

Summary of Incident with New UL 971 Piping Installation - 7/6/06

Alison Hathcock,
Permitting Office

The South Carolina Underground Storage Tank (UST) Program inspects new piping installations before the trench is backfilled. During a recent piping installation inspection, our staff found Smith Fibercast piping that was installed improperly.

The piping had been manufactured under the new UL 971 standard for non-metallic piping. To comply with the piping installation instructions, the netting that is on the piping when it is shipped must remain on the piping when it is installed. Although the piping arrived at the site with netting in place, the contractor mistakenly assumed the netting was for shipping purposes only and removed it. When inspectors discovered that the netting had been removed from the piping, they contacted the manufacturer and verified that the netting should remain in place during installation. The staff also verified with Smith Fibercast that the netting should not extend through the penetrations at the sump, nor is it required in the sump. The inspectors requested that the contractor install the piping correctly with netting in place, and the contractor corrected the error. When our staff re-inspected, the piping installation passed inspection.

The Little Box on The Wall

John E. Morgan III, UST
Compliance Inspector,
Sumter EQC

An automatic tank gauge (ATG), also called "the little box on the wall," can be a good friend. Tank owners who find it hard to keep enough product in the tank for the ATG to record a "pass" should read on. If your ATG is "CSLD" or "SCALD" equipped, you probably will not need this information, but feel free to read on, too.

ATG owners can help themselves stay in compliance by developing a better understanding of the box on the wall. Most ATGs work the same way. They record temperature and fuel levels over time to determine if the tank is leaking. ATGs are usually set up in advance to run a test once a week. (Late-night on Sunday, is a popular test time.) But there must be enough fuel in the tank for the ATG to do its job properly. We've all seen "cancelled due to low volume" or "invalid fuel level" printed on the little strips of paper. These notes mean there was not enough fuel in the tank for the ATG to gather the information needed for a valid test. One way to solve this is to order more fuel. But let's say it's a Monday, and your ATG isn't programmed to test until the following Sunday night. You may think, "By then, I won't have enough gas to get a pass." Well, if you are reading this, you can definitely fix the problem.

Most tank owners can make the ATG do a test any time they need one, which is cool. But the day of a fuel delivery is not the right day to test because you probably cannot get a "pass." That's because there is often

a big difference in temperature between the fuel in the tank and the fuel in the delivery truck. If the fuel in a truck is hotter (as it often is in the summer) it can take a long time to cool down after being moved to a UST. In the winter, the gas from the delivery truck may be colder than the fuel stored in the ground. When you mix two batches of fuel, the molecules move around a lot until they reach the same temperature—then they slow down. While the molecules are moving around, the information going to the ATG doesn't make sense. Most of us have seen a test report that said, "cancelled due to temp change" or "cancelled due to recent delivery." These messages mean the fuel temperature has not yet equalized.

It usually takes about a day after a delivery for fuel temperature to equalize enough for the box to give a "pass." So, about 24 hours after a delivery, you're ready to make the box do a test.

Well, almost ready. When you tell the box to conduct a test, a few things must happen. For the first few hours, you cannot sell any fuel out of that tank. If you want to test a single tank, you should shut down that one product. If your facility does not operate 24/7, probably the most efficient way to test is to start the test when you close up for the night. Make sure to tell local police or ambulance drivers or others who might normally be allowed to pump gas after hours not to do so. If you have 24-hour dispensing, you will need to take the product out of service while you run the test.

Once you've done that, it's fairly simple to do the test. The steps are a little different depending on the

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type of ATG you have, so always refer to your ATG operating or quick reference guide. If you do not have a quick reference guide or need some assistance, you may call your specific manufacturer's technical help line.

Here are toll free numbers for a couple of the more popular ATG manufacturers.

VEEDER ROOT 1-(800) 323-1799
INCON 1-(800) 984-6266

After you start the test, lock the door and go home for the night. In the morning there should be a test slip hanging out of the box with the test results. Hopefully, it will say "Pass!" Happy testing!

SUPERB Financial Update

BALANCE OF THE SUPERB ACCOUNT	
July 1, 2006 through August 31, 2006	
Beginning balance	\$21,122,926.53
Funds received	4,264,046.15
Funds paid out	3,109,751.37
Funds reserved for work being performed	16,965,307.58
Current balance of un-reserved funds	5,581,913.73

Some Facts about SIR

Editorial Staff

Statistical Inventory Reconciliation (SIR) is one of several methods allowed for release detection with a UST system. SIR can be used as a monthly release detection method for tanks and piping. Since typical up-front costs are low and there is usually no equipment to buy, SIR can be an attractive release detection option for tank owners who need a monthly monitoring method to replace inventory control and periodic tank testing.

Because SIR is based on data from the daily activities at the facility, accurate measurements and reporting are critical. Tank inventory measurements must be taken carefully with a good measuring stick or with an automatic tank gauge that is properly calibrated.

SIR uses the daily inventory measurements along with sales and delivery information to paint a statistical picture of how the tank system is performing. Based on the data, SIR gives a "pass," "fail," or "inconclusive" result for each tank for the month.

Tank owners/operators must report non-passing SIR results ("inconclusive" or "fail") to the UST Program within 72 hours by calling (803) 896-7957 or by faxing the results to (803) 896-6245. The UST staff can help the owner/operator determine how to best investigate the problem. After the investigation is complete, the results of the investigation should be reported to the UST Program and kept on file with the leak detection records for the tank and piping.

When the tank system has two consecutive non-passing results, the owner/operator must report to the program **AND** test the tank and piping within seven days. If the results of the testing indicate that the tank or piping is not tight, the owner/operator must take the system out of service immediately and report the results of this testing to the UST Program.

Failure to report non-passing SIR results and/or failure to properly investigate and test as required can jeopardize access to the SUPERB Fund if clean up is needed. If you have questions about properly using SIR as a release detection method, call the UST Compliance Section at (803) 896-7957.

UST ENVIRONMENTAL EXCELLENCE AWARD—FALL 2006

Our compliance rate is continuing to inch up (YAY!!!). Today, the probability of finding a facility "In Compliance" during an inspection is about 75 percent. Not so long ago (1998), the probability was around 30 percent. Thanks to all of you who are trying to protect our environment by operating and maintaining your UST systems correctly. This month, the UST Program selected the following owners/facilities for the UST Environmental Excellence Award:

WINNERS

Small Retail (10 tanks or less)

Farrell Chevrolet - Spartanburg This facility has been operated by the Killian family since 1940. Lee and Dan Killian are very conscientious of the environment, and they work very hard to maintain an environmentally friendly service center. The location has maintained flawless compliance records since 1999. The Killian family motto is "Treat other as you would have them treat you."

Non - Retail Category

Charleston County Government - Charleston

Charleston County supplies fuel to more than 100 county departments using four refueling facilities. Three of these have had a clean compliance history since 1997, and the other location has had only one minor violation. Each year Debbie White and the Charleston County maintenance staff bring all the appropriate paperwork to inspection locations. They also ensure that all man-ways and dispensers are open.

CONGRATULATIONS AND THANK YOU!



South Carolina Department of Health
and Environmental Control

What's under those lids?

Gwen Taylor, Greenville EOC Office

If you are a new tank owner or operator, you may have wondered what is under those lids in your parking lot. May I suggest inviting your local tank inspector for a show-and-tell site visit? Since your inspector comes complete with traffic cones, pry bars, and dispenser cabinet keys, you can get a good idea of the type of equipment you'll need to safely and effectively conduct routine operation and maintenance checks.

Start with those color-coded lids in the tank field, the fill port lids. Each color represents a specific type of fuel stored at the facility. Under each fill port lid will be the fill riser, where the delivery driver connects the hose to deliver product. Here also, you should find a spill bucket. The purpose of the spill bucket is to catch drips and spills of fuel that come from the delivery hoses. Check the spill bucket for any cracks or holes, and ensure that the walls of the bucket are not warping or caving in. Remove any water, residual fuel, leaves, and debris. While inspecting the spill bucket, you should also open the fill cap to see if drop tubes are installed in the fill pipes. Drop tubes make deliveries safer and should reach to within 1 foot of the bottom of the tank. As you replace the fill cap, check the fit. It should fit tightly; otherwise, you should replace it.

Next, look for the vapor recovery port lid (not all tanks have these). This is most often painted orange and has an orange cap on the vapor recovery riser. If you open this cap, there should be a poppet pressed tightly against the top. Fuel delivery drivers will sometimes pop this poppet open with a stick or rock, so make sure that it is closed. If you see it open, remind your delivery

driver that propping this port open is very dangerous because it releases gas vapors at ground level and near operating vehicles. Some facilities have a second spill bucket around the vapor recovery port, and you should check for cracks and leaks there as well.

The third lid to look under is the submersible turbine pump (STP) sump lid. These lids can be square, rectangular, or round and up to 4 feet across. Some can be very heavy. Some sump lids have a large plastic or fiberglass container under them that is designed to be watertight. If the sump has a separate lid under the cover, check first to see that it fits securely, then open it to look at the equipment. Within the sump, you will find the STP head, line leak detectors, sump sensors, piping, and other equipment. The sump should be dry. If water is in the sump, have someone remove it because it may cause metal flex connectors and piping to corrode. Remove any fuel because it may damage the sump and piping. Remember to dispose of these liquids properly. While you are there, check for cracks and loose fittings or seals where piping, electrical wires, and conduit enter the sumps. Cracks, loose fittings, and broken seals can allow liquids to enter the sump or allow fuel to be released into the environment. Some sumps do not have a separate lid or container. The equipment in these sumps is surrounded by soil or other backfill. Metal piping in uncontained sumps must be isolated from the soil or have corrosion protection.

Perhaps your tank will have a fourth lid where the automatic tank gauge probe is installed. Check that the probe cap is tight and the wires are secure. Some double-walled tanks may have an extra lid for the probe that

checks the space between the walls of the tank. Again, check to be sure everything under this lid is secure.

Finally, look under each dispenser to check for leaks in the dispenser piping. Here you may spot an active leak (dripping or running off the piping), or you may spot evidence of a leak (wetness or discoloration on the piping or on/in the soil). Since some dispenser leaks will only show themselves when the pump is on, you will need to authorize the pump to check further. Also under the dispenser is the crash or impact valve that is a fire safety requirement. Check to be sure this valve is anchored to the island (with U-bolts or a bolted-on fitting). If you find a dispenser leak, take the dispenser out of service and call a service contractor.

Doing preventive operations checks on your equipment can increase your chances of being in compliance at your next annual compliance inspection. More importantly, it can help protect you from losing product and contaminating the environment.

Ed. Note: Ms. Taylor was an inspector in the UST program for 10 years; now, she works in the water well program in the Greenville EOC Office.

Time is running out

Thomas E. Mimms, UST Compliance Inspector, Sumter EOC

The sands of time are about to run out for tank owners who have not updated their leak detection methods. The rules say that by December 22, 2008, or 10 years after the tank was installed or upgraded under Section 280.21(b), whichever comes first, tank owners must use a monthly monitoring method other than inventory control and monthly reconciliation. I know that nobody enjoys spending money on

things before they have to, but many of us remember the 1998 upgrade deadline. As the deadline got closer, equipment shortages and a shortage of work crews to do the work became a big issue for tank owners who had waited until the end. From our vantage point, it seemed the cost of the work also went up as the deadline neared. I think equipment and method upgrades are situations where the

early bird gets the worm. Tank owners may actually save money by spending early rather than late. And, just like in 1998, there will not be an extension of the requirement. Facilities that are not using an approved monthly monitoring method for tank release detection will not be able to operate after the deadline.

Notes from permitting

Alison Hathcock, Permitting Coordinator

As you'll see below, alternative fuels compatibility and ballasting newly-installed tanks with product are current "hot topics" in our office. Please contact the Permitting Office at (803) 896-6942 with any questions.

- **Issue:** The use of alternative fuels and compatibility
- **Recent Scenario:** A tank owner decided to upgrade a kerosene tank to E85 and did not ensure that his tank gauge probe was compatible. When the tank gauge could not successfully test the tank, the owner discovered that the E85 had dissolved the probe.
- **Correct Procedure:** Get a statement of compatibility from the manufacturer for each piece of equipment that is going to contain or come in contact with alternative fuels. Complete and send in the Alternative Fuel Checklist for new tank installations and conversions before making the change.
- **Issue:** Ballasting tanks with product
- **Recent Scenario:** An inspector determined during a

pipng installation inspection that product had been introduced into the tank several months earlier and no one had been watching the system for leaks.

- **Correct Procedure:** The installation contractor and/or tank owner should notify the UST program in writing prior to introducing product into the tank. The tank owner should begin taking stick readings as soon as product is delivered and keep a record of the readings until the release detection method of choice has been installed and is operating.
- **Coming Attractions:** New permit to install and operate applications are on the way! Tank and Sludge Disposal Forms and the Alternative Fuel Checklist will soon be available on our Web site.

DHEC provides language assistance for customers who have limited English speaking ability and those who cannot speak English at all. The agency uses a telephone interpreting service called Certified Languages International (CLI). CLI provides real-time interpretation in more than 150 languages. Interpreters are standing-by. So if you need help with interpretation, please call the UST Program at (803) 896-7957.



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