TITLE 326 AIR POLLUTION CONTROL BOARD

LSA Document #95-64(F)

DIGEST

Adds 326 IAC 8-9 to limit emissions of volatile organic compounds (VOC) from stationary vessels used to store volatile organic liquid (VOL) in Clark, Floyd, Lake, or Porter County.

Effective 30 days after filing with the secretary of state.

HISTORY

First Notice of Comment Period: May 1, 1994, Indiana Register (17 IR 1968).

Second Notice of Comment Period: December 1, 1994, Indiana Register (18 IR 601).

Notice of First Hearing: December 1, 1994, Indiana Register (18 IR 607).

Date of First Hearing: March 1, 1995.

Date of Preliminary Adoption: March 1, 1995.

Proposed Rule: April 1, 1995, Indiana Register (18 IR 1854).

Notice of Second Hearing: April 1, 1995, Indiana Register (18 IR 1861).

Date of Second Hearing: May 3, 1995.

326 IAC 8-9

SECTION 1. 326 IAC 8-9 IS ADDED TO READ AS FOLLOWS:

Rule 9. Volatile Organic Liquid Storage Vessels

326 IAC 8-9-1 Applicability

Authority: IC 13-1-1-4; IC 13-7-7-1
Affected: IC 13-1-1

Sec. 1. (a) On and after October 1, 1995, this rule applies to stationary vessels used to store volatile organic liquid (VOL) that are located in Clark, Floyd, Lake, or Porter County.

(b) Stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons are subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and are exempt from all other provisions of this rule.

(c) Stationary vessels with a capacity equal to or greater than thirty-nine thousand (39,000) gallons that store a VOL with a maximum true vapor pressure equal to or greater than five-tenths (0.5) pound per square inch absolute (psia) but less than seventy-five hundredths (0.75) psia are subject to the provisions of section 6(a), 6(b), 6(g), and 6(h) of this rule and are exempt from all other provisions of this rule. *(Air Pollution Control Board; 326 IAC 8-9-1; filed Dec 19, 1995, 3:10 p.m.: 19 IR 1056)*

326 IAC 8-9-2 Exemptions

Authority: IC 13-1-1-4; IC 13-7-7-1
Affected: IC 13-1-1

Sec. 2. This rule does not apply to the following vessels:

(1) Vessels at coke oven byproduct plants.

(2) Pressure vessels designed to operate in excess of twenty-nine and four-tenths (29.4) pounds per square inch absolute and without emissions to the atmosphere.

(3) Vessels that are permanently attached to mobile vehicles such as trucks, rail cars, barges, or ships.

(4) Vessels with a design capacity less than or equal to four hundred twenty thousand (420,000) gallons used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

(8) Stationary vessels that are subject to any provision of 40 CFR 60*, Subpart Kb, New Source Performance Standard for Volatile Organic Liquid Storage.

***Copies of the Code of Federal Regulations (CFR) referenced may be obtained from the Government Printing Office, Washington, D.C. 20402 or the Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46204-2220.** *(Air Pollution Control Board; 326 IAC 8-9-2; filed Dec 19, 1995, 3:10 p.m.: 19 IR 1056)*

326 IAC 8-9-3 Definitions

Authority: IC 13-1-1-4; IC 13-7-7-1
Affected: IC 13-1-1

Sec. 3. The following definitions apply throughout this rule:

(1) "Condensate" means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

(2) "Custody transfer" means the transfer of produced petroleum and condensate, or both, after processing or treatment, or both, in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

(3) "Fill" means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

(4) "Gasoline service station" means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage vessels.

(5) "Maximum true vapor pressure" means the equilibrium partial pressure exerted by a volatile organic liquid. The maximum true vapor pressure of VOLs stored at or above the ambient temperature shall correspond to the highest calendar month average storage temperature and shall be determined as follows:

(A) Maximum true vapor pressure for VOLs stored at or above using the ambient temperature shall be determined using the following procedures:

(i) For gasolines and naphtha, either of the following:

(AA) Figures 17A and 17B, American Petroleum Institute Publication 2517, Third Edition, February 1989, with addendum, May 1994*.

(BB) Figure 4.3-6, AP-42, Compilation of Air Pollutant Emission Factors, Volume I (Station-

ary Point and Area Sources), Fourth Edition, September 1985*.

(ii) For crude oils, either of the following:

(AA) Figures 18A and 18B, American Petroleum Institute Publication 2517, Third Edition, February 1989, with addendum, May 1994*.

(BB) Figure 4.3-5, AP-42, Compilation of Air Pollutant Emission Factors, Volume I (Stationary Point and Area Sources), Fourth Edition, September 1995*.

(iii) For VOLs, other than those in item (i) or (ii), procedures on page D-146, Vapor Pressures, Critical Temperatures, and Critical Pressures of Organic Compounds, Handbook of Chemistry and Physics, 51st Edition, 1970-1971, Chemical Rubber Company*.

(iv) Maximum true vapor pressure for VOLs stored at or above ambient temperatures shall be determined at the following temperatures:

(AA) In Lake and Porter Counties, seventy-three degrees Fahrenheit (73°F).

(BB) In Clark and Floyd Counties, seventy-seven and seven-tenths degrees Fahrenheit (77.7°F).

(B) Alternatively, the owner or operator or the department and the U.S. EPA may require measurement of vapor pressure. ASTM Method D323-92* or a method acceptable to the department and U.S. EPA shall be used. If a discrepancy exists between the results obtained from methods in clause (A) and methods used in this clause, the results in this clause shall prevail.

(6) "Petroleum" means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(7) "Petroleum liquids" means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

(8) "Reid vapor pressure" means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases as determined by the following methods:

(A) For gasoline, only, ASTM D323-82*.

(B) For gasoline-ethanol blends, ASTM D-5190*, ASTM D-5191*, ASTM 5482*.

(9) "Vessel" means each tank, reservoir, or container used for the storage of VOLs but does not include either of the following:

(A) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors.

(B) Subsurface caverns or porous rock reservoirs.

(10) "Volatile organic liquid" or "VOL" means any organic liquid that can emit volatile organic compounds (VOCs) into the atmosphere except those VOLs that emit only those compounds that the department has determined do not contribute appreciably to the formation of ozone.

(11) "Waste" means any liquid resulting from industrial, commercial, mining, or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

*Copies of Figures 17A and 17B, American Petroleum Institute Publication 2517, Third Edition, February 1989, with addendum, May 1994; Figure 4.3-6, AP-42, Compilation of Air Pollutant Emission Factors, Volume I (Stationary Point and Area Sources), Fourth Edition, September 1985; Figures 18A and 18B, American Petroleum Institute Publication 2517, Third Edition, February 1989, with addendum, May 1994; Figure 4.3-5, AP-42, Compilation of Air Pollutant Emission Factors, Volume I (Stationary Point and Area Sources), Fourth Edition, September 1995; Procedures on page D-146, Vapor Pressures, Critical Temperatures, and Critical Pressures of Organic Compounds, Handbook of Chemistry and Physics, 51st Edition, 1970-1971, Chemical Rubber Company; ASTM Method D323-92; ASTM D323-82; ASTM D-5190; ASTM D-191; and ASTM 5482 referenced may be obtained from the Government Printing Office, Washington, D.C. 20402 or the Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46204-2220. *(Air Pollution Control Board; 326 IAC 8-9-3; filed Dec 19, 1995, 3:10 p.m.: 19 IR 1056, errata filed Dec 19, 1995, 3:15 p.m.: 19 IR 1141)*

326 IAC 8-9-4 Standards

Authority: IC 13-1-1-4; IC 13-7-7-1

Affected: IC 13-1-1

Sec. 4. (a) The owner or operator of each vessel with a capacity greater than or equal to thirty-nine thousand (39,000) gallons, that stores VOL with a maximum true vapor pressure greater than or equal to seventy-five hundredths (0.75) pound per square inch absolute (psia) but less than eleven and one-tenth (11.1) psia shall do the following:

(1) On or before May 1, 1996, for each vessel having a permanently affixed roof, install one (1) of the following:

(A) An internal floating roof meeting the standards in subsection (c).

(B) A closed vent system and control device meeting the standards in subsection (d).

(C) An equivalent emissions control system resulting in equivalent emissions reductions to that obtained in clause (A).

(2) For each vessel having an internal floating roof, install one (1) of the following:

(A) At the time of the next scheduled cleaning, but not later than ten (10) years after May 1, 1996, an internal floating roof meeting the standards in subsection (c).

(B) On or before May 1, 1996, a closed vent system and

control device meeting the standards in subsection (d).

(C) On or before May 1, 1996, an equivalent emissions control system resulting in equivalent emissions reductions to that obtained in clause (A).

(3) For each vessel having an external floating roof, install one (1) of the following:

(A) At the time of the next scheduled cleaning, but not later than ten (10) years after May 1, 1996, an external floating roof meeting the standards in subsection (e).

(B) On or before May 1, 1996, a closed vent system meeting the standards in subsection (d).

(C) On or before May 1, 1996, an equivalent emissions control system resulting in equivalent emissions reductions to that obtained in clause (A).

(4) For each vessel subject to this subsection, the owner or operator described in the report required in section 6(b) of this rule, install one (1) of the following:

(A) Emission control equipment.

(B) A schedule for vessel cleaning and installation of emission control equipment.

(b) On or before May 1, 1996, the owner or operator of each vessel with a capacity greater than or equal to thirty-nine thousand (39,000) gallons, that stores VOL with a maximum true vapor pressure greater than or equal to eleven and one-tenth (11.1) psia shall equip each vessel with a closed vent system with a control device meeting the standards of subsection (d).

(c) Standards applicable to each internal floating roof are as follows:

(1) The internal floating roof shall float on the liquid surface, but not necessarily in complete contact with it, inside a vessel that has a permanently affixed roof.

(2) The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the vessel is completely emptied or subsequently emptied and refilled.

(3) When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(4) Each internal floating roof shall be equipped with one (1) of the following closure devices between the wall of the vessel and the edge of the internal floating roof:

(A) A foam or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal).

(B) Two (2) seals mounted one (1) above the other so that each forms a continuous closure that completely covers the space between the wall of the vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal that consists of a metal sheet held vertically against the wall of the vessel by springs or weighted levers and that is connected by braces to the floating roof. A flexible coated fabric, or envelope, spans the annular space between the metal sheet and the floating roof.

(5) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents shall provide a projection below the liquid surface.

(6) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid that shall be maintained in a closed position at all times (with no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(7) Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(8) Rim space vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(9) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least ninety percent (90%) of the opening.

(10) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(d) Standards applicable to each closed vent system and control device are as follows:

(1) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the vessel and operated with no detectable emission as indicated by an instrument reading of less than five hundred (500) parts per million (ppm) above background and visual inspections as determined by the methods specified in 40 CFR 60, Subpart VV, 60.485(C)*.

(2) The control device shall be designed and operated to reduce inlet VOC emissions by ninety-five percent (95%) or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements in 40 CFR 60.18, General Provisions*.

(e) Standards applicable to each external floating roof are as follows:

(1) Each external floating roof shall be equipped with a closure device between the wall of the vessel and the roof edge. The closure device shall consist of two (2) seals, one (1) above the other. The lower seal shall be referred to as the primary seal; the upper seal shall be referred to as

the secondary seal.

(2) Except as provided in section 5(c)(4) of this rule, the primary seal shall completely cover the annular space between the edge of the floating roof and vessel wall and shall be either a liquid-mounted seal or a shoe seal.

(3) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the vessel in a continuous fashion except as allowed in section 5(c)(4) of this rule.

(4) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(5) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times, without visible gap, except when the device is in actual use.

(6) Automatic bleeder vents shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(7) Rim vents shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents shall be gasketed.

(8) Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least ninety percent (90%) of the area of the opening.

(9) The roof shall be floating on the liquid at all times, for example, off the roof leg supports, except when the vessel is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

*Copies of 40 CFR 60, Subpart VV, 60.485(C); and 40 CFR 60.18, General Provisions referenced may be obtained from the Government Printing Office, Washington, D.C. 20402 or the Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46204-2220. *(Air Pollution Control Board; 326 IAC 8-9-4; filed Dec 19, 1995, 3:10 p.m.: 19 IR 1057)*

326 IAC 8-9-5 Testing and procedures

Authority: IC 13-1-1-4; IC 13-7-7-1
Affected: IC 13-1-1

Sec. 5. (a) The owner or operator of each vessel subject to section 4(a) of this rule shall meet the requirements of subsection (b), (c), or (d).

(b) On and after May 1, 1996, except as provided in section 4(a)(2) of this rule, the owner or operator of each vessel equipped with an internal floating roof shall meet the following requirements:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal, if one is in service, prior to filling the vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the vessel.

(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 twelve (12) months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the vessel from service within forty-five (45) days. If a failure that is detected during inspections required in this section cannot be repaired in forty-five (45) days and if the vessel cannot be emptied within forty-five (45) days, a thirty (30) day extension may be requested from the department in the inspection report required in section 6(c)(3) of this rule. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with both primary and secondary seals:

(A) visually inspect the vessel as specified in subdivision (4), at least every five (5) years; or

(B) visually inspect the vessel as specified in subdivision (2).

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals each time the vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than ten percent (10%) open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this subdivision exist before refilling the vessel with VOL. In no event shall the inspections required by this subsection occur at intervals greater than ten (10) years in the case of vessels conducting the annual visual inspection as specified in subdivisions (2) and (3)(B) and at intervals no greater than five (5) years in the case of vessels specified in subdivision (3)(A).

(5) Notify the department in writing at least thirty (30) days prior to the filling or refilling of each vessel for

which an inspection is required by subdivisions (1) and (4) to afford the department the opportunity to have an observer present. If the inspection required by subdivision (4) is not planned and the owner or operator could not have known about the inspection thirty (30) days in advance of refilling the vessel, the owner or operator shall notify the department at least seven (7) days prior to the refilling of the vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, may be made in writing and sent by express mail so that it is received by the department at least seven (7) days prior to the refilling.

(c) On and after May 1, 1996, except as provided in section 4(a)(3) of this rule, the owner or operator of each vessel equipped with an external floating roof shall meet the following requirements:

(1) Determine the gap areas and maximum gap widths between the primary seal and the wall of the vessel and between the secondary seal and the wall of the vessel according to the following frequency:

(A) Measurements of gaps between the vessel wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within sixty (60) days of the initial fill with VOL and at least once every five (5) years thereafter.

(B) Measurements of gaps between the vessel wall and the secondary seal shall be performed within sixty (60) days of the initial fill with VOL and at least once per year thereafter.

(C) If any source ceases to store VOL for a period of one (1) year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for purposes of this subdivision.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(A) Measure seal gaps, if any, at one (1) 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 vessel in each place where a one-eighth (1/8) inch diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the vessel and measure the circumferential distance of each such location.

(C) The total surface area of each gap described in clause (B) shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(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 by the nominal diameter of the vessel and compare each ratio to the respective standards in subdivision (4).

(4) Make necessary repairs or empty the vessel within forty-five (45) days of identification of seals not meeting the requirements listed in clauses (A) and (B) as follows:

(A) The accumulated area of gaps between the vessel wall and the mechanical shoe or liquid-mounted primary seal shall not exceed ten (10) square inches per foot of vessel diameter, and the width of any portion of any gap shall not exceed one and five-tenths (1.5) inches. There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(B) The secondary seal shall meet the following requirements:

(i) The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in subdivision (2)(C).

(ii) The accumulated area of gaps between the vessel wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal shall not exceed one (1) square inch per foot of vessel diameter, and the width of any portion of any gap shall not exceed five-tenths (0.5) inch. There shall be no gaps between the vessel wall and the secondary seal when used in combination with a vapor-mounted primary seal.

(iii) There shall be no holes, tears, or other openings in the seal or seal fabric.

(C) If a failure that is detected during inspections required in subdivision (1) cannot be repaired within forty-five (45) days and if the vessel cannot be emptied within forty-five (45) days, a thirty (30) day extension may be requested from the department in the inspection report required in section 6(d)(3) of this rule. Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the department thirty (30) days in advance of any gap measurements required by subdivision (1) to afford the department 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. For all visual inspections, the following requirements apply:

(A) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal fabric, the owner or operator shall repair the items as necessary so that

none of the conditions specified in this clause exist before filling or refilling the vessel with VOL.

(B) The owner or operator shall notify the department in writing at least thirty (30) days prior to the filling or refilling of each vessel to afford the department the opportunity to inspect the vessel prior to the filling. If the inspection required by this subdivision is not planned and the owner or operator could not have known about the inspection thirty (30) days in advance of refilling the vessel, the owner or operator shall notify the department at least seven (7) days prior to the refilling of the vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the department at least seven (7) days prior to the refilling.

(d) The owner or operator of each vessel that is equipped with a closed vent system and control device described in section 4(a)(1)(B), 4(a)(2)(B), or 4(a)(3)(B) of this rule and meeting the requirements of section 4(d) of this rule, other than a flare, shall meet the following requirements:

(1) On or before January 1, 1996, submit to the department an operating plan containing the following information:

(A) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation shall include a description of the gas stream that enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapor gases, or liquid other than fuels from sources that are not subject to this rule, the efficiency demonstration shall include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of seventy-five hundredths (0.75) second and a minimum temperature of eight hundred sixteen degrees Centigrade (816°C) is used to meet the ninety-five percent (95%) requirement, documentation that those conditions will exist is sufficient to meet the requirements of this subdivision.

(B) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used to monitor the parameter or parameters.

(2) 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 department in accordance with subdivision (1) unless the plan was modified by the department during the review process. In this case, the modified plan applies.

(e) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in section 4(a)(4) or 4(d) of this rule shall meet the requirements specified in the general control device requirements in 40 CFR 60.18(e) and 40 CFR 60.18(f)*.

*Copies of 40 CFR 60.18(e) and 40 CFR 60.18(f) referenced may be obtained from the Government Printing Office, Washington, D.C. 20402 or the Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46204-2220. *(Air Pollution Control Board; 326 IAC 8-9-5; filed Dec 19, 1995, 3:10 p.m.: 19 IR 1059)*

326 IAC 8-9-6 Record keeping and reporting requirements

Authority: IC 13-1-1-4; IC 13-7-7-1
Affected: IC 13-1-1

Sec. 6. (a) The owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.

(b) The owner or operator of each vessel to which section 1 of this rule applies shall maintain a record and submit to the department a report containing the following information for each vessel:

(1) The vessel identification number.

(2) The vessel dimensions.

(3) The vessel capacity.

(4) A description of the emission control equipment for each vessel described in section 4(a) and 4(b) of this rule, or a schedule for installation of emission control equipment on vessels described in section 4(a) or 4(b) of this rule with a certification that the emission control equipment meets the applicable standards.

(c) The owner or operator of each vessel equipped with a permanently affixed roof and internal floating roof shall comply with the following record keeping and reporting requirements:

(1) Keep a record of each inspection performed as required by section 5(b)(1) through 5(b)(4) of this rule. Each record shall identify the following:

(A) The vessel inspected by identification number.

(B) The date the vessel was inspected.

(C) The observed condition of each component of the control equipment, including the following:

(i) Seals.

(ii) Internal floating roof.

(iii) Fittings.

(2) If any of the conditions described in section 5(b)(2) of this rule are detected during the required annual visual inspection, a record shall be maintained and a report shall be furnished to the department within thirty (30) days of the inspection. Each report shall identify the following:

(A) The vessel by identification number.

(B) The nature of the defects.

(C) The date the vessel was emptied or the nature of and date the repair was made.

(3) After each inspection required by section 5(b)(3) of this rule 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 section 5(b)(3)(B) of this rule, a record shall be maintained and a report shall be furnished to the department within thirty (30) days of the inspection. The report shall identify the following:

(A) The vessel by identification number.

(B) The reason the vessel did not meet the specifications of section 4(a)(1)(A), 4(a)(2)(A), or 5(b) of this rule and list each repair made.

(d) The owner or operator of each vessel equipped with an external floating roof shall comply with the following record keeping and reporting requirements:

(1) Keep a record of each gap measurement performed as required by section 5(c) of this rule. Each record shall identify the vessel in which the measurement was made and shall contain the following:

(A) The date of measurement.

(B) The raw data obtained in the measurement.

(C) The calculations described in section 5(c)(2) and 5(c)(3) of this rule.

(2) Within sixty (60) days of performing the seal gap measurements required by section 5(c)(1) of this rule, furnish the department with a report that contains the following:

(A) The date of measurement.

(B) The raw data obtained in the measurement.

(C) The calculations described in section 5(c)(2) and 5(c)(3) of this rule.

(3) After each seal gap measurement that detects gaps exceeding the limitations specified in section 5(c) of this rule, submit a report to the department within thirty (30) days of the inspection. The report shall identify the vessel and contain the information specified in subdivision (2) and the date the vessel was emptied or the repairs made and date of repair.

(e) The owner or operator of each vessel equipped with a closed vent system with a control device shall comply with the following record keeping and reporting requirements:

(1) Owner or operators that equip the vessel with a control device other than a flare shall do the following:

(A) On or before January 1, 1996, submit an operating plan as required by section 4(d) of this rule.

(B) Maintain records of the following:

(i) The operating plan.

(ii) Measured values of the parameters monitored according to section 5(d)(2) of this rule.

(2) Owner or operators that equip the vessel with a closed vent system and a flare shall meet the following requirements:

(A) Keep records of all periods of operation during which the flare pilot flame is absent.

(B) Furnish the department with a report containing the measurements required by 40 CFR 60.18(f)(1) through 40 CFR 60.18 (f)(5)* as required by 40 CFR 60.8. This report shall be submitted within six (6) months of the initial start-up date.

(C) Furnish the department with a semiannual report of all periods recorded under 40 CFR 60.115* in which the pilot flame was absent.

(f) The owner or operator of each vessel equipped with a closed vent system and control device meeting the standards of section 4 of this rule is exempt from the requirements of subsections (g) and (h).

(g) Except as provided in subsections (f) and (j), the owner or operator of each vessel either with a design capacity greater than or equal to thirty-nine thousand (39,000) gallons storing a VOL with a maximum true vapor pressure greater than or equal to five-tenths (0.5) pound per square inch absolute (psia) but less than seventy-five hundredths (0.75) psia shall maintain a record of the maximum true vapor pressure of the VOL stored in each vessel. The record for each vessel shall contain the following information:

(1) The type of VOL stored.

(2) The dates of the VOL storage.

(3) For each day of VOL storage, the average stored temperature for VOLs stored above or below the ambient temperature or average ambient temperature for VOLs stored at ambient temperature, and the corresponding maximum true vapor pressure.

(h) Except as provided in subsection (f), the owner or operator of each vessel with a design capacity greater than or equal to thirty-nine thousand (39,000) gallons storing a liquid with a maximum true vapor pressure that is normally less than seventy-five hundredths (0.75) psia shall maintain a record and notify the department within thirty (30) days when the maximum true vapor pressure of the liquid exceeds seventy-five hundredths (0.75) psia.

(i) Available data on the storage temperature may be used to determine the maximum true vapor pressure as follows:

(1) The maximum true vapor pressure for VOLs stored at temperatures above or below the ambient temperature shall correspond to the highest calendar-month average storage temperature. The maximum true vapor pressure for VOLs stored at the ambient temperature shall correspond to the local maximum monthly average temperature, as reported by the National Weather Service.

(2) For local crude oil or refined petroleum products, the maximum vapor pressure may be determined as follows:

(A) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517* unless the department specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the samples.

(B) The maximum true vapor pressure of each type of crude oil with a Reid vapor pressure less than two (2) pound *[sic.]* per square inch or with physical properties that preclude determination by the recommended method shall be determined from available data and recorded if the estimated maximum true vapor pressure is greater than five-tenths (0.5) psia.

(3) For other liquids, the maximum true vapor pressure may be determined by any of the following methods:

(A) Standard reference texts.

(B) ASTM Method D2879-92*.

(C) Calculated or measured by a method approved by the department.

(j) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements:

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in subsection (i).

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in section 4(a) of this rule, tests are required as follows:

(A) An initial physical test of the vapor pressure is required.

(B) A physical test at least once every six (6) months thereafter is required using one (1) of the following methods:

(i) ASTM Method D2879-92*.

(ii) ASTM Method D323-82*.

(iii) As measured by an appropriate method as approved by the department.

*Copies of the Code of Federal Regulations (CFR), ASTM Method D2879-92, ASTM Method D2879-92, ASTM Method D323-82, and API Bulletin 2517 referenced may be obtained from the Government Printing Office, Washington, D.C. 20402 or the Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46204-2220.

(Air Pollution Control Board; 326 IAC 8-9-6; filed Dec 19, 1995, 3:10 p.m.: 19 IR 1061; errata filed Dec 19, 1995, 3:15 p.m.: 19 IR 1141)

LSA Document #95-64(F)
Proposed Rule Published: April 1, 1995; 18 IR 1854
Hearing Held: May 3, 1995
Approved by Attorney General: November 30, 1995
Approved by Governor: December 15, 1995
Filed with Secretary of State: December 19, 1995, 3:10 p.m.
Incorporated Documents Filed with Secretary of State: None