**Section 175.610 General Release Detection Requirements for All USTs**

a) Owners or operators of new and existing USTs shall provide a method, or combination of methods, of release detection that:

1) Can detect a release from the entire tank and any portion of the connected underground piping that routinely contains product;

2) Is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition;

3) Meets the performance requirements in Sections 175.630, 175.640 or Subpart I, as applicable. All performance claims and the manner of determining the claims shall be described in writing by the equipment manufacturer or installer. In addition, methods used shall be capable of detecting the leak rate or quantity specified for that method in Section 175.630 and 175.640 with a probability of detection of 0.95 and a probability of false alarm of 0.05. Release detection for tanks and piping permitted on or after February 1, 2008 must also meet the interstitial monitoring requirements indicated in Sections 175.400 and 175.420; and

4) Beginning October 13, 2018, is operated and maintained, and electronic and mechanical components are tested for proper operation, in accordance with manufacturer's instructions or a code of practice developed by a nationally recognized association or independent testing laboratory. As an alternative, another test method may be used that is determined by OSFM to be not less protective of human health and the environment. Before the utilization of any such method, it shall be submitted to OSFM in writing, and OSFM shall issue written approval.

A) A test of the proper operation must be performed at installation and at least annually thereafter and, at a minimum, as applicable to the facility, shall cover the following components and criteria:

i) Automatic tank gauge and other controllers: test alarm; verify system configuration; test battery backup;

ii) Probes and sensors: inspect for residual buildup; ensure floats move freely; ensure shaft is not damaged; ensure cables are free of kinks and breaks; test alarm operability and communication with controller;

iii) Automatic line leak detector: test operation to meet criteria in Section 175.640(a)(3) by simulating a leak;

iv) Vacuum pumps and pressure gauges: ensure proper communication with sensors and controller; and

v) Hand-held electronic sampling equipment associated with groundwater and vapor monitoring: ensure proper operation.

B) All testing and inspections required by this Section shall be performed:

i) By an OSFM-licensed contractor that has licensure in the installation/retrofitting or inspection and testing of UST equipment module; and

ii) Using an employee of the OSFM-licensed contractor for testing or inspection who is certified in the installation-retrofitting or inspection and testing of UST equipment module.

b) All leak detection equipment must be evaluated and be listed in the NWGLDE publication "List of Leak Detection Evaluations for Storage Tank Systems", as referenced in 41 Ill. Adm. Code 174.210, or, may be utilized if approved by OSFM.

c) When a release detection method operated in accordance with the performance standards in Sections 175.630 and 175.640 or Subpart I indicates a release may have occurred, owners or operators shall notify the Illinois Emergency Management Agency in accordance with 41 Ill. Adm. Code 176.300 through 176.330.

d) All leak detection equipment installed on a UST, whether required or not, shall be maintained. Self-diagnosing release detection systems may not be used to circumvent any testing required by 41 Ill. Adm. Code 172, 174, 175, 176 or 177.

(Source: Amended at 47 Ill. Reg. 6837, effective May 2, 2023)