

2.8 Storage Vessels for Petroleum Liquids and External Floating Roof Tanks

2.8.1 Applicability and Designation of Affected Facility

- (a) The affected facility to which the provisions of this source category apply is each storage vessel for petroleum liquids and each external floating roof tank subject to section 1.1 of this text.
- (b) Facilities subject to this source category are not exempt from the provisions of section 2.8a or 2.8b of this text if applicable.

2.8.2 Testing and Procedures

Except as provided in §1.2(b), compliance with the standards shall be determined as follows or in accordance with an equivalent procedure, as approved by the Director.

- (i) Determine the gap areas and maximum gap widths between the primary seal and tank wall, if required, and secondary seal and the tank wall according to the frequencies required and maintain records and make reports as required by the applicable regulation(s).
- (ii) Determine gap widths in the primary and secondary seals individually by the following procedures:
 - (A) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
 - (B) Measure seal gaps around the entire circumference of the tank in each place where a 1/8" diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location.
 - (C) The total surface area of each gap described in paragraph (b)(1)(ii)(B) of this section shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
- (iii) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the appropriate ratio in the applicable standard.
- (iv) Provide the Director 30 days prior notice of the gap measurement to afford the Director the opportunity to have an observer present.

2.8.3 Monitoring of Operations

- (a) Except as provided in paragraph (d) of this section, the owner or operator subject to this subpart shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
- (b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Director specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
- (c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).
- (d) The following are exempt from the requirements of this section:
 - (1) Each owner or operator of each affected facility which stores petroleum liquids with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia).

- (2) Each owner or operator of each affected facility equipped with a vapor recovery and return or disposal system approved by the Director.