

# UTAH TANK NEWS

**SUMMER 2006**

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Division of Environmental Response and Remediation

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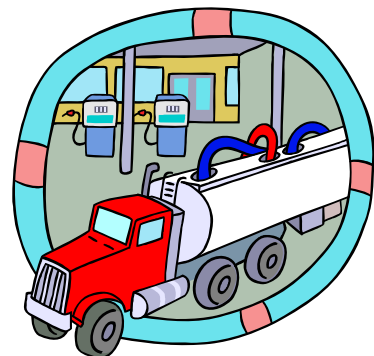
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## *Safe Fuel Delivery Practices* by Gary Astin

As we perform yearly Underground Storage Tank (UST) inspections, we occasionally find evidence that fuel deliveries may have been performed using unsafe practices. In the past year, we have found gauging sticks stuck in fill pipes to disable the overfill shutoff device, vapor recovery ports that are jammed open, and tanks that have been filled to overflowing.



The Federal UST regulations (40 CFR 280.30) require that UST owner/operators take responsibility to ensure that releases due to spills and overfills during product deliveries do not occur.

In addition to the requirement to have spill and overfill prevention devices, the regulations require that owner/operators do three things:

- 1) Ensure that the volume in the tank is adequate to hold the fuel to be delivered.
- 2) Constantly monitor the transfer operation to prevent spilling and overfilling.
- 3) Report, investigate, and clean up spills and overfills.

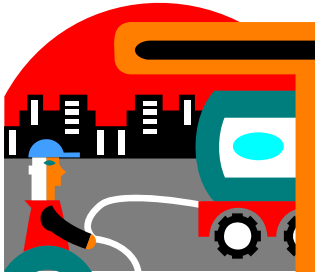
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UST owner/operators and delivery personnel have the responsibility to ensure that product deliveries are done safely, and make sure no spills or overfills occur.

Here are some do's and don'ts for safe filling practices:

- Don't put a gauge stick or anything else in the tank fill port to disable the overfill shutoff.
- Don't put a rock or anything else in the vapor recovery port to keep it open. This results in the tank venting to the ground surface, which is dangerous and a violation of the fire codes.
- Do check the product level before and after the delivery.
- Do monitor the delivery to make sure no problems occur.
- Do make sure spill buckets are clean, dry, and intact. A monthly visual inspection for cracks and damage is a good idea.
- Do make sure the overfill prevention device is functional.
- Do make sure the overfill alarm, if used, can be seen and/or heard by the delivery driver, and is identified with directions on what to do if the alarm goes off.



The Environmental Protection Agency (EPA) UST office has published an Operations and Maintenance manual for UST owners and operators. It suggests several steps you should take when you have a fuel delivery.

**Before:**

- Make and record accurate readings for product and water in the tank.
- Order only the quantity of fuel that will fit into 90% of the tank capacity.
- Make sure that delivery personnel know what type of overfill device the tank has, how to tell when it activates, and what to do when it activates.
- Verify that your spill buckets are clean, empty, and will contain spills.

**During:**

- Monitor the entire fuel delivery.
- The delivery driver should be prepared to stop the flow of fuel into the UST and respond if an unusual condition, leak, or spill occurs.
- Have response supplies available in case a spill or leak occurs.

**After:**

- Make and record accurate readings for product and water in the tank, and verify the amount of fuel received.
- Make sure fill ports are properly secured.
- Ensure that spill buckets are free of product and clean up any small spills.

The EPA manual can be downloaded from the internet at <http://www.epa.gov/OUST/pubs/ommanual.htm>, or you can get a paper or electronic copy from the Division of Environmental Response and Remediation (DERR) UST section at (801) 536-4100. ■



Gary Harris and Jason Wilde, two of our UST scientists have been deployed for a one year overseas tour of military duty. We will miss the contributions that they have made to our program. Our thoughts will be with them and their families as they serve our country. We look forward to their safe return.



# NEW LUST CLEANUP LEVELS REFERENCED IN RULE

by Morgan Atkinson

In the past some Underground Storage Tank (UST) owners, operators and certified consultants have felt there was some level of confusion when a release occurred at a facility and cleanup standards were established for that particular release. Occasionally, some have felt that their cleanup efforts were aiming at a moving target and wanted to have a more structured or defined standard for how cleanup levels are established.

Last year this level of confusion was brought to the attention of the Utah Division of Administrative Rules and the Administrative Rules Committee of the Legislature. In response to the concerns that were presented, the Legislature recommended that the actual numeric values and screening criteria for closure of Leaking Underground Storage Tank (LUST) sites be established by rule using the public comment process.

The DERR subsequently proposed changes to the Utah UST rules (R311) that would establish consistent criteria for UST corrective action cleanup standards, clarify requirements for establishing cleanup standards, and also clarify the requirements to obtain a “No further action” determination from the Executive Secretary (UST). **R311-211-6. UST Facility Clean-up Standards** was created to meet the requirement of the Legislature. A full version of R311 including the changes is available online: <http://www.rules.utah.gov/publicat/code/r311/r311.htm>.

The major implication of the rule change is that the DERR has modified the current screening process for petroleum related sites. These modifications consist of the addition of two distinct screening tables (referenced in R322-211-6) to be used in conjunction with the “Guidelines for Utah’s Corrective Action Process for Leaking Underground Storage Tank Sites” (“Guidelines”). *The “Guidelines” document is generally referred to as the Tier 2 guidance document.* The screening tables (**presented together on page 4**) are identified as the “Initial Screening Levels” table and the “Tier 1 Screening Criteria” table.

The “Initial Screening Levels” (ISLs) table values were derived by selecting appropriate ground water standards. The standards that were selected were Federal/State Maximum Contaminant Levels (MCLs). MCL values were available for benzene, toluene, ethylbenzene, and

If there was not a MCL available for a particular chemical (i.e., naphthalene and MtBE), a risk based screening level was calculated using the methodology defined in the “Guidelines.” Total Petroleum Hydrocarbons (TPH) for gasoline, diesel and oils and grease used non-risk based screening levels as defined in the “Guidelines.” The TPH screening numbers for the “Initial Screening Levels” are based on Tier 1 values that have been reduced by a factor of 10. Soil screening levels were developed using an exposure scenario of contaminated soil leaching to groundwater, which is also presented in the “Guidelines.”

The “Tier 1 Screening Criteria” table uses risk-based (i.e., benzene, toluene, ethylbenzene, xylene, naphthalene and MtBE) and non-risk based (i.e., TPH) screening levels. The only modifications that have been made to the “Tier 1 Criteria” table are updates to the toxicological information known as Reference Doses (RfD) for naphthalene and xylene.

Another result of the rule change is the merging of the former “Tier 1 Document and Guidelines” into the “Guidelines for Utah’s Corrective Action Process for Leaking Underground Storage Tank Sites.” All references to Recommended Cleanup Levels (RCLs) have been removed and replaced with the ISLs reference. Also, the RCL document titled “Estimating Numeric Cleanup Levels for Petroleum-Contaminated Soil at UST Release Sites” has been removed from the divisions’ website. The new “Guidelines” can be found on the UST website at [www.undergroundtanks.utah.gov/](http://www.undergroundtanks.utah.gov/).

## Public Comment Process Details

On February 9, 2006, the Utah Solid and Hazardous Waste Control Board (Board) approved the proposed changes to the Utah UST rules, for publication and public comment. The proposed changes were published in the *Utah State Bulletin* on March 1, 2006. The public comment period was held from March 1, 2006 to March 31, 2006, and a public hearing to receive comments on the proposed changes was held on March 28, 2006. No comments were received at the hearing, but comments were received during the comment period. Comments were addressed, but no changes to the proposed rules were made. On May 11, 2006, the Board approved the proposed changes to the UST rules for final adoption.

For more information on LUST Cleanup Levels and other issues visit the UST website at [www.undergroundtanks.utah.gov/](http://www.undergroundtanks.utah.gov/).

# UTAH LUST PROGRAM SCREENING LEVELS FOR SOIL AND GROUNDWATER

Effective Date: May 15, 2006

## Tier 1 Screening Levels (SL) and Criteria

*Tier 1 Screening Levels are applicable only when the following site conditions are met:*

- 1.) No buildings, property boundaries or utility lines within 30 feet of the highest measured concentration of any contaminant that is greater than the Initial Screening Levels but less than or equal to the Tier 1 Screening Levels AND,*
- 2.) No water wells or surface water within 500 feet of highest measured concentration of any contaminant that is greater than the Initial Screening Levels but less than or equal to the Tier 1 Screening Levels.*

Contaminant	Tier 1 SL Groundwater (mg/L)	Tier 1 SL Soil (mg/kg)
Benzene	0.3	0.9
Toluene	3	25
Ethylbenzene	4	23
Xylenes	10	142
Naphthalene	0.7	51
Methyl t-butyl ether (MTBE)	0.2	0.3
Total Petroleum Hydrocarbons (TPH) as gasoline	10	1500
Total Petroleum Hydrocarbons (TPH) as diesel	10	5000
Oil and Grease or Total Recoverable Petroleum Hydrocarbons (TRPH)	10	10000

## Initial Screening Levels (ISL)

Contaminant	ISL Groundwater (mg/L)	ISL Soil (mg/kg)
Benzene	0.005	0.2
Toluene	1.0	9
Ethylbenzene	0.7	5
Xylenes	10.0	142
Naphthalene	0.7	51
Methyl t-butyl ether (MTBE)	0.2	0.3
Total Petroleum Hydrocarbons (TPH) as gasoline	1	150
Total Petroleum Hydrocarbons (TPH) as diesel	1	500
Oil and Grease or Total Recoverable Petroleum Hydrocarbons (TRPH)	10	1000



# Proposed Changes to the Corrective Action Process

by Paul Zahn

In an effort to better serve owners, while at the same time meeting the requirements in state and federal regulations to protect human health and the environment, the UST program is in the process of changing how site cleanup plans are reviewed and approved. When an UST system has a release, it is generally necessary to clean it up. In the past, the state would send a letter to the owner requiring them to submit a plan outlining how the contamination will be removed. These plans are called Corrective Action Plans (CAPs). Typically, a consultant hired by the owner prepares the CAP in a format provided by the UST Program. These CAPs can be costly, and there is no guarantee the plan will be approved once it has been submitted.



One major change to the corrective action process involves a meeting prior to submitting a CAP. The UST Program will be requesting a meeting with the owner, their consultant and other directly interested parties to discuss the history of the release and evaluate cleanup options. The objective of the meeting is to mutually agree on one preferred cleanup strategy for the site. The results of the meeting would be documented by the owner (or their consultant) in a 2-3 page “CAP Summary Letter” and submitted to the UST program for review. Following a public comment period, more technical details of the corrective action method may need to be presented to the UST program.

These changes to the corrective action process will expedite the selection of an agreeable solution for site cleanups between the owner and the UST program. It will also save time (and money) that in the past was spent on viewing, and modifying several versions of CAPs, until one could be approved.

The UST program plans to have these changes in place by late summer 2006. When they are available, the changes will be announced by email and on our website: <http://www.undergroundtanks.utah.gov/>. If you have any questions concerning this article, please contact Paul Zahn at (801) 536-4181. ■

[www.undergroundtanks.utah.gov](http://www.undergroundtanks.utah.gov)

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[http://www.undergroundtanks.utah.gov/cert\\_program.htm](http://www.undergroundtanks.utah.gov/cert_program.htm)

**\*\*\* PLEASE  
NOTE \*\*\***

**~~ Increase in UST Certification Fees ~~**

As of July 1, 2006, the fees for initial certification and certification renewal will increase from \$150.00 to \$225.00. The certifications that this fee applies to are; UST testers, groundwater and soil samplers, tank removers, tank installers, and consultants.

**Groundwater and Soil Sampler  
Certification Courses**

Environmental Contractors Inc. (ECI)  
(801) 373-2727

Utah Valley State College (UVSC)  
(801) 863-8117 or (801) 863-8677

Renewal tests are given the first Tuesday of each month and begin promptly at 9:00 a.m. *The July test will be held on Wednesday, July 11<sup>th</sup> due to the 4<sup>th</sup> of July holiday.* For more information contact David Wilson at (801) 536-4138 or at [djwilson@utah.gov](mailto:djwilson@utah.gov).

**UST Consultant Certification Program**

A Certified UST Consultant must perform any UST release management, abatement, investigation, or corrective action. Consultants must renew their certification every 2 years. The renewal courses begin promptly at 9:00 a.m. and finish at 1:00 p.m. The comprehensive exams begin at 2:00 p.m. For more information contact Melissa Turchi at (801) 536-0078 or at [mturchi@utah.gov](mailto:mturchi@utah.gov).

**Initial Exam & Renewal Course Schedule**

Friday, September 8, 2006  
Friday, December 8, 2006  
Friday, March 9, 2007  
Friday, June 8, 2007

**Certification exams and courses take place at the Division of Environmental Response & Remediation office building located at 168 North 1950 West, Salt Lake City, Utah 84116.**