



# UST QUARTERLY



The Newsletter of the Kentucky Underground Storage Tank Program

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### Inside this issue:

- New EPA Guidance Released: Vapor Intrusion 2
- The Essence of Significant Operational Compliance 2
- Coming Soon: Electronic Submittals 2
- Site-Specific Corrective Action (continued from Page 1) 3
- Kentucky Operator Training: You Don't Have To Pay 3
- Two Easy Ways to Pay Annual Tank Fees 4

## Regulations and Parting Regards

By Robert Daniell

The amended UST regulation package, four years in the development stage, is on its way toward legislative review and hopeful approval. Countless hours of brainstorming and deliberation have gone into this package, and the implementation of these amendments will prove to be a significant step forward for the UST program in Kentucky. Enhanced leak prevention, common sense procedures for corrective action, and the continued streamlining of the PSTEAF reimbursement process are the cornerstones of the package that the staff of the UST Branch will be working very hard to implement upon passage.

Managing the UST Branch has been a distinct privilege for me that I will step away from to pursue another opportunity within the Department for Environmental Protection. I am fully confident in the very capable staff of the UST Branch to carry out the successful implementation of this regulation package, and that the increased effectiveness of the program will be clearly visible in the short term.

I will look back with pride to my tenure within the Kentucky UST Branch, and appreciate the hard work of our staff and that of the UST owners and operators and consulting community.

***It has been a true privilege to have such an extraordinary manager that clearly cares so deeply about his staff and the program. - UST Branch Employees***



*Robert H. Daniell began his state career in 1991 as a technical reviewer in the UST Branch. In 1996, he became the director of the Division of Waste Management, and in 2004, he returned to the UST Branch as branch manager. Effective Aug. 1, Rob accepted an opportunity in the Division of Water.*

## Site-Specific Corrective Action

By Larry Hughes, UST Branch Corrective Action Supervisor

In order to implement a timely and successful remedial strategy based on an appropriate remedial goal, the primary determining factor should be based on a thorough and accurate understanding of the relationship between the local geologic and other subsurface interactions at a *specific* site (i.e., a good conceptual site model based on the right amount and kind of data). The primary determining factor should not be a *universal* application of clean up levels based on an assumed *generic* worst or best case scenario. In short, the necessity of remediation, the goals of remediation and the proper application of a remedial technology itself should be determined primarily on site-specific conditions with generic screening levels being a

*(continued on Page 3)*



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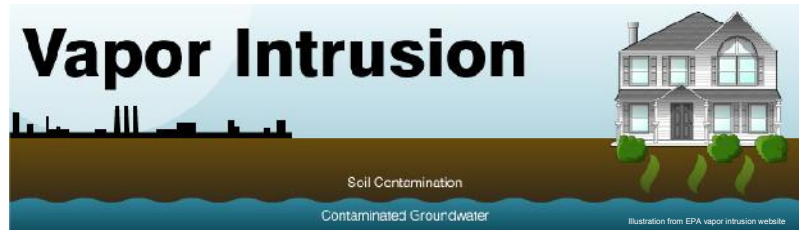
For more information, comments or story suggestions, please contact Virginia Lewis. She can be reached at [Virginia.Lewis@ky.gov](mailto:Virginia.Lewis@ky.gov) or 502-564-5981, ext. 4024.

**To report a release or suspected release call the ERT hotline. 1-800-928-2380**

Visit our website today at <http://waste.ky.gov/ust>.

## New EPA Guidance Released

Vapor intrusion (VI) occurs when toxic chemicals volatilize from source materials, contaminated soils, or groundwater plumes, and migrate into inhabited buildings. It is a potential concern because of both immediate threats to safety (for example, explosive concentrations of petroleum vapors or methane) and possible adverse health effects from inhalation exposure to toxic chemicals. The toxic impacts of VI are usually associated with two classes of chemicals that cause soil and groundwater contamination across the country: petroleum hydrocarbons (PHCs), such as gasoline, diesel, and jet fuel; and chlorinated hydrocarbons (CHCs), such as dry cleaning and degreasing solvents.



### Coming Soon

*Submit technical documents electronically.*

The UST Branch will soon accept certain technical documents electronically. These will include documents related to corrective action, site investigation, closure, site check and initial abatement. Watch the USTB website for updates!

Since September 2009, U.S. Environmental Protection Agency's (EPA's) Office of Underground Storage Tanks (OUST) has been working to develop guidance for addressing the threat of petroleum vapor intrusion (PVI). As part of this effort, OUST recently distributed a communications paper "EPA's Petroleum Vapor Intrusion Guidance" that summarizes plans to develop communications and technical products and briefly articulates differences in VI potential between petroleum and chlorinated hydrocarbons.

This newly released guidance and additional information on VI can be found on EPA's Office of Solid Waste Emergency Response VI website at <http://www.epa.gov/oswer/vaporintrusion/>.

For questions or more information about the PVI communications paper, please contact Hal White of EPA's OUST at 703-603-7177 or [white.hal@epa.gov](mailto:white.hal@epa.gov).

## The Essence of Significant Operational Compliance

By Leslie Harp - UST Branch Compliance Section

Humorist Will Rogers is famous for saying, "When you find yourself in a hole, stop digging." That holds true for many when the realization hits that things aren't working the way they should. That is exactly what the UST Branch did when employees found that the significant operational compliance (SOC) rates were not what they should be.

SOC is essentially a snapshot in time to help determine whether a UST facility is in compliance at the time of inspection. In 2003, SOC became the measure employed by the U.S. Environmental Protection Agency (EPA) as a general assessment of UST facility significant operational compliance. At that time, Kentucky's SOC rates hovered around 40 percent.

With that in mind, the Compliance Section in the UST Branch was given the task of finding ways to improve the SOC rates. By implementing some radical, short-term changes such as having field inspectors assist in identifying data reporting issues, the branch was able to find outdated or incorrect data for UST-facility equipment. Using the field inspectors as added eyes and ears, the branch took three months to clean up the data to ensure an accurate base from which to move forward.



*To read the rest of this article, visit Page 16 of the Summer 2011 issue of Land, Air & Water at <http://eec.ky.gov/Pages/LandAirWater>.*

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Visit our website today at <http://waste.ky.gov/ust>.

## Site-Specific Corrective Action *(continued from Page 1)*

secondary guide, rather than vice versa. This places the basis and emphasis of actual goals and “how to achieve the goals” on actual conditions, exposure possibilities, and risk driven by actual site specific information and geology, rather than unknowns and remote possibilities.

Making the main driver of the approach a general clean up number rather than site specific geologic/hydrogeologic conditions, and/or not developing a good conceptual site model tends to lead to two bad situations. First, it leads to a flawed conclusion of what is necessary to be protective at a specific site. When this happens remedial goals required usually become unachievable, unnecessary or insufficient (i.e., either too much is required or not enough). Second, the failure to understand site specifics in a conceived model often leads to a faulty application of an otherwise good remedial technology. One, the other or both of these cases will manifest itself in uncertain and endless timelines to achieve remedial “success” and the “golden” No Further Action letter.

On the other hand, if a proper conceived model of a specific site is well developed based on the appropriate quantity and kind of data, then the determination for the necessity of further clean up can be made. If further active remediation is necessary, then an appropriate clean up goal can be set to the realistic risk at a given site, and a proper application of a technology or technologies can be made to achieve that goal.

The question that often comes at this point is, “Then what’s the difference between site investigation and conceptual model characterization because it all looks like the same effort being duplicated?”

Site investigation is the initial process of “getting one’s arms around the problem” based on default screening values. The default screening values are based on protective values when certain *common* site conditions exist. Therefore, site investigation asks and answers the questions, “Is there a problem and if so, how large is it?” If there is not a problem, then the site need not go any further and may be closed. If there is, then the investigation is expanded to determine the size of the problem based on the same initial screening values.

Once the size of the problem is determined through site investigation, the site is then referred over to corrective action whereby the conceptual model is developed through more detailed site specific characterization data. This, in turn, becomes the primary determining factor of whether a site needs further active corrective action, monitoring or no further action. If a site does need further active remedial work or monitoring, then what that might be with appropriate site specific goals for the active remediation and/or monitoring and how to achieve them toward no further action can be developed.

More information on the assessment and remediation of UST sites in Kentucky can be found on the UST Branch website at



<http://waste.ky.gov/UST/AssessmentandRemediation/Pages/default.aspx>.



### Story Ideas? Tell us what you think.

Let us know if there is something you would like to see in the UST Quarterly.

Send your bright ideas, suggestions and photos to  
Virginia Lewis  
[Virginia.Lewis@ky.gov](mailto:Virginia.Lewis@ky.gov)  
502-564-5981, ext. 4024



### KY Operator Training

*Remember, you  
don't have to pay.*

The UST Branch will be offering free operator training courses that will be available online after the proposed UST regulations go into effect. Per the federal law (2005 Energy Policy Act), states must ensure UST operators are trained according to state-specific training requirements by Aug. 8, 2012. For more information please visit the UST Branch website or contact the UST Branch Compliance Section at 502-564-5981.



**Underground Storage Tank Branch**  
200 Fair Oaks Lane  
Frankfort, KY 40601



Important  
program  
information  
is enclosed!

## Two Easy Ways to Pay Annual Tank Fees

A \$30 annual tank fee is assessed for each UST on July 1 every year. Invoices for these fees were mailed to UST owners at the beginning of July. The fees can be paid by mail or online.



### Mail

If paying by mail, make checks payable to the Kentucky State Treasurer.

Mail payments to:  
Kentucky Dept. for Environmental Protection  
UST Branch  
200 Fair Oaks Lane, 2nd Floor  
Frankfort, KY 40601



### Online

If paying online, this method is

- ✓ Free
- ✓ Secure
- ✓ Easy to use

To take advantage of this service and make your transactions easier, visit the UST Branch website at <http://waste.ky.gov/ust>.

For questions regarding invoices or annual tank fees, contact the UST Branch Administrative Section at 502-564-5981.

Visit our website today at <http://waste.ky.gov/ust>.