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 on 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 by simulating a leak at the farthest dispenser.
- 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.
- Testers and testing equipment must maintain certification from equipment manufacturer in order to conduct valid testing acceptable to the Department.

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 UST Management Division within 24 hours at (803) 898-0589.

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