

## Can Your Leak Detection Find a Leak?

A study conducted by the Florida Department of Environmental Protection found that only 51 percent of releases were detected using standard leak detection methods.

A California survey of 313 release incidents determined that only 15 (4.8%) of these releases were correctly identified by a leak detection method. The dominant method of discovering releases was tank closure.

Below is a list of things you should do if you have an unexplainable fail with an automatic tank gauge (ATG) or Statistical Inventory Reconciliation (SIR).

1. Review all your data to be sure it is accurate.
2. Inspect the line leak detector sump for product.
3. Check under dispensers for product.
4. If fail was given by an ATG check to see if you had any sales during the test.
5. If using SIR have your dispensers collaborated.
6. If site has monitoring wells and the above checks cannot explain the trend, open and smell for product and have a sample drawn.

Rules state that a monthly ATG test must be able to detect a leak rate of 0.2 gallons per hour (gph) with a probability of detection of at least 95% and a probability of false alarm of no more than 5%. This means that if 100 tanks were tested, *each of which was leaking at exactly 0.2 gph*, 95 of those tanks

would correctly be identified as leakers and 5 would be incorrectly passed as "tight". The probability of detection is tied to a specified leak rate. If a leak of greater than 0.2 gph is present, the probability of detecting the leak would be greater than 95%. If a leak of less than 0.2 gph is present, the probability of detecting the leak will be less than 95%. Most tank owners and many regulators have a poor understanding of the behavior of ATGs when leaks significantly smaller than the performance criterion of 0.2 gph for monthly testing are present. The key fact to remember is that the probability of detection is only valid for a specified leak rate. Leaks smaller than 0.2 gph can be detected by many methods of leak detection but the probability of detecting such a leak will decrease as the leak rate decreases.

As the California survey pointed out, most release contamination is discovered at the time of tank closure. Contamination comes from undetectable leaks (less than 0.2 gph), broken spill buckets, and in Kansas, uncontained LLD sumps and under the dispenser leaks.

## New Double Wall Tanks & Lines

HB 2305 amends the Kansas Storage Tank Act to require new or replacement installations of underground storage tank (UST) systems be built with secondary containment, which must be monitored for leaks. The requirement applies to systems installed after July 1, 2013; existing systems are not required to be upgraded unless the storage tank or more than 50 percent of the piping connected to the tank is replaced. (This only affects the lines attached to a single tank. Lines attached to another tank in the system will not have to be replaced if no work was done on that tank.)

The rule does not apply if you are replacing only the dispensers and not the piping attached to them.

In addition, installation or replacement of secondary contained piping must include installation of containment of a submersible pump and be checked for evidence of a released substance using interstitial monitoring.

In 2005, EPA offered states two options to improve protection of groundwater from releases of regulated substances from USTs: 1) require that all new UST systems have secondary containment or 2) require installers and manufacturers of USTs to maintain pollution liability insurance. Kansas and Missouri were the only two states that implemented the insurance option. EPA policies and regulations developed since 2005 have made implementation of the insurance option very difficult, and new regulations proposed by EPA do not include an insurance option for states to follow. Therefore KDHE supported HB 2305.

If you are in the process of building a new facility or making a UST upgrade and your plan has been approved you may still use single wall equipment.

## Level C Training

After 30 UST inspections TMS found that many operators were not in compliance with the Level C rule. KDHE requires all clerks to be trained as Level C operators and that their training information be kept on site. This will also serve as your emergency training required by the Kansas State Fire Marshal's office.

Level C training information may be found in the manual or on the CD received by A/B operators. A Level C certificate is available at [tankmgmt.net](http://tankmgmt.net). Click on the "UST Operator Training" button on the left side of the home page then scroll down under the left side menu to yellow box labeled "Level C Training Certificate" and click there.

All UST Level C personnel must be trained before they may begin working at the facility.

## UST Operator Training

Upcoming dates for Level A/B UST operator training for new UST owners/operators (must be trained 30 days after starting operation) and for facilities that have been

cited by KDHE and ordered to be retrained, To register go to our website [tankmgmt.net](http://tankmgmt.net). Click on Operator Training.

May 7, 2013 Ramada Hotel & Conference Center  
1400 N. Lorraine  
Ambassador Room  
Hutchinson, KS

May 8, 2013 Kansas Soybean Commission  
1000 SW Red Oaks PL  
Topeka, KS

June 6, 2013 Wichita State University  
Woodman Alumni Center  
4205 East 21st. Street  
Conference Center  
Wichita, KS

June 7, 2013 Salina BiCentennial Center  
800 The Midway, Room 203  
Salina, KS

July 9, 2013 Fort Hays State University  
Memorial Union, Trails Room 217  
600 Park Street  
Hays, KS

July 10, 2013 Emporia State University  
Memorial Union, PKP Room  
12th & Market Street  
Emporia, KS

July 11, 2013 DoubleTree Hotel  
10100 College Boulevard  
Overland Park, KS

August 6, 2013 Kansas Soybean Commission  
1000 SW Red Oaks PL  
Topeka, KS

### WHAT IS TANK MANAGEMENT SERVICES?

TMS provides loss control and risk management assistance to UST owners who have third party liability insurance through Great American Custom as part of the Kansas Underground Storage Tank Liability Plan.

TMS can provide you with information on USTs –leak detection methods, and Federal and State regulations. Call TMS toll free at 800-530-5683 during normal Central Time Zone office hours (8-5). In the Topeka area, please call 233-1414. On the web go to [tankmgmt.net](http://tankmgmt.net). David Engelken is available to answer your questions. *This Service is free.*

To have the advisor E-mailed to you go to [tankmgmt.net](http://tankmgmt.net) click on Advisor.

Tank Management Services, inc. (TMS) has provided the written information in this newsletter for educational purposes to assist UST owners and operators in complying with current UST regulations and to assist them in reducing losses associated with releases from UST's. The information is an outline and may not be complete. Owners and operators are responsible to insure that they are in compliance with all applicable laws. The Kansas Department of Health and Environment can provide detailed information on compliance. The application or use of the information provided is the responsibility of the individual user.