

From: Joe Mentzer, Standards Engineer, Steel Tank Institute (www.steeltank.com),
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RE: Rule Project Number 2022-015-338-CE
Comments on proposed SB 900

The current proposal offers a limited set of reference standards that can be used for evaluating existing storage tank systems. There is a wealth of material available for building, maintain and repairing such systems, the industries that use tanks have identified several best practices that are regularly used and were likely part of the original tank design for the systems that will fall under SB 900. Based on the size of the tank covered under this standard (5,000 bbl.) several types of tanks and several tank applications could fall under this proposed standard. This includes bulk storage tanks, back up fuel tanks, aviation fueling tanks and possibly others. I also understand, from the question and answer session at NISTM event in December 2022, that the rule was based on the federal rules in 40 CFR 112 and several systems that will fall under this new standard may already be subject to the requirements of 40 CFR112. I would suggest Texas consider adding additional recognized standards that apply to these tanks to better facilitate implementation of the new requirements and to make this new standard more consistent with other requirements already in place and practices already in place.

The proposed SB 900 standard only recognizes API 653, Tank Inspection, Repair, Alteration, and Reconstruction for inspecting the existing tanks. API 653 is a good standard, but its scope is limited to vertical, cylindrical, single wall steel tanks built to API 650 or API 12C standards. The API 653 standard also only covers the tank itself, but the proposed Texas SB 900 seems to address the entire tank system. Other standards are normally used for evaluating the rest of the tanks system like piping, general layout, containment systems and other elements. The population of tanks in service that may be affected includes tanks other than vertical cylindrical tanks built to API standards, these include horizontal axis tanks, double wall tanks that provide secondary containment, and protected style tanks that provide secondary containment and incorporate provisions to isolate the material stored to exterior heat exposure. I would suggest that the commission consider expanding the reference documents incorporated to include recognized industry standards to address the full range of systems that could subject to this rule.

One standard to consider for tank system inspection is the Steel Tank Institute standard practice SP001 "Standard for the Inspection of Aboveground Storage Tanks" This standard covers many types of tanks not covered under the API 653 standard and is recognized by the US EPA for meeting the inspection requirements of 40 CFR112. Because the EPA already recognizes the SP001 standard there will be tanks in Texas that have been inspected to this standard to comply with the requirements in 40 CFR112. Not recognizing the SP001 standard in the new Texas code could require existing tank owners to adopt a standard that is different than the one used historically for federal code compliance, and it could force them to use an inspection standard that is not considered to be best industry practice for tanks not specifically addressed in API 653. STI also has a separate standard to address the repair of tanks covered under SP001, that is SP031 Standard for Repair of Shop-Fabricated Aboveground Tanks for Storage of Flammable and Combustible Liquids. This list is not exhaustive, but it contains common industry standards used by storage tank system designers and operators.

Below is a list of standards used in aboveground storage tank design, installation, and maintenance to consider for incorporation into the proposed Texas SB900. These would be in addition to those already listed in SB900.

ACI American Concrete Institute PO Box 9094 Farmington Hills, MI 48333	
Standard Reference Number	Title
350.2R-04, except for section 6.3	Concrete Structures for Containment of Hazardous Materials

API American Petroleum Institute 1220 L Street, NW Washington, DC 20005	
Standard Reference Number	Title
1. 570 (4 th edition, 2016)	Piping Inspection Code: In-service Inspection, Rating, Repair, Alteration, and Rerating of In-service Piping Systems
2. RP 575-14 (3 rd edition, 2014)	Guidelines and Methods for Inspection of Existing Atmospheric and Low-pressure Storage Tanks
3. Std 650-With addenda 1 and 2	Welded Steel Tanks for Oil Storage
4. RP 651 (4 th edition, 2014)	Cathodic Protection of Aboveground Petroleum Storage Tanks
5. RP 652 (4 th edition, 2014)	Lining of Aboveground Petroleum Storage Tank Bottoms
6. Std 653 (5 th edition, 2014)	Tank Inspection, Repair, Alteration, and Reconstruction
10. RP 1621 (5 th edition, 1993)	Bulk Liquid Stock Control at Retail Outlets
11. RP 1626 [2 nd edition, 2010 (with errata and addendum)]	Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations
12. Std 2000 (7 th edition, 2014)	Venting Atmospheric and Low-Pressure Storage Tanks
13. Std 2015 (8 th edition, 2018)	Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks
14. Std 2350 (4 th edition, 2012)	Overfill Protection for Storage Tanks in Petroleum Facilities
15. Std 2610 (2 nd edition, 2005)	Design, Construction, Operation, Maintenance, and Inspection of Terminal and Tank Facilities

ASME New York www.astm.org	
Standard Reference Number	Title
1. B31.1	Power Piping
2. B31.3	Process Piping
3. B31.4	Pipeline Transportation Systems for Liquids and Slurries
4. B16.5	Pipe Flanges and Flanged Fittings

HIR Technical Services H.I.R. Technical Services P.O. Box 611 Titusville, PA 16354	
Standard Reference Number	Title
HIR FTV RP 2007	In-service Inspection of Aboveground Atmospheric Fiberglass Reinforced Plastic Tanks and Vessels

NACE NACE International 1440 South Creek Drive Houston, TX 77084-4906	
Standard Reference Number	Title
1. SP0169-2013	Control of External Corrosion on Underground or Submerged Metallic Piping Systems
2. SP0193-2016	Application of Cathodic Protection to Control External Cathodic Protection of Carbon Steel On-Grade Storage Tank Bottoms
3. TM0497-2012	Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems

NFPA National Fire Protection Association One Batterymarch Park Quincy, MA 02269	
Standard Reference Number	Title
1. 30 (2021)	Flammable and Combustible Liquids Code
2. 37 (2018)	Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines
3. 68 (2018)	Standard on Explosion Protection by Deflagration Venting
4. 110 (2016)	Standard for Emergency and Standby Power Systems
5. 326 (2015)	Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair
6. 407 (2017)	Standard for Aircraft Fuel Servicing
7. 704 (2017)	Standard System for the Identification of the Hazards of Materials for Emergency Response

PEI Petroleum Equipment Institute PO Box 2380 Tulsa, OK 74101	
Standard Reference Number	Title
8. RP800-20	Recommended Practices for Installation of Bulk Storage Plants
1. RP1200-19	Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment
2. RP1300-20	Recommended Practices for the Design, Installation, Service, Repair and Maintenance of Aviation Fueling Systems
3. RP1400-21	Recommended Practices for the Design and Installation of Fueling Systems for Emergency Generators, Stationary Diesel

STI Steel Tank Institute 944 Donata Court Lake Zurich, IL 60047	
Standard Reference Number	Title
1. SP001 (6 th Edition, 2018)	Standard for the Inspection of Aboveground Storage Tanks
2. SP031 (2018)	Standard for Repair of Shop-Fabricated Aboveground Tanks for Storage of Flammable and Combustible Liquids
3. R912 2022	Installation Instructions for ASTs

UL Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062-2096	
Standard Reference Number	Title
1. UL 142 (2019)	Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids
2. UL 971 (1995)	Nonmetallic Underground Piping for Flammable Liquids
3. UL 2080 (2000)	Standard for Fire Resistant Tanks for Flammable and Combustible Liquids
4. UL 2085 (1997)	Standard for Protected Aboveground Tanks for Flammable and Combustible Liquids

U.S. Department of Energy 1000 Independence Ave. SW Washington DC 20585	
Standard Reference Number	Title
1. DOE/GO 102016-4854 (February 2016)	Handbook for Handling, Storing, and Dispensing E85 and Other Ethanol-Gasoline Blends
2. DOE/GO 102016-4875 (Fifth Edition, Revised, November 2016)	Biodiesel Handling and Use Guide

The Steel Tank Institute does offer training for aboveground storage tank inspectors, information on the training can be found at our website, www.steeltank.com . Thank you for your consideration.