401 KAR 42:040. UST system release detection.

RELATES TO: KRS 224.10, 224.60, 40 C.F.R. Part 280 Subpart D, 42 U.S.C. 6991c, 6991e, 6991k

STATUTORY AUTHORITY: KRS 224.10-100, 224.60-105, 42 U.S.C. 6991e, 6991k

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Cabinet to develop and conduct programs that provide for the prevention, abatement, and control of contaminants that may threaten the environment. KRS 224.60-105 requires the cabinet to regulate underground storage tanks by requiring registration, minimum construction and performance standards, leak detection, recordkeeping, release reporting, corrective action, closure, financial responsibility, and other requirements to protect public health and the environment. KRS 224.60-105(3) requires the cabinet to establish a regulatory program that implements federal requirements for UST systems. This administrative regulation establishes the requirements for UST system release detection and recordkeeping.

Section 1. General Requirements for all UST Systems. General requirements for all UST systems shall be as established in 40 C.F.R. 280.40.

Section 2. Requirements for Petroleum UST Systems. Requirements for petroleum UST systems shall be as established in 40 C.F.R. 280.41.

Section 3. Requirements for Hazardous Substance UST Systems. Requirements for hazardous substance UST systems shall be as established in 40 C.F.R. 280.42.

Section 4. System Integrity Testing and Reporting. (1) The following tests shall be performed in accordance with the equipment manufacturer's instructions, 401 KAR 42:020, 42:030, and this administrative regulation:

(a) Line Tightness Test;

(b) Automatic Line Leak Detector Test;

(c) Operational Test of Electronic Release Detection Monitoring Equipment; and

(d) Tank Tightness Test.

(2)(a) Results of a test conducted in accordance with subsection (1) of this section shall be submitted on:

1. For line tightness tests: Line Tightness Test, DEP 4064;

2. For automatic line leak detector test: "Automatic Line Leak Detector Operational Test", DEP 4062;

3. For operational test of electronic release detection monitoring equipment: "Electronic Release Detection Equipment Test", DEP 4063; and

4. For tank tightness test: Tank Tightness Test, DEP 4066.

(b) Results for a test conducted in accordance with subsection (1) of this section may be submitted on a standardized form provided by the testing equipment manufacturer if the form contains, at a minimum, the same information as the form listed in paragraph (a) of this subsection.

(3)(a) Owners and operators shall immediately report to the cabinet, as a suspected release in accordance with 401 KAR 42:050, failing results of a test performed in accordance with subsection (1) of this section.

(b) All documentation of failing test results shall be submitted to the Underground Storage Tank Branch within seven (7) days of the test date.

(c) All documentation of passing test results shall be submitted to the Underground Storage Tank Branch within thirty (30) days of the test date.

Section 5. Tank and Line Tightness and Line Leak Detector Testers. (1) Owners and operators shall ensure that tests of tanks and piping for tightness and operational tests of automatic line leak detectors shall be conducted by a person who meets the following requirements:

(a) Uses testing equipment and methods that shall be certified, as of the time of testing, by an independent third-party evaluator;

(b) Has completed a training course conducted or endorsed by the manufacturer of the testing equipment;

(c) Maintains training credentials as prescribed by the manufacturer of the testing equipment; and

(d) Provides a copy of his or her training credentials to the cabinet upon request.

(2) Failure to provide credentials as established in subsection (1)(d) of this section, upon written request from the cabinet, shall render the test results invalid.

Section 6. Methods of Release Detection for Tanks and Piping. (1) Effective April 1, 2012, methods of release detection for tanks and piping installed prior to April 1, 2012 shall be as established in 40 C.F.R. 280.43 (b), (c), (d), (g), (h), and 280.44.

(2) Owners and operators may use automatic tank gauging (ATG) or statistical inventory reconciliation (SIR) as a release detection method for tanks installed, prior to April 1, 2012. If an ATG or SIR method is used, the method shall be certified, as of the time of testing, by an independent third-party evaluator.

(3)(a) In accordance with the UST System Installation and Maintenance Outline, incorporated by reference in 401 KAR 42:020, electronic interstitial monitoring shall be the primary method of release detection for all UST systems installed after April 1, 2012.

(b) Owners and operators shall only install electronic devices that shall be capable of printing sensor readings. Owners and operators shall obtain a record, at least once every thirty (30) days, to verify that release detection is being performed and that releases have not occurred.

(4) For UST systems installed prior to April 1, 2012 for which the owner or operator has established interstitial monitoring as the primary method of release detection:

(a) For electronic devices capable of printing sensor readings, owners and operators shall obtain a record, at least once every thirty (30) days, to verify that release detection is being performed and that releases have not occurred; or

(b) For devices not capable of printing sensor readings, a monthly log shall be maintained and documented on Visual Interstitial Log, DEP 5041, to verify that release detection is being performed and that releases have not occurred.

(5) All release detection records for the most recent monthly verification and for the preceding twelve (12) months shall be maintained.

(6) All electronic release detection monitoring equipment for the UST system shall be operationally tested annually in accordance with the equipment manufacturer’s instructions or a recognized industry standard that is no less stringent than the manufacturer's instructions.

(a) The test shall be performed by a person utilizing testing equipment and methods that are certified, as of the time of testing, by an independent third-party evaluator; and

(b) A copy of the tester’s training credentials shall be provided to the cabinet upon request.

(7) Owners and operators shall not remove, alter, or disable release detection monitoring equipment, required to be maintained under this administrative regulation, in a manner that would render the equipment inaccurate or inoperable.

Section 7. Line Leak Detectors. (1) All pressurized piping systems shall be equipped with an automatic line leak detector (ALLD).

(2)(a) All ALLDs shall be performance-tested annually by a qualified individual meeting the requirements of Section 5 of this administrative regulation.

(b) All ALLD performance-testing shall be simulated at the dispenser located furthest away from the ALLD or at the highest elevation above the ALLD.

(c) All ALLDs shall be installed within the UST system during the test as it would be during normal operation.

(d) For electronic line leak detectors, the performance test shall verify that the automatic line leak detector shall shut down the Submersible Turbine Pump (STP) and shall be capable of detecting a leak rate equivalent to three (3) gallons-per-hour at ten (10) pounds per square inch of line pressure.

(e) For mechanical line leak detectors, the performance test shall verify that the automatic line leak detector shall be capable of detecting a leak rate equivalent to three (3) gallons-per-hour at ten (10) pounds per square inch of line pressure while reducing the flow. In addition, the test shall verify that the STP relay switch shall not malfunction permanently in the on position, which would prevent the mechanical line leak detector from operating properly.

Section 8. Release Detection Recordkeeping. Requirements for release detection recordkeeping shall be as established in 40 C.F.R. 280.45.

Section 9. Extensions. (1) The owner or operator of a UST system may request an extension to a deadline established by this administrative regulation or established by the cabinet in writing pursuant to this administrative regulation.

(2) The extension request shall be submitted in writing and received by the Division of Waste Management prior to the deadline.

(3) The cabinet shall grant an extension if the cabinet determines that an extension would not have a detrimental impact on human health or the environment.

Section 10. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) "Automatic Line Leak Detector Operational Test", DEP 4062, November 2016;

(b) "Line Tightness Test", DEP 4064, November 2016;

(c) "Tank Tightness Test", DEP 4066, November 2016;

(d) "Electronic Release Detection Equipment Test", DEP 4063, November 2016; and

(e) "Visual Interstitial Log", DEP 5041, November 2016.

(2) This material may be inspected, copied, or obtained, subject to copyright law, at the Underground Storage Tank Branch, 300 Sower Boulevard, Frankfort, Kentucky 40601, Monday through Friday, 8 a.m. to 4:30 p.m. This material may also be obtained by calling the Division of Waste Managements' Web site at http://waste.ky.gov. (17 Ky.R. 1640; eff. 12-19-1990; 22 Ky.R. 321; 921; eff. 11-14-1995; 32 Ky.R. 2118; 33 Ky.R. 463; 738; eff. 9-13-2006; 37 Ky.R. 2696; 38 Ky.R. 266; 520; eff. 10-6-2011; TAm eff. 7-8-2016; TAm eff. 12-21-2016; Crt eff. 10-9-2018.)