

MUST News

Photo by J Finn

Department of Environmental Quality

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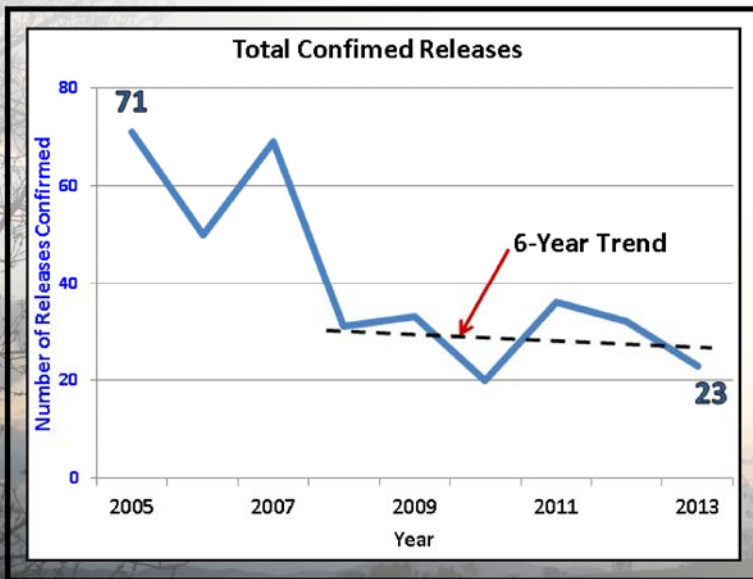
Leak Autopsies 2013 Year in Review

Mike Trombetta, DEQ

The Department of Environmental Quality (DEQ) recorded 23 new petroleum releases in Montana in 2013. This is down from the 32 releases in 2012, and is also consistent with the six-year trend of 20 to 30 new releases each year. This low rate of releases is indicative of good leak prevention practices among Montana's petroleum industry and consumers.

With only 23 releases, it is difficult to draw any statistical conclusions from the sources and causes of these discharges. However, there are still lessons to share and room for improvement in some areas. In reviewing the pie charts, note that some totals exceed 23 releases – this is due to a release having more than one source or cause.

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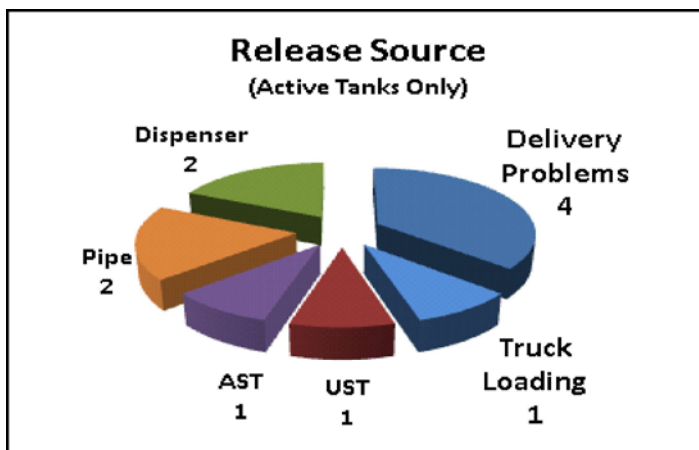
Inside This Issue

- Leak Autopsies 2013 Year in Review 1
- Administrative Orders and Fund Eligibility: There is a Connection 3
- Installer/Remover/Compliance Inspector Refresher Class Recap 4
- The RIMS Project: Utilizing DEQ's Data 5
- Proposed EPA Rule Changes for Underground Storage Tanks .. 6
- DEQ's Tank Programs Working Together to Help YOU 9
- Licensing Your Underground Storage Tanks with the Department of Revenue 11
- jUST Jargon – Well Logging .. 11
- Photo Essay 12
- Petroleum Tank Release Compensation Board Blotter 13
- Initial Compliance Inspector Training, May 14–15, 2014 .. 13
- Underground Storage Tank Act Enforcement Cases Resolved During the 1st Quarter of 2014 14
- Petro Factoid . . . Plume 14
- Calendar 15
- Fund and Release Status Report 15
- MUST News is going Electronic! 16

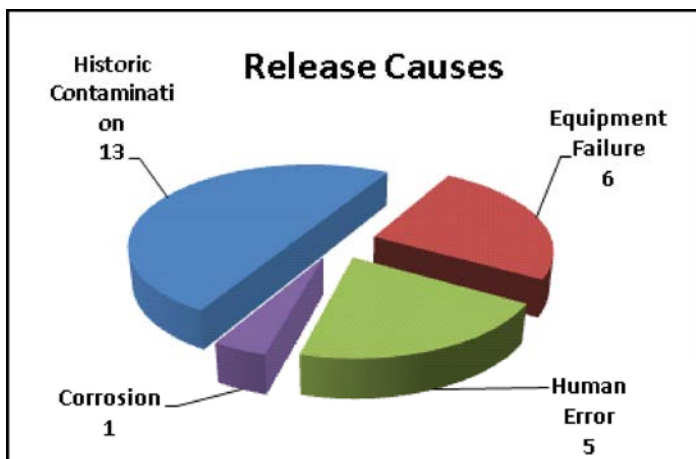


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Leak Autopsies 2013 Year in Review – *continued from page 1*



The greatest source of releases was from tank over-fills: two associated with USTs and two associated with ASTs.



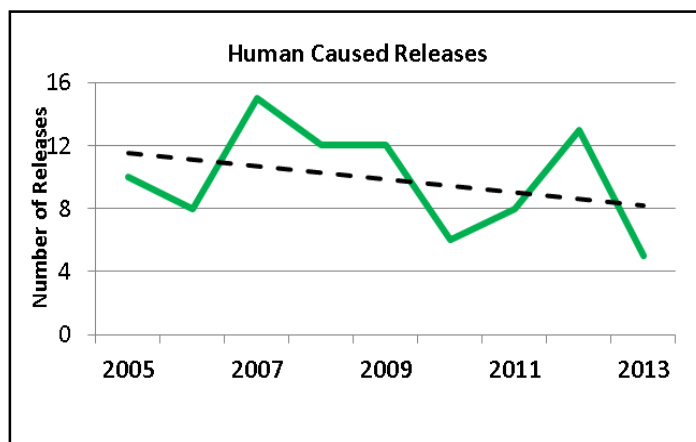
Six releases were due to equipment failures that included malfunctions and damage. Following is a breakdown of the equipment failures that caused reportable releases in 2013:

- One spill bucket was not liquid tight;
- One break-away valve “broke away” while a customer was fueling a vehicle;
- One fire valve under a dispenser cracked;
- A hole was rubbed in a supply line where it contacted an electrical conduit box;
- One nozzle did not shut off and spilled 26 gallons of diesel. (Note: this one could have fallen in the human error category because the driver should have noticed that the tank was overflowing long before 26 gallons spilled; however, without further facts it was classified as an equipment failure);

- One release was caused from a hole that corroded through an AST and caused a surface spill discovered by a bulk delivery driver.

It is noteworthy that 13 releases, or just over half of the releases that occurred in 2013, were from historical contamination. This has been a fairly steady trend over the last six years and one would expect it to start to decrease eventually. Sooner or later it could reasonably be assumed that all of the old historic releases will be found.

Delivery problems, combined with tanker truck over-fill, attribute five releases to human error with none due to customer error. All were due to professional fuel handler and tanker driver errors. The good news is that the total number of human caused releases has dropped over the last nine years. Progress is being made in this area. In 2012, there were 13 human caused releases (7 were caused by petroleum professionals), while in 2013 there were only 5.



In one incident, 2,400 gallons of dyed diesel overfilled an AST. There are some areas where this release could have been minimized or prevented, including (1) ensuring that the tank being filled has adequate ullage (or unfilled space) before putting fuel in it, and (2) the driver being in a location to watch the filling operation. In this case, the AST was not visible from the unloading position of the truck and the driver did not check the AST until after the truck was empty. Luckily, the fuel was contained from flowing over the ground away from the tank because it had a concrete dike around the tank area to prevent just such an occurrence. However, the bottom of the containment area was native soil, which is common, but does nothing

continued on page 3

Leak Autopsies 2013 Year in Review – *continued from page 2*

to prevent the fuel from soaking into the ground, contaminating groundwater and significantly increasing the cost and effort to clean up the spill. Although the fuel stayed pooled in the containment area for some time, it was several hours before efforts were taken to address it because a pump was not available to pump it out. By the time it was addressed, all of it had soaked into the ground. Over the next two weeks, the AST, its piping and support structures were removed to allow the excavation and removal of 400 to 500 cubic yards of contaminated soil. Less than half of the spilled fuel was recovered with the excavation and the investigation and cleanup is continuing.

Here are a few things to consider if you own or run a similar facility. While a containment dike around a bulk storage area is designed to contain fuel from spreading and to control the fire hazard, they do little to protect the environment if the bottoms are not sealed. It is important that a facility is laid out in a way that a driver can view all the pipes and tanks being filled from the tanker off-loading area. The driver must stay attentive to the entire system while off-loading operations are being conducted.

There should also be adequate lighting on the entire tank and piping area for night deliveries. And always stick (measure) the fuel in the tank before filling it to ensure there is adequate ullage.

It has been said that most large, man-made disasters like plane crashes and train wrecks are caused by a “cascade” of individual failures. If any one of them was corrected, the disastrous outcome could have been avoided. Ask yourself, “Have I just been lucky that this hasn’t happened at my facility?” Or have you taken the proper steps in facility upgrades, employee training and oversight to prevent such a spill?

One of the positive observations from last year was the immediate response owners and operators had regarding surface spills. Five of the seven releases from surface spills discovered by owners, operators or bulk truck drivers were immediately contained and cleaned up. They are now either resolved or ready to be resolved. These successes reflect some great work regarding spills at facilities! ■

Administrative Orders and Fund Eligibility: There is a Connection

Shasta Steinweden, DEQ

If you’ve ever found yourself dealing with an administrative order at your facility, you’ve probably thought that things couldn’t get much worse. Sadly, it can. If you are seeking reimbursement for cleanup costs through the Petroleum Release Compensation Board (Board), you may be at risk of losing your eligibility.

If you have an active administrative order at your facility, and a claim being reimbursed from the Petroleum Tank Release Cleanup Fund (Fund), all reimbursement of your claims will be suspended. Once the administrative order is closed and the facility has returned to compliance, any future claims may be reduced (*See 75-11-309(2), Montana Code Annotated and Administrative Rules of Montana (ARM) 17.58.336*).

For example, let’s take a look at a hypothetical facility named Lawbreakers Gas (Lawbreakers). Lawbreakers had a release in 2010. In 2013, they were receiving reimbursement for cleanup costs from the Fund. However, Lawbreakers was placed under

an administrative order in 2013 for violations related to missing leak detection records. One condition of the administrative order requires Lawbreakers to have 12 consecutive months of leak detection records. Currently, Lawbreakers only has six months of consecutive leak detection records. Therefore, they will have to collect six more months of records before the administrative order can be closed. During the time that the administrative order is active, no claims will be paid from the Fund. After the administrative order is closed, the Board will determine what percentage of current and future reimbursements will be reduced. The Board uses ARM 17.58.336 to determine the amount of reduction, based on how long a facility is out of compliance.

Keeping your facility in compliance with the laws and rules governing underground storage tanks is not only the right thing to do to protect human health and the environment, but is also a key determining factor for reimbursement from the Fund. ■

Installer/Remover/Compliance Inspector Refresher Class Recap

Redge Meierhenry, DEQ

On February 27, 2014, the Underground Storage Tank (UST) section of DEQ conducted a comprehensive refresher class for approximately 60 DEQ-licensed installers, removers and compliance inspectors. The training took place at the Red Lion in Helena. Every three years, sixteen hours of continuing education credits (CECs) are required to renew an UST installer or compliance inspector license. Four hours are required every three years if the licensee is an UST remover only. This class helps licensees meet their obligatory continuing education requirements to maintain their licenses and remain in good standing with the UST program.

Dalynn Townsend of DEQ kicked off the training session by discussing the UST database re-engineering project. This project is a joint effort with the Remediation Division to move our database to a modern database structure. The move will create tremendous benefits and flexibility and allow the program to provide real-time information to our customers. For instance, the new database will allow online access to facility UST equipment configurations. An important benefit to our licensed compliance inspectors will be the ability to move compliance inspection forms from a tablet device to the database without having to submit the paper copies of the inspection.

Mike Piatchek, a certified Xerxes instructor, provided training on the proper procedures for installing a Xerxes fiberglass tank. Those who wished to receive Xerxes certification for tank installation were able to complete the written test following the structured training.



Mike Piatchek discussing proper Xerxes tank installation procedures.

Following Mike Piatchek was Brandon Bajema from Leighton O'Brien. He reviewed the company approach and equipment used to remove water and other contaminants from underground storage tank fuel stocks. Their cleaning procedure is intended to restore fuel quality by removing water resulting from phase separation, potentially reducing fungal activity.

Leanne Hackney of the DEQ UST program had a surprisingly popular presentation on microbial induced corrosion (MIC). This phenomenon is associated with internal corrosion of steel tanks that result from the ubiquitous in nature, acetic acid bacteria, and the presence of ethanol that is a food source for the bacteria. Ethanol is commonly mixed into fuel stocks to meet the Renewable Fuel Standard as part of Energy Act of 2005 legislative requirements. All the more interesting, Leanne presented photos taken inside of a steel tank recently removed from service in Montana that purportedly show evidence of MIC. This presentation can be accessed on the program web page at <http://deq.mt.gov/UST/UstTraining/MIC.pdf>.

DEQ's Wally Jemmings briefed the licensees on upcoming proposed changes to EPA's Code of Federal Regulations, which will be reflected in Montana's UST rules. These include monthly UST facility walk-through inspections performed by owners or operators, spill and overfill prevention equipment testing, regulatory inclusion of previously deferred airport hydrant systems and groundwater and vapor monitoring phase-out for release detection, to name a few.

Another session of note dealt with the proper submittal of UST construction permit applications. A checklist was distributed by DEQ's Seth Hendrix to the licensees and is available at <http://deq.mt.gov/UST/PDFfiles/PermitChecklist.pdf>.

The course was well received by the attendees. DEQ is determined to build on past trainings by continuing to provide quality learning opportunities for UST professionals in the future. ■

The RIMS Project: Utilizing DEQ's Data

Staci Stolp, DEQ

In July 2014, DEQ plans to kick-off the Design, Development, and Implementation phase of the RIMS project. The primary goal of the RIMS project is to deliver a new information system called the "Tracking Environmental Actions Data System" (TREADS). It will replace three of DEQ's aging legacy information management systems that date back to 1989 and support programs in two DEQ divisions and one DEQ affiliated program as follows:

- **Remediation Division**
 - Abandoned Mine Lands
 - Brownfields - Hazardous Substance and Petroleum
 - Leaking Underground Storage Tank (LUST)
 - LUST Trust
 - Superfund - Federal
 - Superfund - State
 - Water Quality Act/Groundwater Remediation
- **Petroleum Tank Release Compensation Board (PTRCB)**
- **Permitting and Compliance Division**
 - Underground Storage Tanks

The RIMS project was initiated in 2011 when DEQ hired an independent contractor to determine the overall health of its three core legacy information systems and, if needed, identify available options for increasing the system's effectiveness. The results of this study and subsequent analysis showed that it was no longer feasible to continue using these systems due to their limitations. Limitations included unsupported software (e.g., Access 2003) and aging architecture that contributed to data integrity and security problems and could not adequately support changing program requirements.

Since the 2011 evaluation of the legacy system, the 2014 Legislature approved funding for the project. DEQ has developed the requirements for the system and is currently procuring a vendor to assist with the design, development and implementation of the system.

TREADS will improve DEQ's overall business processes which will aid in timely and effective cleanups and UST and PTRCB activities by:

- **Efficiently collecting, reporting, and analyzing sample/field, spatial and programmatic data** so that organizations are able to feel more confident in the quality of the data and make the data more useable for others. Similarly, this ability will facilitate sound environmental decision making, program improvement and more efficient responses to information requests.
- **Facilitating information sharing between internal and external stakeholders for better decision-making.** Sharing data with and receiving data from other government agencies, laboratories, consultants, the public, the regulated community and other business partners can be mutually beneficial. For instance, laboratories and consultants provide key environmental data and analyses to evaluate the status of contaminated sites. In addition, sharing information with the public can make individuals more aware of environmental issues and hazards in their community. Sharing key information with the regulated community can streamline and shorten the response times associated with contaminated sites because information is available to support timely decision making.
- **Creating an improved system to help measure performance,** appropriateness, consistency and effectiveness of services. It will help assess timeliness and lead to efficiency improvements as well as improve program management, security and quality assurance.
- **Enhancing decision support through user accessible data mining and analysis functionality.** The new system will make data more accessible to users for analysis because it will be available electronically for easy manipulation by data analysis tools. Currently, much of the division's data is in hard copy documents. This requires someone to either manually enter the data into an analysis tool or perform each analysis by hand. The current process takes additional time and potentially provides an opportunity to introduce data entry errors.

The RIMS project will result in greater efficiency and more accessible data which will allow for better, more informed overall decision making. ■

Proposed EPA Rule Changes for Underground Storage Tanks

Wally Jemmings, DEQ

In November of 2011, the Environmental Protection Agency's (EPA) Office of Underground Storage Tanks (OUST) proposed new rules that would strengthen the 1988 Underground Storage Tank (UST) rules. If adopted, these new rules will be published in the Federal Register in the summer of 2014. Each rule requirement will explain when owners will need to comply with that requirement.

The following is a summary of the rule changes that were proposed by the EPA in 2011. OUST accepted public comment until April 16, 2012, which included a 60-day extension.

OPERATION AND MAINTENANCE (O&M) – The 1988 UST regulations required equipment to be in place to reduce and prevent releases to the environment. The following proposed changes will ensure owners and operators are maintaining their equipment to make sure it is working properly and preventing releases.

- **Walkthrough inspections** will ensure that owners and operators are looking at their equipment at least every 30 days in order to catch problems early and prevent releases. These inspection records must be maintained for one year and must include, (1) a listing of each area checked, (2) whether each area checked was acceptable or needed to have action taken, and (3) a description of actions taken to correct the issue. This requirement would take effect immediately after the rule change is adopted. EPA is proposing the following three walkthrough inspection options:

- ▶ **Option 1:** Walkthrough inspections will look at:

- Spill prevention equipment:
 - Open and visually check for any damage; remove any liquid or debris; check each fill cap to make sure it is secured to the fill pipe; and if secondarily contained with continuous interstitial monitoring, check for a leak in the interstitial area.
- Sumps and dispenser cabinets:
 - Open and visually check for any damage, leaks to the containment area or releases to the environment; remove any liquid or debris; and if contained areas are secondarily

contained with continuous interstitial monitoring, check for a leak in the interstitial area.

- Monitoring/observation wells:
 - Check covers to make sure they are secure.
- Cathodic protection equipment:
 - Check to make sure impressed current cathodic protection rectifiers are on and operating and ensure records for 3-year cathodic protection testing and 60-day impressed current system inspections are reviewed and current.
- Release detection equipment:
 - Check to make sure release detection equipment is on and operating with no alarm conditions or other unusual operating conditions present; check devices such as tank gauge sticks, groundwater bailers and hand-held vapor monitoring devices for operability and serviceability; and ensure that records for release detection testing are reviewed monthly and are current.

- ▶ **Option 2:** Conduct operation and maintenance walkthrough inspections according to a standard code of practice developed by a nationally recognized association or independent testing laboratory that are comparable to the requirements of Option 1.

- ▶ **Option 3:** Conduct operation and maintenance walkthrough inspections developed by the implementing agency that are comparable to the requirements of Option 1.

- **Spill prevention equipment testing** will ensure integrity of the spill bucket, catchment basin, or other spill containment device, because it will catch small spills that occur when the delivery hose is connected. This change will take effect one year after the rule change. Spill prevention equipment will be tested at least annually for liquid-tightness by performing a vacuum, pressure or liquid test by:

- ▶ Requirements developed by the manufacturer (if the manufacturer has developed spill prevention equipment test requirements);

continued on page 7

Proposed EPA Rule Changes for Underground Storage Tanks – *continued from page 6*

- ▶ A code of practice developed by a nationally recognized association or independent laboratory;
 - ▶ Requirements determined by the implementing agency:
 - EPA may decide not to require annual testing of double-walled spill prevention with continuous interstitial monitoring. Owners and operators, during their monthly walkthrough inspection, would *visually* inspect continuous interstitial monitoring methods that do not alert the owner or operator with an alarm;
 - ▶ EPA will determine if an annual test is the appropriate time frame for spill prevention equipment tests and if the one year implementation time period is reasonable. EPA will also determine if there are other acceptable test methods in addition to vacuum, pressure, or liquid spill prevention equipment tests.
- **Overfill equipment testing** will ensure the equipment will activate properly and notify the delivery person that the tank is nearly full. The overfill equipment will be tested every three years to confirm that the equipment will activate at the appropriate level in the tank. This requirement will be phased in over three years based on the tank installation date.
 - **Testing interstitial areas**, or secondary containment, will ensure leaks are caught before reaching the environment. Secondary containment areas include tank and piping interstitial areas as well as containment sumps that are used as part of the piping secondary containment and interstitial monitoring. Following a three-year phase-in period, secondary containment areas will be tested every three years by using a vacuum, pressure or liquid method to confirm that the interstitial area has integrity according to one of the following:
 - ▶ Requirements developed by the manufacturer (if the manufacturer has developed interstitial integrity equipment test requirements);
 - ▶ A code of practice developed by a nationally recognized association or independent laboratory;
 - ▶ Requirements determined by the implementing agency.
- ▶ **EXCEPTIONS:**
 - Tanks - owners and operators using continuous interstitial monitoring on their tanks will not be required to perform periodic interstitial integrity tests;
 - Piping - owners and operators using vacuum monitoring, pressure monitoring or liquid-filled interstitial space monitoring will not be required to perform periodic interstitial integrity tests;
 - Containment sumps - owners and operators using containment sumps which have two walls and continuously monitor the interstitial space between the walls for releases will not be required to perform periodic interstitial integrity tests. **NOTE** – The Montana Department of Environmental Quality’s Underground Storage Tank program already requires containment sump testing every three years for UST system’s using interstitial monitoring as their primary form of leak detection.
 - ▶ **This proposed requirement only applies to UST systems using interstitial monitoring. It does not apply to UST systems without secondary containment or those with secondary containment that are not using interstitial monitoring for release detection;**
 - ▶ EPA proposes to stagger implementation over a three-year period based on the installation date of the oldest tank, where older UST systems will be required to be tested first;
 - ▶ EPA will determine if the three-year frequency is an appropriate time frame for interstitial integrity tests and if more frequent testing should be considered in sensitive areas such as source water protection areas. They will also determine if there is a need for the three-year phase-in schedule;
 - ▶ EPA will determine if interstitial integrity tests for tanks using continuous interstitial sensors *should* be required, or if the exclusion should be limited to discriminating sensors.
- **Release detection equipment testing** will ensure the equipment is operating properly and is capable of detecting a release quickly. The 1988 UST regulations do not require

continued on page 8

Proposed EPA Rule Changes for Underground Storage Tanks – *continued from page 7*

regular testing of leak detection equipment. This proposed change would require testing of leak detection equipment (including Line Leak Detectors) annually to ensure it is operating properly. Owners and operators will be required to check the following equipment:

- ▶ Automatic Tank Gauge (ATG) and other controllers:
 - Test the alarm, verify system configuration and test the battery back-up.
- ▶ Probes and sensors:
 - Inspect for residual build-up, ensure that floats move freely, ensure that shafts are not damaged, ensure that cables are free of kinks, bends, and breaks and test alarms for operability and communication with controller.
- ▶ Line leak detector:
 - Simulate a leak which determines capability to detect a leak and inspect leak sensing O-rings.
- ▶ Vacuum pumps and pressure gauges:
 - Ensure communication with sensors and controllers.

- Some manufacturers only *recommend* operation and maintenance checks on release detection equipment. EPA is taking the position that these checks should be *mandatory*.

FLOW RESTRICTORS IN VENT LINES – Spills and overfills are a common cause of UST system releases and vent line flow restrictors (ball float valves) have been identified as a significant concern for operability and safety. Ball float valve technology has several inherent weaknesses and can result in over pressurized tanks. The proposed change, effective immediately after the rule change, will no longer allow ball float valves on vent lines for new systems, replaced system or when the systems overflow prevention system is replaced. Owners and operators may continue to use flow restrictors that are not in vent lines (such as flow restrictors in fill pipes).

COMPATIBILITY – As newer fuels enter the market place, it is important for owners and operators to clearly understand how to demonstrate compatibility with these fuels and ensure there are no releases due to the stored fuels being incompatible with UST systems. The following proposed change does not alter the 1988 UST regulations requiring systems to be compatible with the material stored, it merely helps owners demonstrate compatibility with their system. The change would take effect immediately.

- Owners and operators must demonstrate compatibility for UST systems storing greater than 10% ethanol, greater than 20% biodiesel or any other regulated substance the implementing agency identifies. They must demonstrate compatibility by one of the following methods:
 - ▶ Listing by a nationally recognized independent testing laboratory, equipment or component manufacturer approval (approval must be in writing, indicate an affirmative statement of compatibility and specify the range of ethanol or biodiesel blends the component is compatible with) or another method the implementing agency determines to be no less protective of human health and the environment than the other methods.
- Owners and operators must maintain compatibility records for the life of the equipment or component for all new or replaced equipment and for UST systems storing greater than 10% ethanol or greater than 20% biodiesel.

VAPOR AND GROUNDWATER MONITORING – These release detection methods are external to the tank, which means a release can *significantly* affect the environment before it is detected. There are also inherent problems with installing and confirming proper use of these methods. EPA will phase out vapor and groundwater monitoring as a release detection method within five years of the rule change.

NEWER TECHNOLOGIES – This proposed change updates the 1988 UST regulations to include current technologies.

- EPA will include the following newer technologies:
 - ▶ Steel tanks clad or jacketed with a non-corrodible material (EPA estimates 10% of regulated tanks are jacketed with a non-corrodible material and 18% are clad with a non-corrodible material), non-corrodible piping, continuous in-tank leak detection (CITLD) and statistical inventory reconciliation (SIRS).

For more information regarding these proposed rule changes, contact Elizabeth McDermott at (703) 603-7175 or mcdermott.elizabeth@epa.gov.

Owners and operators can also visit the EPA OUST website for more information at www.epa.gov/OUST/fedlaws/proposedregs.html. ■

DEQ's Tank Programs Working Together to Help YOU

DEQ Staff

Compensation boards, funds, underground storage tanks, Brownfields, federal facilities, tank cleanups...it's enough to leave even the most knowledgeable person confused. Tank owners and operators know that there are regulations to comply with, and that there are regulatory agencies and programs that oversee such regulations. DEQ understands that these regulations can be confusing. In an effort to ease some of the confusion, DEQ is providing an overview of what each program does, and how they fit together to help tank owners and operators.

It is always preferable to never have a storage tank leak. Leaks not only consume time and resources, they also impact the environment and threaten human health. DEQ's mission is to protect human health and the environment; therefore, prevention is the single most important goal that we can achieve. That is where the Montana Underground Storage Tank (UST) program comes in.

Montana Underground Storage Tank Program (Permitting and Compliance Division)

The goal of the Montana UST Leak Prevention program is to protect human health and the environment by *preventing* releases of petroleum and hazardous substances from UST systems. The release of these regulated products into the environment threatens groundwater resources and can cause explosive vapors to seep into confined spaces and occupied dwellings. The mission of the UST Leak Prevention program is to ensure that:

- UST systems are properly constructed and designed using recognized industry standards;
- installations, repairs and removals are conducted and inspected by qualified, trained and licensed individuals;
- active USTs are properly operated and monitored for releases; and,
- upon closure, USTs are properly decommissioned and sites assessed for contamination.

Even the best of intentions sometimes fail, and it is a fact that leaks occur. When they do, the Petroleum Tank Cleanup (PTC) section is available to assist. The PTC section ensures that leaks are cleaned up to standards required under both Montana and Federal laws and implements remedies that protect human health and the environment.

Petroleum Tank Cleanup Section (Remediation Division)

The PTC directs and oversees the cleanup of petroleum releases. PTC staff are available technical resources. Tank owners and operators, local government officials, and the public contact them to help respond to questions or concerns associated with tank leaks. Additionally, PTC staff:

- receive and investigate reports of petroleum storage tank releases;
- assist local fire and health authorities in responding to the immediate threats resulting from contaminated drinking water supplies and explosive vapors created by releases;
- require, approve and oversee release investigations and remediation activities conducted by storage tank owners and operators;
- coordinate with the Petroleum Tank Release Compensation Board (PTRCB) to facilitate reimbursement of costs for investigation and remediation activities at eligible sites; and,
- document release site closures at the conclusion of the remediation.

The Leaking Underground Storage Tank (LUST) Trust program is part of the Petroleum Tank Cleanup section. LUST Trust conducts investigation and remediation activities at release sites that threaten human health and the environment where: (1) the release source is unknown, (2) the tank owner is unable or unwilling to perform the work themselves, or (3) in response to catastrophic high-risk sites where DEQ determines that state actions are necessary to address immediate risks to human health or the environment.

If a petroleum release occurs, PTC staff assist and oversee the efforts of the facility owner and/or operator in assessing the threats to human health or the environment. PTC staff work closely with the PTRCB, which provides financial reimbursement of eligible corrective action cleanup costs to tank owners and operators of qualified releases. Additionally, staff also work with the federal facility and Brownfields programs, which will be discussed later.

Some tank cleanups are costly. Oftentimes owner/operators are small business owners who do not have the ability to pay for large cleanups. In these instances, the Petroleum Tank Release

continued on page 10

DEQ's Tank Programs Working Together to Help YOU – *continued from page 9*

Compensation Fund (Fund) is there to assist. This Fund results from a \$0.0075/gallon fee and is available to assist owner/operators in meeting the financial obligations related to the cleanup of eligible petroleum storage tank releases.

Petroleum Tank Release Compensation Board and Fund (Administratively attached to DEQ)

The Fund, administered by the PTRCB, was established by the 1989 Legislature as a means of providing adequate financial resources and effective procedures through which tank owners and operators may undertake, and be reimbursed for, the cleanup of petroleum contamination. It also provides third parties reimbursement for damages caused by petroleum storage tank releases. Furthermore, the Fund is designed to:

- assist tank owners and operators in meeting financial assurance requirements under state and federal laws governing the operation of petroleum storage tanks;
- assist in protecting public health and safety and the environment by providing cleanup of petroleum tank releases; and,
- provide tank owners with incentives to improve petroleum storage tank facilities so as to minimize the likelihood of accidental releases.

To meet the intent and purpose established by the legislature, the PTRCB has directed its efforts toward fiscally responsible management of the cleanup fund. As part of fund administration, the Board intends to:

- ensure adequate funding is available for releases ranked as “High Priority” by DEQ’s Remediation Division. These releases usually consist of those about which little is known. This is often due to no investigation having been conducted or because there is a known environmental concern; and,
- reimburse claims for completed corrective action.

While the PTRCB works with the PTC section, evidence has shown that funding and associated cleanups often spur development of contaminated properties, with coordination undertaken by the federal facilities and Brownfields (FEDBRO) Section. Federal Brownfields or other funding can, in many cases, be used to help offset co-payment requirements of the Fund for property owners who meet Brownfields criteria.

Federal Facilities and Brownfields Section (Remediation Division)

Montana’s FEDBRO program assesses and cleans up federal facilities and Brownfields sites throughout the state.

Federal facilities include all sites owned by the federal government that have documented releases of hazardous substances or petroleum. Such facilities include many of Montana’s current and former military bases and missile control sites.

The EPA defines a Brownfields site as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of hazardous substances, pollutants, contaminants, controlled substances, petroleum or petroleum products, or is mine-scarred land.” The FEDBRO program receives federal funding specifically allocated for both types of Brownfields sites: petroleum-only sites, and hazardous substance sites. Montana’s petroleum Brownfields strategy is to promote environmental protection, support community revitalization, and promote economic redevelopment through the assessment, cleanup and sustainable reuse of petroleum Brownfield sites throughout Montana.

Montana FEDBRO staff also oversee and direct the investigation and cleanup of petroleum releases at large terminal facilities located along Montana’s petroleum pipelines.

In cases where the above-mentioned programs are unable to promote compliance within the regulated community, or when additional compliance strategies have failed, violators may be referred to the Enforcement Division, where formal enforcement actions may be pursued.

Enforcement Division

Enforcement Division personnel investigate spills and citizen complaints that allege impacts to human health and the environment. They also manage enforcement cases and monitor compliance. Complaints and violations are documented and resolved through compliance assistance, warning letters, or violation letters. If a violation cannot be resolved, a formal enforcement action may be initiated. A formal enforcement action could include: an administrative order, penalties, or judicial actions. DEQ may initiate a formal enforcement action against licensed installers or inspectors for violations of the Montana Underground Storage Tank Installer and Inspector Licensing and Permitting Act.

continued on page 11

DEQ's Tank Programs Working Together to Help YOU – *continued from page 10*

Conclusion

There are many intricate workings within DEQ that serve to assist the public in preventing tank leaks, dealing with them when they occur, providing financial assistance and ensuring spills are cleaned up appropriately. Look at DEQ as a partner

in your tank operations and don't hesitate to contact us should you need assistance. Because the staff in these programs work closely with all the programs outlined above, any one of them can direct you to the right section or program for your particular needs. ■

Licensing Your Underground Storage Tanks with the Department of Revenue

DOR Staff

Montana business owners and operators are now able to do their One-Stop business licensing, including underground storage tanks, online. Along with this improvement, the name has changed from One-Stop Business Licensing to eStop Business Licenses.

Here are a few good reasons why you may want to take advantage of this *new* electronic service:

- **Renew and pay** your licenses online with an echeck or credit card for free.
- **View history and details** of your business and location and print your license.
- **Make changes** to your business or locations, such as:
 - ▶ Update the mailing address, contact information, etc.

- ▶ Update the business structure or entity type
- ▶ Add a new physical location
- ▶ Notify us of a closed or sold location
- ▶ Add a new license to an existing location
- ▶ Go completely paperless by getting your renewal notices by email.

How to get started:

- When you receive your license renewal notice this year, you will get a passcode and instructions.
- Go online to estop.mt.gov and follow the instructions.
- Contact our Customer Service Center by email at DORestop@mt.gov or toll free at (866) 859-2254 or in Helena at 444-6900. ■

jUST Jargon – Well Logging

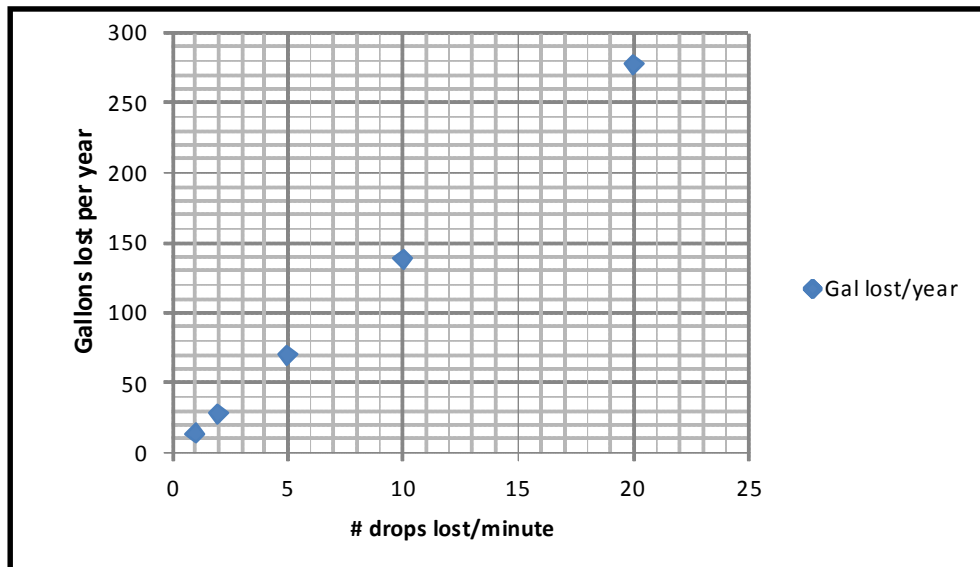
W

Well logging is the practice of making a detailed record of the geologic formations penetrated by a borehole. The log may be based either on visual inspection of samples brought to the surface (geological logs) or on physical measurements made by instruments lowered into the hole (geophysical logs). Well logging can be done during any phase of a well's history: drilling, completing, producing or abandoning.

Photo Essay



Drip Volume Conversion



Petroleum Tank Release Compensation Board Blotter

DEQ PTRCB Staff

At the January 27, 2014, meeting, the Petroleum Tank Release Compensation Board (Board) considered eight applications for eligibility. All eight releases were determined eligible for reimbursement from the Petroleum Tank Release Compensation Fund (Fund). The Board ratified payment of 261 claims, totaling \$1,342,905.17, which had been reimbursed between October 30, 2013 and January 8, 2014. Two claims were denied; one because the claimant withdrew the claim from PTRCB review, and the other because 3rd party insurance had accepted liability for the release. One claim for an amount greater than \$25,000 was reviewed by the Board and approved for payment. The estimated reimbursement for the claim was nearly \$12,500.00.

The Board elected to consider a staff recommendation to deny, and remove from the table, claims that exceed the statutory maximum reimbursement at a site in Great Falls. The Board discussed the staff's recommendation and elected to table the matter again. The owner and DEQ have been in litigation concerning whether more than one release is present at the site. The parties to the litigation reached agreement for a Stipulated Dismissal. The owner will present to the Board, applications for eligibility for releases it believes exist at the site.

The Petroleum Tank Cleanup Section (PTCS) of the Remediation Division presented summaries of two work plans having an estimated cost greater than \$100,000. Both plans reviewed were for excavation and disposal of contaminated soil, one in Havre and one in Townsend. A third work plan was scheduled to be reviewed by the Board

but was withdrawn by PTCS because new information concerning the site had surfaced, requiring a re-evaluation of the proposed work.

The revenues received by the Fund have continued to be above projections for the year.

Minutes from the Board's meetings are available on the Board's web site at <http://deq.mt.gov/pet/BoardMeetings.mcp>. ■



Initial Compliance Inspector Training, May 14-15, 2014

DEQ is offering initial training that will qualify individuals to become department licensed underground storage tank compliance inspectors. DEQ staff will conduct the training May 14-15, 2014. Training will be held at DEQ's Metcalf building (1520 E. 6th Ave.) in room 45.

Following classroom training, attendees will have the opportunity to take the compliance inspector written exam on May 16th

and must also pass a field practical exam (offered May 15th) to become licensed as an underground storage tank compliance inspector.

This course will be offered free of charge. Online training registration is available at https://app.mt.gov/cgi-bin/confreg2/index.cgi?ACTION=INTRO&CONFERENCE_ID=3423. ■

Underground Storage Tank Act Enforcement Cases Resolved During the 1st Quarter of 2014

DEQ Enforcement Staff

The DEQ Enforcement Division closed the following enforcement cases during the 1st quarter of 2014:

Citizens Telecommunications Company of Montana resolved a violation at the Troy Central Office. The violation was for failing to get a compliance inspection before the expiration of the facility Operating Permit. The compliance inspection was conducted 18 days after the expiration of the Operating Permit. Citizens Telecommunications paid a \$300 penalty for the violation.

Lifesavers, Inc. resolved violations at Lifesavers, Inc., in Emigrant. The violations were for failure to conduct monthly

leak detection and failure to use approved leak detection equipment. Lifesavers resolved the violations by inactivating the tank and paying a \$240 penalty.

T & E Whistle Stop, Inc. resolved a violation at the T & E Whistle Stop in Glendive. The violation was for failure to conduct monthly leak detection monitoring. T & E submitted leak detection records, obtained a re-inspection and paid a \$630 penalty.

For more information, contact the Enforcement Division's Shasta Steinweden at (406) 444-3109. ■



Petro Factoid. . . Plume

In hydrodynamics, a **plume** is a column of one fluid moving through another. Several effects control the motion of the fluid, including momentum (inertia), diffusion and buoyancy (density differences).

Pollutants released to the ground can work their way down into the groundwater. The resulting body of polluted water within an aquifer is called a plume, with its migrating edges called plume fronts. Plumes are used to locate, map, and measure water pollution within the aquifer's total body of water, and plume fronts to determine directions and speed of the contamination's spreading in it.

CALENDAR

PTRCB Business Meeting Dates for 2014

All meetings start at 10:00 a.m.

Montana Department of Environmental Quality

Metcalf Building • Room 111 • 1520 E Sixth Avenue • Helena, MT 59601

April 14, 2014 • June 16, 2014 • August 11, 2014 • October 20, 2014

UST Compliance Inspector Initial Training

May 14-15, 2014 • 8:00 a.m. each day

Montana Department of Environmental Quality

Metcalf Building • Room 45 • 1520 E Sixth Avenue • Helena, MT 59601

More information and the course registration form can be found at:

<http://www.deq.mt.gov/UST/latestnews.mcp>, or

Contact: Dalynn Townsend • (406) 444-3840 • dtownsend@mt.gov

Fund and Release Status Report

Petroleum Fund Financial Status — Through February 28, 2014, Fiscal Year 2014

(July 1, 2013 – February 28, 2014)

Total Revenue:	\$4,343,870.00
Current and Prior Year Claims Expenditures:	\$3,759,302.00
Outstanding Work Waiting to be Obligated:	\$ 62,105.00

Petroleum Releases – Through February 28, 2014, Fiscal Year 2014

(July 1, 2013 – February 28, 2014)

New Releases:	21
Releases Resolved (Closed):	78

Summary of Total Petroleum Release Activity

Total Confirmed Releases:	4,598
Total Active Releases:	1,282*
Total Releases Resolved (Closed):	3,334

*Please note that this number includes 53 sites with the status “Transferred to Another Program or Agency” and are not necessarily resolved. The other agency or program could be the EPA or another state-lead program (e.g. the DEQ State Superfund Program).

MUST News is a quarterly newsletter produced by the Montana Department of Environmental Quality to inform and update petroleum storage tank owners and operators, environmental consultants, and others interested in developments about underground storage tank operation, rules, release prevention, remediation, and reimbursement. The information in this newsletter is provided to assist readers in understanding the issues discussed, but does not alter any applicable legal requirements or replace any applicable laws, regulations, policies, or procedures.

MUST News is Going Electronic!

DEQ and the *MUST News* team are pleased to announce that the *MUST News* is moving to an electronic newsletter format. This issue (Spring 2014) will be the final print version you will receive.

If you would like to continue receiving updates and information related to Underground Storage Tanks in Montana via the *MUST News*, and do not currently receive the electronic version, please go to <http://svc.mt.gov/deq/ListServe/MustNewsStep1.asp> to sign-up. ■

**Spring 2014 issue of the
MUST News will be the
FINAL print version.**

MUST News Acknowledgements

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