CA

66265.1088 Standards: Closed-Vent Systems and Control Devices

(a)

This section 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 this article.

(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 subsection (c) of this section. (2) The closed-vent system shall be designed and operated in accordance with the requirements specified in section 66265.1033(j). (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 subsection (b)(3)(A) of this section or a seal or locking device as specified in subsection (b)(3)(B) of this section. For the purpose of complying with this subsection, 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 subsection (b)(3) of

this section, 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 subsection, 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 subsection (b)(3) of this section, 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 section 66265.1033(k).

(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 subsection (c) of this section.

(2)

The closed-vent system shall be designed and operated in accordance with the requirements specified in section 66265.1033(j).

(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 subsection (b)(3)(A) of this section or a seal or locking device as specified in subsection

(b)(3)(B) of this section. For the purpose of complying with this subsection, 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 subsection (b)(3) of this section, 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 subsection, 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 subsection (b)(3) of this section, 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.

(A)

If a flow indicator is used to comply with subsection (b)(3) of this section, 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 subsection, 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 subsection (b)(3) of this section, 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 section 66265.1033(k).

(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 95 percent by weight; (B) An enclosed combustion device designed and operated in accordance with the requirements of section 66265.1033(c); or (C) A flare designed and operated in accordance with the requirements of section 66265.1033(d). (2) The owner or operator who elects to use a closed-vent system and control device to comply with the requirements of this section shall comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(F) of this section. (A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this section, as applicable, shall not exceed 240 hours per year. (B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this section for control devices do not apply during periods of planned routine maintenance. (C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this section for control devices do not apply during a control device system malfunction. (D) The owner or operator shall demonstrate compliance with the requirements of

subsection (c)(2)(A) of this section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this section, as applicable, shall not exceed 240 hours per year) by recording the information specified in section 66265.1090(e)(1)(E). (E) The owner or operator shall correct control device system malfunctions as soon as practicable after their 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, and/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, or 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 subsection (c)(1) of this section 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 section 66265.1033(g) or section 66265.1033(h). (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 section 66265.1033(m), 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 subsection (c)(1) of this section shall operate and maintain the control device in accordance with the requirements of section 66265.1033(i). (5) The owner or operator shall demonstrate that a control device

achieves the performance requirements of subsection (c)(1) of this section as follows: (A) An owner or operator shall demonstrate using either a performance test as specified in subsection (c)(5)(C) of this section or a design analysis as specified in subsection (c)(5)(D) of this section the performance of each control device except for the following: 1. A flare; 2. A boiler or process heater with a design heat input capacity of 44 megawatts or greater; 3. A boiler or process heater into which the vent stream is introduced with the primary fuel; 4. A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under chapter 20 and has designed and operates the unit in accordance with the requirements of chapter 16, article 8; or 5. A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of chapter 16, article 8. (B) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in section 66265.1033(e). (C) For a performance test conducted to meet the requirements of subsection (c)(5)(A) of this section, the owner or operator shall use the test methods and procedures specified in section 66265.1034(c)(1) through (c)(4). (D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A) of this section, the design analysis shall meet the requirements specified in section 66265.1035(b)(4)(C). (E) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) of this section 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 Department 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 subsection (c)(5)(C) of this section. The Department 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 sections 66265.1033(f)(2) and 66265.1033(k). The readings from each monitoring device required by section 66265.1033(f)(2) 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 section.

(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 95 percent by weight; (B) An enclosed combustion device designed and operated in accordance with the requirements of section 66265.1033(c); or (C) A flare designed and operated in accordance with the requirements of section 66265.1033(d).

(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 95 percent by weight;

(B)

An enclosed combustion device designed and operated in accordance with the requirements of section 66265.1033(c); or

(C)

A flare designed and operated in accordance with the requirements of section

66265.1033(d).

(2)

The owner or operator who elects to use a closed-vent system and control device to comply with the requirements of this section shall comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(F) of this section. (A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this section, as applicable, shall not exceed 240 hours per year. (B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this section for control devices do not apply during periods of planned routine maintenance. (C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this section for control devices do not apply during a control device system malfunction. (D) The owner or operator shall demonstrate compliance with the requirements of subsection (c)(2)(A) of this section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this section, as applicable, shall not exceed 240 hours per year) by recording the information specified in section 66265.1090(e)(1)(E). (E) The owner or operator shall correct control device system malfunctions as soon as practicable after their 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, and/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, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(A)

Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this section, as applicable, shall not exceed 240 hours per year.

(B)

The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this section for control devices do not apply during periods of planned routine maintenance.

(C)

The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) of this section for control devices do not apply during a control device system malfunction.

(D)

The owner or operator shall demonstrate compliance with the requirements of subsection (c)(2)(A) of this section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsections (c)(1)(A), (c)(1)(B), or (c)(1)(C) of this section, as applicable, shall not exceed 240 hours per year) by recording the information specified in section 66265.1090(e)(1)(E).

(E)

The owner or operator shall correct control device system malfunctions as soon as practicable after their 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, and/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, or 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 subsection (c)(1) of this section 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 section 66265.1033(g) or section 66265.1033(h). (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 section 66265.1033(m), regardless of the average volatile organic concentration of the carbon.

(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 section 66265.1033(g) or section 66265.1033(h).

(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 section 66265.1033(m), 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 subsection (c)(1) of this section shall operate and maintain the control device in accordance with the requirements of section 66265.1033(i).

(5)

The owner or operator shall demonstrate that a control device achieves the performance requirements of subsection (c)(1) of this section as follows: (A) An owner or operator shall demonstrate using either a performance test as specified in

subsection (c)(5)(C) of this section or a design analysis as specified in subsection (c)(5)(D) of this section the performance of each control device except for the following: 1. A flare; 2. A boiler or process heater with a design heat input capacity of 44 megawatts or greater; 3. A boiler or process heater into which the vent stream is introduced with the primary fuel; 4. A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under chapter 20 and has designed and operates the unit in accordance with the requirements of chapter 16, article 8; or 5. A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of chapter 16, article 8. (B) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in section 66265.1033(e). (C) For a performance test conducted to meet the requirements of subsection (c)(5)(A) of this section, the owner or operator shall use the test methods and procedures specified in section 66265.1034(c)(1) through (c)(4). (D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A) of this section, the design analysis shall meet the requirements specified in section 66265.1035(b)(4)(C). (E) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) of this section 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.

(A)

An owner or operator shall demonstrate using either a performance test as specified in subsection (c)(5)(C) of this section or a design analysis as specified in subsection (c)(5)(D) of this section the performance of each control device except for the following: 1. A flare; 2. A boiler or process heater with a design heat input capacity of 44 megawatts or greater; 3. A

boiler or process heater into which the vent stream is introduced with the primary fuel; 4. A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under chapter 20 and has designed and operates the unit in accordance with the requirements of chapter 16, article 8; or 5. A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of chapter 16, article 8.

1.

A flare;

2.

A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

3.

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

4.

A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under chapter 20 and has designed and operates the unit in accordance with the requirements of chapter 16, article 8; or

5.

A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of chapter 16, article 8.

(B)

An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in section 66265.1033(e).

(C)

For a performance test conducted to meet the requirements of subsection (c)(5)(A) of this section, the owner or operator shall use the test methods and procedures specified in section 66265.1034(c)(1) through (c)(4).

(D)

For a design analysis conducted to meet the requirements of subsection (c)(5)(A) of this section, the design analysis shall meet the requirements specified in section 66265.1035(b)(4)(C).

(E)

The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) of this section 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 Department 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 subsection (c)(5)(C) of this section. The Department 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 sections 66265.1033(f)(2) and 66265.1033(k). The readings from each monitoring device required by section 66265.1033(f)(2) 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 section.