

New Aboveground Storage Vessel Safety (ASVS) Program Overview

Rebecca Moore
Occupational Licensing & Registration Division
Office of Waste

May 2024



Agenda

- Background
- Definition
- Exemptions
- Safety Standards
- Requirements
 - Registration
 - Certification
 - Fees
 - Recordkeeping
 - Inspections
- Guidance & Training
- Timeline
- Resources

Background

- Past chemical fires indicated a need to regulate the type of tanks that were involved
- The 87th Texas Legislature passed Senate Bill (SB) 900 to set design safety standards using industry guidance
- SB900 is intended to *“promote the safety of storage vessels...by adopting requirements for the design, construction, operation, and maintenance of storage vessels, with the objective of protecting groundwater and surface water resources in the event of accidents and natural disasters”*
- There are an estimated 36,000 currently regulated aboveground storage vessels (ASVs) that may be impacted by this new law

What is an Aboveground Storage Vessel?

Aboveground Storage Vessel (ASV):

- is made of non-earthen materials
- has a capacity of 21,000 gallons or more of a **regulated substance** as defined by Section 26.343, Water Code
- is located at or is part of a petrochemical plant, a petroleum refinery, or a bulk storage terminal



Exemptions

The following tanks are not considered storage vessels:

- Tanks used in or associated with the production or gathering of crude oil or natural gas
- Tanks that are part of a stormwater or wastewater collection system
- Flow-through process tanks, including pressure or process vessels and oil/water separators
- Intermediate bulk containers that may be moved within a facility
- Tanks regulated under the federal Surface Mining Control and Reclamation Act

Exemptions Continued

The following tanks are not considered storage vessels:

- Tanks used for the storage of products regulated under the Federal Food, Drug, and Cosmetic Act
- Tanks used in the management of leachate, methane gas, or methane gas condensate, unless the tank is used for storage of a regulated substance
- Tanks used to store liquefied petroleum
- Tanks regulated under DOT's Pipeline and Hazardous Materials Safety Administration

Exemptions Continued

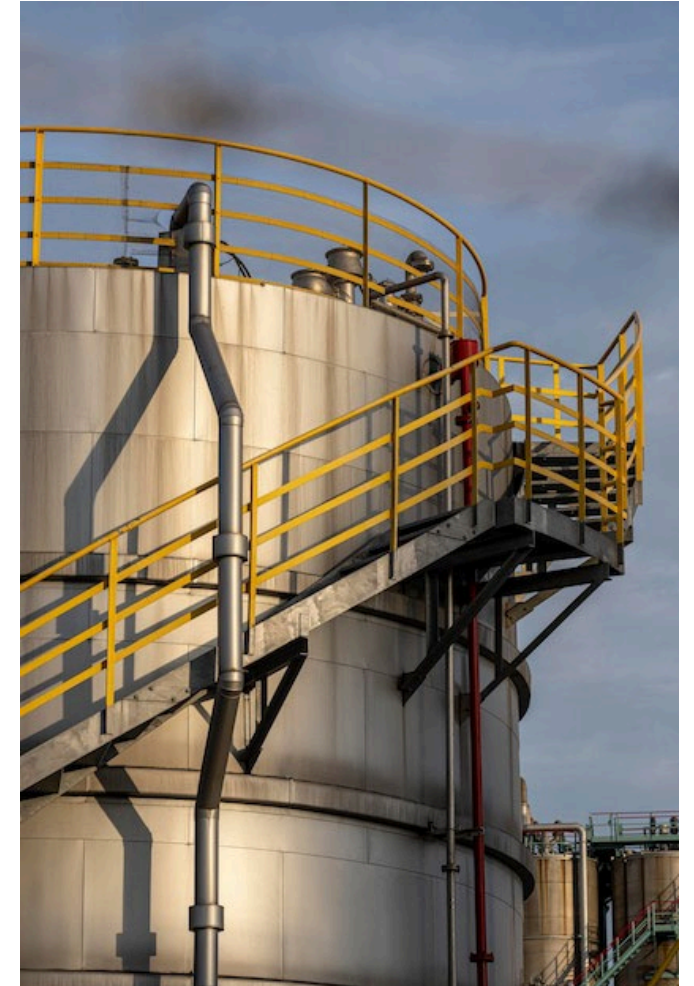
The following tanks are not considered storage vessels:

- **Heated vessels** - These are vessels that are continuously heated using external heat including but not limited to steam, electric heating element, or a heat medium such as hot oil. Heated vessels do not include those that include process fluid that are received above ambient temperature
- **Tanks operating above 0.5 PSIG** - This is measured with a pressure gauge in the vapor space of the tank or calculated as the total mixture vapor pressure at the storage temperature converted to gauge pressure.

Safety Standards

“Include all and only those critical safety elements that are applicable to a storage vessel...ensuring the correct critical safety elements are applied to the correct types of storage vessels”

- Specific safety standards apply only to the type of storage vessels as specified by the regulation or standard.



Safety Standards: Applicability

- Applicability of the requirements is based on the applicability section for each of the referenced standards.
- It is not the intent of the TCEQ to expand the applicability of the national consensus standards or federal statutes/regulations beyond the applicability provided in those specific standards.
- For any national consensus standard or federal statute/regulation incorporated by reference in this rule, owners or operators must comply with any separate applicable standards and regulations included in the incorporations by reference.

Safety Standards from Federal Regulations

Chemical Accident Prevention Provisions

- 40 Code of Federal Regulations (CFR) Part 68
- Subpart E: Emergency Response
- Subpart G: Risk Management Plan
- Subpart H: Other Requirements

Safety Standards from Federal Regulations

Oil Pollution Prevention

- 40 CFR Part 112
- Incorporates Spill Prevention, Control, and Countermeasure Plan requirements
- Incorporates Facility Response Plan requirements

Safety Standards from National Consensus

American Petroleum Standard 653: Tank Inspection, Repairs, Alteration, and Reconstruction

- § 4.3: Tank Shell Evaluation
- § 4.4: Tank Bottom Evaluation § 4.5: Tank Foundation Evaluation
- § 6.2: Inspection Frequency Consideration
- § 6.3: Inspections from the Outside of the Tank
- § 6.4: Internal Inspection
- § 8: Design Considerations for Reconstructed Tanks
- § 9: Tank Repair and Alteration

Safety Standards from National Consensus

American Petroleum Standard 2350: Overfill Prevention for Storage Tanks in Petroleum Facilities

- § 4: Overfill Prevention System
- § 5: Overfill Prevention Systems

Safety Standards from National Consensus

National Fire Protection Association

- § 22.8: Fire Protection for Aboveground Storage Tanks

OR

American Petroleum Institute Recommended Practice 2001

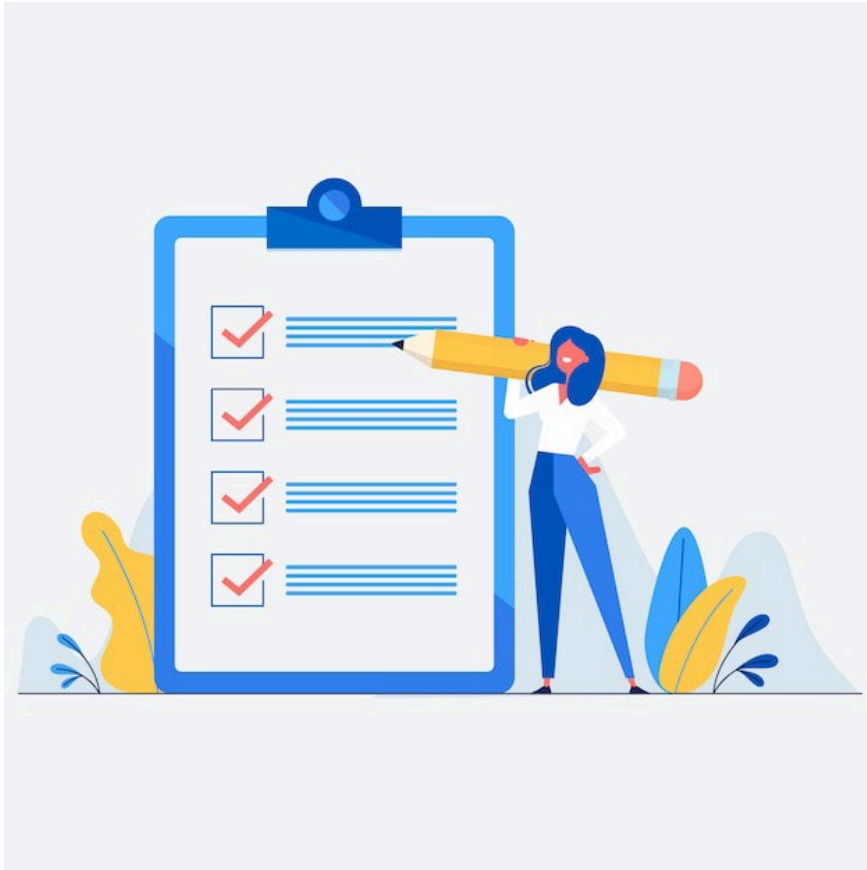
- § 5-11

Safety Standards from National Consensus

Additional Requirements for New ASVs

- Only required for ASVs constructed on or after September 1, 2027
- **API Standard 650:** Welded Tanks for Oil Storage
- **NFPA Standard 30 § 22.4:** Location of Aboveground Storage Tanks

Requirements for ASVs



- **Register** each ASV
- **Certify compliance** with the safety standards for each ASV
- Pay the annual registration **fee**
- TCEQ will conduct on-site **inspections** of the registered ASVs at least once every five years to determine compliance

Requirements for ASVs: Registration Concepts



- The customers will provide all registration and compliance information electronically through the State of Texas Environmental Electronic Reporting System (STEERS).
- No physical paper forms will be used for this program.
- Customers will register each ASV once and update registration/certification information, as needed.

Requirements for ASVs: Registration Process

- Each facility will have a registration associated to a Registered Entity Number (RN).
- Each vessel will have a Vessel Identification Number (VIN).



For each ASV, the owner/operator will have to:

- Indicate which safety standards apply
- Provide the compliance status for each applicable safety standard
- If the ASV complies with all applicable safety standards:
 - Submit any necessary documentation
 - Certify compliance

Requirements for ASVs: Certification Process

- If the ASV complies with all applicable safety standards at the time of registration:
 - Submit any necessary documentation
 - Certify compliance
- If the ASV does not immediately meet all applicable safety standards at the time of registration the owner/operator will:
 - Make any necessary upgrades to the ASV during the next regularly scheduled out-of-service maintenance event
 - Re-visit STEERS registration
 - Submit any necessary documentation to certify compliance



Requirements for ASVs: Registration Deadlines



- Existing ASVs (constructed before 9/1/2027) will be required to register with the TCEQ by 9/1/2027
- New ASVs (constructed on or after 9/1/2027) will be required to register with the TCEQ within 30 days after the start of operation

Requirements for ASVs: Certification Deadlines

- Existing ASVs will be required to **provide compliance status** with the standards at the time of registration.
 - If vessel already meets all of the applicable standards they will certify that they are in compliance
- Existing ASVs **must certify compliance** with the ASVS Program during the next regularly scheduled out-of-service maintenance or before September 1, 2037, whichever comes first
- **All ASVs** will be required to re-certify compliance with the safety standards every 10 years

Requirements for ASVs: Fees



- Rule language includes a maximum total annual fee of \$2,000 per ASV
- The proposed fee structure will allow TCEQ to adjust the fees up or down as needed to cover the cost of administering the program
- Proposed fees:
 - \$200 flat fee (per vessel, regardless of size) AND
 - \$0.0024/per barrel of capacity for vessels over 20,000 barrels

Requirements for ASVs: Fees Continued

- Fees will not be charged until 9/1/2027
- If registered prior to 9/1/2027, fees will be invoiced in November 2027
- If registered on or after 9/1/2027, fees must be paid before the registration can be completed



Requirements for ASVs: Fee Examples

Capacity in barrels (bbls)	500	20,000	20,001	100,000	200,000	750,000	800,000
Per ASV Flat Fee	\$200	\$200	\$200	\$200	\$200	\$200	\$200
Per barrel fee (\$0.0024/bbl)	-	-	\$48	\$240	\$480	\$1,800	\$1,920
Total per ASV Fee	\$200	\$200	\$248	\$440	\$680	\$2,000	\$2,000

Requirements for ASVs: Recordkeeping

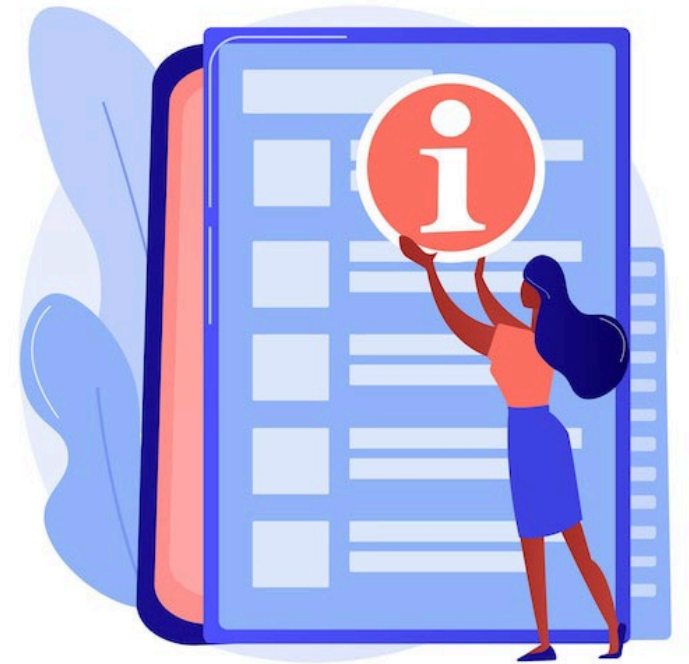
- Records must be immediately accessible for the owner/operator and during inspections
- Records may be electronic, located on-site, or off-site
- Must maintain copies of all records relating to registration & certification
- Must maintain copies of supporting documents to demonstrate compliance with the safety standards
- Records must be kept for the operational life of the ASV

Requirements for ASVs: Inspections

- TCEQ will conduct on-site inspections of the registered ASVs at least once every 5 years to determine compliance
- Owner or operator must allow TCEQ to enter facility at reasonable times and provide requested information
- TCEQ may inspect; obtain samples collected by the owner/operator; and conduct monitoring or request owner/operator to conduct monitoring
- TCEQ may direct an owner/operator to conduct monitoring/testing if there is reasonable cause to believe that a release occurred

Guidance & Training

- TCEQ is working on hiring a contractor to help develop a guidance document for this new program.
- The Guidance Document will help regulated entities determine which specific safety standards apply to their ASVs.
- TCEQ will also offer training on how to register when the registration portal is complete.



Program Implementation Timeline

9/2023

New Chapter 338, Aboveground Storage Vessel Safety Program became effective

2026

TCEQ plans to have the STEERS module ready to accept registrations

9/1/2027

Registration Deadline & Certification Begins

9/1/2037

Certification Deadline

Resources



- New Program Regulating the Safety of Aboveground Storage Vessels: <https://www.tceq.texas.gov/permitting/asvs>
- We have also set up a GovDelivery email box that you can sign up to receive updates, located at: https://public.govdelivery.com/accounts/TXTCEQ/subscriber/new?qsp=TXTC EQ_202017
- 30 TAC Chapter 338 [https://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=338](https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=338)
- Texas Water Code Section 26.3442 <https://statutes.capitol.texas.gov/Docs/WA/htm/WA.26.htm#26:~:text=Sec.%2026.3442.%20%20PERFORMANCE%20STANDARDS%20FOR%20SAFETY%20AT%20STORAGE%20VESSELS>

Rebecca Moore

Office of Waste

Occupational Licensing & Registration Division

Rebecca.Moore@tceq.texas.gov

512-239-2463

Shelley Naik

Office of Compliance & Enforcement

Program Support and Environmental Assistance
Division

Shelley.Naik@tceq.texas.gov

512-239-1536

