

Subpart Kb-Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

Applicability - §60.110b

Source	All Emissions
General	<ol style="list-style-type: none"> 1.) Each storage vessel with a capacity greater than or equal to 40 cubic meters (m³) that is used to store volatile organic liquids (VOL's) for which construction, reconstruction, or modification is commenced after July 23, 1984. 2.) Except as specified in paragraphs (a) and (b) of §60.116b, storage vessels with design capacity less than 75 m³ are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart. 3.) Except as specified in paragraphs (a) and (b) of §60.116b, vessels either with a capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart. 4.) This subpart does not apply to the following: <ol style="list-style-type: none"> a.) Vessels at coke oven by-product plants. b.) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere. c.) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships. d.) Vessels with a design capacity less than or equal to 1,589.874 m³ used for petroleum or condensate stored, processed, or treated prior to custody transfer. e.) Vessels located at bulk gasoline plants. f.) Storage vessels located at gasoline service stations. g.) Vessels used to store beverage alcohol.

Standard for volatile organic compounds (VOC) - §60.112b

Storage vessel either with a design capacity greater than or equal to 151 m ³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m ³ but less than 151 m ³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa	Facility shall equip each storage vessel with one of the following: <ol style="list-style-type: none"> 1.) A fixed roof in combination with an internal floating roof meeting the specifications found in §60.112b (a) (1). 2.) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the specifications found in §60.112b (a) (2). 3.) A closed vent system and control device meeting the specifications found in §60.112b (a) (3). 4.) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.
Storage vessel with a design capacity greater than or equal to 75 m ³ which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa.	Facility shall equip each storage vessel with one of the following: <ol style="list-style-type: none"> 1.) A closed vent system and control device as specified in §60.112b(a)(3). 2.) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

Testing and procedures - § 60.113b

Source	All Emissions
Facility with a permanently affixed roof or internal floating roof	<p>Facility shall:</p> <ol style="list-style-type: none"> 1.) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. See §60.113b (a)(1) for specific requirements. 2.) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. See §60.113b (a)(2) for specific requirements. 3.) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B), visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or visually inspect the vessel as specified in paragraph (a)(2) of this section. 4.) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. See §60.113b (a)(4) for specific requirements. 5.) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. See §60.113b (a)(5) for specific requirements.
Facility with an external floating roof	<p>Facility shall:</p> <ol style="list-style-type: none"> 1.) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the frequency given in §60.113b (b)(1). 2. Determine gap widths and areas in the primary and secondary seals individually by the procedures found in §60.113b (b)(2). 3.) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section. 4.) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements found in §60.113b (b)(4). 5.) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present. 6.) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. See §60.113b (b)(6) for specific requirements.
Facility equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2)	<ol style="list-style-type: none"> 1.) Facility is exempt from §60.8 of the General Provisions 2.) Facility shall meet the following requirements: <ol style="list-style-type: none"> a.) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information found in §60.113b (c) (1). b.) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.
Facility equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2)	Facility shall meet the requirements as specified in the general control device requirements, §60.18 (e) and (f).

Alternative means of emission limitation - §60.114b

Source	All Emissions
General	<ol style="list-style-type: none"> 1.) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement. 2.) Any notice under paragraph (1) of this section will be published only after notice and an opportunity for a hearing. 3.) Any person seeking permission under this section shall submit to the Administrator a written application including the information found in §60.114b (c)

Reporting and recordkeeping requirements - §60.115b

Source	All Emissions
General	<ol style="list-style-type: none"> 1.) Facility shall keep records and furnish reports as required below depending upon the control equipment installed to meet the requirements of §60.112b. 2.) Facility shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by §60.115b (c) (1) will be kept for the life of the control equipment.
Facility with a permanently affixed roof or internal floating roof	<ol style="list-style-type: none"> 1.) Facility shall furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3). 2.) Facility shall keep a record of each inspection performed as required by §60.113b (a)(1-4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 3.) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. 4.) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.
Facility with an external floating roof	<ol style="list-style-type: none"> 1.) Facility shall furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2-4). This report shall be an attachment to the notification required by §60.7(a)(3). 2.) Facility shall within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains the information found in §60.115b(b)(2). 3.) Facility shall keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain the information found in §60.115b(b)(3).

Facility equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2)	<ol style="list-style-type: none"> 1.) Facility shall keep a copy of the operating plan. 2.) Facility shall keep a record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).
Facility equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2)	<ol style="list-style-type: none"> 1.) Facility shall keep a report containing the measurements required by §60.18(f) (1-6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date. 2.) Facility records shall be kept of all periods of operation during which the flare pilot flame is absent. 3.) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

Monitoring of operations - §60.116b

Source	All Emissions
General	<ol style="list-style-type: none"> 1.) Facility shall keep copies of all records required by this section, except for the record required by paragraph (2) of this section, for at least 2 years. The record required by paragraph (2) of this section will be kept for the life of the source. 2.) Facility as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m³ is subject to no provision of this subpart other than those required by this paragraph. 3.) Facilities either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. 4.) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. 5.) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined in §60.116b (e). 6.) Facilities storing a waste mixture of indeterminate or variable composition shall be subject to the requirements found in §60.116b (f). 7.) Facilities equipped with a closed vent system and control device meeting the specifications of §60.112b is exempt from the requirements of §60.116b (c) and (d).