UST Newsletter

Hazardous Materials Program
Waste Management and Prevention Division
Department of Environmental Conservation

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VERMONT

IN THIS ISSUE

Dispenser Sump Testing and Repair

Federal regulations require all regulated UST facilities to conduct tightness testing of secondary containment every three years. The purpose of tightness testing is to ensure that the equipment that is designed to contain a fuel release will actually be able to contain the fuel from releasing to the environment. Examples of secondary containment that must be tightness tested include fill port spill containment (spill buckets), containment sumps with pressurized piping, and under dispenser/pump piping sumps (dispenser sumps).

The Storage Tanks Section is aware that there may be confusion on the part of UST owners/operators about what needs to be tested, particularly when it comes to dispenser/pump piping sumps. To be clear, if you are operating a UST system with a piping sump under the dispenser/pump, it must be tightness tested every three years. This is the case even if your UST piping system is an intrinsically safe simple suction system. To help you better understand the requirement, we are providing a summary below of what tightness testing entails as it relates to dispenser sumps.

VISUAL INSPECTION

A visual inspection of the sump must be performed prior to conducting a tightness test. Your contractor will need to perform this inspection. In addition to evaluating the condition of the sump itself, the contractor will assess the condition of boots, sealing flanges, and gaskets at the sump entries where conduit and piping enter the sump. They will also determine whether the piping entering the sump needs to be sealed. After the visual inspection, there are a few questions that need to be answered. If the answer is yes to any of the following questions, then repair work will be necessary prior to conducting the tightness test:

Q: Are there cracks and/or holes in the sump itself?

If your dispenser sump has a hole or crack in it, it may be possible to repair the sump. Aftermarket and original manufacturer repair options exist, but you should be aware that repair may not be an option. It will depend on the material your sump is made of, as well as the size and location of the hole or crack. If repair is not possible, replacement will be required.

Q: Are the sump entry boots, sealing flanges, and/or gaskets torn and in need of replacement?

Torn or damaged boots, flanges, and/or gaskets need to be replaced. There are aftermarket companies that specialize in sump sealing equipment. The manufacturer of the sump may be able to make recommendations for repair or replacement.

Q: Is piping entering the sump through an open space conduit and not sealed in the sump?

If there is a large opening where the piping comes through the wall of the sump, this needs to be sealed in order to get a valid test. Again, there are products available to close the open space in order for the sump to pass the tightness test. Repair work may be difficult or impossible, depending on how much space there is in the sump for accessing the areas in need of repair. If space is limited, removal of the dispenser may be necessary in order to access the sump entries for repair.

CONDUCTING THE TIGHTNESS TEST

After the visual inspection is completed and any necessary repairs are made, the tightness test can be performed. UST owners/operators should be aware that there are different types of tightness tests. The most common type of test is the hydrostatic test (i.e., liquid test; see Figure 1). There are also tests that do not involve liquid, including vacuum, Dri Sump, and others.

There are five steps for conducting a hydrostatic tightness test:

1. Remove liquid and debris from the sump before starting.
2. Fill the sump with liquid to a level that is four inches above the highest sump entry.
3. Let the liquid stabilize in the sump.
4. Mark the precise liquid level on the side of the sump.
5. Start a timer and monitor the liquid level for at least one hour.

Figure 1: Conducting a hydrostatic test on a tank top sump.

If the liquid level remains at the same level (hence the term, "hydrostatic"), then the sump passed the tightness test. If the liquid level drops 1/8th of an inch or more, then the sump failed the test.

For facilities that have positive shutdown sensors in their tank top sumps and under dispenser sumps, note that hydrostatic testing is slightly different. In order to conduct the test, the tank top sump or under dispenser sump is filled to a level of four inches. If this triggers the sensor to shut down the submersible turbine pump (STP) in the tank top sump, the sump passes the test.

"The Storage Tanks Section has recently updated the UST testing forms, and they may be accessed on the Keeping Your UST Facility in Compliance webpage."

If a hydrostatic test results in a component failing, the component must be replaced or repaired, and a follow-up hydrostatic test must be conducted with a passing result. The facility must notify the Storage Tanks Section if sumps or spill buckets are replaced due to a failed test, and any failed test must be reported immediately to the Section.

UST owners/operators should also note that conducting a hydrostatic test may involve the generation of hazardous waste. For example, if the sump contains fuel or other hazardous material, the water will become contaminated through the process of conducting the test. Hazardous waste must be managed according to the Vermont Hazardous Waste Management Regulations.

RESOURCES AND CONTACT

The Storage Tanks Section has recently updated the UST testing forms, and they may be accessed on the **Keeping Your UST Facility in Compliance** webpage. If you have further questions about the requirements for testing secondary containment equipment, please feel free to contact us using the information at the end of this newsletter. ●

Flood Awareness

The work of rebuilding infrastructure and community continues across Vermont as we hit the one-year mark since last July's extensive flooding. We are hopeful that this summer's weather does not impact us in the same way that it did last year, when several UST facilities were flooded. A few facilities reported water ingress into their systems through the cover at the top of the fill pipe. Any one of these could have resulted in a major release, but thankfully none did. With this in mind, the Storage Tanks Section would like to reiterate the steps that you should take when your facility is at risk of flooding.

PREPARING FOR FLOODING

The U.S. Environmental Protection Agency (EPA) **Office of Underground Storage Tanks Flood Guide** is

available online. The below checklist from the Flood Guide covers what you as an UST operator should consider doing as you prepare for a flood.

Checklist for Preparing for Flooding at UST Facilities

- ☐ Conduct an inspection of the entire facility to determine areas susceptible to flooding and the potential consequences if a flood happens.
- ☐ Assess the extent and duration of predicted flooding.
- ☐ Turn off power to all UST system including STPs, pumps, and dispensers.
    - Keep the release detection system on as long as power is available.
- ☐ Take product inventory and water level readings of all tanks.
- ☐ Reduce the chance of a tank rise.
    - Place heavy objects, such as a dumpster, sandbags, or large containers full of sand or rock, over the tank.
    - Fill the tank with fuel to decrease buoyancy and reduce the likelihood that it will float out of the ground.
    - If the predicted flood extent and duration is excessive, owners and operators may want to instead consider minimizing the amount of fuel to lessen the likelihood of a release into the environment.
    - Do not fill tanks with water due to additional costs for disposing of contaminated water and possible corrosion to the tank system.
- ☐ Make sure fill caps are operable and secure.
- ☐ Place sand bags on top of the spill catch basin and tank top sump lids to minimize the amount of water entering each tank.
- ☐ Make sure the seals on spill bucket plungers are operational to keep water out of the tank.
- ☐ If possible, have an UST technician drain all product lines back into each tank.
- ☐ Close flow restrictors and manually trip shear valves on pressurized piping to prevent product releases from dispenser lines.
- ☐ Temporarily cap off vent pipes to prevent water from entering the tank and displacing product.
- ☐ Protect fuel pump and controls to prevent damage from flooding.
    - Secure dispensers with plastic, tarps or plywood.
    - If time allows, consider removing dispensers, and storing them safely.
    - Remember to also protect aboveground components from floating debris or floodwater.

If you have any questions about flood preparedness as it relates to USTs, please contact us using the information at the end of this newsletter. ●

A Reminder on Recordkeeping

Our inspectors routinely observe violations in the field regarding requirements for UST facilities to maintain records. Below is a summary of documentation that you should maintain as a UST owner/operator. Please refer to the **Keeping Your UST Facility in Compliance** webpage and the **UST Compliance Inspections Guide** described in the last piece of this newsletter for recordkeeping templates and more information on these requirements.

WALKTHROUGH INSPECTIONS

The A/B UST operator, or designated UST operator, is required to complete and document this type of inspection at their facility on a monthly basis. The purpose of the walkthrough inspection is to ensure the operator identifies any leaks or spills at the facility. UST facilities must maintain three years' worth of documentation (e.g., a complete and current "checklist") confirming that walkthrough inspections are being completed.

"Although contractors are typically hired to complete UST system testing, repair, and inspection, it is the responsibility of the facility—not the contractor—to ensure that all required information is submitted to the Storage Tanks Section."

RELEASE DETCTION MONITORING

Facilities are required to have release detection in place for their tank(s) and piping, and they need to maintain three years' worth of documentation indicating that their release detection system has monitored for releases on a weekly basis during the three-year period. Documentation can be in the form of system status printouts or a running written log. These records need to be maintained in chronological order.

TANK DIAGRAM

A diagram of the UST system must be present and visible from where tanks are filled during fuel delivery. Tank diagrams must include the location of each UST and fill pipe, labeling for what product is stored in each UST and/or compartment, and the capacity of each UST and/or compartment.

OPERATING PERMIT

UST facilities are required to have their current UST Operating Permit posted in a visible location at the facility. A facility operating without a permit is subject to being red tagged until they obtain a valid permit. Facilities must also be in good standing with paying annual fees associated with their operating permit.

OTHER GENERAL RECORDKEEPING

There are several other records that UST owners/operators must maintain as applicable to facility

activity. These records include repair and maintenance activity documentation, equipment inspection (sumps, spill containment devices, overfill protection devices, cathodic protection) and testing results, operator training records and certifications, financial responsibility (FR) documentation, inventory monitoring, and cathodic protection (CP) system inspection documentation (i.e., impressed current rectifier readings). Records documenting repairs and upgrades of the tank system and all UST system components must be maintained at the facility for the full operating life of the facility. All other records must be maintained for at least three years. Be aware that in order to maintain compliance, the UST facility is required to submit all testing and repair records to the Storage Tanks Section as they are due. Although contractors are typically hired to complete UST system testing, repair, and inspection, it is the responsibility of the facility—not the contractor—to ensure that all required information is submitted to the Section.

To reiterate a point from the earlier piece on sump testing, please note that the Storage Tanks Section has recently updated the UST testing forms. They may be accessed on the **Keeping Your UST Facility in Compliance** webpage. Refer to the Guidance Resources piece at the end of this newsletter for more information on this webpage. Owners/operators should refer to Table 1 for a summary of how often new records must be submitted.

Table 1: Required Intervals for Submitting Records to the Storage Tanks Section

Record	Interval
Cathodic Protection Testing Results (if applicable)	• 3 years if factory-installed; or • Annual if field-installed
Financial Responsibility	• Annual by Oct. 1st if paying into Petroleum Cleanup Fund (PCF); or • As requested by the Storage Tanks Section if privately insured
A/B Operator Training	• 2 years
Overfill Prevention	• 3 years
Spill Containment (spill bucket, under dispenser containment, tank top/transition sump)	• 3 years
Line Leak Detector (if applicable)	• Annual
Self-Certification	• Annual by Dec. 31st

Please refer to the links at the beginning of this article to access templates and more information on recordkeeping requirements. If you have questions about records for your UST facility, please contact us using the information at the end of this newsletter. ●

Keep an Eye Out

The Storage Tanks Section uses this part of the newsletter to announce upcoming deadlines and other information that may be important to our distribution list. If you did not receive this issue of the newsletter directly from us, and you would like to be added to the list, please refer to the contact information at the end of this newsletter.

KEEPING YOUR FACILITY INFORMATION CURRENT

Lately we have noticed that our mailed correspondence, including official letters and permit renewal applications, is being returned to us as undeliverable at a higher rate than usual. It seems that many facilities are not keeping their information up to date. If you did receive a UST permit renewal form this year, you may have noticed a reminder to ensure that the information the Storage Tanks Section has on file for your facility, including mailing address, email, and phone number, is current and accurate. If your information has changed, or if you plan to change it, please let Wendy Edwards know. Wendy is the Section's point of contact for managing this information, and she may be reached by phone: (802) 522-0261, or email: wendy.edwards@vermont.gov.

STORAGE TANKS WEBSITE UPDATES

If you use the Storage Tanks Section's website, you may have noticed some changes that took place over the last several months. The **Storage Tanks Section** homepage has been changed to include a summary and links to the AST, UST, and Financial Assistance areas of work overseen by the Section. Additionally, the webpages dedicated to **ASTs**, **USTs**, and **Financial Assistance for Residential Tank Removal** have been reorganized with the intent to make information easier to access. You will notice that these pages include summary level content, and additional resources may be accessed using the clickable icons on each page or via the sidebar. If you have not visited these webpages recently, please check them out. If you are unable to find what you are looking for, or if you have any questions, please let us know using the contact information at the end of this newsletter.

AST RULES REVISED

For those of you involved with aboveground storage tanks (ASTs), you are probably aware that the AST Rules are being revised. Following a public comment period earlier this year on the proposed rules, the Hazardous Materials Program has submitted the final proposed revisions to the Vermont Secretary of State's office. The revised AST Rules are expected to take effect on August 1, 2024. To view the final proposed rules, summary of changes to the rules, and public comments and the Agency's response to comments, please refer to the **Storage Tanks Section** homepage. ●

New Guidance Resources

The Storage Tanks Section will continue to add new information to the webpage described below as it becomes available. We will update you about new assistance resources using this recurring piece of the newsletter.

NEW WEBPAGE

We have developed a new webpage dedicated to **Keeping Your UST Facility in Compliance**. You may have received an email earlier this year, where we pointed you to this page for accessing the revised UST testing forms for Line Leak Detector, Tank Top Sump Tightness, Dispenser Sump Tightness, Spill Bucket Containment, Transition Sump Tightness, Overfill Prevention Equipment, and Piping Tightness. In addition to this information, we have consolidated a number of resources that UST owners/operators may find useful. Scroll to the bottom of the webpage to access a monthly walkthrough inspection checklist, inventory monitoring logs, leak detection logs, and information on UST compliance inspections. On that last point, we recently developed a **UST Compliance Inspections Guide**. If your facility is scheduled for an inspection this year, or if you just want to learn more about what an inspection entails, please look over the guide.

We encourage you to bookmark this webpage, as we will continue to post any new resources for UST owners/operators as they become available. We will also continue to use this newsletter to keep you abreast of any guidance we develop. If you have any questions, please contact us using the information at the end of the newsletter.

Language Access Notice

Questions or Complaints/Free Language Services | SERVICES LINGUISTIQUES GRATUITS | भाषासम्बन्धी नि:शुल्क सेवाहरू | SERVICIOS GRATUITOS DE IDIOMAS | 免費語言服務 | BESPLATNE JEZIČKE USLUGE | БЕСПЛАТНЫЕ УСЛУГИ ПЕРЕВОДА | DỊCH VỤ NGÔN NGỮ MIỄN PHÍ | 無料通訳サービス | ነጻ የቋንቋ አገልግሎቶች | HUDUMA ZA MSAADA WA LUGHA BILA MALIPO | BESPLATNE JEZIČKE USLUGE | အခမဲ့ ဘာသာစကား ဝန်ဆောင်မှုများ | ADEEGYO LUUQADA AH OO BILAASH AH | خدمات لغة مجانية: **anr.civilrights@vermont.gov** or 802-636-7827.

The Storage Tanks Section hopes that by providing translation services to facility operators who speak a language other than English as their native language, we will be able to improve understanding of the regulations that govern UST facility operations and also increase compliance with Vermont's UST Rules. To access ANR's free translation service, please visit the **ANR Language Services** webpage. •

FOR MORE INFORMATION PLEASE CONTACT:

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