7150.0340 METHODS OF RELEASE DETECTION FOR PIPING.

Subpart 1. **Applicability.** Each method of release detection for piping used to meet the requirements of part 7150.0300, subpart 6, must be conducted according to this part.

Subp. 2. **Automatic line leak detectors.** Methods that continuously alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping, or by triggering an audible or visual alarm, may be used only if they detect leaks of three gallons per hour at ten pounds per square inch line pressure within one hour. An annual test of the operation of any line leak detector must be conducted. Testing shall:

A. be conducted by a person:

(1) certified under chapter 7105;

(2) approved by the manufacturer of the equipment to test the detector; or

(3) qualified by reason of training or experience to test the detector;

B. comply with the manufacturer's testing requirements;

C. involve creation of a physical leak in a piping segment; and

D. verify the leak detection threshold of three gallons per hour at ten pounds per square inch line pressure within one hour.

Subp. 3. **Line tightness testing.** A periodic test of piping may be conducted:

A. annually, if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure; or

B. monthly, if it can detect a 0.2 gallon per hour leak rate at standard operating pressure.

Subp. 4. **Interstitial monitoring.**

A. Interstitial monitoring of secondary containment piping shall be conducted:

(1) continuously, by means of an automatic leak-sensing device that signals the operator of the presence of any regulated substance in the interstitial space or sump; or

(2) monthly, by means of a procedure, such as visual monitoring, capable of detecting the presence of any regulated substance in the interstitial space or sump.

B. The interstitial space or sump shall be maintained free of water, debris, or anything that could interfere with leak detection capabilities.

C. On an annual basis, any sump shall be visually inspected for integrity of sides and floor and tightness of piping penetration seals. Any automatic leak-sensing device shall be tested for proper function.

Subp. 5. **Other methods.** Any other type of release detection method, or combination of methods, may be used if:

A. the method can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; and

B. the owner and operator can demonstrate to the commissioner that the method can detect a release as effectively as any of the methods allowed in subparts 2 to 4 and obtain the commissioner's prior written approval of the method. In comparing methods, the commissioner shall consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved by the commissioner, the owner and operator must comply with any conditions imposed by the commissioner on the method's use to ensure the protection of human health and the environment.

Statutory Authority: *MS s 116.49*

History: *16 SR 59; 32 SR 1751; 34 SR 1610*

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