Underground Storage Tank Owners and Operators
Compliance Assistance Fact Sheet

UST Piping Release Detection

This document provides compliance tips for owners and operators of USTs regulated by the U.S. Environmental Protection Agency (i.e., USTs in Indian country). It does not replace the federal UST regulation. Additional information can be found at epa.gov/ust.

WHAT IS UST PIPING? UST piping includes pipes and equipment that carries product from the UST to the dispenser. UST piping must have release detection equipment installed and checked at least every 30 days.

WHY DO I NEED RELEASE DETECTION FOR UST PIPING? Release detection makes sense from an economic and environmental standpoint. If installed, operated, and maintained properly, piping release detection may help you prevent or minimize:

- releases into the environment,
- loss of product, and
- costly remediation expenses.

WHAT TYPES OF PIPING DO USTs USE? USTs use ***pressurized*** or ***suction*** piping. Your release detection requirements depend on the type of piping you have. The table below describes requirements for both types.

PRESSURIZED PIPING RELEASE DETECTION	SUCTION PIPING RELEASE DETECTION
If installed or replaced after April 11, 2016: ▪ Use secondary containment and interstitial monitoring. ▪ Install a line leak detector. **If installed or replaced on or before April 11, 2016:** ▪ Install a line leak detector and use one of the following release detection methods: ▪ Annual tightness test. ▪ Monthly monitoring using: ▪ Interstitial monitoring for double-walled piping, ▪ Continuous in-tank leak detection ▪ Vapor monitoring.* ▪ Groundwater monitoring.* ▪ Statistical inventory reconciliation. ▪ Other methods approved by the implementing agency.	**Release detection is not required if the piping**: ▪ Operates at below atmospheric pressure. ▪ Is sloped so the contents drain into the tank, and ▪ There is only one check valve located directly below the dispenser (suction pump), and ▪ A method is provided that allows compliance with the last two bullets above to be readily determined. Suction piping that does not meet the characteristics above must use one of the monthly methods used for pressurized piping or conduct a tightness test at least once every three years.

* Keep site assessment records that show the vapor or groundwater monitoring system is working properly.

WHAT RECORDS DO I NEED TO KEEP?

At a minimum, keep the following release detection records:

- Annual (3-year for suction piping system) tightness test.
- Annual release detection equipment tests for LLD, sensors and ATG consoles.
- Release detection performance claims or repair and maintenance records.
- 30-day release detection review including visual equipment inspection and annual walkthrough inspection.
- Site assessment records for vapor and groundwater monitoring wells.

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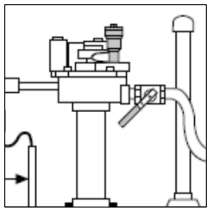
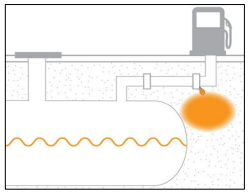
HOW CAN I DETECT UST PIPING RELEASES?

What to Check	What To Do
Automatic Tank Gauging (ATG) Control panel 	▪ Check the printout. What does it show? Is the system working properly or are there problems that need to be fixed? ▪ Immediately investigate any control panel alarms or flashing lights. ▪ Perform a functionality test of the console/controller.
Containment sump 	▪ Check your sump. Is a sensor present? ▪ Is the sensor positioned correctly? ▪ Is there any liquid or product present? ▪ Does the lid have a tight seal and is it securely fastened? ▪ Is the sump damaged? A damaged sump will not hold released product. ▪ Test every containment sump used for interstitial monitoring of double wall piping for liquid tightness at least once every 3 years.
Line Leak Detectors (LLD) 	▪ Make sure the LLD functions correctly. ▪ Perform an annual simulated leak at 3 gph at 10 psi line pressure. ▪ Make sure the electronic LLD is programmed and properly connected. ▪ Inspect any hand-held release detection equipment used for groundwater monitoring.
Sensors 	▪ Make sure sensors are present and functioning. ▪ Make sure sensors are properly installed. ▪ Perform an annual inspection of the functionality of the sensor and test the communication with the console.
Suction Systems and Pressurized Piping 	▪ Every three years, test suction systems that are not exempt and that do not have another form of release detection. ▪ Conduct an annual line test of pressurized piping that only have a LLD and no other release detection method.

Learn more about piping release detection on our website epa.gov/ust/release-detection-underground-storage-tanks-usts-introduction#pipemethods.

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