



Installing a New or Replacement Underground Storage Tank

A guide for owners and operators of USTs

This is module b of the PST Super Guide, a comprehensive guide to issues relating to petroleum storage tanks (PSTs). This super guide provides an overview to laws and regulations for PSTs and can be used as an aid in minimizing potential risks. The guide does not replace those laws and regulations which take precedence over any information in this publication.

Module b explains rules and procedures for installing or replacing an underground storage tank (UST).

- You, the owner or operator of a PST, are responsible for ensuring compliance with all applicable laws and regulations.
- If your UST system is located in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, or Williamson County, additional requirements related to protecting the Edwards or the Trinity Aquifer may apply (Title 30, Texas Administrative Code [30 TAC], Chapters 213 and 214).
- In addition to the laws and TCEQ rules, local governments and other state and federal agencies may have rules that apply.

What are the installation requirements?

Tanks and piping must meet installation standards for new UST systems in 30 TAC 334.46, and technical standards in 30 TAC 334.45.

For all UST system installations, you must have a contractor licensed by TCEQ conduct the installation according to applicable requirements. Additionally, prior to initial use, the installer must physically inspect and test the tanks and piping to ensure that there are no leaks in the system according to 30 TAC 334.46(d). Generally, a registered contractor will know the details of how to comply with TCEQ standards; however, compliance is ultimately your responsibility. It is helpful for you to know the basic requirements and become familiar with terminology and options.

Specific standards for equipment and installation procedures may be found in 30 TAC 334 and, in some instances, in petroleum-industry references and recommended practices. In those cases, the most recent version of the recommended practice is in effect. For more information on licensing requirements, please refer to module RG-475c, *Licensed Underground Storage Tank Contractors*.

Submit a construction notification form to the TCEQ (form TCEQ-0495) at least 30 days prior to performing work. Between 24 and 72 hours before work on the proposed activity begins, you must verbally notify the agency's appropriate regional office. In many cases the registered contractor gives notice, but it is ultimately your

responsibility. Coordinate with your contractor to determine who will make the notification.

All tank systems must meet the regulations and installation requirements for spill and overflow prevention and control equipment, release detection, and have striker plates under all fill and gauge openings.

New tanks and tank compartments must meet specific standards for structural integrity and protection from corrosion. Tanks may be:

- fiberglass-reinforced plastic;
- steel and equipped with a cathodic protection system;
- constructed as a steel/fiberglass-reinforced plastic composite tank, or as a steel tank with a bonded fiberglass-reinforced plastic external cladding;
- steel with a bonded polyurethane external coating; or
- steel and completely contained within a nonmetallic jacket.

You must also protect all metallic fittings from corrosion either by isolating them from water and backfill material or confirming they are coated in dielectric material or cathodically protected.

All new tank systems must meet the regulations and installation requirements for spill and overflow prevention and control equipment and release detection, and striker plates must be under all fill and gauge openings. Fill pipes must be properly protected from corrosion and have drop tubes within 12 inches from the tank bottom.

Piping may be constructed of fiberglass-reinforced plastic, coated and cathodically protected steel, or made of a flexible non-metallic material. Flexible connectors must be installed at both ends of a pressurized piping system unless the piping is inherently flexible. For pressurized piping systems, shear or emergency-shutoff valves must be properly installed and anchored.

You must register new tanks within 30 days of the initial delivery of any regulated substance using form TCEQ-0724. The responsible UST installer or on-site supervisor must also certify any tank-installation or underground-installation activities on the same form.

For UST systems installed after Jan. 1, 2009

You must install secondary containment for new and replacement tanks and for new piping. Any piping replacement that affects less than 35% of the total original length of an existing single-wall line does not require secondary containment unless the replaced line segment connects the existing line to a new dispenser, in which case the entire line must be secondarily contained. External liners do not meet secondary containment requirements for systems installed after Jan. 1, 2009. You must also monitor the interstitial space for tanks and lines (the space between the primary and secondary wall) for a release of product.

You must install dispenser sumps with any new dispenser.

All sumps and manways used as an integral part of a UST release detection system, and all sumps which serve new dispensers installed on or after Jan. 1, 2009, must be:

- compatible with the stored substance;
- installed and maintained in a manner that assures that sides, bottoms, and penetration points are liquid tight;
- inspected for tightness annually;
- tightness-tested at installation and every three years thereafter; and
- equipped with a liquid-sensing probe that will alert you if more than 2 inches of liquid collects in any sump or manway.

For UST systems installed over the Edwards or Trinity Aquifer

If your UST system is being installed over the Edwards or Trinity Aquifer, specific requirements apply that may be found in 30 TAC 213 and 214, respectively.

What records do I need to keep?

You must retain documentation of installations, certifications, notifications, reports, inspections, registration, as-built plans, specifications, revisions, modifications, integrity assessment, components, warranties, instructions, recommendations, schedules, and telephone numbers of contacts and service technicians for the life of the system. Maintain records of all equipment tests conducted on the tanks and piping at the time of installation, including air and tightness tests for at least five years after installation.

Where can I find more information?

The technical and installation standards for new USTs are located in 30 TAC 334.45–46 available at [texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=334&sch=C&rl=Y](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=334&sch=C&rl=Y).

Links to additional webpages about registering PSTs, technical requirements for regulated PSTs, and LPST cleanup are available at www.tceq.texas.gov/permitting/pst_cert.html.

Requirements for tanks in the Edwards Aquifer are in 30 TAC 213 available at [texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=213](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=213).

Requirements for tanks over other aquifers are on 30 TAC 214 available at [texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=214&rl=Y](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=214&rl=Y).

Download TCEQ forms from our website at www.tceq.texas.gov/search_forms.html.

Download TCEQ publications from our website at www.tceq.texas.gov/publications.

Instructions on how to find contractors to install USTs are at www.tceq.texas.gov/remediation/pst_rp/license_ust.html.

For confidential environmental compliance assistance for small businesses and local governments, contact Small Business and Local Government Assistance via the hotline at 800-447-2827 or online at <www.TexasEnviroHelp.org>.

Industry Recommended Practices

Petroleum Equipment Institute Publication RP-100, *Recommended Practices for Installation of Underground Liquid Storage Systems* is available for purchase at <www.pei.org/rp100>.

American Petroleum Institute Publication 1615, *Installation of Underground Petroleum Storage Systems* is available for purchase at <www.techstreet.com/api/standards/api-rp-1615?product_id=1780646>.