

**OFFICE OF THE STATE FIRE MARSHAL
STATE OF ILLINOIS**

Statute, Rule or Standard Policy Interpretation:

Policy Number: 13-PCS-001 Emergency Power Generators Effective Date: April 4, 2013

Title:	41 Ill. Adm. Code
Part:	175
Part Title:	Technical Requirements For Underground Storage Tanks and the Storage, Transportation, Sale and Use of Petroleum and Other Regulated Substances
Subpart:	F
Subpart Title:	Release Detection
Section Numbers:	175.630 & 175.640
Section Titles:	Methods of and Requirements for Release Detection for Tanks; Methods of and Requirements for Release Detection for Piping

Purpose: This policy exempts USTs supplying emergency power generators from the requirement to immediately shut off the submersible or suction pump upon activation of an interstitial monitoring sensor installed on either the tank or its associated piping, or for an automatic line leak detector installed on pressurized piping to restrict or shut off product flow upon activation. These emergency power generator USTs shall utilize a local alarm activation system in lieu of the immediate shut off of the submersible or suction pump under 41 Ill. Adm. Code 175.630 & 175.640.

Scope: Statewide

Current Code: Subsection 175.630(g)(2) states in part as follows: (For tanks) *Interstitial monitoring must also comply with the requirements of Section 175.640.*

Subsection 175.640(a)(2) states in part as follows: *Every pressurized piping line installed after February 1, 2008 shall be equipped with interstitial monitoring sensors at all piping sumps, dispenser sumps, and piping junction sumps. As of September 1, 2010, these sensors must immediately shut off the submersible pump supplying that line upon detection of a release, except for USTs serving emergency power generators. Sensors for USTs serving emergency power generators shall trigger a local alarm upon the detection of a release. The automatic shutoff shall be deactivated in any UST serving emergency power generators where such function has been previously installed.*

Subsection 175.640(a)(4) states in part as follows: *Mechanical and electronic line leak detectors that alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within one hour, except for USTs serving emergency power generators.... Automatic line leak detectors for USTs serving emergency power generators shall trigger a local alarm upon the detection of a release. Any automatic flow restriction or shutoff shall be deactivated in pressurized piping serving emergency generators where such function has been previously installed.*

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Subsection 175.640(b)(1)(A) states in part as follows: As of September 1, 2010, every American suction piping line shall be equipped with interstitial monitoring sensors at all piping sumps, dispenser sumps and piping junction sumps that will immediately shut off the supply of product at the dispenser upon the detection of a release, except for USTs serving emergency power generators. Sensors for USTs serving emergency power generators shall trigger a local alarm upon the detection of a release. The automatic shutoff shall be deactivated in any UST serving emergency power generators where such function has been previously installed.

Policy Interpretation: Immediate shut off of a submersible or suction pump upon detection of a leak by an interstitial monitoring sensor is an effective method of limiting the release of product into the environment. The same is true for an automatic line leak detector restricting or shutting off product flow when a leak is detected. However, when this action is applied to USTs supplying emergency power generators, during a primary power outage, essential services could be lost. Many facilities with USTs supplying emergency power generators are hospitals, and several are airports. During a primary power outage, these and other facilities rely on emergency power generators to maintain critical services which would otherwise be interrupted, with potentially devastating consequences. Moreover, a cause of sensor activation could be water detected in a sump instead of product, since many of the interstitial monitoring sensors installed do not discriminate between water and product. During a severe weather related power outage, incursions of water into sumps equipped with sensors can be likely. This policy affecting emergency power generators applies to both pressurized and American suction piping lines as well as their tanks, and applies solely to emergency power generator USTs. Installation of interstitial sensors and automatic line leak detectors shall still be required for emergency power generator USTs as defined in our regulations.

The interstitial monitoring sensor's automatic shut off feature shall be disabled in order to prevent interruption of the emergency power generator's operation. Local alarm activation is still required. This exemption for emergency power generator USTs is retroactive.

The automatic line leak detectors in USTs that supply emergency power generators shall trigger an alarm when activated. The automatic line leak detectors shall not shut off, or restrict flow from, the submersible pump. This exemption for emergency power generator USTs is retroactive.

Upon confirmation of a release, the facility's owner will be responsible for notifying IEMA of a release per 176.300 and 176.320, as well as for any necessary clean up and remediation. Equipment generating false positive sensor activations shall be promptly repaired or replaced and the activating condition corrected.

European suction lines that comply with all parts of 175.640(b)(2)(A-E) are not subject to this form of leak detection. Systems using compliant European suction lines are a viable alternative to pressurized or American suction piping lines for USTs supplying

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emergency power generators. If either interstitial monitoring sensors or automatic line leak detectors have been installed on a European suction UST system, all requirements as above shall be met to make sure the pump is not shut off by activation of an interstitial monitoring sensor or automatic line leak detector.

Repealed Date:

Superseded: