

PST Super Guide

A Comprehensive
Guide to
Compliance
in Texas



TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

RG-475 (revised 5/12)

Contents

RG-475a Buying or Selling Property with Underground Storage Tanks

RG-475b Installing a New or Replacement Underground Storage Tank

RG-475c Licensed Underground Storage Tank Contractors

RG-475d Petroleum Storage Tank Registration and Self-Certification

RG-475e Petroleum Storage Tank Spill and Overfill Prevention

- 60-Day Spill-Container Inspection

RG-475f Protecting Petroleum Storage Tanks against Corrosion

- 60-Day Record of Impressed Current Cathodic Protection

RG-475g Petroleum Storage Tank Release Detection and Inventory Control

- Monthly Record of Vapor-Well Monitoring
- Monthly Record of Groundwater-Well Monitoring
- Monthly Record of Interstitial-Sensor Monitoring
- Monthly Record of Secondary-Containment-Well Monitoring
- Weekly Record of Manual Tank Gauging

RG-475h Suspected Releases from Petroleum Storage Tanks

RG-475i Financial Assurance for Petroleum Storage Tanks

RG-475j Gasoline Stage I and II Vapor Recovery

RG-475k Who Regulates Petroleum Storage Tanks?

RG-475l Temporarily Removing Petroleum Storage Tanks from Service

RG-475m Permanently Removing Petroleum Storage Tanks from Service

RG-475n Aboveground Petroleum Storage Tanks

RG-475o Training for Underground Storage Tank Operators



TCEQ REGULATORY GUIDANCE

Small Business and Environmental Assistance Division

RG-475a • Revised February 2011

Buying or Selling Property with Underground Storage Tanks

A guide for owners and operators of USTs

This is a general guide to laws and regulations about underground storage tanks and an aid in minimizing potential risks; it does not replace those laws and regulations, which take precedence over any information contained herein. If your tank system is located in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, or Williamson County, additional requirements related to the protection of 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. The UST owner and operator are responsible for ensuring compliance with all applicable laws and regulations.

What should I do before I buy a gas station or a property with existing underground petroleum storage tanks?

Before making a purchase, you should determine two major issues:

1. Are all UST systems in compliance with all technical requirements?
2. Is there contamination on the property (either from one or more UST systems or from other sources, including historical or off-site sources)?

Keep in mind that you need as much information as possible from the previous owner to ensure technical compliance with applicable TCEQ rules. Installation records and documentation of compliance are invaluable and should be secured if at all possible. You may wish to secure estimates of cost to remove tanks, search for historical information on them, and ask the former owner for records of their installation, removal, upgrades, release detection, and corrosion protection, and other important documents related to their performance and maintenance. Ensure that any claims made by the seller can be verified with installation, removal, and compliance records. If those records are not available, you should consider spending what is necessary to create them. An environmental site assessment called a *Phase I assessment* is commonly conducted prior to a transfer of ownership of commercial property to identify potential environmental contamination. Additionally, a *Phase II assessment* is conducted to determine if there is contamination at the site. A Phase II assessment includes soil and groundwater samples.

Underground storage tanks may have previously been installed and registered at the property and since removed or placed permanently out of service. If the tanks have been permanently removed from service, you should request a copy of the Release Determination Report (form TCEQ-00621) or other report documenting the removal of the tank system and any confirmatory sampling that may have been conducted. It is essential for a prospective property owner to determine whether the TCEQ has issued a "no further action" letter to a previous owner, indicating that removal of such a UST from service has been concluded with agency concurrence that no further action is needed by the current owner. If no such letter has been issued, that means the agency has not given its final response to the permanent removal from service of the UST.

How can I obtain information about the underground storage tanks from the TCEQ?

- The **Petroleum Storage Tank Registration Database** can tell you whether a facility is registered with the TCEQ and gives technical information about registered PSTs.
[<www.tceq.texas.gov/goto/pst_reg_db>](http://www.tceq.texas.gov/goto/pst_reg_db)
- The **Leaking Petroleum Storage Tank Database Query page** can help you find current and historic information about known LPST sites. Look up information by owner, address, city, county, and other criteria.
[<www.tceq.texas.gov/goto/lpst_db_query>](http://www.tceq.texas.gov/goto/lpst_db_query)
- The **Compliance History Database**. State rules require the TCEQ to maintain and publish compliance histories for many of the companies, individuals, agencies, and other entities that it regulates. Histories become a rating of a customer's "distance from compliance." Poor ratings can cause denial of permits, stricter regulation, and higher penalties. It's important to remember that a buyer inherits the compliance history rating of the facility.
 [<www11.tceq.texas.gov/oce/ch/>](http://www11.tceq.texas.gov/oce/ch/)
- Check to see if there is a **pending enforcement action** against the current owner of the UST system on the property. The status of any pending or issued enforcement order is available at:
[<www.tceq.texas.gov/goto/pending_enforcement>](http://www.tceq.texas.gov/goto/pending_enforcement)
- You may also perform an **open-records request** online, or via e-mail, fax, or mail to obtain documents, pending applications, ongoing compliance or enforcement actions, or other records.
[<www.tceq.texas.gov/goto/records_request>](http://www.tceq.texas.gov/goto/records_request)
- For additional **current and historical registration information**, you may contact the PST Registration Team at 512-239-2160.
- For additional information on **cleanup requirements or UST technical requirements**, you may contact the Remediation Division at 512-239-2200.

What must I consider if there is contamination?

The TCEQ does not prevent the sale of LPST sites. All parties involved in the sale of property with an LPST should be aware of the cleanup requirements and potential costs. Although the TCEQ continues to hold a responsible party responsible for a cleanup even after property is sold (i.e., a party may not contract away environment liability once a release has been discovered), buyers are cautioned that they may also become responsible for performing any corrective action on their property. Parties may choose to minimize delays in real estate transactions if, rather than insisting on the final closure of the LPST site by the TCEQ prior to the property sale, they instead address this issue in the negotiated price or establish responsibility via contract, letter of credit, bond, or insurance. However, the TCEQ will not be bound by any agreement between the parties.

All interested parties should consider hiring a qualified environmental consultant and possibly an attorney to evaluate existing information. For a list of environmental consultants registered with the TCEQ, visit www5.tceq.texas.gov/oce/olwe or contact the Operator Licensing Section at 512-239-6139.

What are my options regarding existing UST systems?

If underground storage tanks remain in the ground, they are generally considered part of the property and are transferred with it, unless the seller specifically maintains ownership of them. The buyer is responsible for keeping (or making) the tanks compliant with applicable rules.

All UST systems must be maintained in compliance with applicable TCEQ rules, whether or not they are in use. If you are going to continue to use a UST system, it must comply with all technical and administrative requirements, including release detection, corrosion protection, spill- and overfill-prevention equipment, financial assurance, registration and self-certification, and recordkeeping (and any other requirements that apply). Request, from the seller, all existing records associated with the UST system, including installation documentation, owner's manuals, and compliance documentation. If those records are not available, you may be required to re-create them or perform additional tests and actions to keep the UST system in compliance.

If you are not going to use a UST system, one option for temporary removal from service is described at 30 TAC 334.54, and three options for permanent removal from service (along with additional information) are described at 30 TAC 334.55. Those three options are:

1. removal from the ground,
2. abandonment in place (proper emptying by a licensed UST contractor and filling with sand, cement, etc.), or

3. permanent change in service (storage of non-regulated substances).

Regardless of the option you choose, the work will need to be performed by a TCEQ-licensed UST contractor, and a comprehensive site assessment must be performed to determine whether a release has occurred from any part of the UST systems. For more information on permanent removal from service, see *Permanently Removing Petroleum Storage Tanks from Service*, TCEQ publication RG-475m.

It is a good business practice to secure bids on actions to ensure the tanks' compliance (removal, upgrades, soil samples to determine if contamination is present) **before taking ownership of the property**. There is no substitute for soil and groundwater sampling to determine if there is subsurface contamination.

What Do I Need to Report?

Responsibilities of sellers and purchasers of underground storage tanks				
	Written disclosure that the tank is regulated by the TCEQ before the property is transferred to the purchaser	Update of form listing tank status and ownership registration within 30 days of sale (Form TCEQ-00724)	Construction notification to TCEQ 30 days prior to major construction activities (Form TCEQ-00495)	Record keeping in accordance with 30 TAC 334.10
Seller	X			
Purchaser		X	X	X

Under 30 TAC 334.9, written notification from the seller to the buyer must include the names and addresses of the seller (or grantor) and the purchaser (or grantee), the number of tanks involved, a description of each tank (capacity, tank material, and product stored, if applicable), and the agency's designated facility identification number (if the entire facility is being conveyed). The following certification statement is sufficient:

The underground storage tank (or tanks) included in this conveyance is (are) presumed to be regulated by the Texas Commission on Environmental Quality and may be subject to certain requirements for registration, compliance self-certification, and construction notification, and other requirements found in Title 30, Texas Administrative Code, Chapter 334.

For further information regarding tank registration, refer to *Petroleum Storage Tank Registration and Self Certification*, TCEQ publication RG-475d.

Where do I find more information?

Laws and regulations pertaining to the PST program are found in Texas Water Code, Chapter 26, Subchapter I, and at 30 TAC 334.

The complete UST technical standards may be found at 30 TAC 334, Subchapter C.

Guidance for conducting assessment and corrective action at leaking UST sites is available in *Investigating and Reporting Releases from Petroleum Storage Tanks* (TCEQ publication no. RG-411).

Search for TCEQ publications online at <www.tceq.texas.gov/publications>.

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>.

Definitions

Corrective action. Any assessment, monitoring, or remedial activity undertaken to investigate the extent of contamination or to remediate it.

Major construction activities. Includes removal of a tank from service; repairs to a tank, piping, or other parts of a tank system; and most other construction associated with tank systems.



TCEQ REGULATORY GUIDANCE

Small Business and Environmental Assistance Division

RG-475b • Revised March 2011

Installing a New or Replacement Underground Storage Tank

A guide for owners and operators of USTs

This is a general guide to laws and regulations about underground storage tanks and an aid in minimizing potential risks; it does not replace those laws and regulations, which take precedence over any information contained herein. If your tank system is located in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, or Williamson County, additional requirements related to the protection of the Edwards or the Trinity Aquifer may apply (Title 30, Texas Administrative Code [30 TAC], Chapters 213 and 214). Besides the TCEQ, local governments and other state and federal agencies may have rules that apply. The owner and operator are responsible for ensuring compliance with all applicable regulations.

What are the requirements?

A licensed UST installer-on-site supervisor employed by a registered UST Contractor is required for installation of UST systems. Generally, a registered contractor will know the details of how to comply with TCEQ standards; however, compliance is ultimately the owner's responsibility. It is helpful for the owner 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, 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-00495) at least 30 days prior to performing work. Between 24 and 72 hours before work on the proposed activity begins, the owner must verbally notify the agency's appropriate regional office. Many times the registered contractor gives notice, but it is ultimately the responsibility of the owner. Coordinate with your contractor to determine who will make the notification.

New tanks and piping must 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. Additionally, all tank systems must be installed with appropriate spill- and overfill-prevention equipment and be monitored for releases.

New UST systems must be installed to meet requirements for spill, overfill, and release detection, and must have striker plates under all fill and gauge openings.

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 in accordance with applicable standards.

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 contain at least one observation well; a tank hole containing two or more tanks must contain 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 in accordance with 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 anchoring system must meet the tank manufacturer's specifications and applicable TCEQ requirements.

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

Prior to initial use, the tanks and piping must be tested to ensure that there are no leaks in the system.

Registration is required within 30 days of the initial delivery of any regulated substance. Use form TCEQ-00724. Any tank-installation or underground-installation activities must also be certified on that form by the responsible UST installer or on-site supervisor. 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

Owners and operators must install secondary containment for new and replacement tanks and new piping. Any piping replacement that affects 20 percent or less 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. Owners and operators must also monitor the interstitial space (the space between the primary and secondary wall) for a release of product.

Owners and operators must install dispenser sums with any new dispenser.

All sums and manways used as an integral part of a UST release detection system and all sums 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 the UST system owner or operator if more than 2 inches of liquid collects in any sum or manway.

Owners and operators must properly dispose of any liquid detected by alarms or any liquids or debris found during an inspection within 72 hours of discovery.

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. Certain other equipment records, including records of air and tightness tests, must be kept for at least five years after installation.

Where can I find more information?

The requirements for new technical and installation standards are at 30 TAC 334.45–46.

You can download forms from the TCEQ's website at <www.tceq.texas.gov/forms>.

You can download publications from the TCEQ's website at [<www.tceq.texas.gov/publications>](http://www.tceq.texas.gov/publications).

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>](http://www.TexasEnviroHelp.org).

Industry Recommended Practices

Petroleum Equipment Institute Publication RP-100, *Recommended Practices for Installation of Underground Liquid Storage Systems*.
[<www.pei.org/>](http://www.pei.org/)

American Petroleum Institute Publication 1615, *Installation of Underground Petroleum Storage Systems*.
[<www.api.org/>](http://www.api.org/)



TCEQ REGULATORY GUIDANCE

Small Business and Environmental Assistance Division

RG-475c • March 2011

Licensed Underground Storage Tank Contractors

Selecting the proper contractor to work on your UST system

This is a general guide to laws and regulations about underground and aboveground storage tanks and an aid in minimizing potential risks; it does not replace those laws and regulations, which take precedence over any information contained herein. If your tank system is located in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, or Williamson County, additional requirements related to the protection of 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. The owner and operator are responsible for ensuring compliance with all applicable laws and regulations.

Who Should I Hire?

The TCEQ regulates occupational licenses and registrations with regard to underground storage tanks. It is important that you contract with the appropriate company or person to perform any necessary work. See 30 TAC 30 (Occupational Licenses and Registrations), Subchapters E (Leaking Petroleum Storage Tank Corrective Action Project Managers and Specialists) and I (Underground Storage Tank On-Site Supervisor Licensing and Contractor Registration).

Why do I need a Licensed Contractor?

Licensing and registration requirements exist because working on a UST system requires detailed technical knowledge. Be sure to check the expiration date on the contractor's license and ask for proof of liability insurance before allowing work to begin on your UST system. This guide should help you to determine when to use a licensed person to perform work on your UST system.

Definitions

Underground storage tank contractor. A person (business or individual) that installs, repairs, or removes a UST (or offers to, or self-represents as able to, do so) and meets registration requirements.

On-site supervisor. An individual who supervises the installation, repair, or removal of a UST and who meets licensing requirements. There are three levels of licensing, each with its own responsibilities.

Critical juncture. Any of the following steps:

- repairing the tank bedding immediately before receiving a tank
- setting a tank and its piping, including placement of anchoring devices, backfilling to the level of the tank, and strapping
- connecting piping systems to a tank
- pressure testing a UST and its associated piping during installation
- completing backfill and filling the excavation
- any repair involving connection (or reconnection) of a piping system to a tank and related testing of the tank or its associated piping
- removal of the UST

Corrosion specialist. An individual who has a professional degree and related experience, and is certified by the National Association of Corrosion Engineers International or is licensed as a professional engineer in Texas in a branch of engineering that includes education and experience in corrosion control of metal tanks and piping.

Corrosion technician. A person who is qualified by training and experience and who is certified by the National Association of Corrosion Engineers International, employed under the direct supervision of a corrosion specialist, or certified as a cathodic-protection tester by the NACE or the Steel Tank Institute.

Corrective action. Any cleanup of contamination, or assessment (after discovery), monitoring, or investigation of its extent.

LPST Corrective Action Specialist (CAS). A company registered with the TCEQ to perform regulated corrective actions at LPST sites that has two years of experience.

LPST Corrective Action Project Manager (CAPM). A person who is licensed with the TCEQ to perform or supervise regulated corrective actions at leaking petroleum storage tank sites.

Contractors for Leaking Petroleum Storage Tanks

Once a leak is confirmed, an LPST contractor is needed to perform regulated corrective actions on the underground storage tanks. A corrective action specialist must be registered with the TCEQ in order to perform corrective actions at an LPST site. In general, a corrective action project manager is required to be on the LPST site while work is conducted there. Registered LPST corrective action specialists are required to maintain at least \$1 million of liability insurance. For more information, reference module RG-475h, *Suspected Releases from Petroleum Storage Tanks*.

Table 1 indicates which licensees can perform various tasks related to a UST system.

Table 1. UST license levels and work the license holders can perform.

<i>UST Contractor License</i>	<i>On-Site Supervisor A</i>	<i>On-Site Supervisor B</i>	<i>On-Site Supervisor Class A/B Combination</i>	<i>Corrosion Specialist</i>	<i>Corrosion Technician</i>
UST Installation	X		X		
Repair (upgrades and replacements)	X		X		
Removal		X	X		
Design of corrosion protection system				X	
Corrosion testing				X	X
Pressure testing (during installation and repair)	X				
Secondary containment	X		X		
Installation or replacement of vent lines	X		X		
Installation or replacement of submersible pumps	X		X		
Installation of equipment to test tightness of tank or piping	X		X		
Installing permanent release detection and monitoring equipment	X		X		
Adding or replacing spill or overfill equipment	X		X		
Installation of stage I or stage II equipment	X		X		
<ul style="list-style-type: none"> • A registered UST contractor is required to maintain \$1 million liability insurance. • A UST contractor must have a supervisor on-site at all times during critical junctures of installation, repair or removal. • A UST contractor must prominently display his or her registration number on all bids, proposals, offers, and installation drawings. 					

Exceptions from Licensing

The following activities do not require using licensed companies or individuals:

- emergency actions to stop leaks or ruptures
- work on a UST system under the direct supervision of a licensed on-site supervisor
- work on a system that is not regulated under 30 TAC 334

Where do I find more information?

TCEQ Rules—30 TAC 30, Subchapters E and I:

[<http://info.sos.state.tx.us/pls/pub/readtac\\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=30&sch=E&rl=Y>](http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=30&sch=E&rl=Y)
[<http://info.sos.state.tx.us/pls/pub/readtac\\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=30&sch=I&rl=Y>](http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=30&sch=I&rl=Y)

Complete online list of licensed contractors:

<http://www5.tceq.texas.gov/oce/olwe/>

About field citations:

http://www.tceq.texas.gov/goto/field_citation

Sample field citation:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/citation/20270pst-web-version.pdf

For confidential environmental compliance assistance for small businesses and local governments, contact Small Business and Local Government Assistance via the hot line at 800-447-2827 or online at

<http://www.TexasEnviroHelp.org>.



TCEQ REGULATORY GUIDANCE

Small Business and Environmental Assistance Division

RG-475d • April 2011

Petroleum Storage Tank Registration and Self-Certification

A guide for owners and operators of underground storage tanks (USTs)

This is a general guide to laws and regulations about underground and aboveground storage tanks and an aid in minimizing potential risks; it does not replace those laws and regulations, which take precedence over any information contained herein. If your tank system is located in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, or Williamson County, additional requirements related to the protection of 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. The owner and operator are responsible for ensuring compliance with all applicable laws and regulations.

When is a UST subject to regulation?

A UST is regulated under 30 TAC 334 if it contains a regulated substance and 10 percent or more of its volume lies below the surface of the ground. Regulated substances include hazardous substances and petroleum substances such as gasoline, diesel, motor oil, waste oil, kerosene, jet fuel, and aviation gasoline and other petroleum derivatives. For further clarification on whether your UST is subject to state regulation, please contact the Petroleum Storage Tank Registration Team at 512-239-2160.

What are UST registration and self-certification? How do I self-certify or register my tanks?

Registration is how the owner or operator informs the TCEQ about its UST systems. Self-certification is how the owner or operator of a **motor-fuel** UST system notifies the TCEQ that it complies with certain technical and administrative requirements, and is necessary for the owner-operator to obtain a fuel-delivery certificate. *Motor fuel* is defined as 'A petroleum substance which is typically used for the operation of internal combustion engines (including stationary engines and engines used in motor vehicles, aircraft, and marine vessels), and which is one of the following types of fuels: motor gasoline, aviation gasoline, Number 1 diesel fuel, Number 2 diesel fuel, biodiesel blended with Number 1 or Number 2 diesel, gasohol, or other alcohol blended fuels. Both registration and self-certification entail the submission of core data to the TCEQ Central Registry, and both are accomplished using the

UST Registration and Self-Certification Form (TCEQ-00724), available online at <www.tceq.texas.gov/forms>.

Self-certification is required annually for USTs containing motor fuel. The owner or operator must certify that the UST system is in compliance with technical standards and requirements for registration and financial assurance, and that all fees due to the TCEQ are paid. A current certificate of insurance (or other proof of financial assurance) must be submitted at the time of self-certification. Once the form is processed, the TCEQ will issue you a fuel delivery certificate authorizing delivery of fuel. Receiving fuel without a current, valid fuel delivery certificate is a violation of TCEQ rules and may result in fines and penalties.

An important part of self-certification involves identifying each tank. Once a tank has been listed on the form TCEQ-00724, a permanent label must be affixed on or near the tank, allowing a physical match of the tank in the ground with the one listed on the self-certification form. It is not necessary to indicate the fuel grade on the permanent label, but the tank number (and compartment letter, if applicable) must be visible.

Registration is required for all regulated USTs that contain or have contained a regulated substance, unless otherwise exempted or excluded (30 TAC 334.3-4). Common exemptions and exclusions include farm or residential tanks with a capacity of 1,100 gallons or less, tanks that contain heating oil, flow-through-process tanks, and septic tanks.

Core Data for the Central Registry are reported on the first two sheets of the UST form. If you have any questions related to the first two pages of the form, please call TCEQ Central Registry at 512-239-5175.

When do I need to submit form TCEQ-00724?

Submitting this form is required when a UST is installed or temporarily or permanently removed from service. Owners-operators must submit to the TCEQ any changes in ownership, address, or phone number, or other required information (including technical data or changes in financial assurance). The form must be submitted within **30 days** of any such change.

Each year, owners-operators of USTs with motor fuels must renew their facility's fuel-delivery certificate to maintain authorization to receive fuel. About 45 days before the annual renewal is due, the TCEQ mails a reminder to the address on record. However, it is the responsibility of the owner or operator to submit a complete self-certification form before the current certificate expires. An incomplete or inaccurate self-certification form will be returned to the applicant for completion or correction before the TCEQ will issue a new fuel-delivery certificate.

When a UST system changes owners or operators an existing fuel-delivery certificate is only valid for 30 days following the change in responsibility for the system. It is essential that the new owner or operator submit a new

self-certification form as soon as possible to ensure that the certificate remains valid.

When will my fuel-delivery certificate expire?

Look at the last digit of the official TCEQ identification number for the registered owner of the UST facility. **Table 1** shows when the certificate will expire.

Table 1. Expiration dates for fuel-delivery certificates.

If the owner number ends in	Certificate expires	Renewal date	You must post your new delivery certificate on
1	Jan 31	Jan 2	Feb 1
2	last day of Feb	Jan 30 (in leap year, Jan 31)	Mar 1
3	Mar 31	Mar 2	Apr 1
4	Apr 30	Apr 1	May 1
5	May 31	May 2	Jun 1
6	Jun 30	Jun 1	Jul 1
7	Jul 31	Jul 2	Aug 1
8	Aug 31	Aug 2	Sep 1
9	Sep 30	Sep 1	Oct 1
0	Oct 31	Oct 2	Nov 1

Which parts of the form must be completed for an initial registration?

When initially registering your UST system, please complete the entire form so we can track the information in our database. Completion of Section 12 ensures accurate reporting of technical compliance.

What parts of the form do I fill out for first-time self-certification?

When submitting the form for self-certification for the first time, you must complete sections 1, 2, 3, 4, 7, 8, 9, 11 and 12.

Which parts of the form must be completed for subsequent annual self-certification filings?

When submitting the form for subsequent annual self-certification filings, you must complete sections 1, 2, 3, 4, 7, 8, and 9 and any other section of the form where information has changed. The TCEQ will return incomplete forms.

Do I have to pay a fee?

Beginning Sept. 1, 2007, UST owners are no longer assessed annual registration fees. However, unpaid annual fees assessed prior to Sept. 1, 2007 are the owner's responsibility.

What records do I need to keep?

Make a copy of your registration and self-certification form before you submit it to the TCEQ. Keep all installation records for your tank and piping system for the life of the system, and all records that document compliance with applicable rules for at least five years (such as periodic testing records, tank-monitoring reports, proof of financial assurance, etc.).

Do I need financial assurance?

Owners or operators of an UST must demonstrate financial assurance for corrective action and third-party pollution liability (environmental-cleanup coverage), except for owners and operators of any UST system exempted under 30 TAC 334.3 or excluded under 30 TAC 334.4, or a state or federal authority described in 30 TAC 37.801(b) (Applicability). Financial-assurance requirements for USTs can be found at 30 TAC 37, Subchapter I. For additional information on financial assurance, please see module [RG-475k](#).

Where do I find more information?

The complete requirements for registration and self-certification appear at 30 TAC 334.7-8.

For questions concerning completion of the form or about the information reported on the form, please contact the **Petroleum Storage Tank Registration and Self-Certification Team** at 512-239-2160.

Download the form for registration and self-certification:
<www.tceq.texas.gov/assets/public/permitting/rrr/forms/0724.pdf>.

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>.



TCEQ REGULATORY GUIDANCE

Small Business and Environmental Assistance Division

RG-475e • Revised April 2011

Petroleum Storage Tank Spill and Overfill Prevention

**A guide for owners and operators
of underground storage tanks (USTs)**

Introduction

This is a general guide to laws and regulations about underground storage tanks and an aid in minimizing potential risks; it does not replace those laws and regulations, which take precedence over any information contained herein. If your tank system is located in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, or Williamson County, additional requirements related to the protection of 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. The owner and operator are responsible for ensuring compliance with all applicable laws and regulations.

How can releases from USTs be prevented?

The TCEQ has adopted technical regulations requiring owners and operators of UST systems to prevent spills and other releases, overfills, and corrosion. Spills and overfills result mainly from bad filling practices. In addition, unprotected steel tanks and piping can corrode and release product through holes caused by corrosion of the metal tank or piping. See module RG-475f, *Protecting Petroleum Storage Tanks against Corrosion*, for additional information. Regulations pertaining to spill and overfill prevention located in 30 TAC 334.51 list the equipment required as well as defining proper fill procedures, maintenance, and record keeping.

What is spill and overfill prevention? What is its purpose?

Spill and overfill prevention relies on equipment designed to prevent releases to the environment during filling of a UST. The purpose of spill and overfill prevention is to prevent cleanup of contamination that may occur when the UST is filled. Overfills and repetitive spills can result in significant cleanup costs.

What are my options?

Three pieces of equipment are required to meet spill and overfill prevention requirements: a tight-fill fitting, a spill container, and an overfill device.

- **Tight-fill fitting:** The fill pipe of the tank must be equipped with a tight-fill fitting, adapter, or similar device to ensure a liquid-tight seal during the transfer of product into the tank. Such a fitting between the delivery hose and the UST's fill port reduces the likelihood of a leak.
- **Spill-container equipment:** The fill tube must either be fitted with a spill bucket or enclosed in a liquid-tight manway, riser, or sump. The spill bucket must be designed to minimize entry of surface water, groundwater, or any other substance. Facilities with vapor-recovery equipment may have a vapor-tight drain valve. Spill-containing equipment catches any product from the delivery hose and is located at ground level, surrounding the tight-fill fitting. Spill buckets should be kept clear of debris and water at all times.
- **Overfill-prevention device:** Each tank is required to have a valve or other device that will prevent overfilling of the tank. There are three basic options:
 1. automatic shutoff
 2. automatic flow restrictor
 3. audible alarm with flow restrictor or automatic shutoff

What are spill buckets?

A spill bucket, also known as a *spill-containment manhole* or a *catchment basin*, is a bucket sealed around the fill pipe (see Figure 1). Try to keep water out of spill buckets—some can collect enough water and sediment, along with spilled product, to make draining this mixture into the tank unwise. If that happens, pump out the spill bucket and dispose of the liquid properly. If the liquid contains fuel or chemicals, it could be considered a hazardous waste.

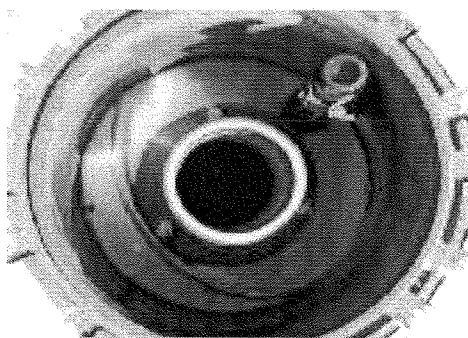


Figure 1. Spill bucket.

Manufacturers equip spill buckets with either pumps or drains to remove liquid. See Figure 2.

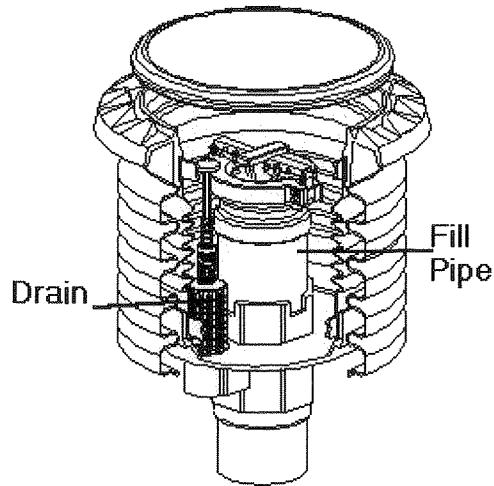


Figure 2. Spill bucket with a drain valve.

What is an automatic shutoff?

An **automatic shutoff** stops flow of product into the tank at a preset level (never more than 95 percent of the tank volume). The most common shutoff devices have a flapper or float (Figure 3) which rises as the tank is filled. Then, when the liquid reaches the preset level, the flapper or float shuts off the flow (Figure 4). The shutoff is most commonly installed in the drop tube.

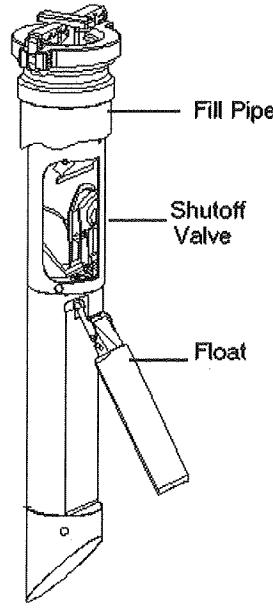


Figure 3. Automatic shutoff device with the float down and the fill valve open.

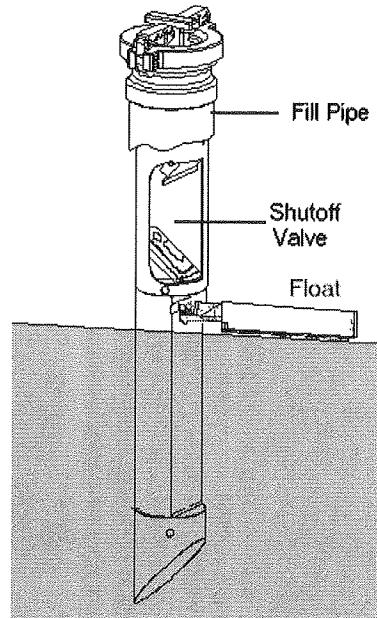


Figure 4. Automatic shutoff device with the float up and the fill valve closed.

What is an automatic flow restrictor?

An **automatic flow restrictor** must restrict flow to the tank above a preset level which never exceeds 90 percent of the volume of the tank. A ball-float valve (Figures 5, 6), the most common flow restrictor, is usually installed in the vent line or in a separate, dedicated portal.

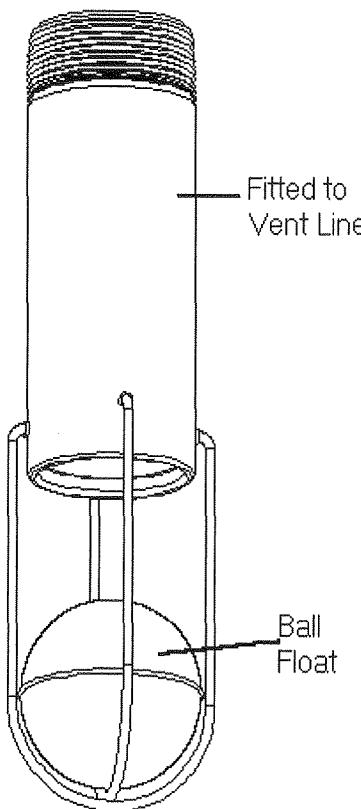


Figure 5. Ball-float valve with the ball at the bottom of the cage and the vent line open. The product is below the cage.

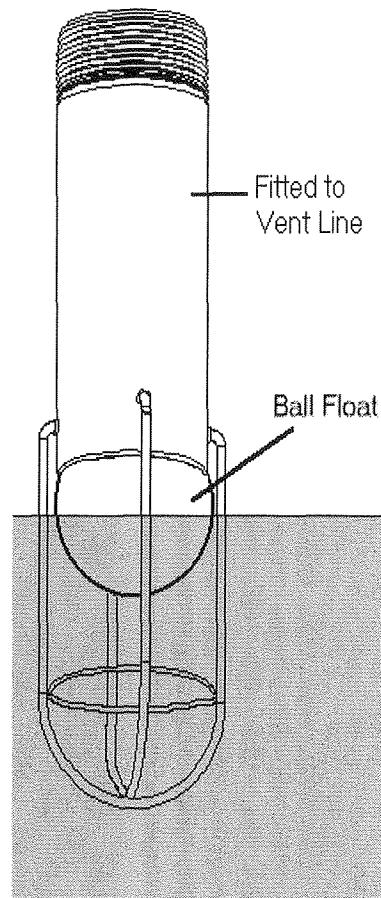


Figure 6. The ball-float valve rises as the product rises. The ball eventually seats in the vent line and restricts vapor flowing out of the vent before the tank is full.

Can I use an audible alarm as an overfill device?

An **audible alarm** that is emitted when the level reaches 90 percent of the tank's volume may be used as an overfill device if used in conjunction with either a flow restrictor or shutoff set at 98 percent of the tank volume.

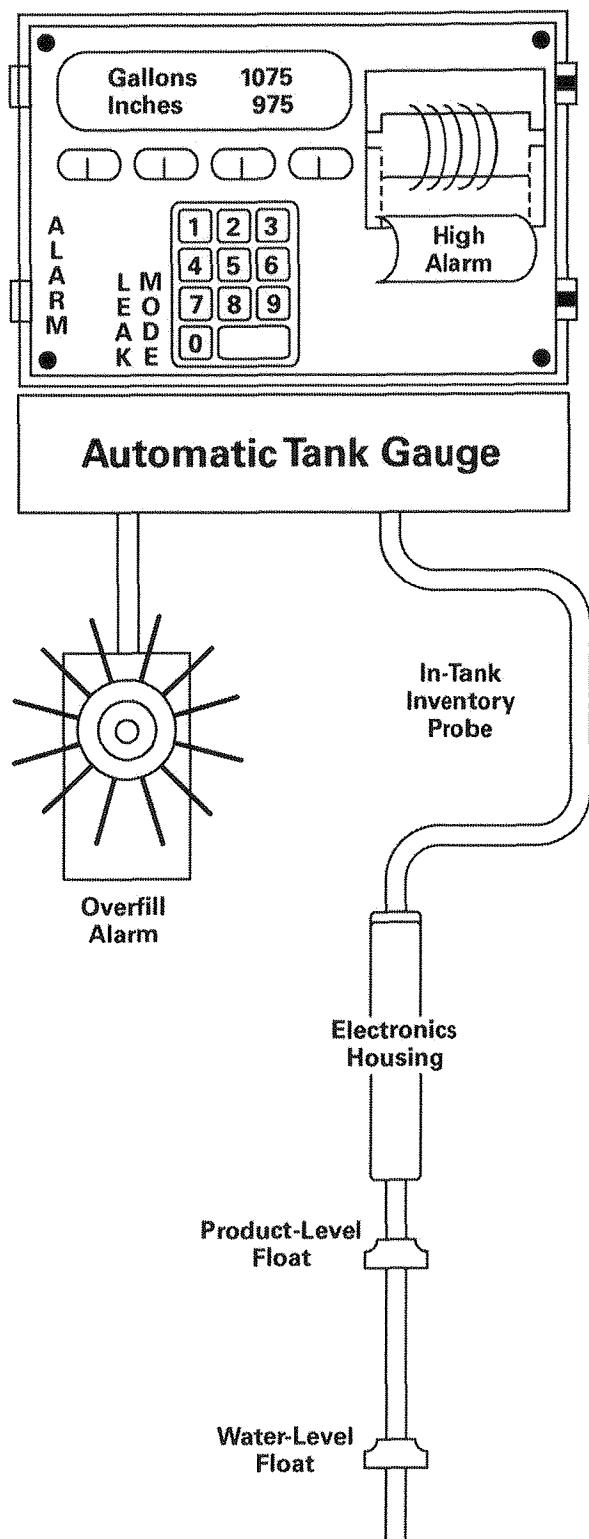


Figure 7. Overfill alarm.

How often do I need to inspect spill containers?

Effective October 30, 2008, all spill containers, regardless of their date of installation, need to be inspected to ensure they are liquid tight at least once every 60 days. The owner or operator should make sure that the spill container's sides and bottoms and any penetration points are liquid tight. Remove and properly dispose of any liquids or debris found during the inspection within 96 hours of discovery. To document compliance with this requirement, keep a logbook with the date of inspection, the result, and name of the person performing the inspection. A sample inspection form is included with this document.

What records do I need to keep?

Generally you need to keep records to document you're operating your UST system in compliance with applicable rules, including 60-day inspection records. Installation records documenting the installation should be kept as long as the equipment is in use.

Where do I find more information?

The complete requirements for spill and overfill prevention may be found at 30 TAC 334.51.

See the EPA publication *UST Systems: Inspecting and Maintaining Sumps and Spill Buckets*, EPA 510-R-05-001

Search for TCEQ publications online at <www.tceq.texas.gov/publications>.

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>.



60-Day Spill-Container Inspection

If you have questions on how to complete this form or about the Petroleum Storage Tank (PST) program, please contact Small Business and Local Government Assistance at its hotline, 800-447-2827 or online at www.TexasEnviroHelp.org.

Instructions

- This form may be used to document compliance with the 60-day inspection requirement for spill containers.
- Inspect all spill containers to ensure that their sides, bottoms, and any penetration points are liquid tight.
- Remove and properly dispose of any liquids or debris found during the inspection within 96 hours of discovery.
- Keep this form on file for at least 5 years

Facility Information

Facility Name:	Facility ID No.:
Street Address:	City, State, Zip:

Inspection Log for Spill Container



TCEQ REGULATORY GUIDANCE

Small Business and Environmental Assistance Division
RG-475f • August 2009

Protecting Petroleum Storage Tanks against Corrosion

A guide for owners and operators of underground storage tanks

This is a general guide to laws and regulations about underground and aboveground storage tanks and an aid in minimizing potential risks; it does not replace those laws and regulations, which take precedence over any information contained herein. If your tank system is located in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, or Williamson County, additional requirements related to the protection of 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. The owner and operator are responsible for ensuring compliance with all applicable laws and regulations.

What is corrosion protection and what is its purpose?

Corrosion protection is a method of slowing or preventing metal components of a UST system from rusting or otherwise corroding or oxidizing. Its purpose is to ensure the structural integrity of the UST system so releases do not occur. All buried UST system components that store or convey regulated substances (such as gasoline, diesel, or used oil) are required to be properly protected from corrosion, regardless of age, date of installation, or operational status.

What are my options?

Since Dec. 22, 1988, all newly installed USTs have been required to meet comprehensive corrosion protection standards.

Acceptable methods of corrosion protection include:

1. **Noncorrodible material.** Use of a material that will not corrode when exposed to soil or water, such as fiberglass for tanks or piping. If the entire system is noncorrodible, the flexible connectors are the only metal components that need to be protected.
2. **Electrical isolation** involves the protection of below ground metal components by putting them in an open area such as a sump, manway, vault, or pit.
3. **Secondary containment** is a method of installing a wall or jacket around metal tanks or piping that meets specific standards for corrosion protection and protects the primary wall of the steel tank from the corrosive elements of the soil and groundwater.

What is cathodic protection?

Cathodic protection is an option for protecting a UST system from corrosion.

There are two types of cathodic protection systems: sacrificial and impressed current.

- **Sacrificial anode.** An anode is connected to the metal structure. The anode, usually made of zinc or magnesium, is wired to the metal component and corrodes instead of the tank or piping. This method is usually used on smaller structures, such as flexible connectors that connect fiberglass piping to a fiberglass tank.
- **Impressed current.** Through anodes connected to the system through a rectifier, an electrical current is introduced that will inhibit the corrosion of metal components to the system. The anode is wired to the tank in the same manner as in the sacrificial system, but the metal component has such a large surface area that it requires greater protection. A rectifier pushes a low-voltage current through the impressed current cathodic system. The rectifier is usually located on the wall of the facility and has a gauge capable of reading the voltage output of the system.

Federal regulations require that the cathodic protection system be installed and designed by a corrosion specialist. In Texas, a corrosion specialist must be a licensed professional engineer, or designated as a corrosion specialist by a nationally recognized trade group, such as the National Association of Corrosion Engineers.

Once the cathodic protection system is installed, it must be tested by a corrosion specialist three to six months after installation and every three years thereafter. An operational test for impressed current systems is also required every 60 days to ensure that the rectifier is working properly. This operational test may be performed by the owner or operator of the UST system. Wildly varied rectifier readings may indicate a problem, and you should contact your corrosion specialist or corrosion technician for specific instructions. Rectifier readings should be kept for at least five years.

Testing frequency

All corrosion-protection systems must be tested at installation, three to six months later, and every three years after. Additionally, for impressed current systems, the rectifier must be read every 60 days.

What records do I need to keep?

Generally you need to keep records to document that you are operating your UST system in compliance with applicable rules. Keep all installation documentation relating to corrosion protection, including information from the manufacturer of the tank and piping and cathodic protection system. Keep a log of all rectifier readings and test records. A sample blank log follows this

document. Keep all test records and log readings for at least five years. Installation records should be kept for the life of the UST system.

Where do I find more information?

The complete requirements for corrosion protection may be found at 30 TAC 334.49.

The National Association of Corrosion Engineers Web site at <www.nace.org> has a list of corrosion specialists and corrosion technicians.

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



60-Day Record of Impressed Current Cathodic Protection

If you have questions on how to complete this form or about the Petroleum Storage Tank (PST) program, please contact Small Business and Local Government Assistance at its hot line, 800-447-2827, or online at <www.sblga.info>.

Instructions

- This form may be used to document operational checks of the cathodic protection system rectifier at least once every 60 days.
- If your rectifier is so equipped, you should also record the output voltage and current, and the number of hours indicated on the meter.
- Any significant variance should be reported to your corrosion professional so that any necessary repairs or adjustments can be made.
- Every three years your cathodic protection should be tested by a corrosion specialist or corrosion technician.
- Keep this form on file for at least five years.

Impressed Current Rectifier Data

Rectifier Manufacturer:	Rated DC Output:	
	Volts	Amps
Rectifier Model:	Rectifier Serial Number:	
What is the "as designed" or most recently recommended rectifier output?		
Volts Amps		

Facility Information

Facility Name:	Facility ID No.:
Street Address:	City, State, Zip:

Log of Rectifier Operation



TCEQ REGULATORY GUIDANCE

Small Business and Environmental Assistance Division
RG-475g • Revised January 2012

Release Detection and Inventory Control for Petroleum Storage Tanks

Methods for underground storage tanks and product piping

This is a general guide to laws and regulations for underground storage tanks and an aid in minimizing potential risks; it does not replace those laws and regulations, which take precedence over any information in this publication. 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. The owner and operator are responsible for ensuring compliance with all applicable laws and regulations.

What is release detection?

Release detection is a way to determine if your underground storage tank system is leaking. Release detection allows the owner-operator of a UST system, once a month, to ensure that the tanks and piping are not releasing a petroleum substance into the soil or groundwater. All UST systems are required to have an approved monthly release-detection method. You may also hear the phrase *leak detection*—it means the same as ‘release detection.’

Why is it required?

Release detection is necessary to prevent or minimize releases of regulated substances (gasoline, diesel, used oil, etc.) into the environment. It involves periodic monitoring of your tanks and piping for leaks. Such leaks not only can contaminate soil and groundwater, but also incur a cost to you in lost product and remediation expenses in the event of a release. Effective detection allows for a quick response to signs of leaks. Early action on your part protects the environment, while also protecting you from the high costs of cleaning up leaks and responding to liability claims. Often, when releases from UST systems occur, the petroleum substance can affect soil or groundwater over an area much larger than the property on which the tanks are located, affecting other parties, and increasing the cost of cleanup.

Remember that release detection applies to both tanks and product piping. Together, the tanks and piping are referred to as a “UST system.” For the TCEQ, PST rules apply to the UST system underground up to the point where piping exits the ground, leading to the dispenser. Leak detection only affects that part of the UST system that is installed below ground, not dispensers or aboveground equipment.

Many methods are available for monitoring your tanks and piping for leaks, and they may be used in multiple combinations to achieve compliance. Some methods cover tanks only, some cover piping only, and some cover both tank and piping. It’s important that you look at release detection not just as something required of an owner or operator, but also as a tool that will help you to make sure a regulated substance is not leaking from your UST system.

What is inventory control?

Regardless of your chosen release-detection method, all retail facilities (where fuel products are sold to the public) are required to perform inventory control. In addition, all tanks should be checked for water at least once a month. Inventory control is an ongoing accounting system similar to balancing a checkbook. Inventory control compares what is in the tank to what should be in the tank, to reconcile the inputs and outputs of product with the volume remaining in the UST. Each day the tank is used, records of product deliveries, amounts dispensed, and the measured volume of fuel remaining in the tank (inventory) are recorded on a ledger-like form. (Although this form is available in paper format for the manual recording of values, it can also be converted to an electronic spreadsheet for tank owners and operators who wish to have values tracked and calculated by computer.) The fuel inventory is determined by measuring fuel level in the tank with a measuring stick (“sticking the tank”) and then converting that level into a volume using a dedicated calibration chart for the tank. Many automatic tank gauges are also capable of determining the fuel level. Doing proper inventory control on manifolded tanks and blended-fuel systems can be very complicated. This information is very general. For assistance, please call the SBLGA hotline at 800-447-2827.

If your system has tanks that share a common inventory of fuel, those tanks are considered to be *manifolded*. For example, two 1,000-gallon tanks that are connected are considered manifolded tanks. For the purpose of inventory control, you should consider all manifolded tanks as a single system.

Blended-fuel systems are those with no separate tank for a midgrade product. For example, a station sells three grades of gasoline, but only has two tanks. Fuel from each tank is blended to create the midgrade fuel. To complete proper inventory control, the blended fuel product must be accounted for in both of the tanks’ inventory-control records.

At the end of the month, the book inventory and the measured inventory are compared to determine that month’s overage or shortage of product, which is then compared to a threshold value obtained from a mathematical formula. If the overage or shortage exceeds the threshold value for two consecutive months, you

must report a suspected release. (See *Suspected Releases from Petroleum Storage Tanks*, TCEQ publication RG-475h, for more information about reporting suspected releases.)

A monthly water check is also required to quantify the water in the tank. A small amount may be expected, but it is critical to remove water from the tank before it interferes with dispensing operations. Also, a sudden influx of water into the tank may need to be reported to the TCEQ as a suspected release.

For more details and sample forms regarding inventory control, see the U.S. Environmental Protection Agency's publication no. 510-B-93-004, *Doing Inventory Control Right*.

Is inventory control an acceptable method of monthly release detection?

Inventory control is only effective for finding larger leaks and is not considered a stand-alone method of release detection; it must be used in combination with a monthly method that is capable of detecting small leaks.

What are my options for detecting releases from tanks?

In Texas, tanks are required to be monitored for leaks at least once a month.

When properly employed, the following are acceptable methods of monthly release detection.

Automatic tank gauging (ATG) and inventory control use monitors permanently installed in the tank and linked electronically to a nearby control device to report product level and temperature. Often called the "tank monitor," the control device is usually mounted on a wall inside a building and has a keypad and message screen, and a printing device. During a test period, the gauging system automatically calculates the changes in product volume that can indicate a leaking tank. The test will often fail or give an inconclusive result if the product level in the tank is too low or if product is added to or removed from the tank while the test is being run. Test periods require several hours of quiet time, when nothing is put into or taken from the tank. Users of the ATG system must perform a complete test on each tank at least once a month.

In addition to the automatic test, inventory control for each tank must be maintained as outlined in the previous section. Some ATG systems can perform inventory control and store the results in memory or print a copy. If you do not have this type of ATG, inventory-control data must be obtained manually, as outlined above. ATG monitors tanks only; a separate method of release detection is required for the piping system.

Statistical inventory reconciliation (SIR) and inventory control make use of a computer program to determine whether a tank system is leaking by conducting a statistical analysis of inventory, delivery, and dispensing data collected over time. The data are sent by the tank owner or operator to a SIR

vendor, who analyzes the data to determine if there is a loss trend in the UST system.

By the 15th of each month, the SIR vendor supplies to the client (the tank owner-operator) a report that indicates whether the UST system is leaking.

If the analysis indicates a failure (or an inconclusive result that cannot be immediately corrected), the situation is considered a **suspected release** and must be reported to the TCEQ within 24 hours from the time the operator receives the results. **Important: even a single SIR failure requires notification and investigation of a suspected release, even if inventory control indicates there is not a leak in the tanks.** In Texas, SIR is considered a monthly monitoring method of release detection which covers tanks and lines.

Interstitial monitoring is used in double-walled UST systems. Monitoring equipment designed to detect product vapors or liquid is placed in the interstitial space between the inner (primary) and outer (secondary) wall of the system. The probes must monitor the interstitial space at least once every month.

In **groundwater monitoring**, monitoring wells are installed at strategic locations in the ground near the tank system. Groundwater is monitored for the presence of liquid product (gasoline, diesel, used oil) floating on its surface. To discover if leaked product has reached groundwater, these wells are checked periodically (at least once every month) by hand or continuously with permanently installed equipment (electronic sensors). This method is only valid at sites where groundwater is within 20 feet of the surface year round and the subsurface soil or backfill material (or both) consists of gravels, coarse to medium sands, or other similarly permeable materials. The person who installs the wells should state in writing that a release from any part of the UST system will be detected within one month of its occurrence.

Vapor monitoring is the sensing and measurement of product vapor in the soil around the tank system to determine whether a leak is present. This method requires installation of carefully placed monitoring wells in the ground near the tank system. Vapor monitoring can be periodic (at least once every month) using manual devices or continuously using permanently installed equipment (electronic sensors). All subsurface soils and backfill material must be sufficiently porous, e.g., gravel, sand) to allow vapors to diffuse rapidly through the subsurface. For this method of release detection to be acceptable, any preexisting background contamination in the subsurface soils must not interfere with the ability of the vapor-monitoring equipment to detect a new release. The person who installs the wells should state in writing that a release from any part of the UST system will be detected within one month of its occurrence.

Note: For both groundwater monitoring and vapor monitoring, the owner or operator is required to ensure subsurface conditions that enable the monitoring systems to detect a release from any portion of the system that contains product.

Secondary containment barriers are impermeable barriers (i.e., liners, vaults) placed between the UST system and the environment. Leaked product from the UST system is directed toward monitoring points such as observation wells

located between the tank system and the secondary containment barrier. To determine if a leak has occurred, the wells should be checked periodically (at least once every month) by hand or continuously with permanently installed equipment (electronic sensors).

Manual tank gauging is only acceptable for tanks with a capacity of 1,000 gallons or less. It requires a quiet period each week. The length of the quiet period depends on the diameter of the tank. For that reason, very few owners or operators use this method of release detection. If you would like more information on it, contact the TCEQ (see the end of this guide).

Monthly tank gauging is only acceptable for emergency-generator tanks. It requires a monthly quiet period, during which nothing is added to or removed from the tank. The product level is measured at the beginning and end of the quiet period. The difference between measurements should be within certain standards based on the capacity of your tank. If you would like more information on this method, contact the TCEQ, using the information at the end of this guide.

What are my options for detecting releases from product piping?

Pressurized piping. Each pressurized product line (from the USTs to the fuel dispenser) is required to have an automatic line-leak detector (ALLD) designed to detect and prevent a large or catastrophic leak (of at least 3 gallons per hour) in the line. Mechanical ALLDs are required to be performance tested annually. If you have an electronic ALLD (also referred to as an *ELLD*) that can self-test and either print out or store the test results, documentation of the self-test at least once a year satisfies your ALLD-testing requirements. Contact your UST-system contractor for more information about ALLD testing.

In addition to an automatic line-leak detector, pressurized piping requires one of the following release-detection methods:

- an annual piping-tightness test
- monthly vapor monitoring
- monthly groundwater monitoring
- monthly interstitial monitoring
- monthly monitoring with a secondary containment barrier
- monthly SIR and inventory control
- monthly electronic leak monitoring

Suction piping requires no leak detection if it meets **all of** the following design requirements:

- The below-grade piping operates at less than atmospheric pressure.
- The below-grade piping is sloped so that the contents of the pipe drain back into the tank when suction is released.

- Only one check valve is included for each suction line and it is located directly below, and as close as possible to, the suction pump.
- The owner-operator is able to verify that these requirements have been met, e.g., via plans provided by the installer, a consultant, or signed documentation by a registered UST contractor.

If your suction piping meets these requirements and you choose not to equip your piping with leak detection, you must have proper documentation.

Suction piping that does not meet these design requirements listed above must use one of the following approved methods to meet the release-detection requirements for piping:

- a piping-tightness test once every three years
- monthly vapor monitoring
- monthly groundwater monitoring
- monthly interstitial monitoring
- monthly monitoring with a secondary containment barrier
- monthly SIR and inventory control

What records do I need to keep?

All testing and monitoring results, including the results of any annual function test of mechanical ALLDs, must be kept for at least five years. Also, certification of financial assurance must be maintained at the facility, in addition to the UST registration certificate and TCEQ fuel-delivery certificate. All equipment used for release detection must have a third-party certification which verifies that the equipment meets EPA standards. Each certification must list the conditions of use and limitations of the equipment. Copies of these certifications must be maintained by the owner-operator while the equipment is in use, and it is important to ensure that the equipment is operated in accordance with the third-party certification. Installation and maintenance records for the UST system must be maintained by the owner operator for the life of the system, and should **not** be discarded after five years. Supplemental record-keeping forms have been attached to the end of this document.

What if there is a release?

If any of the release detection methods above indicate that a leak has occurred, the owner or operator is required to report it within 24 hours as a suspected release to the agency at 512-239-2200 or 800-832-8224. For more information on what to do in the case of suspected releases, please refer to the module *Suspected Releases from Petroleum Storage Tanks* (RG-475h).

Where do I find more information?

The complete requirements for release detection may be found at 30 TAC 334.50, available online at <[info.sos.state.tx.us/pls/pub/readtac\\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=334](http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=334)>.

The Small Business and Local Government Assistance Program has information designed to assist tank owners and operators online at <www.tceq.texas.gov/goto/pst_resources>.

Search TCEQ publications online at <www.tceq.texas.gov/goto/publications>.

EPA Office of Underground Storage Tanks home page (please note that EPA requirements may be used as a guideline, but differ from Texas requirements): <www.epa.gov/oust/pubs>.

Suspected Releases from Petroleum Storage Tanks (RG-475h), available online at <www.tceq.texas.gov/goto/rg-475>.

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