Field Notes: Water in Spill Buckets. What’s the Big Deal?

By Brian Osterman, Field Operations Branch, Central Office

Nearly 90 percent of all underground storage tank inspections have documented violations for the presence of water in spill buckets. Owners/operators often ask the question, “What’s the big deal?” The “big deal” is that water in spill buckets can result in costly repairs and cleanup for owners/operators.

Having water in the spill bucket limits the amount of fuel a spill bucket can accept from a delivery hose in the event of an overfill. If a spill bucket is full of water and a fuel spill were to occur, the subsequent overflowing of the bucket would be considered an uncontained spill, which could result in a costly cleanup.

Aging spill buckets often develop stress cracks in the baffles and sidewalls of the bucket. This is a direct pathway for excess fuel from the delivery hose to escape the spill bucket into the environment, defeating its purpose. In addition, accumulated water in spill buckets can inadvertently enter the underground storage tank via the drain plug or a loose-fitting fill cap. Consequences of water entering a UST include system shut-down and delivery prohibition by the Environmental Response Branch, degradation to UST components due to acute corrosion and loss of fuel in the tank due to phase separation. Even worse, angry customers and expensive repair bills may result if phase-separated fuel ends up in your customers’ vehicles.

Brownfield Redevelopment and UST Properties

By Shawn Cecil, P.G., Environmental Scientist, Commissioner’s Office

House Bill 465, which resulted in statutes and regulations that provide for redevelopment of sites with hazardous substances, contains two UST-specific provisions. First, only those individuals who own or operate an underground storage system are responsible for investigating and remediating UST releases. Second, if you complete a cleanup regulated by Kentucky’s UST Branch, then you won’t be subject to regulation by another related program, such as Superfund, for the same release.

You don’t always have to wait for an NFA (no further action) to reuse or transfer property. Property may be purchased and the UST system expressly excluded from the purchase. Without being the owner or operator of the UST, the new property owner does not have the statutory burden to investigate or remediate the release. One cannot, however, prevent remediation. You just won’t be responsible for remediation costs. When considering reuse, Kentucky’s Brownfield team will be happy to work with a prospective redeveloper to identify best practices.

Another option is to accept responsibility for the UST system and utilize the available assurance dollars from the Petroleum Storage Tank Environmental Assurance Fund (PSTEAf) to remediate the site. Kentucky’s UST Branch is happy to inform prospective buyers of available funds for site, as well as make site records available to help a prospective buyer determine what work stands between them and NFA.

These two approaches illustrate that an ongoing UST cleanup need not hold a property hostage. As the economy awakens and capital investments begin to move forward, former UST properties have a lot to offer. They are typically some of the best corner lots in town and are waiting to contribute to their communities’ economy.

For more information on grant writing assistance, free assessments and potential funding opportunities, visit the Division of Compliance Assistance’s brownfield web page.
UST Response Quarterly

By Kevin Strohmeier, Response Coordinator/State On-Scene Coordinator

This is the first in a series of articles regarding emergency responses at UST facilities. While a release is never a good thing, immediate reporting and immediate response are the keys to minimizing cleanup costs and service disruption at a facility. In this article, I will discuss the observation that prompted an emergency, the investigation of the UST system, and the remedial efforts leading to resolution of the emergency. Mention of names of consultants, contractors or products is not intended to be an endorsement of that service or product.

Free product in the storm water basin. (Photograph by Michael Albright)

Lexington Fayette Urban-County Government (LFUCG) reported what appeared to be fresh gasoline in a storm drain and outfall off of Loch Ness Drive in late August 2014. The Lexington Fire Department responded and flushed the fuel from the storm drain to reduce the chance of a fire or explosion. An environmental contractor was called to address the fuel outside the storm drain in soil and groundwater.

Regarding the source of the fuel release, there was only one UST facility in the vicinity, but a review of that facility’s release detection records and a physical inspection failed to implicate it in the spill.

Unfortunately, several days later, the situation reoccurred. The storm drain was flushed and fuel was recovered at the outfall. The UST facility’s automatic tank gauge (ATG) still showed passing results but the operator found a 50-gallon shortage when he conducted a manual inventory reconciliation. Based on that discovery, the state’s Environmental Response Team (ERT) directed a tank and line tightness test. The test failed to detect a release from the facility’s UST systems. We did note, however, that the spill bucket on the regular unleaded tank appeared to be damaged. It subsequently failed a hydrostatic test. This supported the possibility that an overfill or transporter spill resulted in the release to the storm sewer. Intermittent heavy rains may further contributed to moving the fuel into the storm sewer.

The situation did not appear to be resolving itself and the contractor, fire department and ERT continued to monitor the storm sewer and outfall and to recover fuel. Another tank and line tightness test of the entire UST system was conducted by a second testing company and, again, all tanks and lines passed.

A breakthrough occurred when LFUCG provided a sewer camera, and we observed a seam in the storm drain through which fuel was entering. This seam in the storm drain was located adjacent to the tank pit. Soil borings placed between the tank pit and storm sewer indicated the presence of fuel. Based on this evidence and continued losses in inventory, ERT directed the removal of product from the regular unleaded tank and implemented emergency delivery prohibition.

As background, the USTs were installed in 1976 and are single-walled steel tanks with an impressed current cathodic protection system. Product piping is double-walled plastic. The tank pit is only about a foot and a half away from the storm sewer and the facility is about a quarter mile from the storm sewer outfall.

ERT, the Underground Storage Tank Branch (USTB) and the environmental consultant devised an approach to quickly resolve this release. At first, we prevented the additional release of fuel into the storm sewer by placing monitoring wells in the plume and conducting dual-phase extraction to remove gross free product. Following dual-phase extraction, we injected BOS-200 into the soils. This injection product absorbs fuel using activated carbon and degrades fuel using microbes supported by nutrients. A barrier of this product was injected along the storm drain and additional injections were made within the plume. This was done to address more diffuse fuel contamination and as a longer term remedy.

Our approach to this release represents a proactive, streamlined approach. We aggressively pursued delineation using field screening rather than waiting on laboratory analytical results and we employed a relatively expensive injection technology, but one which has proven results in Kentucky. The consequences of these actions have been that fuel is no longer entering the storm sewer and a monitoring well that initially had several inches of product has greatly improved.

As of late November, the response appears to be successful.

Water line excavation after repair (Photograph by Stephen Kellerman)

Special thanks to the owners of the tanks and the facility for cooperation during the response. Thanks to Steve Kellerman (Frankfort Regional Office) for hours spent on response and Michael Albright (USTB) for managing the technical details of the corrective action. Thanks to PECCO, GeoScience Consultants, Geologic Inc, and Chase Environmental, Inc.

Contact Kevin Strohmeier, 502-564-6716, ext. 4752, kevin.strohmeier@ky.gov
UST Ownership Changes

Owners and operators of underground storage tank (UST) systems are responsible for compliance measures (spill buckets, corrosion protection, etc.) and for corrective action (cleanup) associated with the UST systems. While this seems straightforward, confusion may arise when a responsible party sells a UST system and/or real estate because the real estate can be owned, bought, and sold separately from the UST system and the accompanying liability for that UST system. For example, a UST owner, whose tanks and/or piping have been removed, may continue to be responsible for corrective action (cleanup) after selling the real estate to a third party that holds no liability for the corrective action. Therefore, it's essential to properly notify the UST Branch of any changes in UST system ownership or of agreements (usually in the context of a sale of real estate) to transfer corrective action liability.

While a new UST owner, upon a change in ownership, is required to submit a UST Facility Registration Form, the former owner also has a responsibility to document the sale. 401 KAR 42:020, Section 3 requires the former owner, within 30 days after the transaction, to submit a copy of the executed deed, or sales contract, etc., to the UST Branch. Further, although it is most common for UST system ownership to be transferred as part of a sale of real estate, it should be noted that documentation is required as well for any transaction in which UST ownership is severed from ownership of the real estate. Finally, if corrective action liability for previously removed USTs or piping is being transferred with real estate, that agreement should be clearly set forth in the mutually executed deed or contract.

While it may appear redundant, aside from the requirements of the regulation, the former owner’s notification to the branch serves to protect that former owner in the event that the new owner fails to timely submit their new registration form. Absent the new registration, the UST Branch would not otherwise know of the change in ownership and would continue to seek compliance from, or issue corrective action directives to, the person with the last registration on file. Therefore, it is best for all parties that owner and operator information is kept current.

Reminder: UST Agenda Schedule for the Holidays

It’s that time of year again and, as you know, over the holidays we will be altering the UST agenda schedule to accommodate office closings.

Please contact Jill Stoltz at (502) 564-5981, ext. 4774, or jill.stoltz@ky.gov for more information.

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Tank Operator Online Learning System (T.O.O.L.S.) Updates

By Leslie Carr, Energy Act Coordinator

ANNUAL RETRAINING:

If a Designated Compliance Manager (DCM) is due for retraining and has not completed testing, the facility for which the DCM is responsible will be out of compliance and will be issued a Notice of Violation when inspected. If the failure to retrain is due to problems with the TOOLS online system or if you are having trouble remembering your username and/or password, please contact the UST Compliance Section for assistance.

USERNAMES AND PASSWORDS:

When facility owners or their agents go into TOOLS to set up their accounts, we recommend setting up two separate usernames and passwords, one for the owner module (“Owner Home” button) and one for the DCM module (“DCM Home” button), regardless of whether you are both the owner and the operator or just the operator or third party being certified as the DCM. If you are the DCM but not the owner, you must have your own username and password, separate from that of the owner.

Remember, we are here to help. Call 502-564-5981 and select Option 2 when the recording begins or you may contact us by email:

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