



## Ohio Administrative Code

### Rule 3745-205-85 Surface impoundments - air emission standards for tanks, surface impoundments, and containers.

Effective: June 12, 2023

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(A) This rule applies to the control of air pollutant emissions from surface impoundments for which paragraph (B) of rule 3745-205-82 of the Administrative Code references the use of this rule for such air emission control.

(B) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:

(1) A floating membrane cover in accordance with the provisions specified in paragraph (C) of this rule; or

(2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in paragraph (D) of this rule.

(C) The owner or operator who controls air pollutant emissions from a surface impoundment using a floating membrane cover shall meet the requirements specified in paragraphs (C)(1) to (C)(3) of this rule.

(1) The surface impoundment shall be equipped with a floating membrane cover designed to meet the following specifications:

(a) The floating membrane cover shall be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.

(b) The cover shall be fabricated from a synthetic membrane material that is either:

(i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm); or

(ii) A material or a composite of different materials determined to have both organic permeability



properties that are equivalent to those of the material listed in paragraph (C)(1)(b)(i) of this rule and chemical and physical properties that maintain the material integrity for the intended service life of the material.

(c) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

(d) Except as provided for in paragraph (C)(1)(e) of this rule, each opening in the floating membrane cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(e) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain shall be equipped with a slotted membrane fabric cover that covers at least ninety per cent of the area of the opening or a flexible fabric sleeve seal.

(f) The closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout the intended service life of the closure devices. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

(2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover shall float on the liquid and each closure device shall be secured in the closed position except as follows:

(a) Opening of closure devices or removal of the cover is allowed at the following times:

(i) To provide access to the surface impoundment for performing routine inspection, maintenance,



or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

(ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(b) Opening of a safety device, as defined in rule 3745-256-81 of the Administrative Code, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:

(a) The floating membrane cover and the floating membrane's cover closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and the cover's foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(b) The owner or operator shall perform an initial inspection of the floating membrane cover and the floating membrane cover's closure devices on or before the date that the surface impoundment becomes subject to this rule. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in paragraph (G) of this rule.

(c) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (F) of this rule.

(d) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in paragraph (C) of rule 3745-205-89 of the Administrative Code.

(D) The owner or operator who controls air pollutant emissions from a surface impoundment using a



cover vented to a control device shall meet the requirements specified in paragraphs (D)(1) to (D)(3) of this rule.

(1) The surface impoundment shall be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(a) The cover and the cover's closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.

(b) Each opening in the cover not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions using the procedure specified in paragraph (D) of rule 3745-205-83 of the Administrative Code.

(c) The cover and the cover's closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout the intended service life of the cover and closure devices. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

(d) The closed-vent system and control device shall be designed and operated in accordance with the requirements of rule 3745-205-87 of the Administrative Code.

(2) Whenever a hazardous waste is in the surface impoundment, the cover shall be installed with each closure device secured in the closed position and the vapor headspace underneath the cover



vented to the control device except as follows:

(a) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

(i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

(ii) To remove accumulated sludge or other residues from the bottom of the surface impoundment.

(b) Opening of a safety device is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(a) The surface impoundment cover and the covers closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and the cover's foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(b) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in rule 3745-205-87 of the Administrative Code.

(c) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to this rule. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions



provided for in paragraph (G) of this rule.

(d) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (F) of this rule.

(e) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in paragraph (C) of rule 3745-205-89 of the Administrative Code.

(E) The owner or operator shall transfer hazardous waste to a surface impoundment subject to this rule in accordance with the following requirements:

(1) Transfer of hazardous waste, except as provided in paragraph (E)(2) of this rule, to the surface impoundment from another surface impoundment subject to this rule or from a tank subject to rule 3745-205-84 of the Administrative Code shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when the individual drain system meets the requirements of 40 CFR Part 63 subpart RR- "National Emission Standards for Individual Drain Systems."

(2) The requirements of paragraph (E)(1) of this rule do not apply when transferring a hazardous waste to the surface impoundment under any of the following conditions:

(a) The hazardous waste meets the average VO concentration conditions specified in paragraph (C)(1) of rule 3745-205-82 of the Administrative Code at the point of waste origination.

(b) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in paragraph (C)(2) of rule 3745-205-82 of the Administrative Code.

(c) The hazardous waste meets the requirements of paragraph (C)(4) of rule 3745-205-82 of the Administrative Code.

(F) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of paragraph (C)(3) or (D)(3) of this rule as follows:



(1) The owner or operator shall make first efforts at repair of the defect no later than five calendar days after detection and repair shall be completed as soon as possible but no later than forty-five calendar days after detection except as provided in paragraph (F)(2) of this rule.

(2) Repair of a defect may be delayed beyond forty-five calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the surface impoundment stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(G) Following the initial inspection and monitoring of the cover as required by the applicable provisions of rules 3745-205-80 to 3745-205-90 of the Administrative Code, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

(1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable rule from rules 3745-205-80 to 3745-205-90 of the Administrative Code as frequently as practicable during those times when a worker can safely access the cover.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]