



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL COMPLIANCE OFFICE
SUITE 900 - JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-0334

TDOT STANDARD OPERATING PROCEDURE - ENVIRONMENTAL

NO.
015

Subject: **UNDERGROUND STORAGE TANKS**

Reviewed and
approved by:

Barry Brown, PE

Facilities and MS4/TSCS Program Manager, TDOT Environmental Compliance Office

05-02-17

Date

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Environmental Bureau Chief, TDOT Environmental Planning Bureau

5-5-17

Date

Status: Revised and re-approved with no significant changes.

Version 6 – Replaces
Version 5 dated April 2017

1.0 PURPOSE AND SCOPE

The Regional or District Manager (or their designee) is responsible for the compliant operation of underground storage tank (UST) systems at their facilities. The Regional and District Managers must provide to the Environmental Compliance Office the name of the primary contact/designee for UST operations at each of their facilities. In general, the designated UST contact for each facility shall have the following responsibilities:

- Know the primary TDOT UST operations contact in the Environmental Compliance Office is Mr. John Nichols, who can be reached at 615-741-4732.
- Understand the UST system and its operations, including alarm conditions on the Veeder-Root console.
- Contact the Environmental Compliance Office with any equipment concerns or repairs prior to taking any actions.
- Understand basic regulatory requirements.
- Maintain records in appropriate color-coordinated notebook.

For all TDEC UST inspections, scheduled or otherwise, immediately contact the Environmental Compliance Office at 615-741-4732.

2.0 OPERATIONS

2.1 Routine Operations

1. All personnel responsible for daily operation shall be briefed by the Facility Manager or designee on the use and operation of the monitoring system installed (e.g., Veeder-Root), and know to contact the Environmental Compliance Office for more detailed instructions or concerns.
2. Tank inventory measurements printed by the Veeder-Root systems shall be collected and maintained in a file for at least 1 year. Records may be used for inventory reconciliation with TDOT's contracted fuel provider.
3. Note that TDOT policy requires a TDOT employee to oversee each and every fuel delivery at every location.

2.2 Test Failures, Errors, or Alarms

Test failures and alarms will occasionally occur over the life of USTs. The procedure for such events is as follows below.

1. In the event a test failure, error, or alarm occurs, contact the Environmental Compliance Office immediately. A record of communication for these calls should be completed and maintained within the UST dedicated file onsite and emailed to the Environmental Compliance Office at TDOT.Evn.FacilityCompliance@tn.gov. Information to be recorded includes person making call, person called, date, summary of alarm, and direction given. Printouts from the Veeder-Root system reflecting these alarms should be filed and may be maintained with weekly leak detection information.
2. Note that not all test failures, errors, or alarms indicate a leak in a tank or system. Such activities as vehicle fueling during the late night test period will cause a failure. Additionally, a recent fuel delivery with a fuel temperature change in the tank may result in a failed test. Furthermore, low levels in a tank will provide a 'low level error' reading. All of these situations warrant attention but may not present an immediate threat. For clarification in any such event, contact the Environmental Compliance Office.
3. For any compliance-related equipment concerns or repairs, contact the Environmental Compliance Office prior to taking any action.
4. The Environmental Compliance Office will be responsible for completing all actions required to service, repair, or inspect the UST System.
5. The Environmental Compliance Office will record, document, and maintain all contractor service, repair, and inspection activities, including copies of invoices, which will be maintained for the life of the tank system to ensure the compliance with the Tennessee Department of Environment and Conservation Division of Underground Storage Tanks (TDEC DUST) record-keeping requirements.
6. The Environmental Compliance Office will provide copies of all the records and documents to the facilities that will be responsible for maintaining the records in a UST file kept at the facility.
7. All repairs must be made through the existing subcontractor list. Only the Environmental Compliance Office or their designee can complete maintenance and repairs on UST systems.

2.3 Tank, Line, and Line Leak Detector Tests

1. Tank leak tests will be conducted by the Facility Manager or designee at least weekly using the installed automatic tank gauge (ATG) system. For most facilities, this test is pre-programmed into the Veeder-Root system. The printed tank leak test reports shall be collected each week, reviewed for a "Pass" test for each tank, dated, and initialed by the UST designee. These records shall also be kept in the dedicated file at the facility and maintained for no less than three years. Note that some Veeder-Root systems are programmed for continuous static leak detection (CSLD), and thus tank leak test reports are printed daily. Also note that TDEC DUST requires one valid test per month, per tank, though TDOT Standard Operating Procedures require tests are conducted at least weekly.
2. Used oil tanks at the Knoxville Regional Garage do not have sufficient volumes to warrant similar tank leak tests. As such, these facilities will follow the alternative method established for interstitial monitoring and will maintain appropriate records. The interstitial monitoring requires verifying the Veeder-Root system is operating with an "All Functions Normal" reading. These tanks will be checked weekly and noted on the Used Oil Monitoring form.
3. Annual line tightness tests and line leak detector tests are required for all TDOT UST facilities with pressurized lines. Facilities with U.S. suction must test lines every three years. These tests will be scheduled through the Environmental Compliance Office. Records of these line tests will be mailed to facilities and maintained in the UST file for at least three years.
4. All repairs must be made through existing subcontractor list. Only the Environmental Compliance Office or their designee can complete maintenance and repairs on UST systems.

2.4 Inspections

1. In general, the Facility Manager or designee shall conduct periodic visual inspections of the tank system and its components, in particular after maintenance work on the systems, significant rainfall events, and fuel deliveries.
2. Regular visual inspections of spill buckets and dispensers will be conducted on a monthly basis. Results will be recorded on a form provided by the Environmental Compliance Office and the documentation shall be retained in the facility UST files. Spill containment buckets for fuel tanks shall be visually inspected to assure the "integrity" of the spill bucket and should remain "free of water, dirt, debris", etc. There should be no cracks or torn connections in the bucket. Dispensers also require visual inspections for "leaks, seeps, or drips" by opening the dispenser side panels. Clean all potential sources of leaks and the dispenser sump as required. For concerns with sites with no dispenser sumps, contact the Environmental Compliance Office for assistance. Note the results of the inspection and any actions taken on the inspection form.

3.0 TRAINING

1. Requirements for Operator Training – Level C Training
TDOT fueling locations are considered "unmanned facilities", being defined as a facility that dispenses fuel without the presence of an attendant that monitors the pumps. An example would be a card lock fleet fueling system.
2. The Environmental Compliance Office will conduct annual training for UST compliance that will be included in the facility compliance training.

3. The Environmental Compliance Office will arrange site-specific training if required by regulatory changes or site conditions that warrant additional training.

4.0 SUMMARY OF RECORDS TO BE MAINTAINED

The following documents and records should be maintained in the onsite facility UST file (in the designated color-coordinated notebook) for the period indicated below.

1. Initial installation information, including initial tank integrity testing and piping testing conducted during installation of the system; as-built construction drawings of the tank system indicating the location of tanks, pumps, sensors, and dispensers; descriptions of the tank and piping construction; and types of sensors and tank monitoring systems installed (records retained for life of system).
2. Inventory printouts from the Veeder-Root for fuel tanks (covering at least 1 year).
3. Tank leak tests for fuel tanks or interstitial monitoring records where required (3 years).
4. Visual inspection records of spill buckets and dispensers (3 years).
5. Records of communication with the TDOT Environmental Compliance Office, Regional Environmental Coordinator, and repair contractors (life of the UST system).
6. All invoices, field notes, and descriptions of repairs made on the UST system (life of the system).
7. Required tightness testing for the UST system and the results of all such tests (life of the system).
8. TDEC DUST correspondence regarding TDEC inspections (life of the system).
9. Training certificates if applicable.