



# Underground Storage Tank Regulations Fact Sheet

## REGULATORY SUMMARY

The Resource Conservation and Recovery Act governs the storage of hazardous materials and hazardous and non-hazardous wastes in underground storage tanks (USTs). The goal of RCRA UST regulations is to minimize releases due to overfills, spills and corrosion of tanks and piping. This fact sheet focuses on requirements for UST installation, repairs, monitoring, recordkeeping, and closure. **Any small business that stores either new or used chemicals in USTs should be concerned with these requirements.**

## WHERE TO FIND TANK REGULATIONS

**Statutory Authority:** *The Resource Conservation and Recovery Act (RCRA) of 1976, and amendments of 1992 and 1996.*

**Regulations:** The sections of regulations specific to storage of materials in USTs are found in 40 CFR, Subtitle I. They are:

- [Part 280](#) – Technical standards and corrective action requirements for owners and operators of USTs; and
- [Part 281](#) and [Part 282](#) – Approval of state UST programs and details of approved programs.

This fact sheet focuses on the requirements of Part 280. Hazardous waste tanks are excluded from regulation under 40 CFR Parts 280-282. They are instead regulated under hazardous waste regulations under 40 CFR, Subtitle C:

- [Part 262.34](#) (a)(1)(ii) – Requirements for hazardous waste generators who have hazardous waste USTs; and
- [Part 264.190-200](#) – Requirements for hazardous waste Treatment, Storage, and Disposal (TSD) Facilities that have hazardous waste USTs.

## LEARNING THE LINGO

**Cathodic Protection** is a technique to prevent corrosion of a metal surface (i.e., the tank exterior) by plating the main surface with another, more corrosive metal. The more corrosive metal functions as the cathode of an electrochemical cell. The metal used as the cathode is more readily corroded, reacts first, and thus provides protection for the main structure.

**Flow-through Process Tank** is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include USTs used for the storage of materials prior to their introduction into the production process, or for the storage of finished products or by-products after the production process.

### What About Aboveground Storage Tanks?

Aboveground storage tanks (ASTs) are regulated separately from USTs and generally have to meet state and local fire and flammable liquid storage codes. Requirements usually address construction, installation, operation, and maintenance and are intended to prevent fires and other hazards caused by mismanaged or substandard ASTs. In addition, ASTs are also regulated under the SPCC regulations under 40 CFR 112. For more information, visit the SPCC fact sheet, and check with your local code authority, such as your local fire marshal for state and local AST requirements.



**Impressed Current Corrosion (Cathodic) Protection** makes use of a permanent long life anode, also known as a “sacrificial anode,” supplying a continuous current to the surface of the metal surrounding the UST. Corrosion is prevented by canceling the reaction between the metal on the UST and the surrounding soil and the anode is consumed instead of the UST surface.

**Regulated Substance** is any oil-based substance explicitly exempted from section 101(14) of the *Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA)*. It includes petroleum, crude oil, or any fraction thereof, that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). Note that this does not include regulated hazardous wastes.

**Tank** is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provide structural support.

**Underground Storage Tank (UST)** is any one or a combination of tanks used to contain regulated substances which are ten percent or more by volume beneath the surface of the ground. This includes connected underground pipes.

**Wastewater Treatment Tank** is a tank designed to receive and treat wastewater using physical, chemical, or biological methods.

## KEY PROVISIONS OF INTEREST TO SMALL BUSINESSES

### 1. Exemptions Based on Size and Use

Several exemptions exclude certain types of tanks from the UST regulations. Exemptions under 40 CFR 280.10 (b) include:

- Equipment or machinery containing regulated substances for operational purposes, such as hydraulic lift tanks and electrical equipment tanks;
- USTs with less than 110-gallons capacity;
- Tanks storing heating oil that is used for heating on the premises;
- Surface impoundments, pits, ponds, lagoons, or storm water and wastewater collection systems; and
- Flow-through process tanks.

### 2. Construction of Tanks

Owners of regulated metal USTs were required to upgrade their tanks to have corrosion protection by December 22, 1998. Owners of regulated tanks of any construction (e.g., metal, fiberglass, composite) were required to install spill prevention and overfill protection by the same date. Any new tanks installed after these dates must be fully compliant with UST requirements.

### 3. Notification Requirements

Small businesses that have a UST are required to submit a notice of the existence of the tank to their state or local agency. A standard form for notification can be found in [Appendix I of 40 CFR 280](#) although some states have their own. A list of the agencies designated to receive the forms can be found in [Appendix II of 40 CFR 280](#).



#### 4. Corrosion Protection

Corrosion protection systems on regulated metal USTs must be tested to ensure they are operating correctly. If a cathodic protection system is used, it must be tested within six months of installation and every three years thereafter by a qualified cathodic protection tester. Owners are required to keep a record of the last two inspections. UST systems with impressed current cathodic protection systems must be inspected every 60 days to make sure the equipment is operating correctly. Owners are required to keep a record of the last three inspections.

#### 5. Release Detection

A mechanism must be in place to detect releases or leaks from USTs or its piping. All new USTs are required to have release detection (also called leak detection) at installation and existing USTs were required to meet leak detection requirements by December 1998. Approved leak detection methods include: interstitial monitoring, automatic tank gauging systems, vapor monitoring, ground water monitoring, statistical inventory reconciliation, manual tank gauging for certain small USTs, and other methods approved by the EPA that meet performance standards.

#### 6. Release Reporting

In cases where monitoring or release detection shows evidence of a significant leak, owners are required to immediately report the suspected release to the EPA or to the appropriate delegated state agency if the spill exceeds the reporting threshold quantity. Threshold quantities vary from state-to-state, so small business owners should consult the oil storage staff in their State environmental agency for more specific guidance.

#### 7. Closure Requirements

Tanks that are no longer in use must be closed either temporarily or permanently. When an UST is temporarily closed, the owner must continue operation and maintenance of corrosion protection and leak detection, or empty the UST system. A UST system is considered empty when commonly employed practices have removed all materials so that no more than 2.5 centimeters (one inch) of residue or 0.3 percent of the total capacity weight of the UST system, remains in the system. Additionally, if the UST system is temporarily closed for three months or more, the owner must leave vent lines open and functioning, and cap and secure all other lines, pumps, manways, and ancillary equipment.

UST systems not in use for 12 months or more must be permanently closed unless the regulatory agency provides an extension. To permanently close a tank, the small business owner must arrange to have it emptied and cleaned by removing all liquids and accumulated sludge. Recommended protocols for permanent tank closure are cited in 40 CFR 280.71. The cleaned tank must then be managed in one of three ways:

- Completely removed;
- Filled with a solid inert material; or
- If a site assessment has been conducted and contamination issues have been addressed, the tank system may be used for storage of an unregulated material.

#### FIRST QUESTIONS FOR THE SMALL BUSINESS OWNER

- Do you store any chemicals in USTs? If so, are any of the UST or its piping located underground?
- What types of chemicals do you store in USTs?
- When were the USTs installed?
- How do you monitor your USTs for leaks, spills, and corrosion? Are you monitoring for tank integrity?
- How do you verify that your tank is not leaking? How could you detect a leak if it occurred? What type of records do you keep for leak detection monitoring?



- Do you have any USTs on your property that are not in use?

## WHAT TO LOOK FOR

- Fill pipes or vent pipes attached to USTs, partially buried tanks, or piping leading underground.
- Fuel delivery records that indicate larger quantity deliveries than observed on site.

## THE POLLUTION PREVENTION CONNECTION

- Monitoring tank conditions through corrosion protection, tightness testing, and leak detection prevents contamination from leaks or allows early detection. This can help small businesses avoid costly and prolonged clean ups.
- Small businesses should take precautions whenever tanks are filled to prevent overfills. This should include observation and oversight of suppliers when they fill the tank, as well as the use of overfill alarms or shut-off devices. Any overfills should be cleaned up immediately.

## FOR FURTHER INFO

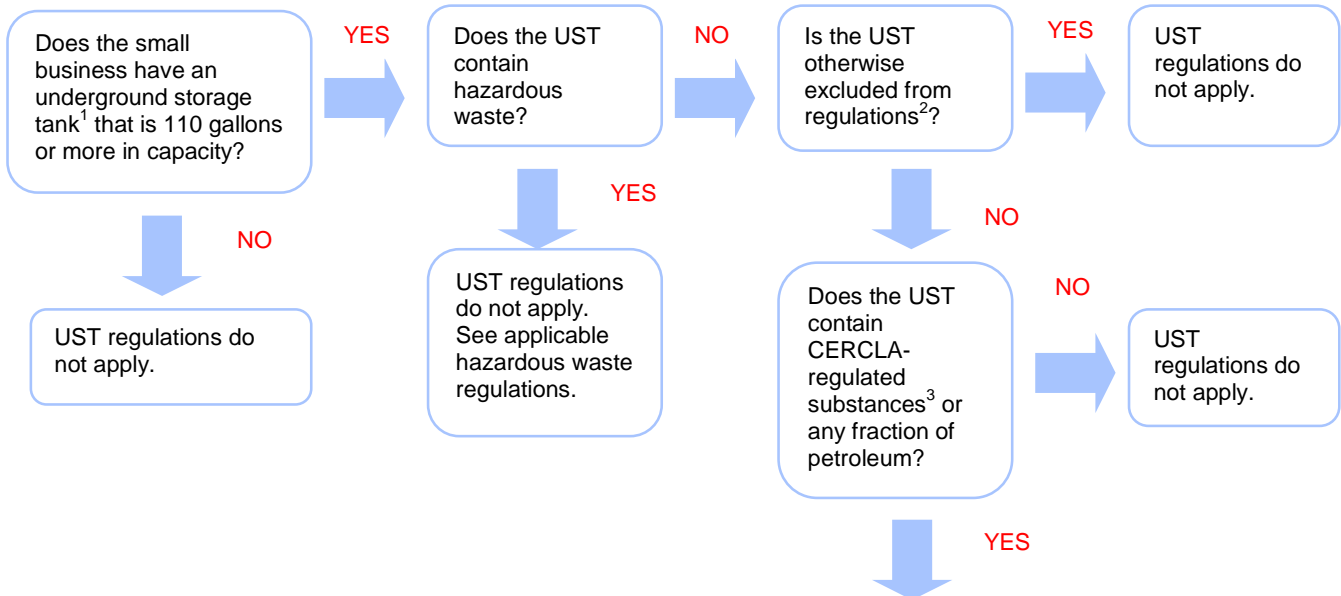
- EPA website: <http://www.epa.gov/oust>
- EPA document “*Operating and Maintaining Underground Storage Tank Systems, Practical Help and Checklists*”: <http://www.epa.gov/OUST/pubs/ommanual.pdf>.
- Directory of State UST Program Contacts: <http://www.epa.gov/OUST/states/statcon1.htm>.
- Energy Policy Act of 2005 (EPACT 2005) <http://www.epa.gov/oust/fedlaws/EPAActUST.htm>

This law significantly affects federal and state underground storage tank programs, will require major changes to the programs, and is aimed at reducing underground storage tank releases to our environment. The UST provisions of the Energy Policy Act focus on preventing releases.

This fact sheet provides a general overview of regulatory requirements. It is not all-inclusive and does not describe specific state and local requirements. Its purpose is to provide state SBEAP staff with guidance on key provisions, so that they may recognize potential applicability to small business and be more effective when seeking interpretations from regulatory experts.



## Underground Storage Tank Regulations Roadmap



### NOTES:

**UST:** Underground Storage Tank

<sup>1</sup> The definition of Underground Storage Tank does not include tanks that store heating oil used on the premises, septic tanks, storm water or wastewater collection systems, flow-through process tanks, and a few others. See definition in 40 CFR 280.12 for details.

<sup>2</sup> This includes certain wastewater treatment tanks, emergency overflow containment that is promptly emptied, equipment or machinery that contains hazardous substances such as a hydraulic lift, and a few others. See 40 CFR 280.10 for details.

<sup>3</sup> Any substance defined in section 101 (14) of the *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*.

UST regulations apply.  
Consider:

- Has the small business owner notified regulatory agencies of the UST?
- Does the tank meet current standards for corrosion protection and release detection?
- Is the small business owner maintaining records as required?
- Does the small business owner understand reporting requirements and follow-up actions required if there is a release?