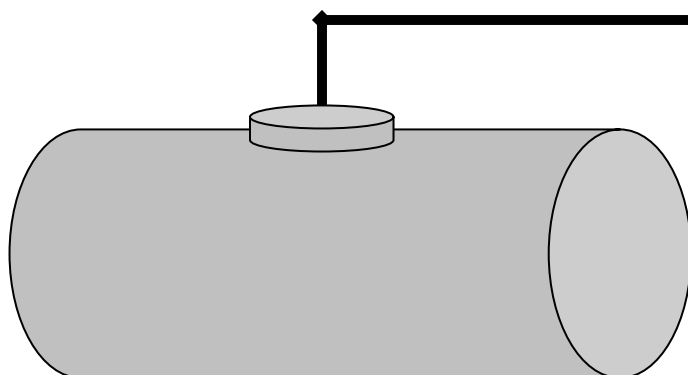




Plain Talk on Heating Oil Tanks

*An Operator's Guide
to Maine's
Underground Storage
Tank Rules*



July
2003



Maine Department
of Environmental Protection

This manual belongs to

Your Name: _____

Your Facility Name: _____

Your Location: _____

Facility Registration #: _____



Disclaimer: This guide is intended only as “plain English” to aid UST owners and operators in understanding and implementing Maine’s regulatory requirements for underground oil storage tanks. It is not intended to supplement or replace any statutory or regulatory requirements, and does not create any enforceable right at law or equity. In the event that any inadvertent conflict between this guide and Maine’s statutes and regulations, the statutes and regulations shall control.

This document was prepared for the State of Maine by

Ben Thomas Associates



Solutions for Underground Petroleum Storage Tank Systems

www.bentanks.com

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This document does not cover tanks that serve an emergency power generator or dispense heating oil from a dispenser, which are considered **motor fuel tanks**. See the Maine DEP document "Plain Talk on Motor Fuel Tanks" for more information.

Before you begin

Purpose

This guide is for people who own, operate or manage an underground **heating oil tank** used to heat a building.

The State of Maine recognizes that you have spent a lot of time, effort and money to comply with underground oil storage tank rules. The State also understands that the rules can be complicated and challenging to read.

This manual is designed to help you understand Maine's rules on underground petroleum storage tanks in simple, easy to read language.

But the rules can vary, depending on the type of tank equipment you have. Once you know what you have, you can read the parts of this manual that apply to you and skip the rest.

The main purpose of this manual is to help guide you through the tank rules with as little confusion as possible. That will help you have a safe and reliable fuel management system.

Why read this guide?

- Save time
- Save money
- Avoid hassles
- Prevent little problems from turning into big ones

Q. Why read this manual?

Didn't you already install all the necessary "bells and whistles" to be in compliance? What else is left to do?

A. Because your underground tank system can still leak.

You need to know how to prevent this. The "bells and whistles" are likely to fail if you don't properly maintain and service them.



Symbols

The following symbols are provided to help the reader understand certain important concepts. Look for these symbols throughout this document.



Checklists

Checklists are provided to help the reader simplify particular tank rules.



Problems

Watch out for these common problems. These are real life problems in Maine and show how to NOT do something.



Compliance Issues

Maine's DEP pays particular attention to certain compliance issues that are critical in protecting human health and the environment. Know what an inspector is looking for.



Success Stories

There is always a better way to do something. Get good advice by learning about real life experiences where UST operators have succeeded in meeting or exceeding UST rules.

Understanding Jargon

Every effort has been made to use layman's terms in this guide so everyone can understand the requirements. Sometimes, however, you may not be familiar with certain terms.

Each section in this guide will start with a box that contains terms you should be familiar with in the upcoming discussion. If you know these terms you will better understand the rules.



Jargon:

('jar-gin) words or expressions used by a particular group or profession

See a word or term you don't understand?
Go to Definitions on pages 10-11.

Chapter 1. The Big Picture

In this chapter you learn about the basics of the underground tank program: the goals of good tank management, the parts that make up a whole tank system, who does what in the world of tank systems, and tank terms.

Underground
Storage
Tank

Terms to know in this chapter

- Contamination
- Drinking water supply
- Groundwater
- Underground storage tank or UST

Contamination from leaking underground storage tanks can pose a significant threat to Maine's drinking water supplies. Since 1990, over 600 leaking UST sites have contaminated ground water and drinking water supplies in Maine.



Leaking UST systems can

- Make drinking water supplies unfit for human consumption.
- Create a fire hazard.
- De-value land and stop real estate sales.
- Cause groundwater pollution that can move onto neighboring properties.
- Seep into rivers, lakes and the ocean.

Your job as an operator is to safely and properly manage your underground storage tank system by preventing leaks, spills and rust.



Basic Rules

Maine's UST rules were created for the simple purpose of helping you keep fuel on the *inside* of your tanks and piping, rather than *outside* of it.

This section is to help you understand the most basic requirements to operate a UST system in Maine. Later, you will learn more detailed requirements on your particular tank.



Look for these signs to guide you in Chapter 2.



Was your tank installed before or after September 16, 1991?

You need to know this in order to understand which rules apply to you.

Key Concepts



Detecting leaks



Preventing overfills



Stopping corrosion



Doing maintenance

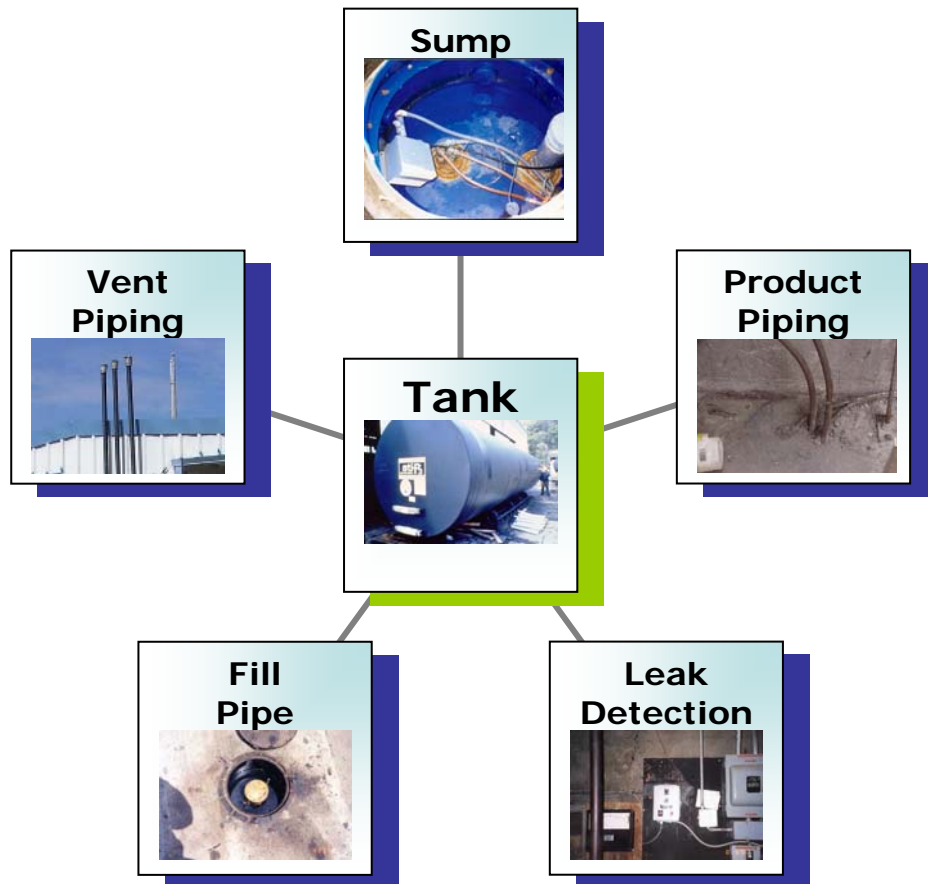


Keeping good records



Responding to problems

Parts of a Tank System



Parts

Tank. Underground container used to store petroleum.

Product Piping. Two-pipe system used to move petroleum from the tank to the furnace and return unburnt fuel to the tank.

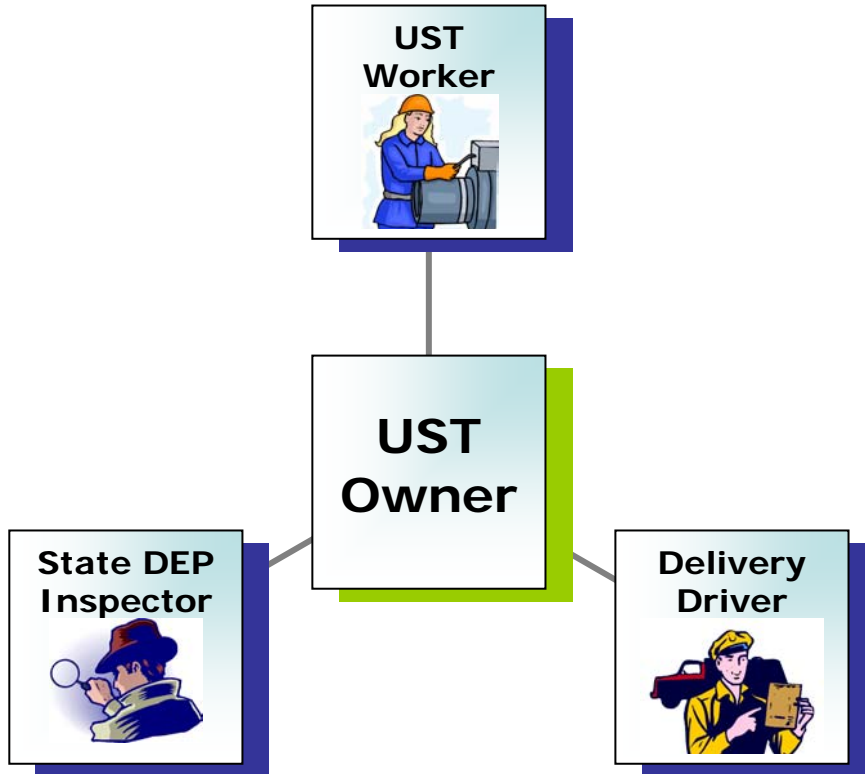
Sump. Large underground bucket used to house piping joints, sensors, etc.

Leak Detection. System used to look for leaks on a periodic or continuous basis.

Fill Pipe. Where fuel is put into the tank.

Vent Piping. Piping used to vent tank so pressure does not build up into a vapor hazard.

Who does what



People

Owner. The person who owns and is responsible for the tank system.

State (DEP) Inspector. Person who make sure UST system meets state of Maine requirements.

UST Worker. Licensed professional who works on tanks: installs, repairs, upgrades or inspects, or any combination of these.

Definitions

Cathodically protected - using a method to prevent the corrosion of a metal surface.

Cathodic protection monitoring – measuring electric current from underground metal to figure out if the metal is being protected from corrosion.

Certified installer – a person who is certified by the State of Maine to perform installation, upgrades, and repairs on a UST system.

Corrosion expert - a person who is certified and qualified to do corrosion control work on buried metal piping and tanks.

Continuous monitoring - using an automated device to continuously look for leaks which will provide an obvious indication of a loss of oil or a hole in the primary wall of the tank or pipe.

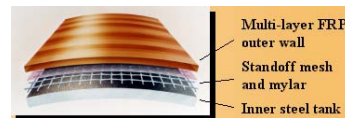
Department- the Maine Department of Environmental Protection or DEP, the state agency that regulates underground oil tanks.



Discharge - any spilling, leaking, pumping, pouring, emitting, escaping, emptying, or dumping of oil.



Double-walled tank or piping - an underground oil storage tank or pipe that has an inner and outer wall, which can measure for oil or water between the walls.

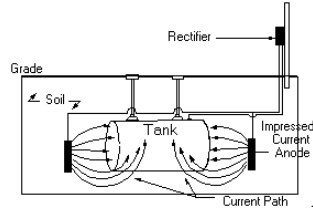


Groundwater monitoring – using a number of small diameter wells to look for oil in the groundwater near an underground tank.

Heavy oil - an oil that must be heated during storage, including #5 and #6 oils.

Heating oil – an oil consumed on premises where stored for heating purposes only.

Impressed current cathodic protection system - a corrosion protection system that uses direct current supplied by a power source.



Leak - a loss or gain of one-tenth of one gallon (0.1 gallons) or more per hour as determined by a tightness test.

Occurrence - a contamination incident or prohibited discharge from a tank or piping at an underground oil storage facility.



Owner - a person who alone, or with others, owns an underground oil storage facility.

Secondary containment - a double walled tank or piping system that is designed to detect and contain oil in the outer wall, should the inner wall fail.

Sump – large, bucket-like container that houses the pump, portions of the piping, sensors and electrical wires.



Underground oil storage facility, or "facility," -any underground oil storage tank or tanks, together with associated piping located under any land at a single location and used, or intended to be used, for the storage or supply of oil. Underground oil storage facility also includes piping located under any land at a single location associated with above ground storage tanks and containing 10 percent or more of the facility's volume capacity.

Underground oil storage tank, or "tank," - any container, 10% or more below ground and which is used, or intended to be used, for the storage of oil. The term does not include certain tanks in vaults; propane tanks, underground oil water separators, storm water and other catch basins, and hydraulic lift tank.

Chapter 2. Operating Your Heating Oil Tank

If you own or operate an underground oil tank used to heat a building, you must perform certain routine duties. This chapter describes these duties.

Operating and maintaining your UST system is an important part of your long term business plan to protect your investments while protecting the environment.

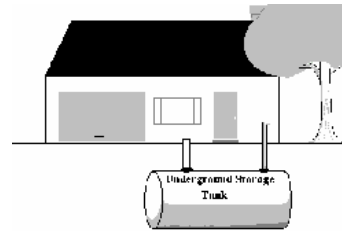
If your tank is also hooked up to an emergency power generator, then it is considered a motor fuel tank system. See the companion document "Plain Talk on Motor Fuel Tanks" for more information.

Terms to know in this chapter

- Leak detection
- Spill prevention
- Corrosion protection

How old is your tank?

The rules for heating oil tanks are generally the same for any age tank, but older heating oil tanks have some extra options, which will be explained in this chapter.



All heating oil tanks installed after September 16, 1991, must be double-walled and have double-wall piping.

Note: Only licensed oil burner technicians may connect a heating oil tank to a furnace or boiler.

Figure out which sections apply to your tank system, then read about your:



Detecting leaks

One of the most important things you can do is to periodically ensure that your UST tank and piping are not leaking. In this section we will cover options, actions, and records.



Terms to know in this section

- Groundwater monitoring
- Interstitial monitoring
- Product line
- Return line

UST Options

Your leak detection options depend on how old the tank is.



For newer tanks installed after September 16, 1991, double wall tanks and piping with continuous interstitial space monitoring are the only allowable method of leak detection.



For older tanks installed before September 16, 1991, you can either have double wall tank and piping or use ground water monitoring.

Double Wall Tank means you have a tank with an inner and outer wall plus some way to check for leaks between those two walls. To be more specific, you must continuously check the interstitial space, the gap between the inner and outer wall of the tank, and ensure there is no petroleum or water in that space.



Upright tube in center is where the interstitial sensor is located.

Double Wall Piping means you have a pipe within a pipe plus a way to check the space in between the walls.



Notice the large bucket on top of the tank. That's called a sump, which contains the portion of the double wall piping that enters and leaves the tank. There should also be a sensor in the sump. The sensor should be wired into the same console used to show leak detection for the tank as well.



Looking in the bucket, you can see the piping. The sensor, circled, must be functioning and be able to detect unwanted liquid in the sump, then alert the owner.

What does a double-wall monitor look like?

Your tank system should have an electronic sensor that is connected to a console or computer box. The sensor should be set to check the interstitial space on a continuous basis.



Fred maintains a heating oil tank at a hospital. Part of the underground piping is inside a plastic PVC pipe which acts as a shield between the piping and the soil. The plastic pipe does not cover every bit of the buried piping and is therefore not legal. At his next annual inspection his UST system fails. Why? Because Fred doesn't have a true interstitial space to contain the oil if the copper pipe failed.

Groundwater monitoring means you have a number of small diameter wells surrounding the underground tank and piping. The wells allow you easy access to the groundwater so you can sample the water to ensure there is no oil in there.

This option is only for older tank installed before September 16, 1991. Also, the ground water must be shallow enough.

Groundwater monitoring is only allowed for older, single wall tank and piping systems.



Now that you know you have leak detection equipment, what do you do next? Check for leaks! State law says there are certain things you must do to keep an ever-vigilant eye for potential problems.

Double wall tanks and pipes



Checklist: Doing Leak Detection Right

- Check the interstitial space of the tank.
- Check the interstitial space of the pipe.
- Understand exactly what you are measuring and what the results mean.
- Make sure you keep records of your results.
- Treat a suspected release as a serious problem.

You must ensure that the tank and piping are tight and free of liquid oil or water. The presence of oil in that space means the inner wall of the tank may have a leak. The presence of water in the space may mean the outer wall of the tank has a hole and ground water is getting in. Under either scenario, it means you have a problem.

Tanks: Checking the double wall tank means checking the console that is wired to a sensor in the interstitial space. Your console will either be a standalone or combination device. Once a year during inspection the console and the sensor must be tested to make sure they are functioning properly.



Always look and listen for alarms. Report all known or suspected leaks immediately.

Interstitial monitoring means always watching for leaks.

Check the system every 30 days for proper operation by testing the alarm button.

Piping: Checking the double-wall piping means checking the console that is plumbed to a sensor in the lowest point of the piping system, called the sump. Your console will either be a standalone or combination console. Once a year the console and sensor must be tested to ensure it is working properly.



Always look and listen for alarms. Report all known or suspected leaks immediately.

Interstitial monitoring means always watching for leaks.

Check the system every 30 days for proper operation by testing the alarm button.



Problems with double wall piping

If anything goes wrong with interstitial monitoring, chances are it will occur in the piping sump. Here are common problems found in sumps and what you can do about it. Have your UST service provider fix these.

- Water or oil accumulates in bottom
- Sump sensor raised too high to detect release
- Piping boots loose, damaged or cracked
- Holes in side of sump wall or sump bottom

The Trouble with Double (wall piping)

Tank systems installed after September 16, 1991 must have double-wall piping. But is it truly double walled? If the outer wall piping is not totally and completely enclosed, a leak could still occur without you knowing it. How do I know if I have contained or just shielded piping?

True double-wall piping

- Ends of outer wall of piping have no gaps, holes or openings to the soil
- Required to provide containment and protect copper piping.
- Required after Sept 16, 1991.

“Shielded” piping

- Copper piping inside plastic sleeve but ends may be open to soil.
- Required to protect copper piping from damage



Success Story

Anne has an office calendar hanging on the wall next to her computer. She has made a note to check the interstitial space the last business day of each month. She consistently finds no product there. She clips a copy of the results to a clip board which hangs next to the calendar. The Maine DEP inspector is impressed.

Groundwater monitoring



Checklist: Doing Leak Detection Right

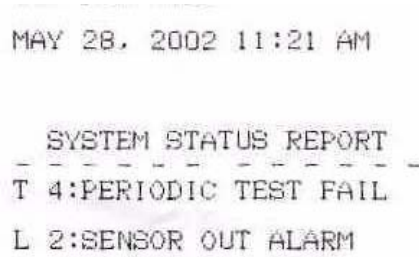
- Make sure the well caps are accessible but secured (locked).
- Make sure you have a clean bailer to check the well.
- Check for floating oil or the smell of oil once a week.
- Make sure you keep records of your results.
- If you see or smell something that looks like oil, contact DEP immediately.



**Check your monitoring wells every week.
If you see or smell evidence of oil in a
groundwater well, contact DEP
immediately.**

The double wall tank and the piping must be tested continuously for leaks. But wait, there's more. You must prove you are actually doing it. Simply telling a DEP inspector that you do it without any hard copy proof is not enough.

Double Wall Tanks and Piping Two way keeping records



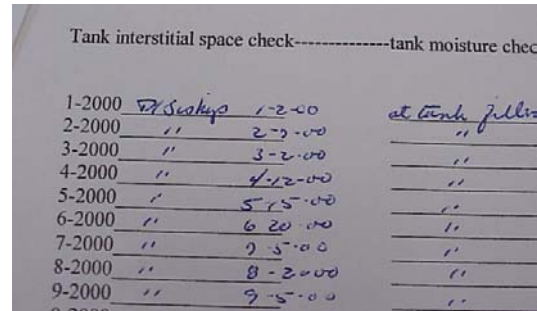
MAY 28, 2002 11:21 AM

SYSTEM STATUS REPORT

T 4:PERIODIC TEST FAIL

L 2:SENSOR OUT ALARM

Electronic Printout



Tank interstitial space check-----		tank moisture check	
1-2000	✓ Sealys 1-2-00		at tank fill
2-2000	" 2-2-00		"
3-2000	" 3-2-00		"
4-2000	" 4-12-00		"
5-2000	" 5-15-00		"
6-2000	" 6-20-00		"
7-2000	" 7-5-00		"
8-2000	" 8-2-00		"
9-2000	" 9-5-00		"

Manual Print Out

Groundwater Monitoring

You must have poof that you check the groundwater wells every week. Most operators use a hand written log to satisfy this rule.

If you use groundwater monitoring as your sole source of leak detection, you must check the wells every week and keep a log of the results.

Preventing overfills

NOTE: This section only applies to underground heating oil tanks larger than 1,100 gallons.

Another important part of your responsibility as an owner or operator of a UST system is to ensure there are no overflows of fuel during a delivery. In this section, you will learn about options, actions, and records for your UST system.



Cleaning up an overfill during delivery can be expensive

Terms to know in this section

- Ball float valve
- Overfill alarm
- Pressurized delivery
- Spill bucket
- Vent whistle



**In the event of an overfill
call**

800/482-0777

The sooner you call,
the lower your cleanup costs



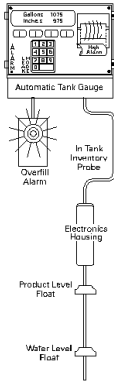


Spills to the ground surface can happen during fuel delivery to your tank, or during vehicle fueling. You must cleanup discharges immediately and document your actions.

There are two types of equipment you must have in order to avoid overfills. This equipment is designed to reduce the change of spillage during fuel deliveries.



Make sure you have the right equipment

Spill Containment	Overfill Device (2 options: pick one)	
<p>Spill Bucket Must hold at least 3 gallons</p>  <p><input type="checkbox"/> Yes I have one</p>	<p>Vent Whistle set to restrict flow at 95% full</p>  <p><input type="checkbox"/> Yes I have one</p>	<p>Alarm set to alert at 90% full</p>  <p><input type="checkbox"/> Yes I have one</p>

WARNING ABOUT BALL FLOAT VALVES

If your tank has a ball float valve or receives deliveries under pressure, beware! The ball float valve may actually cause a spill. Check with your oil distributor and make sure you don't have this situation.



Your job is pretty straightforward: Prevent overflows during oil delivery.



Preventing overfills

- Make sure the fuel level in the tank is measured **BEFORE** each delivery.
- Keep your spill buckets clean and dry.
- Monitor all fuel deliveries.
- Respond to **ALL** overfill alarms.



What does monitoring deliveries involve?

State law says that the UST owner, operator or oil transporter must be physically present during each delivery. Being inside sipping coffee does not count. This designated person must monitor all product deliveries.



Make sure you designate a person for this responsibility. They must be able to:

- Figure how much empty space is in the tank before the fuel is added.
- Be standing at the oil delivery point and watch for problems.
- Understand what to look for that might indicate a possible overfill event.
- Know what to do if you see or hear an alarm.
- Know what to do in the event of a spill.
- Know who to call for help.

If you have an overfill alarm, that alarm must be tested annually to make sure it works, and those who need to can hear or see it.



All spill containment and overfill prevention equipment must be tested each year to make sure the devices are working properly.



Problems with overflow devices

Vent Whistles

- May not hear it stop whistling.

Alarms

- If an overflow high level alarm goes off too many times, an operator may start ignoring it.
- Alarm disconnected.
- No one knows what to do when they hear alarm.

Spill Bucket "Musts"



The spill containment bucket:

- must be kept free of water and debris
- must be cleaned of oil after each delivery
- must be able to hold at least 3 gallons of liquid.



Problems with spill buckets

- Cracks in lid allowing in water.
- Letting water (or oil) accumulate in the bottom.
- Cracks or holes in the side or walls of spill bucket.
- Drain plug malfunctioning or broken.



Record keeping for spill and overflow requirements simply means keeping a record of any overfills. Keep them in a log and available for inspection.

Example of Oil Spill Log

Date discharge discovered	Source of discharge	Location of discharge at facility	Date of cleanup	Method of cleanup	Signature of owner manager
12/5/02 3:30 PM	overflow at fill pipe during delivery	Fill pipe	12/5/02	used sorbent pads	Bob Jones

Reducing Corrosion

Corrosion of underground steel is a serious problem in Maine. Without maintaining certain types of equipment, your tank and piping can rust out, causing a leak. In this section, you will learn about options, actions, and records for your UST system.



Terms to know in this section

- Cathodic protection
- Cathodic protection tester
- Corrosion
- Impressed current
- Rectifier

Cathodic Protection

What exactly is corrosion?

Your buried steel tank has electrical energy inside the metal. This energy was added at the steel plant when raw iron ore was bombarded with high temperature heat, converted ore into steel. Once buried, the pent-up energy in the steel will try to escape if allowed. When the energy does escape, it's called corrosion.

If the outer surface of an unprotected steel tank was damaged by a backhoe during installation, a pinpoint spot would form, allowing energy to drain out of the metal. That's how rust starts.



Modern day steel tanks come equipped with special corrosion control devices in place to stop corrosion, but this equipment must be tested to make sure it still works.

UST Options



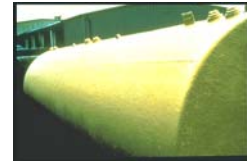
You have a few options for protecting your underground tank from corrosion. Which do you have?

Tanks options

Fiberglass tank



Fiberglass clad steel tank



Steel tank with factory cathodic protection (STIp3)



Piping

Copper pipe inside non-metal sleeve



Non-metal and/or cathodically protected vent pipe



UST Actions

The main thing you need to do as an operator is to ensure that your tank is protected from corrosion.



Corrosion Protection Checklist

- For steel tanks-** Have a corrosion test done once a year.
- For non-metal tanks-** Keep records to prove your tank is made of something other than steel. There is no test requirement.
- For piping, including the vent line-** Keep records to prove your tank is made of something other than steel. There is no test requirement.

A corrosion test must be done once a year by a Maine Certified corrosion tester.



What is a passing grade?

If you have a steel tank, you must prove the tank is putting out enough electrical current to overcome the metal's naturally occurring desire to rust.

A corrosion test is a measurement of this electricity of the tank.

If the tank puts out an adequate level of electricity, corrosion is not occurring. Otherwise, your tank is probably rusting.

An adequate level of current is about 8/10 of a volt, or 0.850 volts to be precise.



Pass or Fail?

-1.100v	Pass
-1.000v	Pass
-0.900v	Pass
-0.850v	Pass
-0.800	Fail
-0.700v	Fail
-0.600v	Fail
-0.500v	Fail



Corrosion protection record must be kept where an inspector can review them. You must keep:

- **Most common:** A copy of the most recent cathodic protection test.
- **Less common:** A copy of the impressed current readings from your rectifier.



Is your tank older than 15 years?

Many steel tanks of this age have been replaced as a result of corrosion. Contact a CTI or a Corrosion expert to investigate failing corrosion protection. Remember: corrosion protection only prevents corrosion if it is maintained. If the voltage readings are consistently failing (less than -0.850 volts), the tank is not adequately protected from corrosion, nor will it pass the annual inspection. If it cannot be fixed the tank must be removed.

Chapter 3. The Annual Inspection

The annual inspection is the single most important event you face in the management of your tank system. Why? Because the inspector will tell you whether all of your leak detection and prevention equipment is really working the way it should.



Terms to know in this chapter

- Inspector
- Maine DEP

Due date for passing inspection is July 1 of each year



Inspection Basics



What you need to know

- Every year your UST system must be inspected.
- The inspection must be done by a licensed inspector or installer.
- The inspection due date is July 1 of each year, but it can be accomplished any time after July 1 of the previous year.
- The inspection includes equipment, operations, maintenance and record keeping required in Maine's UST regulations.
- The inspection covers all equipment and methods for leak detection, spill and overfill prevention and corrosion protection.
- Any problems found must be corrected.
- If you don't inspect, you could be subject to enforcement.



If you don't inspect, or if you don't correct problems identified in a *failing* inspection, the Department may issue an order to prohibit deliveries of product to the tank until the problem is fixed.

Getting ready

Preparing for your upcoming inspection will save you time, effort and money. Here are some things you can do to get ready.



Get the following documents before the inspector shows up

- Maine DEP tank registration paperwork.
- Last year's inspection report form if available.
- The last 12 months of leak detection records and put them in chronological order.
- Last year's cathodic protection test if you have steel tank or pipe.
- Copies of all maintenance and service reports over the last year.
- Any spill notification forms.
- Any owner's manuals or warranties on parts and equipment related to the tank system.

Be prepared for the inspection

Get your paperwork in order before your inspector shows up



Who can inspect

Inspections may be done by anyone who is a State certified underground tank installer or inspector.



For a list of approved inspectors:

Web: <http://www.state.me.us/dep/rwm/Installers.htm>

Phone: 207/287-2651

Reporting

You must use an inspection form provided by the Maine DEP. You can find a copy of this form at the DEP web site.



Mail completed forms to:

Annual Tank Inspections
Maine Department of
Environmental Protection
17 State House Station
Augusta, ME 04333

Remember to keep a copy for your records.



The tank owner or operator must ensure the inspection report is submitted to DEP, not the inspector.

Find inspection forms on-line at:

<http://www.state.me.us/dep/rwm/publications/pdf/usts2003inspLog%20.pdf>

When you find a problem

Finding a problem can be a blessing in disguise. Broken or missing equipment can be identified and corrected during the course of the inspection without penalty or fine.

If your Inspector is also a licensed installer, they can usually fix problems found during inspection.

The Basics

- Promptly repair or replace broken equipment.
- Have a certified tank installer do the repair or replacement.
- Notify Maine DEP when the problem is corrected using an amended inspection form.
- If there is a record keeping problem, contact DEP.
- Note problem and correction on inspection form.



Common Problems Found in Maine's Inspections. Do any of these apply to you?

Equipment

- Failure to report broken equipment.
- Failure to have totally contained double-wall piping.
- Failure to maintain corrosion protection system.
- Failure to repair broken alarm.

Operation and Maintenance

- Failure to keep spill buckets clean.
- Failure to maintain leak detection equipment.
- Failure to accurately check for leaks once a month.
- Failure to report evidence of a possible leak.

Record Keeping/Reporting

- Failure to keep tank registration on file.
- Failure to notify DEP of change of ownership.
- Failure to maintain a log of spills and overfills.

Chapter 4. Improvements

In this chapter you will learn about the requirements to do certain activities that are not directly related to the routine operation of your UST system, but to other activities such as repairs, upgrades, new installation and removals.



Terms to know in this chapter

- Installation
- Maintenance
- Repair
- Removal
- Upgrade

Repairs and Upgrades

Repair: To fix or replace any part of the UST system, including, tank, piping, or any equipment used to prevent a release to the environment.

Upgrade: To add or replace parts to a UST system to improve its ability to detect leaks and prevent overfills and rust.



What to do

- Notify Maine DEP of intent to repair.
- Hire a Certified UST installer to do the work.
- Make sure installers do repair work to appropriate standards and codes.
- Notify Maine DEP once work is done.
- Test tank or piping afterwards to make sure system is tight.



Fixing damaged piping is a repair.

Installations

Installation: To add new tanks or piping to an existing UST facility.



What to do

- Notify Maine DEP of intent to perform the installation at least 5 business days in advance. (For emergency situations, DEP can waive the 5-day notice.)
- Hire a Maine Certified UST installer to do the work.
- Make sure installers do installation work to appropriate standards and codes.
- Notify Maine DEP once work is done.



Replacing product piping meets the definition of installation.

Maintenance

Maintenance: To perform simple, routine actions to keep the UST system running properly.



What to do

- Understand what maintenance is required and how to do it. Operators can usually perform maintenance duties.
- Perform those duties.
- Keep a log of what you did.



Cleaning out a spill bucket is considered maintenance.

Removals

Removal: To remove a tank and piping from the ground.



What to do

- Notify Maine DEP of intent to remove the tank at least 30 days in advance. (For emergency situations, DEP can waive the 30-day notice.)
- Make sure the UST worker does the closure work to appropriate standards and codes.
- Notify Maine DEP once work is done.

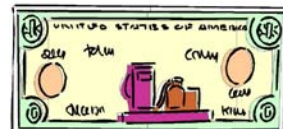
Note: the owner may request approval to abandon the tank in place when the tank can not be physically removed (like one under a building). Special considerations must be met so contact DEP for more information.



Caution: Removal of an underground fuel tank can be dangerous. Only hire trained professionals.

Not sure which of these actions applies to you? Call Maine DEP for assistance at 207/287-2651

Environmental protection makes good business sense.



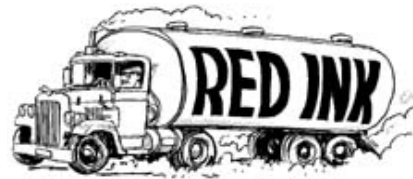
Chapter 5. Paperwork

Keeping your records in order is an important part of proving you are in operational compliance with Maine's UST rules. It also helps you stay organized and ready for your inspection.

This chapter will cover your paperwork requirement for your administrative duties as a UST operator.

Term to know in this chapter

- Spill notification
- Registration
- Financial responsibility



Stephanie owns a business with a heating oil tank which is being inspected by DEP staff for compliance. Stephanie is ready and organized. She keeps all her tank information in one three ring binder divided into simple chapters. Here is what she hands the inspector:

- Current certificate of registration.
- Manufacturers instruction for all leak detection equipment.
- Invoices or records from all repairs/upgrades.
- Tank and piping operating instructions.
- The most current annual inspection report.
- Leak detection records in chronological order.

Spill Notification

One of the most important paperwork requirements is notifying Maine DEP in the event of a release to the environment.

If you have a leak or spill, call DEP immediately.

The longer you delay the more risk there is to the environment and the higher your cleanup costs will be.



Report all spills and leaks immediately.

Calls within Maine (24 hours)
800/482-0777



Small spills: For any surface spills less than 10 gallons, you do not need to report the incident if the spill is cleaned up immediately and the oil does not get into any water.

However, you must keep a written log of all spills: what happened and what you did to clean it up.

Example of an Oil Spill Log

Date discharge discovered	Source of discharge	Location of discharge at facility	Date of cleanup	Method of cleanup	Signature of owner manager
12/5/02 3:30 PM	Overflow at fill pipe during delivery	Fill pipe	12/5/02	Used sorbent pads	Bob Jones

FOR A BLANK SPILL LOG, SEE PAGE 24.

Registration



5 basic things

1. Each tank that you own or operate must be registered with the State of Maine.
2. An annual registration fee of \$35.00 per tank must be paid by January 1.
3. The fee applies to underground motor fuel and heating oil tanks but does not include tanks at single-family homes that are the owners' personal residences.
4. If you sell your tank, you are required to inform the buyer of Maine's underground oil storage tank rules. DEP suggests you get them a copy of this guide.
5. If you sell your tank, the new owner must also notify the Maine DEP within 10 days of the sale. The seller should notify DEP too.

Financial Responsibility

State and Federal law requires that you must have the funds necessary to pay for cleanup and off-site damages caused from a release of your UST system. While there are a number of ways to meet this requirement, the most common is the Maine Ground Water Oil Cleanup Fund or simply "The Fund". Most UST owners in Maine use this to meet this requirement.

Financial Responsibility: How you pay for a cleanup in the event of a spill.

If you have a release, you can apply for financial assistance through the State of Maine. Certain restrictions apply. For more information, call 207/287-2651



Summary Checklist

Maine's rules on heating oil underground storage tanks

Newer Tanks

(installed after Sept. 16, 1991)

Each month:

- ❑ Check the interstitial space of the tank and piping.

Each year:

- ❑ Have the leak detection console and sensor tested to be sure they are working properly.
- ❑ Have an inspector perform annual inspection, including corrosion testing on steel tanks.
- ❑ Pay annual registration fee.
- ❑ Submit inspection report to Maine DEP.

Additional notes:

- ❑ Monitor all fuel deliveries.
- ❑ Keep all your leak detection records for the last 3 years prior to inspection.
- ❑ Understand what you are measuring and what the results mean.
- ❑ Hire only licensed professionals to perform tank work.
- ❑ Treat a suspected release as a serious problem.
- ❑ Respond to all alarms, failed tests, or indications of a problem.
- ❑ Notify DEP immediately if you know of a serious problem.



Older Tanks

(installed before Sept. 16, 1991)

Each month:

- ❑ Check for leaks in the tank and piping using your particular method of leak detection (see method-specific requirements).

Method-specific:

- ❑ Interstitial monitoring: Make sure the system runs continuously.
- ❑ Groundwater monitoring: Check the wells for signs of oil every week.

Each year:

- ❑ Have an inspector perform annual inspection, including corrosion testing on steel tanks.
- ❑ Pay annual registration fee.
- ❑ Submit inspection report to Maine DEP.

Additional notes:

- ❑ Monitor all fuel deliveries.
- ❑ Keep all your leak detection records for the last 3 years prior to inspection.
- ❑ Understand what you are measuring and what the results mean.
- ❑ Hire only licensed professionals to perform tank work.
- ❑ Respond to all alarms, failed tests, or indications of a problem.
- ❑ Treat a suspected release as a serious problem.
- ❑ Notify DEP immediately if you know of a serious problem.

Resources

Internet Web Sites



Maine DEP UST Program

Maine UST program

www.state.me.us/dep/rwm/usts/index.htm



EPA Office of Underground Storage Tanks

Federal UST program

www.epa.gov/oust/



Petroleum Equipment Institute

Petroleum industry information

www.pei.org/



National Work Group on Leak Detection Evaluation

Leak detection equipment approvals

www.nwglde.org/



New England Interstate Water Pollution Control Commission

LUST Line newsletter

www.neiwpcc.org



Steel Tank Institute

Steel tank information

www.steeltank.org



Maine Oil Dealer's Association

Maine trade organization

www.meoil.com



American Petroleum Institute

National petroleum issues

www.api.org



National Association of Corrosion Engineers

Corrosion testing

www.nace.org

Helpful Publications



Maine's Inspector Handbook by Maine DEP

Web link:

www.state.me.us/dep/rwm/publications/usts2003inspInstr%20.pdf

Hard copy: Call 207/287-2651



List of Maine approved inspectors by Maine DEP

Web link www.state.me.us/dep/rwm/Installers.htm

Hard copy: Call 207/287-2651