

Underground Storage Tank Release Detection

What is tank release detection?

Tank release detection refers to underground storage tank (UST) equipment and methods that are designed to detect a fuel leak from the tank. Leaks may be detected either electronically or manually. In general, single-walled tanks require the use of in-tank monitors (aka automatic tank gauges) to detect a leak by measuring changes in the level of fuel when the tank is not in use. Double-walled tanks require the use of electronic sensors to detect liquid in the interstitial space (the space between the inner and outer wall of the tank), or require that the interstitial space be checked manually for the presence of liquid.

Who is required to have tank release detection?

All Category I UST owners are required to conduct tank release detection. Category I USTs are all tanks except those used only for on-premises heating, or farm/residential tanks used for motor oil.

What is required of owners and operators of Category I, UST?

UST owners and operators are required to conduct tank release detection *at least once per week* and document the results. If the results indicate a suspected release, the suspected release must be reported to the Department of Environmental Conservation (DEC) UST Program at 802-241-3888.

Double-walled tanks: If you have a double-walled tank, you are required to monitor the tank *interstitial space* for release detection either electronically or manually.

Electronic: If you are using electronic interstitial monitoring, a functioning electronic sensor must be installed in the interstitial space. Your weekly release detection results should indicate whether this sensor is in alarm or not. If the sensor goes into alarm, you must contact the UST Program.

A properly functioning electronic interstitial monitoring setup requires:

- Electronic sensors installed properly to detect liquid where it will accumulate first
- Electronic sensors that remains functional. It is a recommended Best Management Practice (BMP) to test your sensors (at least) annually
- Electronic sensors that clearly alert you to the presence of liquid (audible or visible alarms are acceptable)

Manual: If you are using manual interstitial monitoring, you must extend a gauge stick to the bottom of the interstitial port and then remove it *once a week* to check for the presence of any liquid in the interstitial space. Your weekly release

Continued >

Environmental Fact Sheet: UST Release Detection

detection documentation should indicate whether the interstitial space is dry, or if there is water or fuel present. If water or fuel is present, you must contact the UST Program.

Single-walled tanks: If you have a single-walled tank (over 550-gallons), you are required to monitor the product level using automatic tank gauging. Automatic tank gauging is an electronic system and must produce a tank leak test *at least weekly*. The leak test must be capable of detecting a leak rate of 0.2 gallons/hour or greater. Your weekly release detection results must provide valid results indicating whether or not the tank passed the leak test. An interrupted, low level error or any other test result that did not provide a pass or fail result is not considered valid. If at any time you receive a failed leak test result, meaning the leak test detected a leak at a rate at or greater than 0.2 gallons/hour; you must contact the UST Program.

If you have a single-walled tank that is 550-gallons or less, you have the choice of using automatic tank gauging or manual tank gauging. If you choose manual tank gauging it must be *conducted and documented weekly*. You must take the measurements at the beginning and end of a 36-hour time period during which no product is added to or taken out of the tank, and calculate the volume of liquid. The difference in these two measurements must be equal to or less than 10-gallons. Contact the UST Program for an EPA booklet further explaining how to conduct manual tank gauging. Or go on-line at:

www.epa.gov/oust/pubs/manual.htm

Or visit EPAs web site: www.epa.gov/oust/ustsystem/manltank.htm

For more information contact:

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103 South Main Street,
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www.anr.state.vt.us/dec/wastediv/ust/home.htm

www.eaovt.org