

Chapter 111: PETROLEUM LIQUID STORAGE VAPOR CONTROL

SUMMARY: This regulation requires all owners of fixed roof storage tanks, storing gasoline, crude oil or any petroleum liquid whose vapor pressure is greater than 1.52 psia (10.5 kilo pascals) to install floating roofs to reduce the hydrocarbon vapors lost to the atmosphere. This regulation prohibits the emptying and degassing of petroleum storage vessels for the purpose of performing a complete inspection on days for which the Department has issued an ozone health advisory beginning January 1, 2000 and between June 1 and August 31 each year beginning January 1, 2004. A complete inspection shall be performed at least once every ten (10) years and each time the vessel is emptied and degassed.

1. Scope

- A. This regulation applies in all ambient air quality regions of the State of Maine.
- B. This regulation applies to all fixed roof storage vessels with capacities greater than 150,000 liters (39,000 gallons) containing volatile petroleum liquids whose true vapor pressure is greater than 10.5 kilo pascals (1.52 psia) or a Reid vapor pressure of 4 psi. Such fixed roof storage vessels are subject to New Source Performance Standards as of the dates specified in and in accordance with the requirements contained in 40 CFR, Part 60, Subparts K, Ka, and Kb.
- C. Section 5(B) of this regulation shall apply to all fixed roof storage vessels with capacities greater than 150,000 liters (39,000 gallons) containing volatile petroleum liquids whose true vapor pressure is greater than 1.0 psia but less than 1.52 psia.

2. Prohibition

- A. No owner or operator of a fixed roof storage vessel shall permit or suffer the use of such vessels unless:
 - (1) The vessels have been retrofitted with an internal floating roof equipped with a closure seal, or seals, to reduce the visual space between the roof edge and tank wall; or the vessels have been retrofitted with equally effective alternative control as approved by the Commissioner and the United States Environmental Protection Agency;
 - (2) The vessel is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials;
 - (3) All openings except stub drains are equipped with covers, lids, or seals such that:
 - (a) the cover, lid, or seal is in the closed position at all times except when in actual use;
 - (b) automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports; and

- (c) rim vents, if provided, are set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting;
 - (4) Routine visual inspections are conducted through roof hatches once every month; and
 - (5) A complete inspection of cover and seal is performed at least once every ten (10) years and each time the vessel is emptied and degassed. These inspections shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seals from within the storage vessel. The inspection may be performed entirely from the top side of the floating roof, as long as there is visual access to all deck components.
- B.** Between January 1, 2000 and December 31, 2003, the Department shall be notified seventy-two (72) hours in advance of plans to empty and degas any storage vessel, and no owner or operator of any fixed roof storage vessel shall empty and degas any storage vessel for the purpose of performing a complete inspection on those days for which the Department has issued an ozone health warning pursuant to 38 MRSA §584-F.
- C.** Beginning January 1, 2004, no owner or operator of any fixed roof storage vessel shall empty and degas any storage vessel for the purpose of performing a complete inspection between June 1 and August 31 of each calendar year.
- D.** Notwithstanding subsections (2)(B) and (2)(C) of this Chapter, an owner or operator may empty and degas a fixed roof storage vessel for the purpose of performing a repair which is immediately necessary for the proper function of the vessel. An owner or operator must notify the Department within 24 hours if a fixed roof storage vessel is emptied and degassed under this section.
- 3. Emission Testing.** The determination of compliance under this section may be made by visual inspection of the floating cover through the roof hatches by Department staff or other qualified representatives of the Department. The source shall be found in compliance if:
- A.** The seal has no visible holes, tears, or other openings and is uniformly in place around the circumference of the cover between the cover and tank well;
 - B.** The cover is uniformly floating on or above the liquid and there are no visible holes, tears, or other openings in the surface of the cover and no liquid is accumulated on the cover; and
 - C.** All records are being properly maintained.
- 4. Transition Schedule.** The owner or operator of fixed-roof petroleum storage vessels located in Air Quality Control Regions III, IV and V shall have until July 1, 1991, to comply with the requirements under subsection (2)(A). In Air Quality Control Regions III, IV and V, the owner or operator of a fixed-roof petroleum storage vessel without a floating roof or other acceptable volatile organic compound emission control equipment shall adhere to the increments of progress contained in the following schedule and shall report to the department within 15 days of the prescribed deadline the status of compliance with each increment of progress.
- A.** Final plans for the floating roof, other necessary modifications or other acceptable volatile organic compound emission control equipment shall be submitted before November 1, 1989.

- B.** Contracts for installation of the floating roof, other modifications or other acceptable volatile organic compound emission control equipment or purchase orders for component parts shall be issued before March 1, 1990.
- C.** Initiation of on-site construction or installation of acceptable volatile organic compound emission control equipment shall begin before July 1, 1990.
- D.** Final compliance shall be achieved before July 1, 1991.

5. Records

- A.** The owner or operator of a fixed roof storage vessel governed by this regulation shall assure the following records are maintained for a minimum of two years. These records shall be available for inspection during normal business hours and copies shall be provided to the Commissioner or his representative upon request:
 - (1) Reports of the results of inspections conducted under subsections (2)(A)(4) and (2)(A)(5);
 - (2) A record of the monthly throughput quantities and types of volatile petroleum liquids for each storage vessel and period of storage; and
 - (3) Records of the average monthly storage temperatures and true vapor pressures of volatile petroleum liquids stored.
- B.** The owner or operator of a fixed roof storage vessel with capacity greater than 150,000 liters (39,000 gallons) containing volatile petroleum liquids whose true vapor pressure is greater than 1.0 psia but less than 1.52 psia. shall assure the following records are maintained for a minimum of two years. These records shall be available for inspection during normal business hours and copies shall be provided to the Commissioner or his representative upon request:
 - (1) Records of the average monthly storage temperatures, the type of petroleum liquid, and maximum true vapor pressures of volatile petroleum liquids stored.

AUTHORITY: 38 M.R.S.A., Section 585, 585-A

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