

# VAPOR MONITORING

*...a lesson in LEAK DETECTION*

## What is it?

- 3 This method measures for the presence of product vapors in the soil to determine if product leaked from the UST system.
- 3 Monitoring wells near the tank and/or piping are checked continuously or at least once a month to determine if product vapors are present.

## Will you be in compliance?

- 3 When installed and operated according to the manufacturer's instructions, vapor monitoring meets Arizona's leak detection requirements for new and existing UST systems.
- 3 Performing a vapor monitoring test at least once each month fulfills the requirements for the life of the tank.
- 3 Vapor monitoring can also be installed to detect leaks from piping.

## Will it work at your site?

- 3 Before installing a vapor monitoring system, a site assessment must be done to determine whether vapor monitoring is appropriate at the site.
- 3 A site assessment usually includes a determination of the depth of groundwater, background contamination, stored product type, soil type and general lithology (including backfill material).
- 3 This assessment can only be done by a trained professional.

## To be prepared for your UST facility inspection, follow the suggestions listed below.

- 3 Maintain a log of your monthly monitoring data.
- 3 Keep the log at the facility and have it ready for the inspector to review during the time of an inspection.
- 3 Train your employees to conduct the necessary monthly monitoring and insist that they record the data in the monthly log.

## What are the Regulatory Requirements ?

- 4 The characteristics of the site have been assessed to ensure that the vapor monitoring method selected will comply with the regulations.
- 4 The vapor monitoring system has been constructed and designed so that the number and positioning of the monitoring wells will detect releases into the excavation zone from any portion of the system which routinely contains product\*.  
\* Routinely contains product means the part of the UST system which is designed to contain regulated substances and includes all internal areas of the tank and all internal areas of the piping, excluding only the vent pipe.
- 4 The stored regulated substance, or a tracer compound placed in the UST system, will produce a vapor level that is detectable by the monitoring devices in the monitoring wells within thirty (30) days from the start of a release from the UST system.
- 4 The materials used as backfill will allow the flow of vapors from releases into the excavation area such that a release is detected within thirty (30) days from the start of a release from the UST system.
- 4 The groundwater, rainfall, soil moisture, or other known interferences will not render the measurement of vapors by the monitoring device inoperable so that a release could go undetected by the monitoring devices in the monitoring wells for more than thirty (30) days from the start of a release from the UST system.
- 4 If background contamination exists at the site, ensure the level will not interfere with the method used to detect new releases from the UST system.
- 4 The vapor monitors are designed and operated to detect any significant increase in concentration above a documented background level of the regulated substance stored in the tank system, a component or components of that substance, or a volatile tracer compound placed in the tank system.
- 4 Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.
- 4 If the monthly report from the monitoring device reads **fail**, then report a SUSPECTED RELEASE within 24 hours to the LUST Hotline @ 602-207-4303. However, if you have reason to believe the monitoring device is defective then immediately repair, recalibrate or replace the defective equipment and perform an additional test that reads **pass**, then no SUSPECTED RELEASE report is needed.

## Maintenance

- 4 All vapor monitoring devices should be periodically calibrated according to the manufacturer's instructions to ensure that they are functioning properly.

In the event of any discrepancy between this document and the Arizona Revised Statutes or Rules, the statutes or rules shall prevail.