**Section 218.124 External Floating Roofs**

a) In addition to meeting the requirements of Section 218.123(b) of this Part, no owner or operator of a stationary storage tank equipped with an external floating roof shall cause or allow the storage of any volatile petroleum liquid in the tank unless:

1) The tank has been fitted:

A) With a continuous secondary seal extending from the floating roof to the tank wall (rim mounted secondary seal), or

B) With any other equipment or means of equal efficiency approved by the Agency according to the provisions of 35 Ill. Adm. Code 201, and further processed consistent with Section 218.108 of this Part;

2) Each seal closure device meets the following requirements:

A) The seal is intact and uniformly in place around the circumference of the floating roof between the floating roof and tank wall; and

B) The accumulated area of gaps exceeding 0.32 centimeter (⅛ inch) in width between the secondary seal and the tank wall shall not exceed 21.2 square centimeters per meter of tank diameter (1.0 square inches per foot of tank diameter). Compliance with this requirement shall be determined by:

i) Physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (0.125 in.) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and the tank wall; and

ii) Summing the area of the individual gaps.

3) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers across at least 90 percent of the area of the opening;

4) Openings are equipped with projections into the tank which remain below the liquid surface at all times;

5) Inspections are conducted prior to May 1 of each year to insure compliance with subsection (a) of this Section;

6) The secondary seal gap is measured prior to May 1 of each year and within 30 days of a written request to demonstrate compliance with subsection (2)(B) of this Section;

7) Records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, the results of the inspections and the results of the secondary seal gap measurements are maintained and available to the Agency, upon verbal or written request, at any reasonable time for a minimum of two years after the date on which the record was made.

b) Subsection (a) above does not apply to any stationary storage tank equipped with an external floating roof:

1) Exempted under Section 218.123(a)(2) through 218.123(a)(6) of this Part;

2) Of welded construction equipped with a metallic type shoe seal having a secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal);

3) Of welded construction equipped with a metallic type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid-filled-type seal, or other closure device of equivalent control efficiency approved by the Agency in which a petroleum liquid with a true vapor pressure less than 27.6 kPa (4.0 psia) at 294.3° K (70° F) is stored; or

4) Used to store crude oil with a pour point of 50° F or higher as determined by ASTM Standard D97-66 incorporated by reference in Section 218.112 of this Part.

(Source: Amended at 17 Ill. Reg. 16636, effective September 27, 1993)