

A Viable Method of Leak Detection for Underground Storage Tank (UST) Systems

WHAT IS IT?

- ▶ Automatic Tank Gauging Systems (ATGS) use automated processes to test for the loss of regulated substance.
- ▶ May be used to meet overflow requirements.

HOW DO AUTOMATIC TANK GAUGING SYSTEMS WORK?

- ▶ The ATGS measure product level while accounting for temperature effects on the product.
- ▶ Some systems, known as continuous ATGS, do not require the tank to be taken out of service to perform a test. These systems can gather and analyze product level and temperature during many short periods when no product is being added to or taken from the tank.
- ▶ Some ATGS can be programmed and retrofitted to satisfy the overflow requirements.

WHAT ARE THE REGULATORY REQUIREMENTS?

- ▶ If the monthly report from the monitoring device reads “fail”, then report a SUSPECTED RELEASE within 24 hours to the UST Call Line at 1(800) 234-5677, Ext: 771-4303 or (602) 771-4303. However, if you have reason to believe the ATGS is defective then immediately repair, re-calibrate or replace the defective equipment and perform an additional test. If the system passes the test, then a SUSPECTED RELEASE report is not needed.
- ▶ An ATGS must be able to detect a leak of at least 0.2 gallon per hour (gph) with a probability of detection of 95% and a probability of false alarm of 5%.
- ▶ Older ATGS unable to detect a leak of at least 0.2 gph with a probability of detection of 95% and a probability of false alarm of 5% must be used in conjunction with monthly inventory control.

WILL YOU BE IN COMPLIANCE?

- ▶ When installed and operated according to the manufacturer’s instructions, an ATGS meets the federal leak detection requirements for new and existing UST systems.
- ▶ A test performed each month in accordance with third party certification fulfills the release detection requirements for the life of the tank.

WILL IT WORK AT YOUR SITE?

- ▶ ATGS are used primarily on tanks containing gasoline or diesel and that have a capacity of up to 15,000 gallons.
- ▶ If considering ATGS for larger tanks or other products, discuss its applicability with a service provider certified by ADEQ.

THINGS TO CONSIDER

- ▶ Each tank must be equipped with a separate dedicated ATGS probe that is permanently installed through an opening at the top of the tank.
- ▶ The ATGS probe is connected to an electronic monitor displaying product level information and monthly test results. ADEQ recommends multiple monthly tests be performed.
- ▶ ATGS can be programmed and monitored using off-site computers.
- ▶ For non-continuous ATGS, product should not be delivered or withdrawn from the tank before or during the monthly test according to the protocols established by a third party.

MAINTENANCE

- ▶ All monitors and alarms should be periodically calibrated and maintained according to the manufacturer’s instructions to ensure that they are functioning properly. monthly tests be performed.

REQUIRED DOCUMENTATION

- ▶ Documentation must demonstrate the ATGS was installed and repaired by a technician certified by the manufacturer.
- ▶ Save all ATGS maintenance records for the operational life of the system or for five (5) years, whichever is the shorter time period.
- ▶ Documentation must demonstrate the ATGS ran a valid 0.2 gph leak test at least once a month.
- ▶ Printouts of monthly test results must be kept for at least the previous 12 months.

In the event of any discrepancy between this information and the Arizona Revised Statutes or Arizona Administrative Code, the statutes or rules shall take precedence.

CHECKLIST

- Twelve months of monthly test results.
- Tested and re-calibrated ATGS in accordance with the manufacturer's requirements.
- Tested and re-calibrated ATGS at least once a year.
- Records of calibration, maintenance and repair are maintained on-site.
- Manufacturer's certification of performance on file.

FOR MORE INFORMATION CONTACT:

Arizona Department of Environmental Quality
UST & Division Support Section
1110 West Washington Street
Phoenix, Arizona 85007

(602) 771-4303

toll free number: (800) 234-5677 Ext:771-4303

Website: www.azdeq.gov