

Environmental Protection Agency

§ 63.1061

§ 63.1050 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§ 63.1040 and 63.1042 through 63.1045. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions of subpart DD of this part.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37355, June 23, 2003]

Subpart WW—National Emission Standards for Storage Vessels (Tanks)—Control Level 2

SOURCE: 64 FR 34918, June 29, 1999, unless otherwise noted.

§ 63.1060 Applicability.

The provisions of this subpart apply to the control of air emissions from

storage vessels for which another subpart references the use of this subpart for such air emission control. These air emission standards for storage vessels are placed here for administrative convenience and only apply to those owners and operators of facilities subject to a referencing subpart. The provisions of subpart A (General Provisions) of this part do not apply to this subpart except as noted in the referencing subpart.

§ 63.1061 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in this section.

Capacity means the volume of liquid that is capable of being stored in a vessel, determined by multiplying the vessel's internal cross-sectional area by the internal height of the shell.

Deck cover means a device which covers an opening in a floating roof deck. Some deck covers move horizontally relative to the deck (i.e., a sliding cover).

Empty or *emptying* means the partial or complete removal of stored liquid from a storage vessel. Storage vessels that contain liquid only as wall or bottom clingage, or in pools due to bottom irregularities, are considered completely empty.

External floating roof or *EFR* means a floating roof located in a storage vessel without a fixed roof.

Fill or *filling* means the introduction of liquid into a storage vessel, but not necessarily to capacity.

Fixed roof means a roof that is mounted (i.e., permanently affixed) on a storage vessel and that does not move with fluctuations in stored liquid level.

Flexible fabric sleeve seal means a seal made of an elastomeric fabric (or other material) which covers an opening in a floating roof deck, and which allows the penetration of a fixed roof support column. The seal is attached to the rim of the deck opening and extends to the outer surface of the column. The seal is draped (but does not contact the stored liquid) to allow the horizontal movement of the deck relative to the column.

Floating roof means a roof that floats on the surface of the liquid in a storage

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vessel. A floating roof substantially covers the stored liquid surface (but is not necessarily in contact with the entire surface), and is comprised of a deck, a rim seal, and miscellaneous deck fittings.

Initial fill or initial filling means the first introduction of liquid into a storage vessel that is either newly constructed or has not been in liquid service for a year or longer.

Internal floating roof or IFR means a floating roof located in a storage vessel with a fixed roof. For the purposes of this subpart, an external floating roof located in a storage vessel to which a fixed roof has been added is considered to be an internal floating roof.

Liquid-mounted seal means a resilient or liquid-filled rim seal designed to contact the stored liquid.

Mechanical shoe seal or metallic shoe seal means a rim seal consisting of a band of metal (or other suitable material) as the sliding contact with the wall of the storage vessel, and a fabric seal to close the annular space between the band and the rim of the floating roof deck. The band is typically formed as a series of sheets (shoes) that are overlapped or joined together to form a ring. The lower end of the band extends into the stored liquid.

Pole float means a float located inside a guidepole that floats on the surface of the stored liquid. The rim of the float has a wiper or seal that extends to the inner surface of the pole.

Pole sleeve means a device which extends from either the cover or the rim of an opening in a floating roof deck to the outer surface of a pole that passes through the opening. The sleeve extends into the stored liquid.

Pole wiper means a seal that extends from either the cover or the rim of an opening in a floating roof deck to the outer surface of a pole that passes through the opening.

Referencing subpart means the subpart that refers an owner or operator to this subpart.

Rim seal means a device attached to the rim of a floating roof deck that spans the annular space between the deck and the wall of the storage vessel. When a floating roof has only one such device, it is a primary seal; when there are two seals (one mounted above the

other), the lower seal is the primary seal and the upper seal is the secondary seal.

Slotted guidepole means a guidepole or gaugepole that has slots or holes through the wall of the pole. The slots or holes allow the stored liquid to flow into the pole at liquid levels above the lowest operating level.

Storage vessel or Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

Vapor-mounted seal means a rim seal designed not to be in contact with the stored liquid. Vapor-mounted seals may include, but are not limited to, resilient seals and flexible wiper seals.

§63.1062 Storage vessel control requirements.

(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with one of the requirements listed in paragraphs (a)(1) through (a)(3) of this section.

(1) Operate and maintain an IFR.

(2) Operate and maintain an EFR.

(3) *Equivalent requirements.* Comply with an equivalent to the requirements in paragraph (a)(1) or (a)(2) of this section, as provided in §63.1064.

(b) [Reserved]

§63.1063 Floating roof requirements.

The owner or operator who elects to use a floating roof to comply with the requirements of §63.1062 shall comply with the requirements in paragraphs (a) through (e) of this section.

(a) *Design requirements*—(1) *Rim seals.*

(i) *Internal floating roof.* An IFR shall be equipped with one of the seal configurations listed in paragraphs (a)(1)(i)(A) through (a)(1)(i)(C) of this section.

(A) A liquid-mounted seal.

(B) A mechanical shoe seal.

(C) Two seals mounted one above the other. The lower seal may be vapor-mounted.

(D) If the IFR is equipped with a vapor-mounted seal as of the proposal date for a referencing subpart, paragraphs (a)(1)(i)(A) through (a)(1)(i)(C) of this section do not apply until the next

time the storage vessel is completely emptied and degassed, or 10 years after promulgation of the referencing subpart, whichever occurs first.

(ii) *External floating roof.* An EFR shall be equipped with one of the seal configurations listed in paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this section.

(A) A liquid-mounted seal and a secondary seal.

(B) A mechanical shoe seal and a secondary seal. The upper end of the shoe(s) shall extend a minimum of 61 centimeters (24 inches) above the stored liquid surface.

(C) If the EFR is equipped with a liquid-mounted seal or mechanical shoe seal, or a vapor-mounted seal and secondary seal, as of the proposal date for a referencing subpart, the seal options specified in paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this section do not apply until the next time the storage vessel is completely emptied and degassed, or 10 years after the promulgation date of the referencing subpart, whichever occurs first.

(2) *Deck fittings.* Openings through the deck of the floating roof shall be equipped as described in paragraphs (a)(2)(i) through (a)(2)(viii) of this section.

(i) Each opening except those for automatic bleeder vents (vacuum breaker vents) and rim space vents shall have its lower edge below the surface of the stored liquid.

(ii) Each opening except those for automatic bleeder vents (vacuum breaker vents), rim space vents, leg sleeves, and deck drains shall be equipped with a deck cover. The deck cover shall be equipped with a gasket between the cover and the deck.

(iii) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be equipped with a gasketed lid, pallet, flapper, or other closure device.

(iv) Each opening for a fixed roof support column may be equipped with a flexible fabric sleeve seal instead of a deck cover.

(v) Each opening for a sample well or deck drain (that empties into the stored liquid) may be equipped with a slit fabric seal or similar device that

covers at least 90 percent of the opening, instead of a deck cover.

(vi) Each cover on access hatches and gauge float wells shall be designed to be bolted or fastened when closed.

(vii) Each opening for an unslotted guidepole shall be equipped with a pole wiper, and each unslotted guidepole shall be equipped with a gasketed cap on the top of the guidepole.

(viii) Each opening for a slotted guidepole shall be equipped with one of the control device configurations specified in paragraphs (a)(2)(viii)(A) and (a)(2)(viii)(B) of this section.

(A) A pole wiper and a pole float. The wiper or seal of the pole float shall be at or above the height of the pole wiper.

(B) A pole wiper and a pole sleeve.

(ix) If the floating roof does not meet the requirements listed in paragraphs (a)(2)(i) through (a)(2)(viii) of this section as of the proposal date of the referencing subpart, these requirements do not apply until the next time the vessel is completely emptied and degassed, or 10 years after the promulgation date of the referencing subpart, whichever occurs first.

(b) *Operational requirements.* (1) The floating roof shall float on the stored liquid surface at all times, except when the floating roof is supported by its leg supports or other support devices (e.g., hangers from the fixed roof).

(2) When the storage vessel is storing liquid, but the liquid depth is insufficient to float the floating roof, the process of filling to the point of re-floating the floating roof shall be continuous and shall be performed as soon as practical.

(3) Each cover over an opening in the floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall be closed at all times, except when the cover must be open for access.

(4) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design.

(5) Each unslotted guidepole cap shall be closed at all times except when gauging the liquid level or taking liquid samples.

(c) *Inspection frequency requirements—*
 (1) *Internal floating roofs.* Internal floating roofs shall be inspected as specified in paragraph (d)(1) of this section before the initial filling of the storage vessel. Subsequent inspections shall be performed as specified in paragraph (c)(1)(i) or (c)(1)(ii) of this section.

(i) Internal floating roofs shall be inspected as specified in paragraphs (c)(1)(i)(A) and (c)(1)(i)(B) of this section.

(A) At least once per year the IFR shall be inspected as specified in paragraph (d)(2) of this section.

(B) Each time the storage vessel is completely emptied and degassed, or every 10 years, whichever occurs first, the IFR shall be inspected as specified in paragraph (d)(1) of this section.

(ii) Instead of the inspection frequency specified in paragraph (c)(1)(i) of this section, internal floating roofs with two rim seals may be inspected as specified in paragraph (d)(1) of this section each time the storage vessel is completely emptied and degassed, or every 5 years, whichever occurs first.

(2) *External floating roofs.* External floating roofs shall be inspected as specified in paragraphs (c)(2)(i) through (c)(2)(iv) of this section.

(i) Within 90 days after the initial filling of the storage vessel, the primary and secondary rim seals shall be inspected as specified in paragraph (d)(3) of this section.

(ii) The secondary seal shall be inspected at least once every year, and the primary seal shall be inspected at least every 5 years, as specified in paragraph (d)(3) of this section.

(iii) Each time the storage vessel is completely emptied and degassed, or every 10 years, whichever occurs first, the EFR shall be inspected as specified in paragraph (d)(1) of this section.

(iv) If the owner or operator determines that it is unsafe to perform the floating roof inspections specified in paragraphs (c)(2)(i) and (c)(2)(ii) of this section, the owner or operator shall comply with the requirements of paragraph (c)(2)(iv)(A) or (c)(2)(iv)(B) of this section.

(A) The inspections shall be performed no later than 30 days after the determination that the floating roof is unsafe.

(B) The storage vessel shall be removed from liquid service no later than 45 days after determining the floating roof is unsafe. If the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional days each. If the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include an explanation of why it was unsafe to perform the inspection, documentation that alternative storage capacity is unavailable, and a schedule of actions that will ensure that the vessel will be emptied as soon as practical.

(d) *Inspection procedure requirements.* Floating roof inspections shall be conducted as specified in paragraphs (d)(1) through (d)(3) of this section, as applicable. If a floating roof fails an inspection, the owner or operator shall comply with the repair requirements of paragraph (e) of this section.

(1) Floating roof (IFR and EFR) 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 specified in paragraph (a) of this section. Any of the conditions described in paragraphs (d)(1)(i) through (d)(1)(v) of this section constitutes inspection failure.

(i) Stored liquid on the floating roof.

(ii) Holes or tears in the primary or secondary seal (if one is present).

(iii) Floating roof deck, deck fittings, or rim seals that are not functioning as designed (as specified in paragraph (a) of this section).

(iv) Failure to comply with the operational requirements of paragraph (b) of this section.

(v) Gaps of more than 0.32 centimeters ($\frac{1}{8}$ inch) between any deck fitting gasket, seal, or wiper (required by paragraph (a) of this section) and any surface that it is intended to seal.

(2) Tank-top inspections of IFR's shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seal through openings in

the fixed roof. Any of the conditions described in paragraphs (d)(1)(i) through (d)(1)(iv) of this section constitutes inspection failure. Identification of holes or tears in the rim seal is required only for the seal that is visible from the top of the storage vessel.

(3) Seal gap inspections for EFR's shall determine the presence and size of gaps between the rim seals and the wall of the storage vessel by the procedures specified in paragraph (d)(3)(i) of this section. Any exceedance of the gap requirements specified in paragraphs (d)(3)(ii) and (d)(3)(iii) of this section constitutes inspection failure.

(i) Rim seals shall be measured for gaps at one or more levels while the EFR is floating, as specified in paragraphs (d)(3)(i)(A) through (d)(3)(i)(F) of this section.

(A) The inspector shall hold a 0.32 centimeter ($\frac{1}{8}$ inch) diameter probe vertically against the inside of the storage vessel wall, just above the rim seal, and attempt to slide the probe down between the seal and the vessel wall. Each location where the probe passes freely (without forcing or binding against the seal) between the seal and the vessel wall constitutes a gap.

(B) The length of each gap shall be determined by inserting the probe into the gap (vertically) and sliding the probe along the vessel wall in each direction as far as it will travel freely without binding between the seal and the vessel wall. The circumferential length along which the probe can move freely is the gap length.

(C) The maximum width of each gap shall be determined by inserting probes of various diameters between the seal and the vessel wall. The smallest probe diameter should be 0.32 centimeter, and larger probes should have diameters in increments of 0.32 centimeter. The diameter of the largest probe that can be inserted freely anywhere along the length of the gap is the maximum gap width.

(D) The average width of each gap shall be determined by averaging the minimum gap width (0.32 centimeter) and the maximum gap width.

(E) The area of a gap is the product of the gap length and average gap width.

(F) The ratio of accumulated area of rim seal gaps to storage vessel diameter shall be determined by adding the area of each gap, and dividing the sum by the nominal diameter of the storage vessel. This ratio shall be determined separately for primary and secondary rim seals.

(ii) The ratio of seal gap area to vessel diameter for the primary seal shall not exceed 212 square centimeters per meter of vessel diameter (10 square inches per foot of vessel diameter), and the maximum gap width shall not exceed 3.81 centimeters (1.5 inches).

(iii) The ratio of seal gap area to vessel diameter for the secondary seal shall not exceed 21.2 square centimeters per meter (1 square inch per foot), and the maximum gap width shall not exceed 1.27 centimeters (0.5 inches), except when the secondary seal must be pulled back or removed to inspect the primary seal.

(e) *Repair requirements.* Conditions causing inspection failures under paragraph (d) of this section shall be repaired as specified in paragraph (e)(1) or (e)(2) of this section.

(1) If the inspection is performed while the storage vessel is not storing liquid, repairs shall be completed before the refilling of the storage vessel with liquid.

(2) If the inspection is performed while the storage vessel is storing liquid, repairs shall be completed or the vessel removed from service within 45 days. If a repair cannot be completed and the vessel cannot be emptied within 45 days, the owner or operator may use up to 2 extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be completely emptied as soon as practical.

§ 63.1064 Alternative means of emission limitation.

(a) An alternate control device may be substituted for a control device specified in § 63.1063 if the alternate device has an emission factor less than or

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equal to the emission factor for the device specified in § 63.1063. Requests for the use of alternate devices shall be made as specified in § 63.1066(b)(3). Emission factors for the devices specified in § 63.1063 are published in EPA Report No. AP-42, Compilation of Air Pollutant Emission Factors.

(b) Tests to determine emission factors for an alternate device shall accurately simulate conditions under which the device will operate, such as wind, temperature, and barometric pressure. Test methods that can be used to perform the testing required in this paragraph include, but are not limited to, the methods listed in paragraphs (b)(1) through (b)(3) of this section.

(1) American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 19, Section 3, Part A, Wind Tunnel Test Method for the Measurement of Deck-Fitting Loss Factors for External Floating-Roof Tanks.

(2) API Manual of Petroleum Measurement Standards, Chapter 19, Section 3, Part B, Air Concentration Test Method for the Measurement of Rim Seal Loss Factors for Floating-Roof Tanks.

(3) API Manual of Petroleum Measurement Standards, Chapter 19, Section 3, Part E, Weight Loss Test Method for the Measurement of Deck-Fitting Loss Factors for Internal Floating-Roof Tanks.

(c) An alternate combination of control devices may be substituted for any combination of rim seal and deck fitting control devices specified in § 63.1063 if the alternate combination emits no more than the combination specified in § 63.1063. The emissions from an alternate combination of control devices shall be determined using AP-42 or as specified in paragraph (b) of this section. The emissions from a combination of control devices specified in § 63.1063 shall be determined using AP-42. Requests for the use of alternate devices shall be made as specified in § 63.1066(b)(3).

§ 63.1065 Recordkeeping requirements.

The owner or operator shall keep the records required in paragraph (a) of this section for as long as liquid is stored. Records required in paragraphs

(b), (c) and (d) of this section shall be kept for at least 5 years. Records shall be kept in such a manner that they can be readily accessed within 24 hours. Records may be kept in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(a) *Vessel dimensions and capacity.* A record shall be kept of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.

(b) *Inspection results.* Records of floating roof inspection results shall be kept as specified in paragraphs (b)(1) and (b)(2) of this section.

(1) If the floating roof passes inspection, a record shall be kept that includes the information specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section. If the floating roof fails inspection, a record shall be kept that includes the information specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section.

(i) Identification of the storage vessel that was inspected.

(ii) The date of the inspection.

(iii) A description of all inspection failures.

(iv) A description of all repairs and the dates they were made.

(v) The date the storage vessel was removed from service, if applicable.

(2) A record shall be kept of EFR seal gap measurements, including the raw data obtained and any calculations performed.

(c) *Floating roof landings.* The owner or operator shall keep a record of the date when a floating roof is set on its legs or other support devices. The owner or operator shall also keep a record of the date when the roof was refloated, and the record shall indicate whether the process of refloating was continuous.

(d) An owner or operator who elects to use an extension in accordance with § 63.1063(e)(2) or § 63.1063(c)(2)(iv)(B) shall keep the documentation required by those paragraphs.

§ 63.1066 Reporting requirements.

(a) *Notification of initial startup.* If the referencing subpart requires that a notification of initial startup be filed,

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then the content of the notification of initial startup shall include (at a minimum) the information specified in the referencing subpart and the information specified in paragraphs (a)(1) and (a)(2) of this section.

(1) The identification of each storage vessel, its capacity and the liquid stored in the storage vessel.

(2) A statement of whether the owner or operator of the source can achieve compliance by the compliance date specified in referencing subpart.

(b) *Periodic reports.* Report the information specified in paragraphs (b)(1) through (b)(4) of this section, as applicable, in the periodic report specified in the referencing subpart.

(1) *Notification of inspection.* To provide the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator at least 30 days before an inspection required by §§ 63.1063(d)(1) or (d)(3). If an inspection is unplanned and the owner or operator could not have known about the inspection 30 days in advance, then the owner or operator shall notify the Administrator at least 7 days before the inspection. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 days before the inspection. If a delegated State or local agency is notified, the owner or operator is not required to notify the Administrator. A delegated State or local agency may waive the requirement for notification of inspections.

(2) *Inspection results.* The owner or operator shall submit a copy of the inspection record (required in § 63.1065) when inspection failures occur.

(3) *Requests for alternate devices.* The owner or operator requesting the use of an alternate control device shall submit a written application including emissions test results and an analysis demonstrating that the alternate device has an emission factor that is less than or equal to the device specified in § 63.1063.

(4) Requests for extensions. An owner or operator who elects to use an exten-

sion in accordance with § 63.1063(e)(2) or § 63.1063(c)(2)(iv)(B) shall submit the documentation required by those paragraphs.

§ 63.1067 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(1) Approval of alternatives to the nonopacity emissions standards in §§ 63.1062 and 63.1063(a) and (b) for alternative means of emission limitation, under § 63.6(g).

(2) [Reserved]

(3) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(4) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90.

(5) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

[67 FR 46279, July 12, 2002]

Subpart XX—National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations

SOURCE: 67 FR 46271, July 12, 2002, unless otherwise noted.