

Mechanical Line Leak Detector (For Pressurized Piping Only)

Description of Release Detection:

A Mechanical Line Leak Detector (LLD) is designed to detect a catastrophic release (the “big” leak) from pressurized piping. LLDs must detect a leak of 3 gallons per hour at a line pressure of 10 psi within 1 hour. The LLD automatically tests for piping leaks each time the pump is turned on by monitoring how long it takes for the line to reach operating pressure. If a leak is detected, the LLD must shut off or restrict the flow of product or trigger an alarm. Note: LLDs must be installed as close to the submersible turbine pump as possible since they are designed to only detect leaks *between the leak detector and the dispenser*.

Operating and Maintaining Automatic LLDs:

- At least once a year, have a qualified contractor service the LLD system components and conduct a function check according to the manufacturer’s instructions.
- Most LLDs require venting back to the pump head. Ensure that the LLDs are properly vented if required by the manufacturer.
- Ensure that the type of LLD being used is compatible with the type of product being stored.
- Make sure employees who run, monitor, or maintain the LLD system know exactly what they have to do and to whom to report problems.

Record Keeping:

- Keep the record of the most recent annual function check that demonstrates the LLD is performing properly for at least one year or until the next one is performed.
- Keep all records of calibration, maintenance, and repair of the release detection equipment for at least one year.

If the LLD indicates a release has occurred, call the Division of UST Management within 72 hours at (803) 896-7957.

