

The



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*Covering the Wholesale Petroleum, Convenience Store,
Truck Stop & Service Station Industries in Arkansas*

Canopy

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Annual Release Detection Equipment Testing

The Environmental Protection Agency (EPA) recently updated the 1988 Underground Storage Tank (UST) Regulation, 40 CFR 280. These were the first major revisions since 1988 and took effect federally on October 13, 2015. The revisions were designed to help prevent and detect UST releases, establish requirements similar to key portions of the 2005 Energy Policy Act, and address UST systems deferred in the 1988 UST regulation.

On September 8, 2018, Revised ADEQ Regulation 12, Storage Tanks, became effective – in time to satisfy the federal deadline of October 13, 2018. ADEQ is exercising discretion and is providing until October 13, 2021 to comply with the new requirements. Any new equipment or procedures must be in operation prior to October 13, 2021 to avoid being red tagged. ADEQ is eager to assist with any questions you may have. Contact your district inspector or call us at 501-682-0999.

The previous ADEQ article in the AOMA Canopy described the new 30-Day Walkthrough Inspection requirements. This article will describe another important change: **annual release detection equipment testing.**

To meet the new UST requirements, owners and operators must test electronic and mechanical components of their release detection equipment for proper operation at least annually. The testing must be conducted according to one of the following:

- manufacturer's instructions
- a code of practice developed by a nationally recognized association or independent testing laboratory
- requirements that ADEQ determines are no less protective of human health and the environment than the above two options.

Owners and operators must maintain records of release detection equipment testing for at least three years. The record must include each component tested, whether each component passed or failed, and any corrective action taken as a result of a failed test.

There are a number of forms of release detection available to owners and operators of UST systems. The most common methods of release detection used in Arkansas are automatic tank gauging (ATG), statistical inventory reconciliation (S.I.R.), interstitial monitoring with secondary containment, and groundwater/vapor monitoring.

If using an ATG as the method of release detection, or using another method that utilizes the ATG to gather data, then you must test the ATG annually. At a minimum you must verify the system configuration, test the alarm, and verify the battery backup functions properly. For probes and sensors associated with the system, you must inspect for residual buildup and ensure that floats move freely, inspect shafts for damage, check that accessible cables and wires are free of kinks and are undamaged, test the alarm operability and verify communication with the control unit, and finally you must ensure that sensors and probes are returned to the correct position. Remember: an improperly positioned sensor can result in a violation for failure to conduct monthly release detection!

Automatic line leak detectors, whether electronic or mechanical, must be tested annually. Testing should ensure the device activates alarms, restricts flow, or shuts off flow within an hour when simulating a release equivalent to three gallons per hour at a pressure of ten pounds per square inch.

Any pumps and pressure gauges associated with your method of release detection must be checked annually

to ensure there is proper communication with sensors and the control unit. Also, you must ensure that all electronic hand held equipment associated with groundwater and vapor monitoring is calibrated and operating properly. Remember to check the expiration date of any sensors or calibration gas used to ensure that your vapor monitor is not giving any false readings. This would be a good time to check the setup of your vapor meter to ensure that the correct calibration gas, type and concentration, are being used.

Here is a summary that you may find useful.

Automatic tank gauge and other controllers

- Test the alarm
- Verify the system configuration
- Test the battery backup

Probes and Sensors

- Inspect for residual buildup
- Ensure any floats move freely

- Ensure shafts are not damaged
- Ensure cables are free of kinks and undamaged
- Test the alarm operability and communication with the controller
- Ensure probes and sensors are positioned properly

Automatic line leak detector

- Test operation to ensure the device activates alarms, restricts flow, or shuts off flow within an hour when simulating a release equivalent to 3 gallons per hour at 10 pounds per square inch

Vacuum pumps and pressure gauges

- Ensure there is proper communication with sensors and the controller

Hand-held electronic sampling equipment associated with groundwater and vapor monitoring

- Ensure the device is calibrated and operates properly



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