

Leak Detection Got You Down?

Do you find yourself struggling to meet the regulations for 12 months of tank leak test printouts? How about meeting the 50% tank fuel level when testing the tank? This may seem impossible to accomplish, but it can be done.

Tank monitors have come a long way since the earliest models were developed. Tank monitors today can check inventory, water levels (hopefully zero), tank tightness, pressurized line tightness, sump sensor status, among other things. Some monitors can even be accessed remotely by modem, so you don't have to be on-site to get the fuel level or be notified of alarms. Even though the monitors are very high tech today, they **must not** be ignored. Every day, maybe even a couple times a day, someone should check on the status of the monitor.

The tank monitors are programmed to go into alarm if anything is not as it is supposed to be. The alarm should be addressed immediately, and any problem indicated should be fixed. Once fixed, the alarm should be cleared, so there are no inactive alarms displayed. None of the employees should ever get "used to" seeing alarms displayed on the monitor.

Just because the monitor is in alarm, however, doesn't necessarily mean that there is a serious problem or a leak. Several things can cause alarms, such as improper programming, power outages, low product, and testing interrupted by deliveries or fuel dispensing. Tank testing should be conducted when the site is least active and at least 24 hours after fuel delivery.

Some facilities are open 24 hours 7 days a week, and that makes it a little more difficult to get passing tests. Most of these sites have incorporated continuous leak testing, or they have combined the tank monitor with another method, such as Statistical Inventory Reconciliation (SIR). Continuous leak testing software can be added to most of the newer tank monitors, and proves vital for sites that cannot afford to "bag" the pumps while the tank is being tested.

If your monitor is displaying a leak alarm, you should contact your service company immediately, if you cannot resolve it yourself. It may be a scenario where a false alarm occurred. For example, your tank leak test was set to run from Midnight to 4 a.m., while the store was closed. You find in your sales that someone pumped gas from your card operated dispenser at 1:30 a.m., so you know that they interrupted the test, therefore causing the failed test. In this instance, there is no need to call anyone, and you can clear the alarm yourself. If you cannot determine why the monitor is in alarm, you must act quickly to prevent a big problem.

A 3rd party must certify all tank monitors before they can be used as a valid method of leak detection. This certification has already been achieved prior to your purchase. This certification indicates the maximum tank capacity allowed, waiting time after product was added to the tank, minimum testing period, level at which you must test the tank, and more. Locate your 3rd party certification and see what parameters you should be

operating within. Many of the older monitors are certified to test at a minimum of 50% fuel level, in other words the tank must be at least half full. Most of the software in the newer monitors is certified to much lower levels, some as low as 5% full. Even though your tank monitor may test below the certified level, and give you a pass, it is not considered a valid certified test. Technical regulations require that a passing test be obtained within the monitor's certification parameters.

Another item that may create difficulty when trying to use a tank monitor for your leak detection method is testing to the "routine" filling level. Iowa Administrative Code, subparagraph 567 IAC 135.5(1)"a"(1) states that the monitor must detect a release from any portion of the tank that routinely contains product. The problem is that "routine" has never been defined by the regulators, and it is open to their interpretation. To some, routine means the fullest level that you filled the tank that month, or within 10% of the that level. To others, it may be interpreted as an average for the month. Even though routine level is in kind of a gray area, it is very clear that your tank monitor must operate in accordance with the 3rd party certification. You should try to get a passing test at the highest level possible.

If you are unable to operate within the certification limitations of your monitor, you can supplement that method with SIR, similar to the 24-hour facility that cannot pass a leak test because of constant pumping. You can use the tank monitor to get accurate fuel measurements, and you provide that to the SIR vendor for analysis. Using SIR allows you to operate below 50% or the certified level at which you would normally test the tank. Supplementing your ATG leak detection with SIR is a cost effective fuel management technique that will assist you to satisfy regulatory demands.

When using the tank monitor for your method of leak detection, you should have 12 months of leak tests on hand at all times. Each tank needs a passing test at the minimum certified level or fuller. It is also a good idea to photo copy all of the tests for that month onto another piece of paper, because some of the printer paper will fade over time.

The tank monitor can also be useful when doing your daily inventory control (DIC), or monthly reconciliation. Rather than physically going outside and sticking the tanks, you can use the inventory report from the monitor. However, it is still a good idea to check the monitor periodically by sticking the tanks. Using DIC is a must, and all good fuel managers use it in addition to their primary method of leak detection. DIC can detect leaks that the tank monitor will not test, such as leaking meters or nozzles. DIC can also be used to prove that you didn't have a fuel release, even though the monitor is flashing leak alarm.

The majority of tanks that PMMIC insures are using automatic tank gauging (ATG) as their primary method of leak detection. The requirements for this method when undergoing the annual renewal of your policy are simple. You must provide one (1) passing leak test per tank, and that test must be at or above 50% or the certified level for that equipment. In addition, the tests must be within 60 days of that renewal. Please contact PMMIC if you have any questions about the testing requirements for your ATG.