THINK TANK

Published by the Delaware Department of Natural Resources and Environmental Control
Tank Management Branch as a service to the regulated community

Winter 2008 Number 55

The New and Improved UST Regulations are here!!

Jill Hall

After three years of work, two rounds of public workshops, and a public hearing, the revisions to the Delaware *Regulations Governing Underground Storage Tank Systems* (the UST Regulations) are finally complete. The Tank Management Branch (TMB) staff would like to thank all the members of the public who provided comments to us during this process.

The revised set of UST Regulations became effective January 11, 2008. The new regulations can be downloaded from the TMB homepage on the internet at http:/ www.dnrec. state.de.us/dnrec2000/Divisions/ AWM/ust/ or hard copies may be purchased at a cost of $25.00/copy. Be aware, if you download from the internet, that the regulations are 378 pages long. Purchased hard copies include a cardstock cover and are 3 hole punched for convenience. Order forms for purchasing hard copies are available at the above internet address or can be obtained by calling the TMB at 302-395-2500. Copies may also be purchased at the DNREC office located in RiverEdge Industrial Park, 391 Lukens Drive, New Castle, DE. Please note that the TMB does not accept cash or credit cards. The TMB accepts only checks or money orders made payable to the State of Delaware.

The revised Regulations will affect the operation and maintenance of existing USTs as well as the installation of new USTs. Home heating fuel and agricultural/farm USTs less than 1,100 gallons in capacity will remain unregulated. The TMB is currently developing a Compliance Assistance Manual (CAM) to assist tank owners and operators in understanding the impact the new regulations will have on their operations. As guidance documents are developed, they will be posted on our homepage so check back often for updates. Feel free to call the TMB during regular office hours with any questions.

This issue of *Think Tank* will focus on the installation, operation and maintenance aspects of the revised Regulations. An issue of Think Tank focusing on the new corrective action requirements will be issued in the spring. See page 2 for a list of some of the changes.

In This Issue

Some of the most significant changes in the Regulations are noted below:

EFFECTIVE DATE	UPGRADE REQUIREMENT
January 11, 2008	• All repairs, upgrades, retrofits must be made in accordance with new tank standards • The DNREC may prohibit delivery to any UST that is not in compliance with the Regulations • All new installations must have containment sumps, 15 gallon spill containment and secondary containment on tanks and piping • Water in USTs storing ethanol blends must be measured daily; USTs 8000 gallons or less must pump out if water is 1" or greater; USTs greater than 8000 gallons must pump out if water is 2" or greater. • Inventory that shows an unexplainable consistent negative trend requires the release investigation procedures of Part E be initiated • Tank owners or operators must make a visual inspection of all UST systems every 30 days • All ATG and interstitial monitors used for release detection must be inspected by a qualified service technician *every 12 months*. • Spill containment devices must be tightness tested annually or in accordance with manufacturer's specifications • Containment sumps installed after Jan 11, 2008 must be tightness tested every 36 months • Containment sumps installed prior to Jan 11, 2008 with sump sensors utilized for release detection, must be tightness tested every 36 months • All cathodic protection systems must be tested annually by a certified technician; CP test failures must be reported to the DNREC within 48 hours; all CP repairs plans must be approved by the DNREC • Impressed current cathodic protection cannot be used as a repair, upgrade or replacement • Internal lining cannot be installed to met corrosion protection requirements • Used oil USTs section *added*, with specific overfill, spill and release detection requirements • USTs that are out of service for 12 months must be emptied and a site assessment completed • Any person who observes evidence of a release must report it to the TMB • Annual evaluation of remediation progress at LUST sites required • A LNAPL site conceptual model must be developed at LUST sites containing LNAPL • Transfer of ownership documentation including financial responsibility must be submitted to DNREC within 72 hours of owner transfer if the tank is in operation
December 31, 2008	• Tank tightness testing not acceptable as a primary release detection method • Hazardous substance USTs must show proof of financial responsibility
January 1, 2009	• Release detection required for existing emergency generator USTs (tank tightness testing allowed)
January 1, 2011	• Double elbow swing joints must be replaced with flexible connectors
January 1, 2013	• Observation tubes, monitor wells, vapor tubes, U-tubes not acceptable as a primary release detection method

New Corrosion Protection Guidelines for Cathodic Protection Systems and Internal Lining of USTs

by Sandi R. Carney

With the TMB's adoption of revised *Regulations Governing Underground Storage Tank Systems* on January 11, 2008 has come some significant changes to UST corrosion protection system requirements. Some of the changes that have occurred as part of the revised UST Regulations include:

- Impressed current cathodic protection (CP) systems **cannot** be installed to make repairs or upgrades to failing cathodic protection systems;
- All CP systems must be tested **once a year** by a certified individual;
- All repairs to CP systems must be **approved in advance** by the TMB;
- Owners and operators of USTs with impressed current CP must monitor and keep permanent record of rectifier readings every **thirty (30) days**.

- Internal lining **may not** be added to a tank to meet corrosion protection requirements, only to improve the ability to prevent a release;
- Owners and operators must notify the TMB within forty-eight (48) hours of the discovery of a CP system failure. Necessary repairs must be made within sixty (60) days.

Requirements that have remained the same include:

- All systems must be tested within six (6) weeks after any underground work is performed at or near a UST system with CP, and once a year thereafter.
- Internal linings of any UST must be internally inspected after ten (10) years of installation and every five (5) years thereafter.
- Internally lined USTs must be precision tested before recommissioning of the UST after an internal inspection.

Revised UST Closure Notification

by Sandi R. Carney

The TMB has adopted a new UST Closure Notification form which must be completed for all UST closure activities approved in the State of Delaware after January 11, 2008. Methods of achieving closure include removal or closure in place of the UST. Some significant changes that will take effect with this new UST Closure Notification include:

- A section which requires indication of whether or not the UST Closure is an emergency situation.
- A section which requires indication of whether or not there is a request for deviation from standard closure protocol.
- A requirement to call DNREC-TMB if either the closure is an emergency or if a deviation from standard closure protocol is requested.
- A section that must be completed with the name of the TMB personnel authorizing the emergency closure or deviation from standard closure protocol.
- A section with a provided classification key that must be completed to classify each tank according to its use.
- A section which may be submitted with information on up to four (4) tanks per form.

Items that have remained the same on the new UST Closure Notification:

- If the tank(s) to be removed or closed in place is registered with the TMB, you must provide the facility ID number at the very top of the form.
- The original UST Closure Notification form must be signed by the tank owner and arrive to the TMB ten (10) days prior to scheduled tank closure.

The form is available on the TMB web site.

Delivery Prohibition

Delivery Prohibition (DP) is an enforcement tool that can be utilized by state regulators to prohibit delivery of product to an underground storage tank (UST) that has been classified as ineligible to receive product due to noncompliance with state regulations. The Federal Energy Policy Act of 2005 (the Energy Act) mandated several significant changes for state UST programs, including the implementation of a DP program. The nuts and bolts of Delaware's program are outlined below.

As an owner or operator of a UST system in Delaware, you should know:

- What a Delaware DP tag looks like;
- What you might be "tagged" for;
- How you will be notified that your tank(s) will be tagged;
- How long the tag will remain on your tank(s);
- What you need to do to get the tag removed; and
- What your appeal rights are and how to file an appeal.

Here in Delaware, a DP tag is a red laminated tag approximately 4.5" by 7.5" in size, with the words "Petroleum Delivery Prohibited", the DNREC logo, and our TMB contact information. The tags will be applied only to the *tank(s)* that are in violation.

The UST Regulations describe 3 different categories of violations that can result in prohibition of delivery to a tank:

(1) Imminent threat violations requiring immediate tagging

(2) Imminent threat violations with non-immediate tagging

(3) Non-imminent threat violations with non-immediate tagging

"Violations that pose an imminent threat" are violations that pose a serious risk to the environment, human health, or public safety. Most violations of the UST Regulations fall into this category. There are some "imminent threat" violations that are so dangerous that the Energy Act requires inspectors to immediately attach a delivery prohibition tag to the tank. These include failure to install spill protection, overfill prevention, leak detection, or cathodic protection equipment, operating a UST system that is not registered with the TMB and failure to perform emergency response or abatement activities when a threat to health or the environment exists.

The other "imminent threat" violations do not require immediate prohibition of deliveries, but still have the potential to cause or contribute to a release of regulated substance. Examples of these violations include a failure to submit release detection or inventory control records, precision tightness or cathodic protection test results, and proof of overfill prevention equipment. Failure to produce release detection records, including inventory control records, will be considered a non-immediate "imminent threat" violation because the owner or operator cannot prove compliance with release detection requirements and therefore may have contributed to a release.

PETROLEUM

DELIVERY

PROHIBITED

No person shall remove, deface, alter or otherwise tamper with this Delivery Prohibition Tag.

This Delivery Prohibition Tag is affixed by the Tank Management Branch, Delaware Department of Natural Resources and Environmental Control, pursuant to Part A, §§9.1.1. — 9.1.15. of the *Regulations Governing Underground Storage Tank Systems*, as amended.

Violators are subject to civil and criminal penalties pursuant to 7 Del.C. §§6005, 6013 and 7411.

Any violation of hydrologic investigation or corrective action requirements or missed deadlines is an "imminent threat" violation, as the continued existence of contamination is a serious risk to human health and the environment.

There are different procedures for applying DP tags, depending on the type of violation that is present. If an imminent threat violation that requires immediate tagging per the Energy Act is discovered while the TMB project officer is on-site, such as failure to install leak detection equipment, a field notification form will be provided to an on-site employee or operator and a copy will be faxed or mailed to the owner within 24 hours. The field notification will contain instructions on how to file a written appeal with the TMB.

Violations that are "imminent threat" violations, but do not require immediate delivery prohibition, such as a failure to submit testing results, release detection records, or a failure to meet investigation and corrective action requirements, will follow slightly different procedures. The owner and operator will receive a written notification that the non-compliant tanks will be tagged at a specific date and time if all of the requested information is not provided to the TMB within a specified time frame. This letter will contain instructions on how to file a written appeal with the TMB.

Owners and operators always have the right to appeal the TMB's decision to classify their tanks as non-compliant and ineligible to receive product. Appeal procedures will always be provided in the letter notifying the owner and operator of the TMB's intent to apply DP tags. However once tags are applied, the tags will remain in place while the DP is appealed. The UST Regulations contain specific information about the Delivery Prohibition appeals process in Part A, Section 9.

Regardless of the type of violations present, the tags will remain on the tanks until *all* of the violations are corrected. During this time, any product in the tank at the time the tag was applied may be pumped, but *no deliveries may be accepted*. To have the tags removed, the owner or operator, or their consultant or contractor, must notify the TMB that the violations have been resolved and submit proof of such. Once the return to compliance is confirmed, the TMB project officer will return to remove the tags, or will authorize the owner or operator in writing to remove the tags and mail them back to the TMB.

Delivery Prohibition is not meant to be used automatically for every violation discovered. Rather, it is another tool in our enforcement "toolbox", much like Notices of Violation, and Administrative Orders. Please contact the TMB if you have further questions.

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

TANK MANAGEMENT BRANCH

391 Lukens Drive
New Castle, DE 19720

Phone: 302-395-2500
Fax: 302-395-2555

Facility ID: _____

Effective Date/Time: _____

Project Officer:

_____

Updated Guidance Documents

The TMB has updated its guidance sheets to assist tank owners, operators and contractors in complying with Delaware's revised *Regulations Governing Underground Storage Tank Systems* (the UST Regulations). Examples include, but are not limited to, *Notification and Soil Sampling Requirements for: Change in Service, Change in Substance Stored, Tank Closure In Place,* and *Tank Removal*. Our *Registration and Notification* form has been revised as well, and more documents will be updated in the near future.

The revised forms will be posted on the TMB webpage. If you need copies of a revised form, or simply want to make sure that you have the latest version, please call. All previous versions of forms are obsolete and will not be accepted.

New Tightness Testing Requirements for Containment Sump and Spill Containment Device

by Brian Churchill

Containment sumps and spill containment devices (spill buckets) are UST components that are designed to reduce the impact of an UST system to the environment. However, when they are not properly maintained or monitored, they become ineffective and may not prevent releases to the environment. Any UST owner that has been unfortunate enough to have even mild levels of contamination at their facility knows how costly any release can be, even smaller scale and non-catastrophic ones. Properly-maintained containment sumps are an effective solution to this problem. To minimize releases and ensure proper maintenance of these UST system components, please review the following changes that have been incorporated into the revised UST Regulations.

Containment Sumps:

Containment sumps fall into three main categories and include:

- Tank sumps –the sumps surrounding the submersible turbine pump head and product piping and fittings where it enters the UST or a sump used for release detection
- Dispenser sumps – the sumps underneath the product dispenser surrounding the product piping and fittings and vapor return line (if applicable)
- Transition sumps – sumps that are capable of containing a release at a transition point in the product piping system such as transition from above ground to below ground piping or between different sections of piping

Containment sumps must be installed at all new installations. In addition, it is highly recommended that containment sumps are installed at existing facilities, which have "earthen sumps." These sumps allow a direct pathway for contaminants to reach the surrounding soil and into ground water.

All new UST systems (systems installed on or after January 11, 2008) are required to have all containment sumps tested when the UST system is installed and then once every 36 months thereafter, unless they are of double wall design with continuous monitoring of the interstitial space (the space between the two walls). Double wall containment sumps meeting these requirements that maintain records of continuous interstitial monitoring are exempt from the tightness testing requirement. Containment sumps must be tested in accordance with manufacturer's specifications or by a method approved by the Department in advance.

While tightness testing of containment sumps for UST systems installed before January 11, 2008 is not a regulatory requirement unless the sumps are part of a primary release detection system, it is in the owner's/operator's best interest to test and maintain these sumps, ensuring that they are product tight and able to prevent releases to the environment.

Spill Containment Devices:

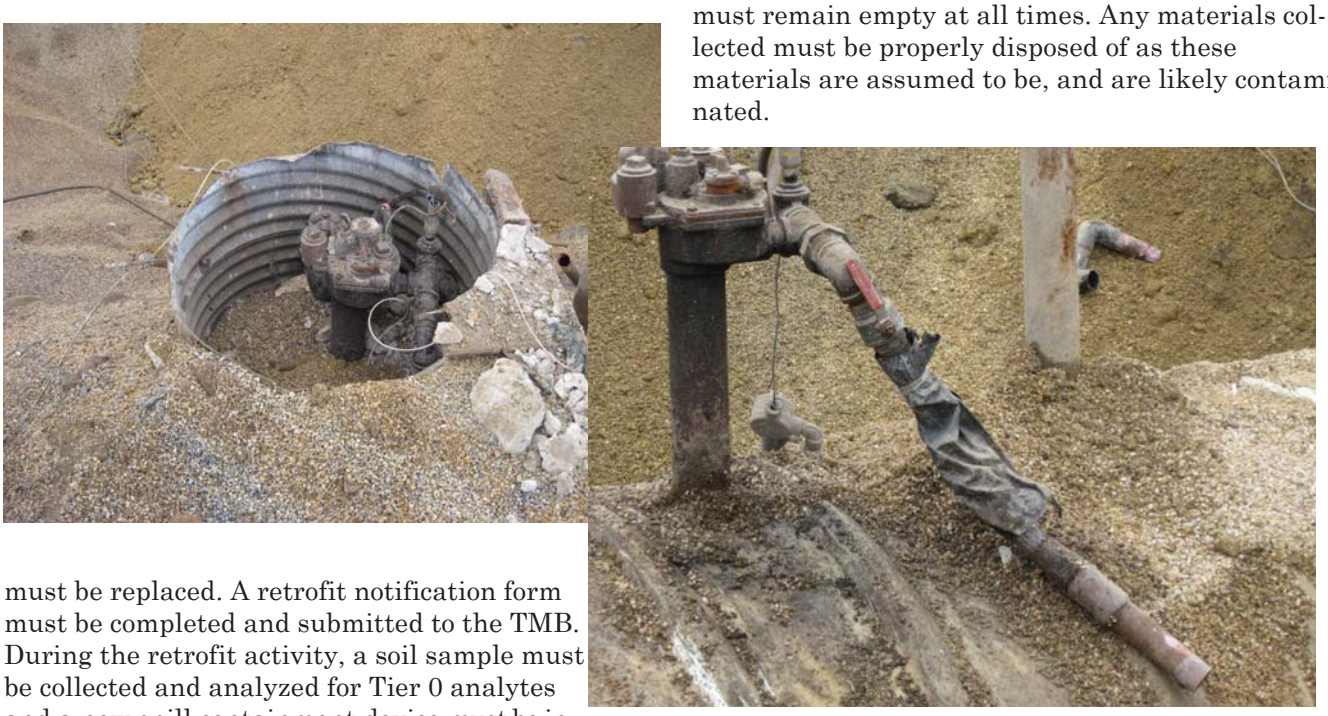
Spill containment devices are located around the fill of a UST system and at some facilities may be installed around the Stage I vapor recovery connection (the "dry break"). All new UST systems must have spill containment devices installed at the Stage I vapor recovery connection. New UST systems must have spill containment devices at the fill with a minimum capacity of 15 gallons and all existing systems must have spill containment devices with a minimum capacity of 5 gallons.

Spill containment devices must be tested when installed and then once every 12 months thereafter

Spill containment devices must be tested when installed and then once every 12 months thereafter (all spill containment tightness tests must be completed by January 11, 2009). Spill containment devices around the vapor connection are exempt from this requirement. This includes all new and existing UST systems, unless the spill containment devices are of double wall design with continuous monitoring of the interstitial space. Double wall spill containment devices meeting these requirements that maintain records of continuous interstitial monitoring are exempt from the annual testing requirement. Spill containment devices must be tested

in accordance with manufacturer's specifications or by a method approved by the Department in advance.

Upon testing, a large number of spill containment devices will likely leak and need replacement. If a spill containment device fails a tightness test, it must be replaced. A retrofit notification form must be completed and submitted to the TMB. During the retrofit activity, a soil sample must be collected and analyzed for Tier 0 analytes and a new spill containment device must be installed (minimum 15 gallon capacity for the fill).



Left – open STP sump
Above – sump removed to reveal staining

Additional Notes:

It is important to remember that containment sumps and spill buckets are not designed to contain fuel for long periods of time. If product, water, or debris is found, these material(s) must be immediately removed as the containment sump or spill bucket must remain empty at all times. Any materials collected must be properly disposed of as these materials are assumed to be, and are likely contaminated.

Changes to the Contractor Certification Requirements

by Gary Charles

The revised regulations include changes to the Contractor Certification requirements. These changes are summarized below for your reference.

As of January 11, 2008, the TMB will no longer certify contractors for internal lining of USTs because lining is no longer an approved upgrade to tanks. Lining will be considered on a case by case basis. A contractor, or tank owner, who wishes to internally line a tank must submit the request to the TMB in advance and have it approved in writing by the TMB. Proof of proper training and experience in this area, as well as sufficient insurance, will need to be provided by the contractor before they will be approved to line the tank.

New Insurance Required:

Upon renewal of a contractor's certification, proof of insurance must include proof of Contractor's Pollution Liability Insurance in the amount of $250,000, in addition to $1,000,000 general liability insurance.

Release Reporting:

Certified Companies and Supervisors are now required to report to the Department's emergency phone number (1-800-662-8802) and to the TMB by phone within 24 hours, and in writing to the TMB within 48 hours, any confirmed or suspected release of a regulated substance to the soil, surface, or groundwater that was observed while performing services as a Delaware Certified Contractor. Also, all paperwork resulting from performing certified UST system activities must be submitted to the Department within 60 days and copies retained by the contractor for a minimum of three years.

All Certified Contractors are encouraged to read Part G of the Regulations (all 10 pages) for any other changes that may affect them.

THINK TANK

Becky Keyser, Editor
Gary Charles, Publisher
Tripp Fischer, Technical Editor

Contributing Staff

Jill Hall
Sandi Carney
Pat Ellis
Brian Churchill

DNREC
Tank Management Branch
391 Lukens Drive
New Castle, DE 19720

Tel: (302) 395-2500
Fax: (302) 395-2555
DNREC_AWM_Tanks@State.de.us

Alex Rittberg—Branch Manager

Program Managers:
David Brixen—Compliance
Jenn Roushey—Corrective Action

James Harlan—Director, Boiler Safety
(302) 744-2735

Announcements

Jennifer Roushey — Maxwell Schriber Roushey was born January 23, 2008 to Jenn and Jeff Roushey. Max weighed in at 8 lb 4 oz and 21 inches. Mother and son are doing well.

Patrick Boettcher — Congratulations to Patrick for his recent promotion to Hydrologist III. In addition to working on LUST sites throughout the state, he leads the LUST Special Project team, which works to reduce the backlog of open LUST sites.

Statistics:

Below are some statistics from our tank database. *Federal* means that the tanks are federally and State regulated; *State* means that the tanks are only state regulated. (e.g. heating oil tanks >1100 gallons.

	Federal	State	Total
Active Regulated tanks	1451	155	1506
Active Facilities	525	102	627
Compliance Inspections 2007	164	3	167
Removed since Dec 98	1145	470	1610
Installed since Dec 98	207	46	253

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/ust/

DNREC/TMB
391 Lukens Drive
New Castle, DE 19720

Doc. #40-09-03/08/02/01