

Electronic Line Leak Detection (For Pressurized Piping Only)

Description of Release Detection:

An Electronic Line Leak Detector (ELD) is typically located on the submersible turbine pump (STP) head in the sump above the tank. ELDs have components that connect to an electronic control panel and/or an automatic tank gauge. When the STP is not dispensing product, ELDs use the STP to pressurize the line and then monitor how long it takes for the pressure to decay. ELDs can be used to monitor for the big leak (3.0 gph) as well as the little leak (monthly at 0.2 gph or annually at 0.1 gph). If a big leak is found the ELD must shut off flow, restrict flow or trigger and audible and/or visual alarm.

Operating and Maintaining ELDs:

- The manufacturers of some ELDs require that a function check be performed once every 365 days. Other ELDs do not require a function check because they have a position statement stating that the tank gauge system automatically verifies the functionality of the leak detector.
- Make sure employees who run, monitor, or maintain the ELD system know exactly what they have to do, what the alarms mean, and to whom to report problems.

Record Keeping:

- A copy of the function check should be kept for one year or until the next one is performed. If the ELD has a position statement that voids the need for a yearly function check, a copy of the position statement should be kept with the release detection records as long as the ELD is being used.
- Requirements for monitoring the line for the little leak:
 - 12 months of 0.2 gph – either ATG slips or a handwritten log from the digital display for each line for each month
 - 1 – 0.1 gph line test result for the line within the last 12 months

If the ELD gives a test result that is anything other than a pass or indicates a release has occurred, call the UST Management Division within 72 hours at (803) 898-0589.

