

**7150.0330 METHODS OF RELEASE DETECTION FOR TANKS.**

Subpart 1. **Applicability.** Each method of release detection for tanks used to meet the requirements of part 7150.0300, subpart 5, must be conducted according to this part.

Subp. 2. [Repealed, 43 SR 1253]

Subp. 3. **Manual tank gauging.**

A. Manual tank gauging must comply with this subpart:

(1) measurements of the level of liquid in a tank must be taken at the beginning and ending of a period of at least 36 hours during which no liquid is added to or removed from the tank;

(2) level measurements must be based on an average of two consecutive stick readings at both the beginning and ending of the period; and

(3) the equipment used must be capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch.

B. A leak is suspected if the variation between beginning and ending measurements under item A exceeds the weekly or monthly standards in the following table:

Tank Capacity	Weekly Standard (one-test)	Monthly Standard (four-test avg.)	Minimum Duration of Test
Up to 550 gallons	10 gallons	5 gallons	36 hours
551-1,000 gallons (when largest tank is 64" x 73")	9 gallons	4 gallons	44 hours
1,000 gallons (if tank is 48" x 128")	12 gallons	6 gallons	58 hours

Subp. 4. **Tank tightness testing.** Tank tightness testing must be capable of detecting a 0.1 gallon per hour leak rate from any part of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

Subp. 5. **Automatic tank gauging.** Use of automatic tank gauging that tests for the loss of product must comply with this subpart:

A. the automatic product level monitor test must be able to detect a 0.2 gallon per hour leak rate from any part of the tank that routinely contains product; and

B. owners and operators must ensure testing is performed with the system operating in one of the following modes:

(1) in-tank static testing conducted at least once every 30 days; or

(2) continuous in-tank leak detection operating without interruption or operating to allow the system to gather incremental measurements to determine the leak status of the tank at least once every 30 days.

**Subp. 6. Interstitial monitoring.**

A. Interstitial monitoring of secondary-containment tanks must be conducted:

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

(2) monthly, by a procedure capable of detecting the presence of any liquid in the interstitial space.

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

C. Any automatic leak-sensing device must be annually tested for proper function.

**Subp. 6a. Statistical inventory reconciliation.**

A. A release-detection method based on applying statistical principles to inventory data must:

(1) report a quantitative result with a calculated leak rate;

(2) report a test result of pass, fail, or inconclusive;

(3) be capable of detecting a leak rate of 0.2 gallons per hour or a release of 150 gallons within 30 days; and

(4) use a threshold that does not exceed one-half the minimum detectable leak rate.

B. An inconclusive test result under item A, subitem (2), means the requirements of part 7150.0300, subpart 5, have not been met and the test results must be investigated according to part 7150.0345, subpart 1, item B.

**Subp. 7. Other methods.** Any other type of release-detection method, or combination of methods, can 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. owners and operators can demonstrate to the commissioner that the method can detect a release as effectively as any of the methods allowed in this part and obtain the commissioner's prior written approval of the method. In comparing methods, the commissioner must consider the size of release that the method can detect and the frequency and reliability with which a release can be detected. If the method is approved by the commissioner, owners and operators 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; 43 SR 1253*

**Published Electronically:** *June 6, 2019*