



Ohio Administrative Code

Rule 3745-205-87 Closed-vent systems and control devices - air emission standards for tanks, surface impoundments, and containers.

Effective: June 12, 2023

(A) This rule applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of rules 3745-205-80 to 3745-205-90 of the Administrative Code.

(B) The closed-vent system shall meet the following requirements:

(1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in paragraph (C) of this rule.

(2) The closed-vent system shall be designed and operated in accordance with the requirements specified in paragraph (K) of rule 3745-205-33 of the Administrative Code.

(3) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in paragraph (B)(3)(a) of this rule or a seal or locking device as specified in paragraph (B)(3)(b) of this rule. For the purpose of complying with this paragraph, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(a) If a flow indicator is used to comply with paragraph (B)(3) of this rule, the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For this paragraph, a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

(b) If a seal or locking device is used to comply with paragraph (B)(3) of this rule, the device shall be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle,



damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(4) The closed-vent system shall be inspected and monitored by the owner or operator in accordance with the procedure specified in paragraph (L) of rule 3745-205-33 of the Administrative Code.

(C) The control device shall meet the following requirements:

(1) The control device shall be one of the following devices:

(a) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least ninety-five per cent by weight;

(b) An enclosed combustion device designed and operated in accordance with the requirements of paragraph (C) of rule 3745-205-33 of the Administrative Code; or

(c) A flare designed and operated in accordance with the requirements of paragraph (D) of rule 3745-205-33 of the Administrative Code.

(2) The owner or operator who elects to use a closed-vent system and control device to comply with the requirements of this rule shall comply with the requirements specified in paragraphs (C)(2)(a) to (C)(2)(f) of this rule.

(a) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of paragraph (C)(1)(a), (C)(1)(b), or (C)(1)(c) of this rule, as applicable, shall not exceed two hundred forty hours per year.

(b) The specifications and requirements in paragraphs (C)(1)(a), (C)(1)(b), and (C)(1)(c) of this rule for control devices do not apply during periods of planned routine maintenance.



(c) The specifications and requirements in paragraphs (C)(1)(a), (C)(1)(b), and (C)(1)(c) of this rule for control devices do not apply during a control device system malfunction.

(d) The owner or operator shall demonstrate compliance with the requirements of paragraph (C)(2)(a) of this rule [i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of paragraph (C)(1)(a), (C)(1)(b), or (C)(1)(c) of this rule, as applicable, shall not exceed two hundred forty hours per year] by recording the information specified in paragraph (E)(1)(e) of rule 3745-205-89 of the Administrative Code.

(e) The owner or operator shall correct control device system malfunctions as soon as practicable after the malfunction's occurrence in order to minimize excess emissions of air pollutants.

(f) The owner or operator shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally) except in cases when it is necessary to vent the gases, vapors, fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(3) The owner or operator using a carbon adsorption system to comply with paragraph (C)(1) of this rule shall operate and maintain the control device in accordance with the following requirements:

(a) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of paragraph (G) or (H) of rule 3745-205-33 of the Administrative Code.

(b) All carbon that is a hazardous waste and that is removed from the control device shall be managed in accordance with the requirements of paragraph (N) of rule 3745-205-33 of the Administrative Code, regardless of the average volatile organic concentration of the carbon.

(4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with paragraph (C)(1) of this rule shall operate and maintain the control device in accordance with the requirements of paragraph (J) of rule 3745-205-33 of the Administrative Code.



(5) The owner or operator shall demonstrate that a control device achieves the performance requirements of paragraph (C)(1) of this rule as follows:

(a) An owner or operator shall demonstrate using either a performance test as specified in paragraph (C)(5)(c) of this rule or a design analysis as specified in paragraph (C)(5)(d) of this rule the performance of each control device except for the following:

(i) A flare;

(ii) A boiler or process heater with a design heat input capacity of forty-four megawatts or greater;

(iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;

(iv) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final hazardous waste management permit under rules 3745-50-40 to 3745-50-235 of the Administrative Code and has designed and operates the unit in accordance with the requirements of rules 3745-266-100 to 3745-266-112 of the Administrative Code; or

(v) A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim standards requirements of rules 3745-266-100 to 3745-266-112 of the Administrative Code.

(b) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in paragraph (E) of rule 3745-205-33 of the Administrative Code.

(c) For a performance test conducted to meet the requirements of paragraph (C)(5)(a) of this rule, the owner or operator shall use the test methods and procedures specified in paragraphs (C)(1) to (C)(4) of rule 3745-205-34 of the Administrative Code.

(d) For a design analysis conducted to meet the requirements of paragraph (C)(5)(a) of this rule, the design analysis shall meet the requirements specified in paragraph (B)(4)(c) of rule 3745-205-35 of the Administrative Code.



(e) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of paragraph (C)(1) of this rule based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(6) If the owner or operator and the director do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of paragraph (C)(5)(c) of this rule. The director may choose to have an authorized representative observe the performance test.

(7) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in paragraphs (F)(2) and (L) of rule 3745-205-33 of the Administrative Code. The readings from each monitoring device required by paragraph (F)(2) of rule 3745-205-33 of the Administrative Code shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements of this rule.