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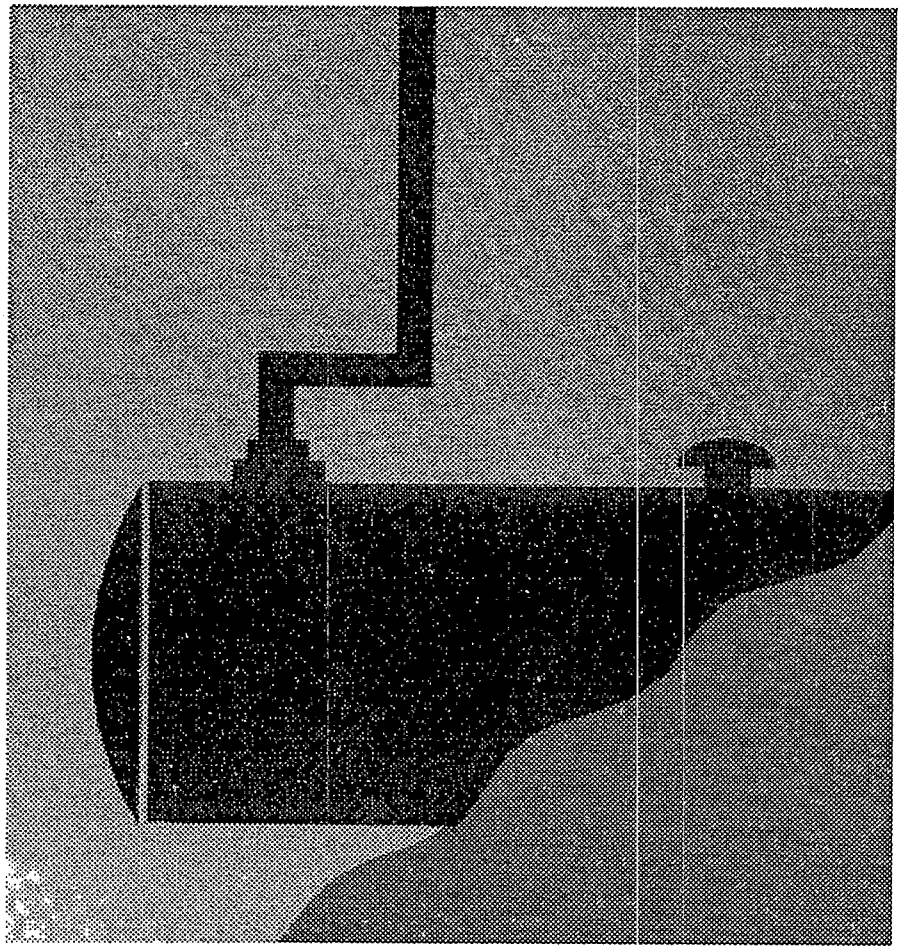
UST Program Facts

Implementing Federal Requirements For Underground Storage Tanks



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Contents

Overview Of The UST Program 1

Preventing Releases 3

Detecting Releases 5

Cleaning Up Releases 7

Financial Responsibility 9

State UST Programs 12

Leaking Underground Storage Tank Trust Fund 13

Environmental Justice 15

Publications About USTs . . . . . inside back cover

Previously released as a series of fact sheets, this publication is designed to help federal and state authorities answer the most frequently asked questions about USTs with consistent, accurate information in plain language. Other interested parties will find this publication provides a concise, comprehensive review of regulatory programs for USTs. ***Please note, you may need to refer to applicable state or local regulations, as well.***

Overview Of The UST Program

What's an "UST"?

An underground storage tank system (UST) is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. The federal UST regulations apply only to underground tanks and piping storing either petroleum or certain hazardous substances.

The U.S. Environmental Protection Agency (EPA) estimates that there are about 1.2 million federally regulated USTs buried at over 400,000 sites nationwide. Nearly all USTs at these sites contain petroleum. These sites include marketers who sell gasoline to the public (such as service stations and convenience stores) and nonmarketers who use tanks solely for their own needs (such as fleet service operators and local governments). Only about 30,000 tanks hold hazardous substances covered by the UST regulations.

Why be concerned about USTs?

Until the mid-1980s, most USTs were made of bare steel, which is likely to corrode over time and allow UST contents to leak into the environment. Faulty installation or inadequate operating and maintenance procedures also can cause USTs to release their contents into the environment.

The greatest potential hazard from a leaking UST is that the petroleum or other hazardous substance can seep into the soil and contaminate groundwater, the source of drinking water for nearly half of all Americans. A leaking UST can present other health and environmental risks, including the potential for fire and explosion.

How have Congress and EPA responded to concerns about USTs?

In 1984, Congress responded to the increasing threat to groundwater posed by leaking USTs by adding Subtitle I to the Resource Conservation and Recovery Act (RCRA). Subtitle I required EPA to develop a comprehensive regulatory program for USTs storing petroleum or certain hazardous substances.

Congress directed EPA to publish regulations that would require owners and operators of new tanks and tanks already in the ground to prevent, detect, and clean up releases. At the same time, Congress banned the installation of unprotected steel tanks and piping beginning in 1985.

In 1986, Congress amended Subtitle I of RCRA and created the Leaking Underground Storage Tank Trust Fund, which is to be used for two purposes:

- To oversee cleanups by responsible parties.
- To pay for cleanups at sites where the owner or operator is unknown, unwilling, or unable to respond, or which require emergency action.

The 1986 amendments also established financial responsibility requirements. Congress directed EPA to publish regulations that would require UST owners and operators to demonstrate they are financially capable of cleaning up releases and compensating third parties for resulting damages.

Do all tanks have to meet EPA regulations?

The following USTs are excluded from regulation and, therefore, do not need to meet federal requirements for USTs:

- Farm and residential tanks of 1,100 gallons or less capacity holding motor fuel used for noncommercial purposes;
- Tanks storing heating oil used on the premises where it is stored;
- Tanks on or above the floor of underground areas, such as basements or tunnels;
- Septic tanks and systems for collecting storm water and wastewater;
- Flow-through process tanks;
- Tanks of 110 gallons or less capacity; and
- Emergency spill and overfill tanks.

What are the federal requirements for USTs?

In 1988, EPA issued regulations setting minimum standards for new tanks and requiring owners of existing tanks to upgrade, replace, or close them. The UST regulations are divided into three sections: technical requirements, financial responsibility requirements, and state program approval objectives.

Technical requirements

EPA's technical regulations for USTs are designed to reduce the chance of releases from USTs, detect leaks and spills when they do occur, and secure a prompt cleanup. To meet the requirements, owners must upgrade, replace, or close existing UST systems by 1998. Tanks remaining in operation must have leak detection and leak prevention components. UST owners and operators are responsible for reporting and cleaning up any releases. *(See subsequent sections on "Preventing Releases," "Detecting Releases," and "Cleaning Up Releases.")*

Financial responsibility regulations

The financial responsibility regulations ensure that, in the event of a leak or spill, an owner or operator will have the resources to pay for costs associated with cleaning up releases and compensating third parties. *(See subsequent section on "Financial Responsibility.")*

State program approval objectives

EPA recognizes that, because of the large size and great diversity of the regulated community, state and local governments are in the best position to oversee USTs. Subtitle I of RCRA allows state UST programs approved by EPA to operate in lieu of the federal program, and EPA's state program approval regulations set standards for state programs to meet. *(See the subsequent section on "State UST Programs.")*

States may have more stringent regulations than the federal requirements. People who are interested in requirements for USTs should contact their state UST program for information on state requirements.

EPA provides a free 36-page booklet called ***Musts For USTs*** *that clearly presents the regulatory requirements to UST owners and operators (see inside the back cover for information on ordering EPA publications).*

Preventing Releases

How can releases be prevented?

The U.S. Environmental Protection Agency (EPA) designed part of the technical regulations for underground storage tanks (USTs) to prevent releases from USTs. The regulations require USTs to be protected from spills, overfills, and corrosion.

Spills and overfills result from bad filling practices. Unprotected steel tanks and piping corrode and release product through corrosion holes.

What is spill protection?

Many releases at UST sites come from spills made during delivery. Human error causes most spills, which can be avoided by following standard tank filling practices. In addition, USTs must have catchment basins to contain spills. Basically, a catchment basin is a bucket sealed around the fill pipe. USTs installed after December 22, 1988 must have catchment basins when they are installed. USTs installed before December 1988 must add catchment basins by December 1998 or properly close.

What is overfill protection?

When a tank is overfilled, large volumes can be released at the fill pipe and through loose fittings on the top of the tank or a loose vent pipe. Overfills can be avoided by good filling practices and the installation of overfill protection devices. USTs must have one of the following devices that guard against overfills: automatic shutoff devices, overfill alarms, or ball float valves. USTs installed after December 22, 1988 must have overfill protection devices when they are installed. USTs installed before December 1988 must add overfill protection devices by December 1998 or properly close.

What is corrosion protection?

Unprotected steel USTs corrode and release product through corrosion holes. All USTs installed after December 22, 1988 must meet one of the following performance standards for corrosion protection:

- Tank and piping completely made of noncorrodible material, such as fiberglass.
- Tank and piping made of steel having a corrosion-resistant coating AND having cathodic protection. (Cathodic protection is described below.)
- Tank made of steel clad with a thick layer of noncorrodible material (this option does not apply to piping).

USTs must also be designed, constructed, and installed in accordance with a national code of practice.

What about USTs installed earlier?

USTs installed before December 1988 must have corrosion protection by December 1998. These USTs must meet one of the corrosion protection standards listed above, meet one of the upgrade options described below, or close properly. Use ONE of the following THREE options to add corrosion protection to existing steel tanks:

Add cathodic protection

Add cathodic protection to a tank that has been proven to be structurally sound. Cathodic protection can be provided by adding an impressed current system that protects the UST by introducing an electrical current into the soil around the UST. Cathodic protection systems need to be periodically inspected and tested.

Add interior lining

Add a thick layer of noncorrodible material to the interior of the tank. This interior lining must be periodically inspected.

Combine cathodic protection and interior lining

Combine cathodic protection and interior lining. USTs using this option are not required to have the interior lining periodically inspected.

What about piping?

Steel piping must have cathodic protection. Piping entirely made of (or enclosed in) noncorrodible material does not need cathodic protection.

How do you properly close an UST?

To properly close an UST:

- Notify the regulatory authority 30 days before closing.
- Determine if the tank has leaked and damaged the environment. If it has, take appropriate notification and corrective action.
- Empty and clean the UST according to standard safety practices.
- Either remove the UST from the ground or leave it in the ground (USTs left in the ground must be filled with a harmless and chemically inactive solid).

Are there reporting and recordkeeping requirements?

UST owners must notify state or local authorities of the existence of an UST and its leak prevention measures, or of the permanent closure of an UST. Technical regulations also set guidelines for notifying authorities of spills of more than 25 gallons.

Owners and operators must also keep records on:

- Inspection and test results for the cathodic protection system.
- Repairs or upgrades.
- Site assessment results after closure.

Is there financial help to comply with prevention requirements?

Some states have established financial assistance programs that can provide funds or low-interest loans to help owners upgrade or replace their tanks.

*EPA provides a free 16-page booklet called **Don't Wait Until 1998** that clearly presents these regulatory requirements to UST owners and operators (see inside the back cover for information on ordering EPA publications).*

Detecting Releases

Why have release detection?

EPA designed part of the technical regulations for underground storage tanks (USTs) to make sure releases or "leaks" from USTs are discovered quickly before contamination spreads from the UST site. Owners and operators are responsible for detecting leaks from their tanks and piping.

Who needs leak detection?

All USTs must now have leak detection. USTs installed after December 22, 1988 must have leak detection when they are installed. USTs installed before December 22, 1988 had compliance deadlines that varied with the age of the USTs. By December 22, 1993, all of these "older" USTs had to be in compliance with leak detection requirements.

What are the leak detection methods?

Owners and operators of petroleum USTs must use at least one of the seven leak detection methods below, or other methods approved by their state agency.

1. **Secondary containment and interstitial monitoring** involves placing a barrier between the UST and the environment. The barrier provides "secondary" containment and can be a vault, liner, or double-walled structure. Leaked product from the UST is directed toward a monitor located in the "interstitial" space between the UST and the outer barrier. Interstitial monitoring methods range from a simple dip stick to automated vapor or liquid sensors permanently installed in the system. New USTs holding hazardous substances must use this method.

2. **Automatic tank gauging systems** use monitors permanently installed in the tank. These monitors are linked electronically to a nearby control device to provide information on product level and temperature. During a test period of several hours when nothing is put into or taken from the tank, the gauging system automatically calculates the changes in product volume that can indicate a leaking tank. This method does not work on piping.

3. **Vapor monitoring** senses and measures product vapor in the soil around the tank and piping to determine the presence of a leak. This method requires installation of carefully placed monitoring wells. Vapor monitoring can be performed periodically using manual devices or continuously using permanently installed equipment.

4. **Groundwater monitoring** senses the presence of liquid product floating on the groundwater. This method requires installation of monitoring wells at strategic locations in the ground near the tank and along the piping runs. To discover if leaked product has reached groundwater, these wells can be checked periodically by hand or continuously with permanently installed equipment. This method is effective only at sites where groundwater is within 20 feet of the surface.

5. **Statistical inventory reconciliation** uses sophisticated computer software to determine whether a tank system is leaking. The computer conducts a statistical analysis of inventory, delivery, and dispensing data collected over a period of time and provided by the operator to a vendor.

6. **Manual tank gauging** can be used only on tanks 2,000 gallons or smaller. **This method does NOT work on tanks larger than 2,000 gallons or on piping.** This method requires taking the tank out of service for at least 36 hours each week to take measurements of the tank's contents. Tanks 1,000 gallons or less can use this method alone. Tanks from 1,001 to 2,000 gallons can use this method only when it is

combined with periodic tank tightness testing and only for 10 years after installation or upgrade of the UST. After 10 years, these USTs must use one of the leak detection methods listed above in 1-5.

The additional method below can be used temporarily at petroleum UST sites:

7. Tank tightness testing and inventory control combines two methods. **Tank tightness testing** requires periodic tests conducted by vendors who temporarily install special equipment that tests the soundness of the tank. Tank tightness testing must be used in combination with **inventory control.** Inventory control is an ongoing accounting system, like a checkbook, kept by the UST owner or operator to detect leaks. Inventory control requires taking daily accurate measurements of the tank's contents and performing monthly calculations to prove that the system is not leaking. **Tank tightness testing and inventory control can be used only for 10 years after installation or upgrade of an UST.** After 10 years, these USTs must use one of the leak detection methods listed above in 1-5.

What does piping need?

Pressurized piping needs automatic line leak detectors (these can be automatic flow restrictors, automatic flow shutoffs, or continuous alarm systems). Pressurized piping also needs one of the following: groundwater monitoring, vapor monitoring, secondary containment and interstitial monitoring, or an annual tightness test of the piping.

Suction piping needs no leak detection if it meets two design requirements: 1) piping slopes so that the product drains back into the tank when suction is released, and 2) piping has only one check valve located closely beneath the pump in the dispensing unit. Suction piping not meeting these design requirements must use one of the following: tightness test of the piping every 3 years, groundwater monitoring, vapor monitoring, secondary containment and interstitial monitoring, or statistical inventory reconciliation.

Reporting and recordkeeping necessary?

UST owners and operators need to report to the regulatory authority data about the UST, including description of the leak detection method. If operation of the leak detection method indicates a possible leak, UST owners and operators need to report the potential release to the regulatory authority. UST owners and operators must keep records on leak detection performance and upkeep. These include the previous year's monitoring results, the most recent tightness test results, performance claims by the leak detection device's manufacturer, and records of recent maintenance and repair.

EPA provides the following free booklets that clearly present leak detection requirements to UST owners and operators: ***Straight Talk On Tanks, Doing Inventory Control Right, Manual Tank Gauging, and Introduction To Statistical Inventory Reconciliation*** *(see inside the back cover for information on ordering EPA publications).*

Cleaning Up Releases

What is the cleanup program?

In Subtitle I of the Resource Conservation and Recovery Act, Congress directed EPA to establish regulatory programs that would prevent, detect, and clean up releases from underground storage tank systems (USTs). EPA regulations require UST owners and operators to respond to a release by:

- Reporting a release,
- Removing its source,
- Mitigating fire and safety hazards,
- Investigating the extent of the contamination, and
- Cleaning up soil and groundwater as needed to protect human health and the environment.

EPA developed the UST regulations and program to be flexible and to be implemented by state and local agencies. Every state and many local governments now have active UST cleanup programs.

How many releases need attention?

As of July 1995, more than 295,000 UST releases had been confirmed. As the graphic below shows, many of these releases have been cleaned up, but much work remains to be done. The number of new releases reported continues to outpace the number of sites cleaned up.

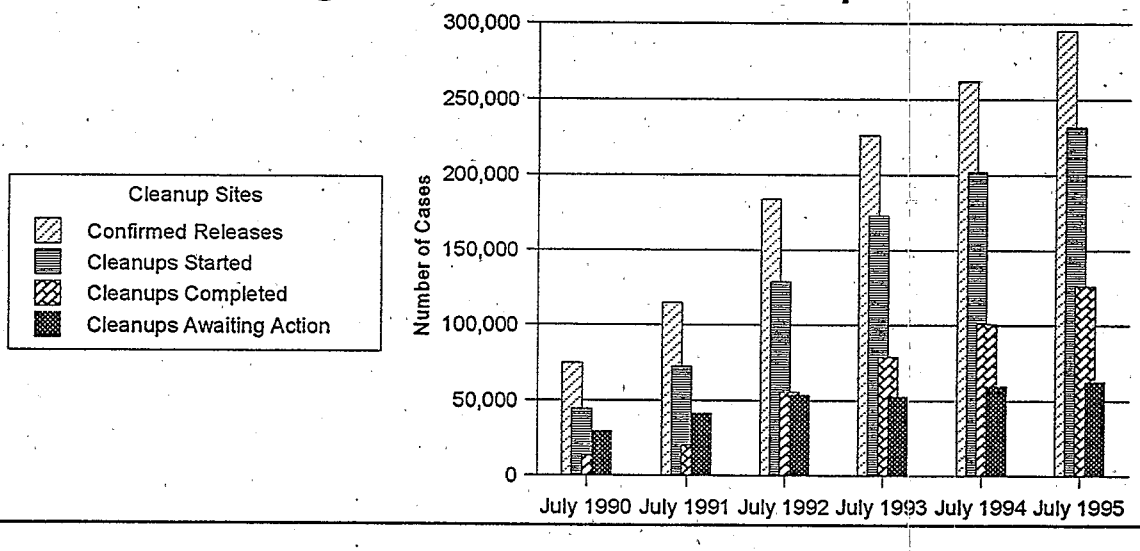
EPA estimates that the total number of confirmed releases could reach 400,000 in the next several years, primarily releases discovered during the closure or replacement of USTs. After this peak, EPA expects fewer releases as USTs comply with requirements.

Currently, state and local UST cleanup program staff oversee an increasing caseload of active cleanups. State staff frequently have 50 to 400 cases to manage at any given time. Staff work is often further complicated by administrative bottlenecks in oversight processes. At the same time, state staff face an increasing backlog of sites awaiting response.

How is EPA meeting the cleanup challenge?

One of EPA's top priorities in the UST program is to help state and local governments make cleanups faster, cheaper, and more effective. EPA's ongoing

Growing Number Of Cleanup Sites



efforts focus on three approaches to reach this goal: encouraging risk-based corrective action programs in the states, promoting the use of alternative cleanup technologies, and supporting activities that streamline state administrative procedures.

Risk-Based Decision-Making

EPA is encouraging UST implementing agencies to use a risk-based decision-making process to make the most of state and cleanup contractor resources. Employing tools such as exposure assessment and risk assessment, people using risk-based decision-making can consider the current and potential risks posed by an UST release and use this knowledge to make decisions about corrective action processes and site management. UST implementing agencies can use risk-based decision-making to:

- Focus site assessment data gathering,
- Categorize or classify sites,
- Determine what, if any, further action is necessary to remediate a site,
- Help establish cleanup goals, and
- Decide on the level of oversight provided to cleanups conducted by UST owners and operators. Several states are using risk-based approaches in their corrective action programs and the American Society for Testing and Materials has issued an emergency standard, "Guide For Risk-Based Corrective Action Applied At Petroleum Release Sites" (ASTM ES-38-94).

Alternative Cleanup Technologies

In cooperative efforts with contractors, consultants, tank owners, and states, EPA is also working to promote the use of alternatives to traditional site assessment and cleanup technologies. Even though some promising technologies—such as air sparging, bioremediation, and low temperature thermal desorption—have proven advantageous in field applications, they are not yet widely used across the country. EPA is using a variety of training, demonstration, and outreach projects to increase the acceptance and use of technologies that can help make cleanups faster, less costly, or more effective.

Streamlining

EPA staff and consultants help states to streamline cleanup oversight processes:

- They teach Total Quality Management techniques to help identify delays and other opportunities for improvement.
- They show state managers and staff how to use flowcharts and performance indicators to document, analyze, and improve their programs.
- They support state managers and staff in streamlining efforts: developing clear guidance materials and hosting "consultants days" to improve the quality of cleanup plans and reports; designing process changes that reduce delays and paperwork; and providing training that enables people to perform more efficiently.

Are EPA's efforts helping?

By using risk-based decision-making to maximize resources, promoting wider use of alternative technologies for site assessment and cleanup, and streamlining cleanup oversight processes, many states have made improvements. States have reduced delays in permitting, site assessment, corrective action, and reimbursement processes. States are providing clearer guidance to consultants and contractors, which is resulting in better plans and reports, speeding up the work, and cutting paperwork costs. As training and demonstration projects progress, alternative technologies such as soil vapor extraction, air sparging, and bioremediation are being used more often.

Financial Responsibility

What are financial responsibility requirements?

When Congress amended Subtitle I of the Resource Conservation and Recovery Act in 1986, it directed the U.S. Environmental Protection Agency (EPA) to develop financial responsibility regulations for owners and operators of underground storage tanks.

Congress wanted owners and operators of underground storage tanks (USTs) to show that they have the financial resources to clean up a site if a release occurs, correct environmental damage, and compensate third parties for injury to their property or themselves. The amount of coverage required depends on the type and size of the business, as explained in the chart on page 11.

How can owners and operators demonstrate financial responsibility?

Owners and operators have several options: obtain commercial environmental impairment liability insurance; demonstrate self-insurance; obtain guarantees, surety bonds, or letters of credit; place the required amount into a trust fund administered by a third party; or rely on coverage provided by a state financial assurance fund. Local governments have four additional compliance mechanisms tailored to their special characteristics: a bond rating test, a financial test, a guarantee, and a dedicated fund.

When is financial responsibility required?

The chart on page 11 presents five groups of UST owners and operators, compliance deadlines for each group, and required coverage amounts.

What is the cost of demonstrating financial responsibility?

EPA acknowledges that the cost of complying with the technical and financial responsibility requirements will be a burden to some owners and operators, especially those with older tanks.

Because underwriting criteria for most private insurance and eligibility requirements for some state assurance funds require that tanks be in compliance with federal or state technical standards, many owners and operators are faced with the costs of meeting technical requirements at the same time they meet financial responsibility costs.

The cost of meeting technical requirements generally accounts for the majority of regulatory compliance costs incurred by UST owners and operators. Some states have established financial assistance programs that can provide funds or low-interest loans to help owners meet technical requirements.

In terms of the costs for meeting financial responsibility requirements, insurance premiums for a facility with three to five upgraded tanks may range from about $1,000 to $1,500 per year. Owners and operators who participate in a state financial assurance fund generally pay annual tank fees of from $100 to $250 per tank.

In developing the regulations, EPA has been sensitive to the financial impact of the regulations on small business. EPA phased in compliance deadlines, allowing the smallest businesses the longest time to comply. It has since responded to business owners' concerns by delaying compliance dates for the smallest owners and operators. EPA also has worked with states to develop state financial assurance funds and grant and loan programs.

How can state financial assurance funds help?

States are developing financial assurance funds to reduce the economic hardship of compliance with financial responsibility requirements and to help cover the costs of cleanups. State financial assurance fund programs, which supplement or are a substitute for private insurance, have been especially useful for small-to-medium sized petroleum marketers. Other characteristics of the funds appear below:

- Financial assurance funds are created by state legislation and must be submitted to EPA for approval before they can be used as compliance mechanisms.
- In most cases, states generate money for the funds with tank registration and petroleum fees.
- Legislatures delegate authority for the fund to a state agency addressing health, environmental, or insurance issues.
- Some state assurance funds incorporate eligibility requirements, such as demonstrations that facilities are in compliance with technical requirements and evidence of satisfactory inventory control and recordkeeping.
- Most state funds contain some deductible that the owner or operator is responsible for paying. Details on the funds are specific to each state.

Nationwide, these state funds raise about $1 billion annually.

How many states have financial assurance funds?

As of July 1995, 41 state funds qualified as financial assurance mechanisms. One additional state (Washington) has a reinsurance program that enables insurance companies to offer lower-cost premiums to the state's UST owners.

*EPA provides a free 16-page booklet called **Dollars And Sense** that clearly presents these requirements to UST owners and operators (see inside the back cover for information on ordering EPA publications).*

Financial Responsibility Requirements

Group Of UST Owners And Operators	Compliance Deadline	Per Occurrence Coverage	Aggregate Coverage
GROUP 1: Petroleum marketers with 1,000 or more tanks ***OR*** Nonmarketers with net worth of $20 million or more (for nonmarketers, the "per occurrence" amount is the same as Group 4-B below)	January 1989	**$1 million**	**$1 million** if you have 100 or fewer tanks ***OR*** **$2 million** if you have more than 100 tanks
GROUP 2: Petroleum marketers with 100-999 tanks	October 1989		
GROUP 3: Petroleum marketers with 13-99 tanks	April 1991		
GROUP 4-A: Petroleum marketers with 1-12 tanks	December 1993		
GROUP 4-B: Nonmarketers with net worth of less than $20 million	December 1993	**$500,000** if throughput is 10,000 gallons monthly or less ***OR*** **$1 million** if throughput is more than 10,000 gallons monthly	
GROUP 4-C: Local governments (including Indian tribes not part of Group 5)	February 1994		
GROUP 5: Indian tribes owning USTs on Indian lands (USTs must be in compliance with UST technical requirements)	December 1998		

State UST Programs

What is the role of states in regulating underground storage tanks?

EPA recognizes that, because of the size and diversity of the regulated community, state and local governments are in the best position to oversee USTs:

- State and local authorities are closer to the situation in their domain and are in the best position to set priorities.
- Subtitle I of the Resource Conservation and Recovery Act (RCRA) allows state UST programs approved by EPA to operate in lieu of the federal program.
- The state program approval regulations set criteria for states to obtain the authority to operate in lieu of the federal program. State programs must be at least as stringent as EPA's.

How do states receive program approval?

EPA's regional offices coordinate the state program approval process for states and territories under their jurisdiction. EPA regional officials work closely with state officials while state programs are under development. Once state legislatures enact statutes and state agencies develop regulations in accord with EPA requirements and put other necessary components of a program in place, states may apply for formal approval. EPA must respond to applications within 180 days.

A state program is approved if it is judged to meet three criteria:

- It sets standards for eight performance criteria that are no less stringent than federal standards.
- It contains provisions for adequate enforcement.
- It regulates at least the same USTs as are regulated under federal standards.

Which states have approved programs?

The following 21 states have approved programs: Arkansas, Connecticut, Georgia, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Mississippi, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Dakota, Texas, Utah, Vermont, and Washington. In addition, 16 states have submitted drafts of state program approval applications which EPA regional officials are currently reviewing.

What are the benefits of state program approval?

Because state programs operate in lieu of the federal program, states that have an approved UST program can eliminate an entire set of government regulators from their regulated community. Owners and operators do not have to deal with two sets of statutes and regulations (state and federal) that may be conflicting. States take pride in obtaining federal approval of their programs.

Once their programs are approved, states have the lead role in UST program enforcement. In states without an approved program, EPA will work with state officials in coordinating UST enforcement actions.

Need more information about a particular state's program?

Contact the EPA regional office or the UST/LUST program in your state, usually located in the state environmental department. Program staff will provide information or referrals.

Leaking Underground Storage Tank Trust Fund

What is the "LUST" Trust Fund?

Congress created the Leaking Underground Storage Tank (LUST) Trust Fund in 1986 by amending Subtitle I of the Resource Conservation and Recovery Act. In December 1990, Congress reauthorized the Trust Fund for five more years.

The LUST Trust Fund has two purposes. First, it provides money for overseeing corrective action taken by a responsible party, who is usually a contractor hired by an owner or operator of the leaking underground storage tank (UST). Second, the Trust Fund provides money for cleanups at UST sites where the owner or operator is unknown, unwilling, or unable to respond, or which require emergency action.

What's in the Trust Fund?

The Trust Fund is financed by a 0.1 cent tax on each gallon of motor fuel sold in the country. As of April 1995, about $1.44 billion had been collected.

Of this amount, Congress has given $545 million to EPA through fiscal year 1995. About $469 million (or 86 percent of the amount given to EPA) has been dispersed to state programs for state officials to use for administration, oversight, and cleanup work.

The remaining Trust Fund money (about $76 million or 14 percent of the total) has been used by EPA for administrative activities: negotiating and overseeing cooperative agreements; implementing programs on Indian lands; and supporting regional and state offices.

How does the Trust Fund work?

To receive money from the Trust Fund, a state must enter into a cooperative agreement with the federal government to spend the money for its intended purpose. Every state (except Florida, which has its own state cleanup fund) has a cooperative agreement with EPA.

Trust Fund money is divided among EPA regional offices based on a formula that uses state data. In fiscal year 1995, each state received a base allocation plus additional money depending on the following: the number of confirmed releases in the state; the number of notified petroleum tanks; the number of residents relying on groundwater for drinking water; and the number of cleanups initiated and completed as a percent of total confirmed releases.

How do states use Trust Fund money?

States use Trust Fund money to oversee corrective action by a responsible party and to clean up sites where no responsible party can be found. Only about 4 percent of all cases have been without a responsible party.

To date, states have used about one-third of their Trust Fund money for administration, one-third for oversight and state-lead enforcement activities, and one-third for cleanups.

How many USTs are leaking?

As of July 1995, EPA, states, and local agencies have confirmed more than 295,000 UST releases. Over the next several years, EPA expects more than another 100,000 confirmed releases to be reported, primarily releases discovered during the replacement or closure of USTs. After this peak, EPA expects fewer additional releases as USTs comply with requirements.

How much do cleanups cost?

Cleanup costs depend on a variety of factors, including the extent of contamination and state cleanup standards. The average cleanup is estimated to cost $125,000.

If only a small amount of soil needs to be removed or treated, cleanup costs can run as low as $10,000. However, costs to clean more extensive soil contamination can reach $125,000. Corrective action for leaks that affect groundwater can cost from $100,000 to over $1 million, depending on the extent of contamination.

What cleanup activities have taken place?

As of July 1995, states have used Trust Fund and state money to:

- Confirm more than 295,000 releases,
- Oversee or conduct more than 8,300 emergency responses,
- Oversee or initiate more than 232,000 cleanups,
- Oversee or complete more than 126,000 cleanups, and
- Oversee or conduct more than 980,000 closures.

Environmental Justice

What is environmental justice?

Over the last decade, concern about the impact of environmental pollution on particular populations has been growing. Low income and minority communities, for example, may bear disproportionately high risk to human health and the environment from pollution. Compounding the problem, these communities often lack the legal means necessary to effectively organize political activities on their own behalf. These concerns have resulted in a movement to assure environmental justice for all populations.

What is EPA doing?

Early in her tenure, EPA Administrator Carol Browner designated the pursuit of environmental justice one of the Agency's top priorities. EPA's Office of Solid Waste and Emergency Response formed a task force in November 1993 to analyze environmental justice issues specific to waste programs and to develop recommendations addressing these issues. In February 1994, President Clinton signed an Executive Order on Environmental Justice which focused federal agencies' attention on environmental justice issues. In response, EPA has developed an Agencywide strategy for environmental justice.

Is there an environmental justice issue for UST programs?

Underground storage tanks (USTs) are everywhere: in cities, towns, and rural areas. Federal regulations cover more than 1 million petroleum USTs at facilities across the nation. Federal and state UST programs are ensuring that the large universe of regulated USTs meets all technical requirements for preventing and detecting leaks and that cleanups keep pace with the growing number of confirmed releases.

No matter where they are located, leaking USTs can threaten drinking water supplies or cause explosive vapors to accumulate in sewers or basements. These threats in all cases must be met with quick emergency response.

However, USTs that leak in communities facing potential pollution from other sources (such as landfills, concentrated sources of air emissions, hazardous waste treatment facilities, or Superfund sites) can add to cumulative human health risk. When all other factors are equal, leaking USTs in communities facing exposure to multiple environmental risks should receive priority attention.

UST program officials must ensure that leaking USTs are brought under control as quickly as possible in all communities, including economically disadvantaged and minority communities.

How can UST programs address environmental justice concerns?

The federal UST program is engaged in several activities:

- Distributing information on environmental justice to states, tribes, and local agencies.
- Incorporating environmental justice criteria into state UST grants and cooperative agreements. Guidance may include, for example, specific clauses requiring states to consider environmental justice as they develop cleanup, compliance, and enforcement strategies.
- Continuing efforts on Indian lands to identify existing USTs, including hazardous substance USTs and abandoned tanks.

- Working to develop tribal capacity on Indian lands by providing funds and technical assistance to tribal governments.

- Encouraging the use of minority contractors and consultants for tank installation and removal and for state-lead cleanups to broaden economic redevelopment efforts in disadvantaged communities.

State UST programs are being encouraged to:

- Consider environmental justice as a qualitative factor when developing priority ranking systems for state-lead cleanup and enforcement strategies.

- Use qualified minority contractors and consultants on state-lead cleanups.

- Encourage minority contractors to apply for certification and ensure that minority firms are represented on any contractor lists that the state provides to the regulated community.

- Develop and distribute information materials on USTs and leaking USTs to their regulated communities, including minority populations.

Need more information on environmental justice?

To learn more about environmental justice, contact EPA's toll-free number for concerned citizens at 800 962-6215, or call the EPA Regional Coordinator for your state. EPA's Office of Environmental Justice 202 260-6357 can provide regional contacts and telephone numbers.

Selected EPA Publications About USTs

PUBLICATIONS

TITLE **AVAILABLE FREE FROM**

Musts For USTs: A Summary Of The Federal Regulations For Underground Storage Tank Systems
Booklet summarizes federal UST requirements for installation, release detection, spill, overfill, and corrosion protection, corrective action, closure, reporting and recordkeeping. Revised and updated in July 1995. (About 40 pages.)

Normas Y Procedimientos Para T.S.A.
Spanish translation of **Musts For USTs: A Summary Of The Federal Regulations For Underground Storage Tank Systems.** (About 40 pages.)

Straight Talk On Tanks: Leak Detection Methods For Petroleum Underground Storage Tanks
Booklet explains federal regulatory requirements for leak detection and briefly describes allowable leak detection methods. Revised and updated in July 1995. (About 30 pages.)

Doing Inventory Control Right: For Underground Storage Tanks
Booklet describes how owners and operators of USTs can use inventory control and periodic tightness testing to meet federal leak detection requirements. Contains reporting forms. (About 16 pages.)

Manual Tank Gauging: For Small Underground Storage Tanks
Booklet provides simple, step-by-step directions for conducting manual tank gauging for tanks 2,000 gallons or smaller. Contains reporting forms. (About 12 pages.)

Introduction To Statistical Inventory Reconciliation: For Underground Storage Tanks
Booklet describes the use of Statistical Inventory Reconciliation (SIR) to meet federal leak detection requirements. (About 12 pages.)

Don't Wait Until 1998: Spill, Overfill, And Corrosion Protection For Underground Storage Tanks
Information to help owners and operators of USTs meet the 1998 deadline for compliance with requirements to upgrade, replace, or close USTs installed before December 1988. (About 16 pages.) **A Spanish translation of this booklet is also available as "No Espere Hasta El 1998."**

Dollars And Sense: Financial Responsibility Requirements For Underground Storage Tanks
Booklet clearly summarizes the "financial responsibility" required of UST owners and operators by federal UST regulations. Revised and updated in July 1995. (About 16 pages.)

An Overview Of Underground Storage Tank Remediation Options
Fact sheets provide information about technologies that can be used to remediate petroleum contamination in soil and groundwater. (About 26 pages.)

Controlling UST Cleanup Costs
Fact sheet series on the cleanup process includes: *Hiring a Contractor, Negotiating the Contract, Interpreting the Bill, Managing the Process, and Understanding Contractor Code Words.* (About 10 pages.)

If you are ordering up to 30 copies of any one title, you can call EPA's toll-free RCRA/Superfund Hotline at 800 424-9346 and order free copies. Just identify the titles you want. The Hotline can also identify additional titles you may find useful.

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