMSA proposes to incorporate by reference API Standard 2350, "Overfill Prevention for Storage Tanks in Petroleum Facilities," (API Std 2350) 5th edition, September 1, 2020, which addresses minimum overfill and damage-prevention practices for aboveground storage tanks in petroleum facilities, including refineries, marketing terminals, bulk plants, and pipeline terminals that receive flammable and combustible liquids into § 195.428(c).

The revised edition is a major rewrite of the document that includes the development of policies and procedures to incorporate management of an overfill protection process and risk assessment. The most significant changes include new requirements for: (1) A written management system for overfill prevention processes; (2) overfill risk-assessment processes; (3) expanded requirements for the testing of overfill prevention systems and related procedures; and (4) the use of safety-instrumented systems (e.g., instruments that collect data used to keep the overfill prevention systems operating safely) on new automatic overfill prevention systems. The 5th edition revises the scope of the standard to include dedicated pipeline relief tanks that are part of breakout tanks, to the extent practicable. These additional procedures will result in safer operation of applicable tanks.

AFPM members do not oppose the incorporation by reference but seek clarification on how incorporation of this standard into the HMR would impact existing tank overfill systems. Specifically, it is unclear which provisions of API Std 2350 would apply to existing tank overfill systems and whether owners of existing tanks would need to make physical or operational changes to existing tank overfill systems to meet the new version. The current wording in *§ 195.428(c)* states:

[6] *See* § 195.563, https://www.law.cornell.edu/cfr/text/49/195.563

"Other 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). However, an operator need not comply with any part of API RP 2350 for a particular breakout tank if the operator describes in the manual required by §195.402 why compliance with that part is not necessary for safety of the tank." (emphasis added)[7]

Section 195.428(c) states that a system only be installed in accordance with API RP 2350. This section does not specify to which sections of API Std 2350 related to "installation" PHMSA is referring. This lack of specificity causes confusion related to whether the operation and maintenance section of API Std 2350 would also apply. The next sentence in § 195.428(c) ("... need not comply with any part ...") would seem to imply that other parts of the document are required as well.[8]

AFPM members are concerned that incorporating the updated version of API Std 2350 and referencing it in § 195.428(c), as it currently is worded, would result in some significant programmatic additions and changes in certain operational parameters, such as the maximum working height relative to the high-level alarm. To alleviate confusion, PHMSA should specify in the regulatory text for § 195.428 the specific sections of API Std 2350 which relate to installation.

IV. CONCLUSION

AFPM thanks PHMSA for its time and consideration of our comments related to this proposal. AFPM acknowledges the need to improve operational practices that in turn will improve rupture mitigation and shorten rupture isolation times for certain onshore gas transmission and hazardous liquid pipelines. AFPM shares PHMSA's goal of increasing pipeline safety and we look forward to the opportunity to work together on this. Please contact me at (202) 457-0480 or rbenedict@afpm.org if you wish to discuss these issues further.

Sincerely,

Rob Benedict,
Vice President, Petrochemicals & Midstream
Regulatory Affairs

[7] See *§ 195.428(c)* https://www.law.cornell.edu/cfr/text/49/195.428.
[8] *Id Bid.*