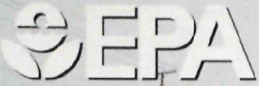


United States
Environmental Protection
Agency

Region VIII
Underground Storage
Tank Program

EPA 908-K-96-001
December 1996



Underground Storage Tank Program in Indian Country

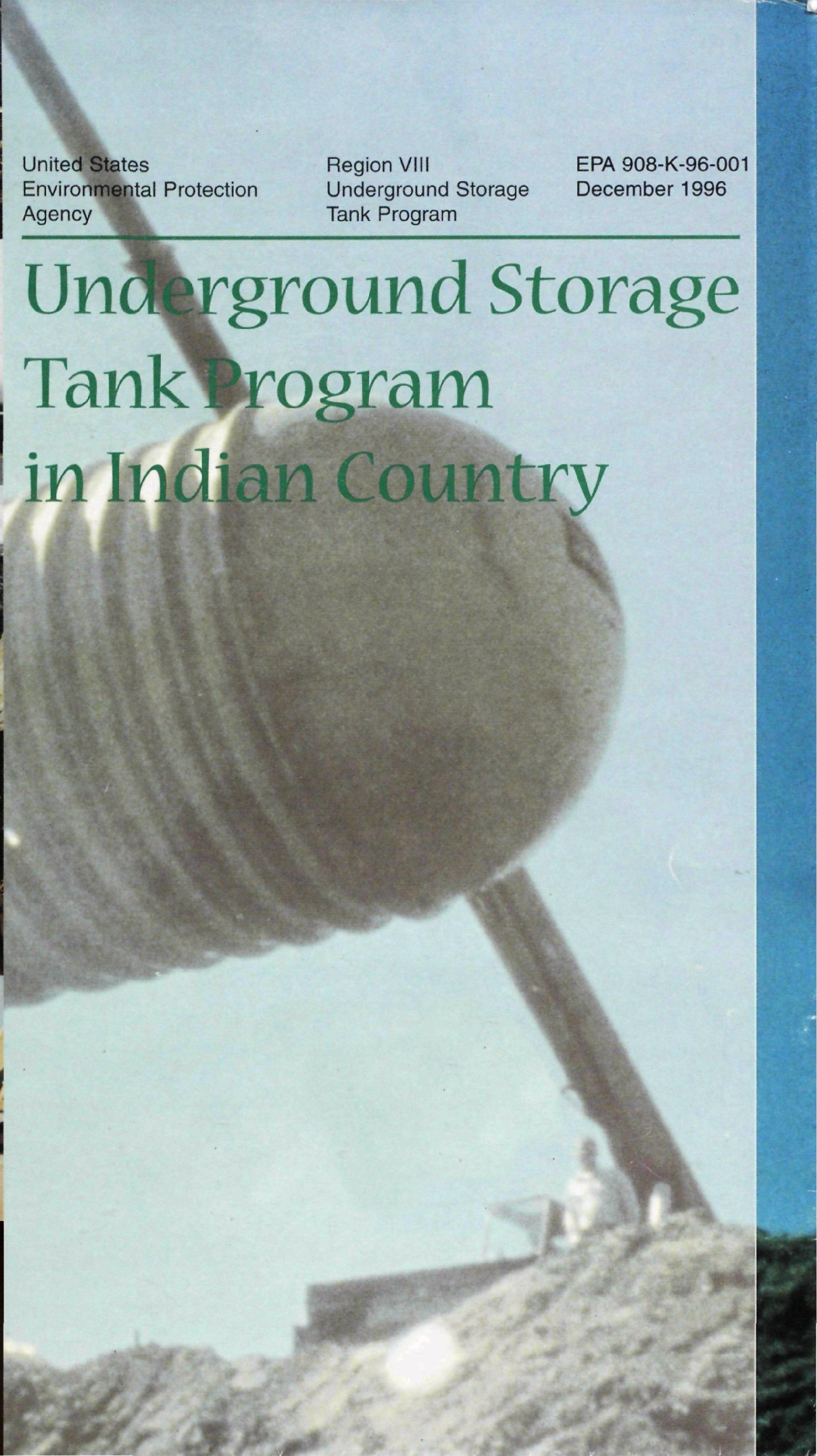
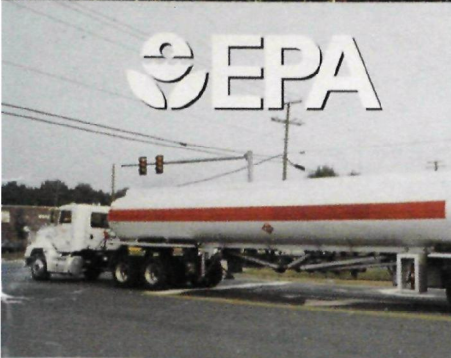




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Introduction

The U.S. Environmental Protection Agency (EPA) is responsible for implementing a regulatory program for underground storage tanks (USTs) nationwide. The EPA regional office in Denver, Colorado performs this responsibility in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming, which together make up EPA Region VIII.

Although EPA will delegate responsibility for implementing the UST program to each state, facilities located within the boundaries of an Indian Reservation will remain under federal jurisdiction.

You have been sent this booklet because your facility is located within the boundaries of an Indian Reservation in Region VIII. It describes the EPA program that applies to all federally regulated UST systems.

"What are you talking about?"

EPA has developed a regulatory program that covers many of the nation's USTs, where an "UST" is any tank, including underground piping connected to the tank, that has at least

the UST program. Also, if your tank holds 1,100 gallons or less of motor fuel used for non-commercial purposes and is on a farm or residence, it is not regulated by EPA. But, if



10 percent of its total volume underground. Under this definition, some storage tanks that are located aboveground may be regulated by the UST program if they have underground piping that accounts for 10 percent or more of the total volume of the UST system (tank and piping).

The program only regulates USTs that hold petroleum and certain hazardous substances. As a general rule, all such USTs over 110 gallons at commercial facilities and at federal, state, and county facilities are regulated. However, if your tank holds heating oil or diesel used for heating it is not regulated under

your farm or residence petroleum tank is over 1,100 gallons, it is regulated and must comply with the requirements of the UST program. A more complete list of the kinds of tanks that are not covered by the UST program is provided on page 9 in the next section of this booklet.

Key goals of the UST program are to prevent leaks and spills from USTs and to find and properly correct problems created by leaks and spills as quickly as possible. Regulation of USTs will help in the protection of our drinking water resources — something everyone is interested in protecting. This booklet will provide you with a general understand-

ing of the regulatory program EPA has developed to achieve these goals. It will also provide you with an understanding of the activities you — the tank owner or operator — must perform to be in compliance with the UST regulations. A complete description of the federal UST regulations can be found in Part 280 of Volume 40 of the Code of Federal Regulations (40 CFR Part 280). You can get a copy of the regu-

lations by calling the EPA regional office in Denver at 1-800-227-8917.

The remainder of this booklet is organized into four sections:

- 1) *Compliance (what you are required to do to operate an UST)*
- 2) *Corrective Action (what you are required to do to correct problems caused by leaks)*
- 3) *Tank Closure (what you are required to do to properly get rid of your tank)*
- 4) *Enforcement (what happens if you don't do what you are required to do)*

A series of appendices are included in the back pocket of this booklet. Included is a list of available materials specific to the UST program. If you want further information on any topic in this booklet, please consult the list and select those materials that you feel will fit your needs. The EPA regional office has some of these materials on file, free of charge, or can tell you how to obtain your selections.

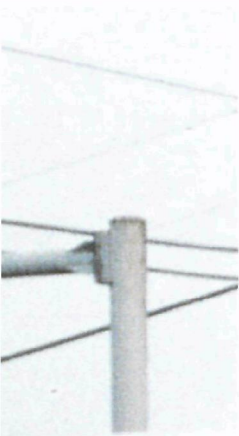




Compliance

There are some activities that all underground storage tank owners and operators must perform to be in compliance with the federal regulations. Most of these activities focus on preventing UST systems from leaking. Prevention is important because when a leak occurs, it is expensive to clean up, and some sites may never be as clean as they once were. Also, since groundwater is being used more and more as a source of drinking water, we must protect it from contaminants. The other activities focus on finding leaks and spills quickly, verifying the compliance status of USTs, and making sure that owners and operators can pay for correcting the problems created if their USTs leak.

Additional important activities owners and operators may need to perform to be in compliance with the regulations are those dealing with correcting problems from leaking USTs and tank closure. These activities are described in the next two sections of this booklet.



"What do I have to do?"

Compliance activities that all owners and operators of UST systems must perform include:

- *Tank Notification*
- *Proper Installation*
- *Leak Detection*
- *UST System Upgrade*
- *Recordkeeping*
- *Financial Responsibility*



Tank Notification

Under the UST regulations, the federal UST office must be notified of the existence of regulated USTs. If you have not done so already, you must send a completed notification form to the EPA Region VIII office if you own or operate any tank over 110 gallons that holds petroleum or a hazardous substance and that is still in use or has been used since January 1, 1974. There are some exceptions, however, including the following:

- *Septic tanks*
- *Farm and residential tanks holding 1,100 gallons or less of motor fuel used for non-commercial purposes*
- *Heating oil tanks*
- *Storage tanks situated in a basement, cellar or vault*

These tanks are not covered by the regulations, so no notification of them is necessary. If you are unsure whether you need to notify EPA of the existence of your tank, please call the agency at 1-800-227-8917, or consult the federal

regulations for a complete listing of tanks that are not covered by the regulations.

A notification form is included in an appendix in the back pocket of this booklet. You can get additional forms by calling EPA at the number above.

Remember, if you are the tank owner, it is your responsibility to notify EPA of any UST, and any changes to a notification previously submitted to EPA. For any new UST you install, you must submit a completed notification form to the EPA UST office within 30 days of bringing the tank system into use. You will be in violation of federal regulations if you do not notify the EPA UST office.

From time to time, EPA may ask you to fill out a new notification form so the agency can update its tank files.



Proper Installation

All tanks and piping must be installed according to industry codes and manufacturers' instructions. You can find practices and procedures for properly installing tanks and piping in the following codes: The American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems;" Petroleum Equipment Institute Publication RP 100, "Recommended Practices for Installation of Underground Liquid Storage Systems;" and American National Standards Institute Standard B31.3, "Petroleum Refinery Piping". You can get copies of these codes by contacting the various associations' offices, addresses for which are provided in the appendix.

For any UST system installed after December 1988, you must certify on a notification form that one or more of the following methods has been used to ensure proper installation:

1) *The installer has been certified by the tank and piping manufacturers.*



- 2) *The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation.*
- 3) *The installation has been inspected and/or approved by the federal UST office.*
- 4) *All work listed in the manufacturer's installation checklist has been completed.*

You can get this notification form from your tank installer or by calling the EPA UST office. (See page 9 for more information on tank notification requirements.)

In addition, all tanks and piping installed after December 1988 must meet certain standards for leak detection, corrosion protection, spill and overfill prevention, and design and construction. These standards are described on pages 10-13 of this section.



Leak Detection

Everybody with a regulated UST should be periodically checking their tanks and piping for leaks. Detecting leaks early is one of the best ways of keeping tank and piping leaks from growing and getting expensive to correct. How

frequently tanks and piping need to be checked for leaks depends on the leak detection method or methods used.

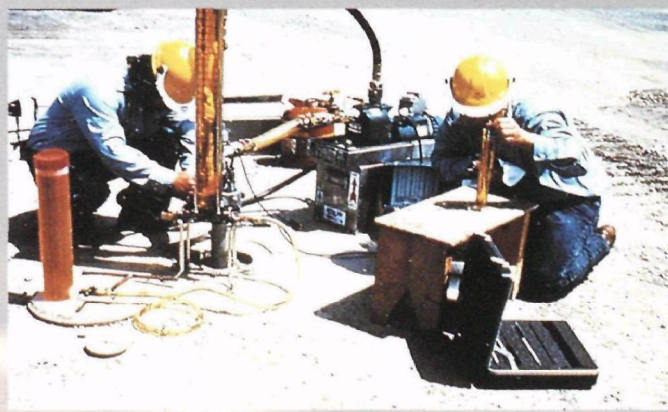
If you have not done so already, you should select a leak detection method that fits your facility (including the age and condition of each UST system) and your capability, and start using it immediately. You can get information on approved leak detection methods for tanks and piping, as well as on selecting and properly using them, from EPA — free of charge.

Detecting Leaks from Tanks

You must use at least one of the following eight leak detection methods (be aware that some may be used only for a limited period of time):

- **Inventory control with tank tightness testing.** This method involves taking daily stick readings of the product level and compiling them with fuel withdrawal and delivery figures to arrive at a monthly inventory. Inventories for consecutive months are reconciled manually to detect a possible leak. In addition, the tightness of the tank must be tested periodically. This method can only be used for 10 years after upgrade.
- **Manual tank gauging** (only for tanks up to 1,000 gallons). This method involves taking weekly stick readings before and

after periods of at least 36 hours when no product is put in or taken out of the tank. Variations between the readings are then compared to weekly and month-



ly standards to detect a possible leak.

- **Manual tank gauging with tank tightness testing** (only for tanks 1,001 gallons up to 2,000 gallons). This method combines the manual tank gauging method described above with periodic tank tightness testing. This method can only be used for 10 years after upgrade.
- **Automatic tank gauging.** This method involves using an electronic device to continuously monitor the level of product in the tank and to perform monthly inventory tests to determine whether the tank is losing product.
- **Groundwater monitoring.** This method involves monthly testing or monitoring of the groundwater near an UST for released product through one or more monitoring wells at the UST site.
- **Vapor monitoring.** This method involves monthly testing or monitoring of the soil gas surrounding the UST for product vapors through one or more monitoring wells at the UST site.

- **Interstitial monitoring.** This method involves using an electronic device or other testing method to measure for product or product vapors in the space between the two walls of a double-walled tank on a monthly basis.
- **Statistical inventory reconciliation.** This method involves taking daily stick readings of the product level and keeping complete records of all fuel withdrawals and deliveries. These data are provided to a vendor, usually monthly, who uses computer software to statistically analyze them

and determine whether a leak may exist.

You must ensure that whatever method you select meets the performance requirements established for it.



Detecting Leaks from Piping

If you have suction piping, you may use one of the following four leak detection methods noted above for tanks:

- Groundwater monitoring
- Vapor monitoring
- Interstitial monitoring
- Statistical inventory reconciliation

Alternatively, you must perform a precision line tightness test on the piping every 3 years to meet the leak detection requirement.

In a few cases, leak detection may not be required on suction piping. To find out if your facility does not need leak detection on its suction piping, call the EPA.

If you have pressurized piping, you must either conduct an annual tightness test of the piping or use one of the four leak detection methods noted above for suction piping. In addition, you must ensure that the piping has an automatic flow restrictor, an automatic shutoff device, or an alarm system that will sound if a leak is detected.



UST System Upgrade



All tanks and piping must meet certain performance standards by December 23, 1998. These standards address corrosion protection, spill and overfill prevention, and, for new tanks, design and construction. If you own or operate an UST system installed after December 23, 1988 (your UST is considered "new"), that system should have met these standards upon installation. If your tank system was installed before December 23, 1988, you have until December 23, 1998 to upgrade your tank to meet these standards.

Corrosion Protection

Corrosion is a major cause of leaks from unprotected steel tanks and piping that are in contact with the ground. If your tank is made of unprotected steel, you must protect it from corrosion by doing one of the following:

- *Installing a cathodic protection system designed by a corrosion expert*
- *Installing an interior lining in the tank*
- *Installing a cathodic protection system and an interior lining*
- *Replacing the tank*

If your piping is made of steel, you must either cathodically protect it or replace it. Once you have a cathodic protection system installed, you will need to have your UST system inspected periodically to make sure it remains protected against corrosion.

Spill and Overfill Prevention

The UST regulations require the use of equipment to prevent releases caused by spills and overfills during tank filling from harming the

environment. However, if your UST system is filled only by transfers of no more than 25 gallons at one time, you do not need to install spill or overfill prevention equipment. Most used oil tanks will qualify for this exclusion.

The most common spill prevention equipment is a plastic spill bucket sealed around the fill pipe. This bucket or catchment basin must hold at least 5 gallons, or be big enough to contain any product that might drain out of the delivery hose at time of fuel delivery.



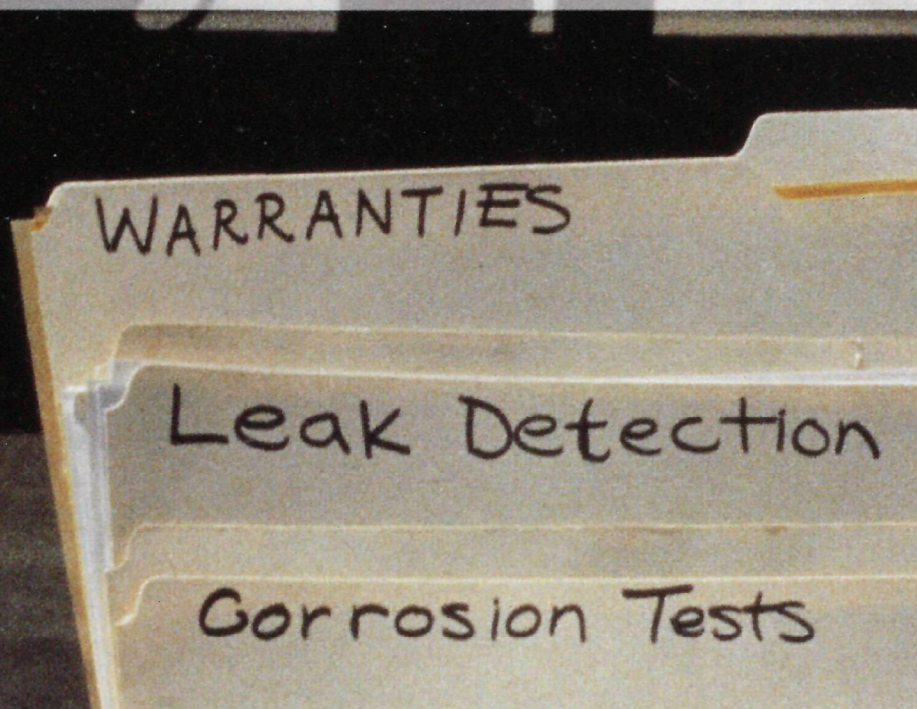
Common types of overfill prevention equipment include a ball float valve installed in the tank at the vent line opening and a butterfly valve installed in the fill pipe. Other types of overfill equipment are automatic and will set off an alarm when the tank is 90 percent full.

Design and Construction

New tanks and piping must be properly designed and constructed according to industry codes. Codes that may be used to meet this requirement can be found in the federal UST regulations. You will need to confirm with your tank and piping vendors or manufacturers that acceptable codes were used.

Recordkeeping

Records must be kept to prove that your facility meets certain UST requirements. These include records documenting installation, leak detection, repair, maintenance, upgrade and closure activities at your tank facility. The following list identifies what records you must keep and for how long. As a general rule, you should keep all facility records for as long as possible.



Records you must keep for one year

- Results of sampling, testing and monitoring for leak detection, including the most recent tank tightness test
- Documentation of calibration, maintenance and repair work on leak detection equipment permanently located on site that was completed in the past year

Records you must keep for three years

- Results of the site assessment performed for tank closure
- Test results of the cathodic protection system. In addition, with an impressed current system, the rectifier output must be documented every sixty days and

this documentation maintained for three years.

Records you must keep for the life of the UST system

- Information on the installation of the UST system and its components, including site plans, contractor information, invoices for equipment installed, and all materials from the manufacturers
- Records of UST system maintenance, excluding corrosion protection tests
- Documentation of repairs on tanks and piping, excluding release detection equipment

Records you must keep for five years

- Written performance claims for any release detection system used and documentation on the manner in which these claims have been justified or tested by the equipment manufacturer

You do not have to keep these records at the UST facility. However, all records must be readily accessible within a "reasonable" amount of time. In EPA Region VIII, this is interpreted to mean within 4 working days. You may keep the records in a computer as long as a paper copy of any particular record can be produced.

Financial Responsibility

All owners and operators of regulated petroleum USTs must ensure that there will be money to help pay for the costs of corrective action and any bodily injury or property damage caused by leaks from their tanks. The amount of money you are responsible for depends on the type of business you operate, the amount of product your facility handles per month, and the number of tanks you have.

As of December 1993, unless you are an Indian Tribe in compliance with the technical regulations, you must be able to show that at least \$1 million would be available during any particular year to cover the costs of leaks or spills

your state's fund to satisfy all or part of this requirement. Check with your state fund office to find out if and for how much you qualify. A list of state fund offices in Region VIII is in an appendix in the back cover of this booklet.

For more information on the UST financial responsibility requirements and ways to meet them please call EPA.



from any USTs you own or operate. Indian Tribes that own USTs on Indian lands and are in compliance with the regulations, must meet this requirement by December 1998.

You may show that you have this coverage by using a letter of credit, a surety bond, a guarantee, a trust fund, or insurance from a private insurer or risk retention group, or, if you qualify, by self-insuring. You may be able to use





Corrective Action

Leaks and spills are costly! Not only because of the cost of the product lost, but also because of the cost of correcting problems they create. These costs can run into millions of dollars, especially if drinking water is contaminated. The sooner you take action to stop and clean up leaks and spills, the better your pocketbook will feel. And remember, responding to leaks and spills is required by law.



"Am I in trouble if my tank leaks?"

It is not a crime for your UST system to leak. However, you will be in violation of the UST regulations if you know or suspect your tank is leaking and do not notify EPA immediately as well as take action to do something about it.

Warning signs of a leak include equipment alarms sounding, unexplained gain or loss of product inventory for two consecutive months, product or vapors in monitoring wells, reports of vapors in basements of nearby buildings, petroleum sheen or product on nearby surface waters, and a change in the amount of water normally found in the tank.



Responding to a Suspected Leak

Any time you think you may have a leak, you need to immediately check the equipment that is part of your UST system or its leak detection system to determine whether it is working properly. If, after immediately checking and repairing or replacing any equipment, warning signs of a leak still exist, then you must take the following actions:

- Report the signs of the suspected leak to the federal UST office within 24 hours.
- Conduct tightness tests of the entire UST system and, if necessary, a site check within 7 days.

If tightness tests indicate a leak, you must repair, upgrade or close the UST system. You also must conduct a site check, which involves investigating the site for the presence of contamination and evidence of environmental damage from your UST system. If results of the site check indicate a leak, then you will need to take the actions described below for responding to a confirmed leak. Even if tightness tests do not indicate a leak, you still must conduct a site check if evidence of leaked petroleum at or near your site was your reason for suspecting a leak.

If a spill or overfill has occurred at your facility, you must contain it and clean it up immediately. You also must report it to EPA within 24 hours if it is over 25 gallons or causes a sheen on nearby surface water, such as a river, stream, pool, or pond.

Responding to a Confirmed Leak

Once you know you have a leak, you must tell EPA within 24 hours. You must also take a number of other actions:

- Stop and contain the leak or spill immediately, including emptying the UST system.
- Make sure the leak poses no immediate hazards to human health by removing explosive vapors and fire hazards.
- Look for the presence of contamination and begin to recover leaked product.





- *Investigate the site and surrounding area to find out how far the leaked product has moved.*
- *Prepare a plan for cleaning up the site.*

It is a good idea to get expert help in investigating the site, determining the best way to clean it up, and writing the cleanup plan. You may want to contact a reliable consulting or environmental firm once you know you have a leak.

EPA will be working with you to get your site cleaned up as soon as possible, too. The agency will be directly involved in all major decisions about the cleanup of your site. EPA will review your cleanup

plan within a reasonable amount of time and either accept it as is, recommend changes to it, or request more information.

Getting Help from the State

Each of the states in Region VIII has a fund to help owners and operators pay for cleaning up leaks from their UST systems. There are some restrictions on getting assistance from these funds. Compliance with your state's UST requirements is usually the most important restriction.

If you intend to get help in paying for your cleanup from your state's fund, you will have to satisfy the state's UST requirements and those of the federal UST program. Although the requirements may be different, they do not contradict each other. EPA will work with your state UST office and with you to help ensure that both the state's and the federal UST program's requirements are met at your site.







Tank Closure

Properly closing USTs is good tank management. It's also good for the reservation community, and the environment.

You must notify EPA at least 30 days before you intend to permanently close an UST. You can do this by simply calling EPA. Once you notify EPA, you will be sent information you need to know to close your tank properly. Included will be fact sheets telling you how to safely remove a tank and what site sampling and testing is required.


"How do I get rid of my tank?"

To get rid of your UST, or close it permanently, you must meet certain requirements, in addition to notifying the EPA:

- *You must determine if any leaks from your tank have damaged the surrounding environ-*

For more information on these requirements and the exceptions to them, contact the EPA.

If you suspect or know of a leak at your site and intend to get help paying for any cleanup from



ment. To do this, you must conduct a site assessment (similar to the site check conducted to confirm a leak). The site assessment will show if the tank leaked in the past and, if it had, how much cleanup you will have to perform.

- *You must either remove the UST from the ground, or leave it in the ground and fill it with a harmless, chemically inactive solid material, like sand. In either case, the tank must be emptied and cleaned of all liquids, sludges, and dangerous vapors following standard safety practices.*

your state's fund, you may also need to notify the state of your upcoming tank closure and coordinate with the state UST office. EPA will not notify the state for you.

After receiving notification of your tank closure, EPA will decide if it will send an inspector to attend the closure. EPA's policy is to send an inspector to every tank closure if possible.

Having an EPA inspector on site during tank closure may save you money. The inspector can decide if the site is clean enough to close with no further action. If so, you may not have to pay to

have soil samples analyzed at a lab. If the site is contaminated, the inspector can explain what the next steps are and discuss what options are open to you. EPA's policy is to keep cleanup costs down whenever possible and still protect the environment. Coordinating early with the EPA UST office

will increase your chances of having an UST inspector on site during your closure.

If you meet certain requirements, you can close your UST temporarily rather than permanently. Any UST not used for 3 to 12 months must meet temporary closure requirements. Call EPA to discuss what you need to do to close your tank temporarily.

If you are planning on temporarily closing a tank for 12 months or longer, call EPA for details of the requirements you must meet.

Closing a tank is very dangerous work. Please consider working with an experienced contractor during the tank removal process.





Enforcement

The federal UST program was developed to protect human health and the environment. All owners and operators of regulated USTs are expected to do their best to comply with its requirements, including those for corrective action and tank closure.

EPA knows that many owners and operators willingly comply with the UST program's requirements. However, EPA is legally responsible to ensure that all regulated USTs are in compliance. EPA performs this duty by inspecting UST facilities and, when necessary, using enforcement. Enforcement is a process for deterring owners and operators from ignoring UST program requirements, assessing penalties to those who do not comply with them, and returning out-of-compliance facilities to compliance as quickly as possible.

"What will happen if I'm not in compliance?"

If your tank system is not in compliance with the federal UST program's requirements, you have committed a violation and any number of actions may be taken by EPA to ensure it is corrected. You may call EPA to discuss enforcement actions at any time.

The action taken by EPA in response to a violation depends on a number of factors, including the seriousness of the violation and your willingness to correct it.

- *For a minor violation, you may be issued a field citation on site. Minor violations include failure to keep adequate records, failure to maintain equipment in good operating condition, and failure to regularly conduct leak detection activities. A field citation for a minor violation means penalties ranging from \$50 to \$300, and you may be issued up to \$1,500 in penalties for multiple minor violations.*
- *For a major violation, you will be issued an administrative order with penalties. Major violations include failure to report a release, failure to conduct leak detection activities, and failure to notify of a tank closure. Penalties for major violations are considerably higher than those for minor violations, and are mailed to the facility owner.*

If you fail to correct any violation, additional and more severe action will be taken.

Most violations are found through compliance inspections. EPA selects facilities for inspection based on several factors, including the facility location, leak detection method used, and site history. If your facility has not been inspected yet, you can expect it to be at some time in the near future. EPA's goal is to have each UST facility located on an Indian Reservation in Region VIII inspected at least once every 5 years.



EPA tries to reach each facility by telephone at least 4 working days prior to the inspection. At that time, a specific date and time will be scheduled. The facility owner will be told what records to have available for the inspector. There will be times when the 4-day notice is not possible. Although unannounced inspections can occur, they are uncommon.

What to Expect If Your Facility is Inspected

You can expect the inspector to look at your UST equipment and records:

- *Leak detection equipment will be looked at to see if all equipment required by regulation is present, operational, and in good condition.*
- *Spill and overfill equipment will be looked at to see if it is in proper working order.*
- *Records of leak detection activity, any corrosion protection, and any repairs to your UST system will be looked at to see if they are complete and properly kept and to see the history of your system.*

If you have kept all the required records and have them on hand, the inspection will take about an hour. At the end of the inspection, the inspector will discuss the results with you, including any violations discovered. If you had any violations, the inspector will explain any enforcement actions to be taken and ensure that you understand what you need to do to return your facility to compliance.

Please remember, EPA's mission is to protect the environment. Keeping your tank system in compliance is a step in the right direction.





APPENDICES

Appendix 1.....List of UST Documents and Materials

Appendix 2Notification Form

Appendix 3.....List of National Association Offices

Appendix 4.....State Fund Offices

