TCEQ REGULATORY GUIDANCE
Environmental Assistance Division
RG-475b ● Revised July 2017

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 PSTs (petroleum storage tanks). This super guide provides an overview to laws and regulations for PSTs and it 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 UST (underground storage tank).

- 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 requirements?

For all UST system installations commencing on or after February 1, 1990, you shall assure that a contractor licensed by the agency conducts the UST system installation. 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 to 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. Many times 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 overfill prevention equipment, release detection, and have striker plates under all fill and gauge openings.

New tanks, tank compartments, and piping must also meet specific standards for structural integrity and protection from corrosion. For example, a steel tank must have a fiberglass or polyurethane coating, bond, or jacket that meets specific standards. Tanks may be constructed of coated and cathodically protected steel; steel with an external factory-applied, fiberglass-reinforced plastic; steel with a polyurethane cladding or jacket; or fiberglass-reinforced plastic.

Piping may be constructed of fiberglass-reinforced plastic, coated and cathodically protected steel, or 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. Tanks, piping, and shear valves must be constructed per the technical standards for new UST systems in 30 TAC 334.46.

An appropriate number of observation wells 4 inches in diameter or larger must be installed in each tank hole. A tank hole containing only one tank is required to have at least one observation well; a tank hole containing two or more tanks must have at least two wells.

The installer must use clean, washed, suitably graded and noncorrosive sand, crushed rock, or pea-gravel backfill that is selected and placed following the tank and piping manufacturers' specifications.

To prevent flotation of the tanks, an anchoring system is required for all USTs located in areas subject to high water tables or flooding. The Federal Emergency Management Agency's website allows you to search detailed flood maps at <www.msc.fema.gov/portal/search>. The anchoring system must meet the tank manufacturer's specifications and applicable TCEQ requirements in 30 TAC 334.46(b).

The piping system must slope at least 1/8 inch per foot from the dispenser toward the tank.

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).

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. Factors to consider when installing a UST system include:

- the cost of insurance for the type of system installed
- the geographic location of the tank system
- release-detection options

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 percent 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 (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;
- 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.

You must properly dispose of any liquid detected by alarms or any liquids or debris found during an inspection within 96 hours of discovery. You must use an authorized facility to transport and dispose of any liquid or debris removed.

For assistance and/or to discuss proper disposal of waste, please call SBLGA's hotline at 800-447-2827.

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>.

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

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>.

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>.