THINK TANK

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Changes are Coming to UST Registration Fees and Certificates

By Linda K. Coleburn

Owners and/or operators of USTs are required to pay an annual registration fee of $50.00 per tank on or before February 1st of each calendar year. All tanks currently-in-use or temporarily-out-of-use are required to pay the annual registration fee. USTs properly removed or abandoned before February 1 will not be subject to annual registration fees. USTs storing gasoline may also be required to obtain vapor recovery permits. USTs that require a vapor recovery operating permit must pay a $75.00 per year permit fee. Only USTs that are currently in use are required to pay the Stage I and Stage II (if applicable) permit fee.

The Office of Information Technology and the Tank Management Branch are working together to make it easier for you to pay UST registration and vapor recovery fees by using our new on-line service. You will receive an invoice in the mail in late December. Check the bottom of your invoice for instructions on how to pay on-line with your Master Card, Visa, Discover card or by check (ACH). You may still pay via a check mailed to the Department, if you prefer. The on-line payment service is not yet available for payment of AST fees.

The appearance of UST registration certificates is changing too. This coming year, you will receive a new registration certificate upon payment of tank fees. As previously required, your Registration Certificate must be posted at all times. 2006 is the only year that the TMB plans to issue new registration certificates. Replacements will only be issued upon tank removal, installation, change in service or change in facility name or ownership.

If you have any questions about your bill, please call Linda Coleburn at (302) 395-2500.

A Reminder to Our Vendors

By Chris Brown

The Tank Management Branch (TMB) processes many invoices from a variety of vendors every month. Of course every effort is made to promptly "pay the bills," but each invoice has to go through several stops along the way. Many invoices received are for services and/or materials provided through an open Purchase Order (PO). Additionally, many of the POs are for projects in the state's FIRST Fund program – Fund for the Inability to Rehabilitate Storage Tanks. Through FIRST Fund, UST sites for which there is no tank owner, or the owner does not have the financial resources, are rehabilitated.

In June 2005, a letter was sent to FIRST Fund vendors (consultants and tank removal contractors) detailing the

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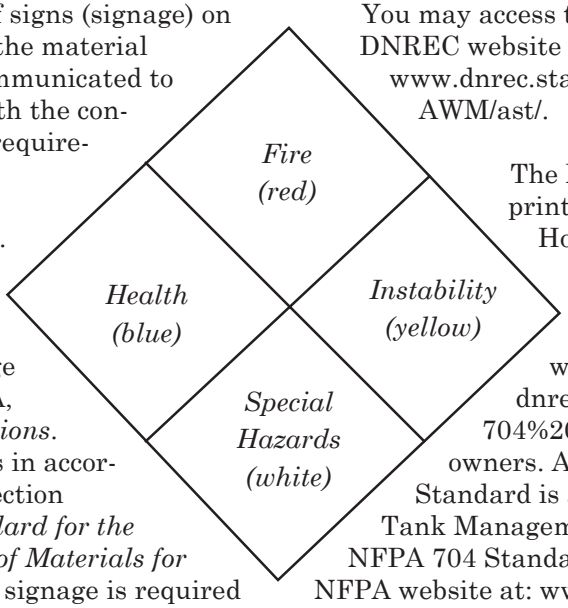
Signage Requirements for ASTs

by Erich Schuller

On June 11, 2004 Delaware's *Regulations Governing Aboveground Storage Tanks*, (the *AST Regulations*) became effective. The *AST Regulations* contain a requirement for the placement of signs (signage) on an AST so that the hazards of the material stored in an AST are easily communicated to people who are not familiar with the contents of an AST. The signage requirement was included in the *AST Regulations* to assist first responders during an emergency. The deadline for having the required signage on your AST is February 1, 2006.

The requirements for signage on ASTs are specified in Part A, Section 10, in the *AST Regulations*. The standard for the signage is in accordance with National Fire Protection Association (NFPA) 704, *Standard for the Identification of Fire Hazards of Materials for Emergency Response*. Whether signage is required is dependent upon the size of the AST and the material stored. The signage that is required on an AST consists of a numbered, four-colored, diamond-shaped placard, which is the NFPA 704 signage standard, in conjunction with the name of the contents of an AST. The requirements for the signage on an AST are listed in the table below.



You may access the *AST Regulations* on the DNREC website at: http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/ast/.

The NFPA 704 Standard is not printed in the *AST Regulations*. However, a summary guidance document published by the Tank Management Branch is available at: http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/ast/pdf/704%20language.pdf to assist AST owners. A full copy of the NFPA 704 Standard is available for review at the Tank Management Branch. A copy of the NFPA 704 Standard may be purchased on the NFPA website at: www.nfpa.org.

If you would like a copy of the summary guidance document or have any questions concerning the AST signage requirements or the *AST Regulations*, please contact the Tank Management Branch at (302) 395-2500.

AST Signage Requirements

Size	Regulated Substance Stored	Requirements
Greater than 250 gallons	Anything other than diesel, heating fuel, or kerosene	NFPA 704 diamond and name of tank contents, or name of chemical family, or "EMPTY" if contents have been removed
Greater than 19,999gal.	Heating fuel, diesel, or kerosene	

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information required on each invoice submitted to the TMB. If the invoices do not contain the required information, the invoice will not be processed and must be re-submitted with the correct information. Other vendors commonly conducting business with the TMB have also been contacted with the reminder.

But, to make sure it is clear to everyone, and so that the bills can be paid on time, here are the requirements for each invoice submitted to the TMB:

- Reference the Contract Number (if one applies):
  02-471-MC: Hydrogeologic Investigation Services – FIRST Fund
  02-472-MC: UST Removal/Abandonment/Overexcavation Services-FIRST Fund
- Reference the Purchase Order (PO) Number
- Total amount of funds authorized in the PO, including any modifications
- Amount charged in the current invoice
- Running total of charges to the PO
- Remaining balance on the PO

Forensics…and Pogo

by Emil Onuschak

In the beginning in the 1980s, when the UST program was created in response to compelling need, requirements were set forth that various leak detection devices had to be included with regulated underground storage tank systems. After all, if we want to detect leaks at the earliest possible moment so they can be repaired and any releases kept small, this is just common sense. Right?

Since then, the underground storage tank program has matured and its growing body of real-world evidence has sparked an interest in a forensic approach to assessment of UST leaks. Specifically, what is their predominant cause? Why do facilities that are inspected and confirmed as being "in compliance" with all UST requirements still experience leaks?

We have to wonder: Do such inspections ask the right questions? Are we measuring the right things? Just what *are* the variables most relevant to identifying UST leaks?

And so we are confronted once again with the old "design versus performance" conundrum. A little background: There are two different approaches to reality, the design approach and the performance approach. In simplest terms, the design approach holds that if a person jumps through the right hoops in the right order, the result will be some perceived "good"—by definition. For example, if a person obeys all the laws, then he's a "good person"—right? We can each answer that from our own experience. The outstanding characteristic of the design approach is that it reduces the world to black-and-white and makes things easy to count. And we can mislead ourselves—and others—with our "quantitative data." It's a bean counter's delight.

On the other hand, the performance approach holds that results are what count. This is *not* to say that the ends justify the means, but rather that desired results (e.g., no leaks from UST systems) are what we're after and that design criteria are but guides to our creative abilities in achieving those results. For example, once upon a time, metallic petroleum storage tanks were perceived as fire hazards, so they were buried in the ground to achieve the desired result of minimizing that hazard. But then they were observed to corrode when in contact with certain soils. So some persons decided to insulate the tanks with non-metallic coatings, while others decided to install electrical grids to neutralize the naturally-occurring corrosive currents in the ground. Both approaches are okay because they both strive to achieve the desired result: no corrosion of buried UST systems. The outstanding characteristic of the performance approach is that it recognizes the world as a place of infinite shades of color, which makes it difficult to count. Nothing is decreed "by definition" and our professional judgment is the final arbiter. It's a bean counter's nightmare.

So how do we construct a forensic approach to assessment of UST leaks? It's silly to deny ourselves the benefit of any tool or resource that we can conceive of. Therefore, a forensic approach to assessment of UST leaks must use the best features of both the design *and* the performance approach. (We now realize that the question posed in the first paragraph reflects only a design approach to underground storage tank management.)

We need to start with an explicit goal and construct a flow diagram in reverse. Let's assume for the moment that we agree on the following goal: Minimization of UST releases in our own particular state. Then working backwards as a group, identify each variable (each failure?) that impacts this goal. It is to be expected that each failure will be subdivided into finer and finer parts until ultimate causes are identified and defined. Then comes the hard part: Each ultimate failure must be characterized as "equipment" or "human." Only then will possible solutions to these failures start to show themselves.

The equipment-versus-human differentiation is very difficult. For example, if a tanker driver overfills an underground storage tank, is that caused by failure of a flapper valve to operate or by inattention on the part of the driver? Or if a sump that is supposed to remain free of product doesn't, is that an equipment failure or a failure on the part of the operator who is supposed to inspect the sump regularly? Framing these and many other questions about equipment-versus-human failures is very difficult and will require input from regulators, equipment manufacturers, operators' groups and the insurance industry (because some may have to be resolved "by definition"). A starting point may be to define the precise time in each instance when "failure" is deemed to occur: when a piece of hardware fails, or when the hardware failure is noticed, or when the failure is supposed to be reported.

When we embark on this forensic journey, we should recall and heed the words of that immortal possum, 'ole Pogo: "We have met the enemy and he is us." Let us begin.

THINK TANK

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Announcements

Frank Gavas – Hydrologist III, has transferred to DNREC's Solid and Hazardous Waste Management Branch after 15 years with the Tank Management Branch. He will be providing hydrogeology support to their programs.

Colin Gomes – Senior Environmental Compliance Specialist, has transferred to DNREC's Air Quality Management section. After 7 years in the Vapor Recovery Program for gasoline-dispensing facilities, he will be working on programs pertaining to fuel delivery trucks, auto body shops and the dry cleaners.

We wish Frank and Colin well in their new positions and will miss them both!

Contractor sentenced for falsifying reports

Michael Klusaritz of Whitehall, PA, was sentenced on Sept. 15 by the U.S. District Court for Eastern Pennsylvania to serve 21 months in prison, pay $112,220.06 in restitution and serve 36 months supervised release. This sentence is the result of his June 2005 guilty plea to charges of filing false underground storage tank (UST) closure reports. Between 2001 and 2003, Klusaritz prepared false UST closure reports while employed at Boyko's Petroleum Services, Inc., in Whitehall, Pa. As a result, Boyko customers were billed more than $110,000 for reports which contained falsified laboratory analyses and forged signatures. The false reports prepared by Klusaritz were submitted to the customers and to the Pennsylvania Department of Environmental Protection. Falsification of underground storage tank closure reports can prevent regulators from being aware of potential groundwater contamination. This was not Klusaritz's first conviction for an environmental crime. In 1997, he was sentenced to one year in prison, ordered to pay $40,000 in restitution and sentenced to serve three years probation for his involvement in a laboratory fraud case involving Hess Laboratories in East Stroudsburg, Pa. The case involving Klusaritz's activities at Boyko was investigated by the Philadelphia Office of EPA's Criminal Investigation Division and the EPA Office of Inspector General. It was prosecuted by the U.S. attorney's office in Philadelphia.

United States Environmental Protection Agency, Press Release, 9/28/05.

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