Line Leak Detector Maintenance Checklist

From the National Work Group on Leak Detection Evaluations List, June, 2001

LINE LEAK DETECTOR MAINTENANCE CHECKLIST			
Minimum procedures to be conducted by a *qualified service technician*			
Yes	No	NA	For equipment start-up or annual equipment certification, was a leak simulated to verify LLD performance? (Circle all that apply) Simulated leak rate: 3 gph 0.2 gph 0.1 gph
Yes	No	NA	Is the audible alarm operational?
Yes	No	NA	Is the visible alarm operational?
Yes	No	NA	If alarms are relayed to remote monitoring system, is all communication equipment (e.g. modem) operational?
Yes	No	NA	Was monitoring system set-up reviewed to ensure proper settings?
Yes	No	NA	Was the testing apparatus properly calibrated?
Yes	No	NA	For mechanical LLDs, does the LLD restrict product flow if it detects a leak?
Yes	No	NA	For electronic LLDs, have all accessible wiring connections been visually inspected?
Yes	No	NA	For electronic LLDs, does the turbine shut off if the LLD detects a leak?
Yes	No	NA	For electronic LLDs, does the turbine shut off if any portion of the monitoring system is disabled or disconnected?
Yes	No	NA	For electronic LLDs, does the turbine shut off if any portion of the monitoring system malfunctions or fails a self-test?
Yes	No	NA	Were all items on the equipment manufacturer's maintenance checklist completed?
Yes	No	NA	Were all LLDs confirmed operational and accurate within regulatory requirements?
Comments:			

1. Line leak detectors should be tested in-place, not removed.

2. The functional elements of the mechanical LLD are the piston and the diaphragm. To ensure that these elements are functioning properly, the submersible pump can be started and the time that the piston or diaphragm takes to move into a position to enable full flow of the product noted. The range of allowable opening times is specified by the manufacturer and is available in the equipment manual.

3. Equipment that monitors underground storage tank systems containing hazardous materials must be tested/serviced per regulatory requirements, or on a schedule specified by the manufacturer, whichever is more frequent.

4. **System Set-Up Report -** If the monitoring system or diagnostic equipment used in testing is capable of generating a hard-copy report describing system set-up, you should include a copy of the report with this checklist.

5. **Alarm History Report -** If the monitoring system is capable of generating a hard-copy alarm history report, you must include a copy of the report with this checklist. This report should be printed before you test any LLDs.

Disclaimer*: This checklist is not intended to tell the technician how to perform the maintenance and system check. Technicians should follow manufacturers' detailed instructions while making sure that all of the items on this checklist have been covered.*