CA

66265.1033 Standards: Closed-Vent Systems and Control Devices

(a)

(1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this chapter shall comply with the provisions of this section. (2) (A) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this article on the effective date that the facility becomes subject to the requirements of this article must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this article for installation and startup. (B) Any unit that begins operation after December 21, 1990, and is subject to the requirements of this article when operation begins, shall comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply. (C) The owner or operator of any facility in existence on the effective date of a statutory or Department regulatory amendment that renders the facility subject to this article shall comply with all requirements of this article as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by

this article cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this article. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility. (D) Owners and operators of facilities and units that become newly subject to the requirements of this article after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this section must comply with all applicable requirements immediately (i.e., must have control devices installed and operating on the date the facility or unit becomes subject to this article; the 30-month implementation schedule does not apply).

(1)

Owners or operators of closed-vent systems and control devices used to comply with provisions of this chapter shall comply with the provisions of this section.

(2)

(A) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this article on the effective date that the facility becomes subject to the requirements of this article must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this article for installation and

startup. (B) Any unit that begins operation after December 21, 1990, and is subject to the requirements of this article when operation begins, shall comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply. (C) The owner or operator of any facility in existence on the effective date of a statutory or Department regulatory amendment that renders the facility subject to this article shall comply with all requirements of this article as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by this article cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this article. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility. (D) Owners and operators of facilities and units that become newly subject to the requirements of this article after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this section must comply with all applicable requirements immediately (i.e., must have control devices installed and operating on the date the facility or unit becomes subject to this article; the 30-month implementation schedule does not apply).

(A)

The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this article on the effective date that the facility becomes subject to the requirements of this article must prepare an implementation

schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this article for installation and startup.

(B)

Any unit that begins operation after December 21, 1990, and is subject to the requirements of this article when operation begins, shall comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.

(C)

The owner or operator of any facility in existence on the effective date of a statutory or Department regulatory amendment that renders the facility subject to this article shall comply with all requirements of this article as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by this article cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this article. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

(D)

Owners and operators of facilities and units that become newly subject to the requirements of this article after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this section must comply with all applicable requirements immediately

(i.e., must have control devices installed and operating on the date the facility or unit becomes subject to this article; the 30-month implementation schedule does not apply).

(b)

A control device involving vapor recovery (e.g., a condenser or adsorber) shall be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 66265.1032(a)(1) for all affected process vents can be attained at an efficiency less than 95 weight percent.

(c)

An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame combustion zone of the boiler or process heater.

(d)

(1) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in subsection (3)(1) of this section, except for periods not to exceed a total of five minutes during any two consecutive hours. (2) A flare shall be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) of this section. (3) a flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater, if the flare is steam-assisted or air-assisted; or if the net

heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in subsection (e)(2) of this section. (4) (A) A steam-assisted or non-assisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, of less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (C) of this section. (B) A steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf). (C) a steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, less than the velocity, V MAX, as determined by the method specified in subsection (e)(4) of this section, and less than 122 m/s (400 ft/s) is allowed. (5) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V MAX, as determined by the method specified in subsection (e)(5) of this section. (6) A flare used to comply with this section shall be steam- assisted, air-assisted, or non-assisted.

(1)

A flare shall be designed for and operated with no visible emissions as determined by the methods specified in subsection (3)(1) of this section, except for periods not to exceed a total of five minutes during any two consecutive hours.

(2)

A flare shall be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) of this section.

(3)

a flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater, if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in subsection (e)(2) of this section.

(4)

(A) A steam-assisted or non-assisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, of less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (C) of this section. (B) A steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf). (C) a steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, less than the velocity, V MAX, as determined by the method specified in subsection (e)(4) of this section, and less than 122 m/s (400 ft/s) is allowed.

(A)

A steam-assisted or non-assisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, of less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (C) of this section.

(B)

A steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, equal to or greater

than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(C)

a steam-assisted or non-assisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this section, less than the velocity, V MAX, as determined by the method specified in subsection (e)(4) of this section, and less than 122 m/s (400 ft/s) is allowed.

(5)

An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V MAX, as determined by the method specified in subsection (e)(5) of this section.

(6)

A flare used to comply with this section shall be steam- assisted, air-assisted, or non-assisted.

(e)

(1) Reference Method 22 in 40 CFR, Part 60 shall be used to determine the compliance of a flare with the visible emission provisions of this article. The observation period is two hours and shall be used according to Method 22. (2) The net heating value of the gas being combusted in a flare shall be calculated using the following equation: Click here to view image where: Ht =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off-gas is based on combustion at 25 degrees C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 degrees C; K =Constant, 1.74 X 10 -7 (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20 degrees C; Ci =Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR, Part 60 and

measured for hydrogen and carbon monoxide by ASTM D 1946-82 (incorporated by reference as specified in Section 66260.11); and Hi =Net heat of combustion of sample component i, kcal/g mol at 25 degrees C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83 (incorporated by reference as specified in Section 66260.11) if published values are not available or cannot be calculated. (3) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR, Part 60 as appropriate, by the unobstructed (free) cross-sectional area of the flare tip. (4) The maximum allowed velocity in m/s, Vmax, for a flare complying with subsection (d)(4)(C) of this section shall be determined by the following equation: Log10 (Vmax) = (Ht + 28.8)/31.7 where: Ht =The net heating value as determined in subsection (e)(2) of this section. 28.8 =Constant. 31.7 =Constant. (5) The maximum allowed velocity in m/s, Vmax, for an air- assisted flare shall be determined by the following equation: Vmax = 8.706 + 0.7084 (Ht) where: 8.706 =Constant. 0.7084 =Constant. Ht =The net heating value as determined in subsection (e)(2) of this section.

(1)

Reference Method 22 in 40 CFR, Part 60 shall be used to determine the compliance of a flare with the visible emission provisions of this article. The observation period is two hours and shall be used according to Method 22.

(2)

The net heating value of the gas being combusted in a flare shall be calculated using the following equation: Click here to view image where: Ht =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off-gas is based on combustion at 25 degrees C and 760 mm Hg, but the standard temperature for determining the

volume corresponding to 1 mol is 20 degrees C; K =Constant, 1.74 X 10 -7 (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20 degrees C; Ci =Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR, Part 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82 (incorporated by reference as specified in Section 66260.11); and Hi =Net heat of combustion of sample component i, kcal/g mol at 25 degrees C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83 (incorporated by reference as specified in Section 66260.11) if published values are not available or cannot be calculated.

(3)

The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR, Part 60 as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(4)

The maximum allowed velocity in m/s, Vmax, for a flare complying with subsection (d)(4)(C) of this section shall be determined by the following equation: Log10 (Vmax) = (Ht + 28.8)/31.7 where: Ht =The net heating value as determined in subsection (e)(2) of this section. 28.8 =Constant. 31.7 =Constant.

(5)

The maximum allowed velocity in m/s, Vmax, for an air- assisted flare shall be determined by the following equation: Vmax = 8.706 + 0.7084 (Ht) where: 8.706 =Constant. 0.7084 =Constant. Ht =The net heating value as determined in subsection (e)(2) of this section.

(f)

The owner or operator shall monitor and inspect each control device required to

comply with this section to ensure proper operation and maintenance of the control device by implementing the following requirements:(1) install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet, but before being combined with other vent streams; (2) install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below: (A) for a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/-0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone; (B) for a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet; (C) for a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame; (D) for a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C,

whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone; (E) for a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used; (F) for a condenser, either: 1. a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or 2. a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius (°C) or ± 0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side). (G) for a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either: 1. a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or 2. a monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle; (3) inspect the readings from each monitoring device required by subsections (f)(1) and (2) of this section at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this section.

(1)

install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process

vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet, but before being combined with other vent streams;

(2)

install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below: (A) for a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/-0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone; (B) for a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet; (C) for a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame; (D) for a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone; (E) for a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates

good combustion operating practices are being used; (F) for a condenser, either: 1. a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or 2. a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius (°C) or ± 0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side). (G) for a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either: 1. a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or 2. a monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle;

(A)

for a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/-0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone;

(B)

for a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature

sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet;

(C)

for a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame;

(D)

for a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of +/- 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone;

(E)

for a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used;

(F)

for a condenser, either: 1. a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or 2. a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius (°C) or ± 0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).

1.

a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

2.

a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius (°C) or ± 0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).

(G)

for a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either: 1. a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or 2. a monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle;

1.

a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or

2.

a monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle;

(3)

inspect the readings from each monitoring device required by subsections (f)(1) and (2) of this section at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this section.

(g)

An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control

device, shall replace the existing carbon in the control device with fresh carbon at a regular, pre-determined time interval that is no longer than the carbon service life established as a requirement of Section 66265.1035(b)(4)(C)6.

(h)

An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly on-site in the control device shall replace the existing carbon in the carbon device with fresh carbon on a regular basis by using one of the following procedures: (1) monitor the concentration level of the organic compounds in the exhaust vent system from the carbon adsorption system on a regular schedule and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than twenty (20) percent of the time required to consume the total carbon working capacity established as a requirement of Section 66265.1035(b)(4)(C)7, whichever is longer; and (2) replace the existing carbon with fresh carbon at a regular, pre-determined time interval that is less than the design carbon replacement interval established as a requirement of Section 66265.1035(b)(4)(C)7.

(1)

monitor the concentration level of the organic compounds in the exhaust vent system from the carbon adsorption system on a regular schedule and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than twenty (20) percent of the time required to consume the total carbon working capacity established as a requirement of Section 66265.1035(b)(4)(C)7, whichever is longer; and

(2)

replace the existing carbon with fresh carbon at a regular, pre-determined time interval

that is less than the design carbon replacement interval established as a requirement of Section 66265.1035(b)(4)(C)7.

(i)

An owner or operator of an affected facility seeking to comply with the provisions of this part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system shall develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

(j)

A closed-vent system shall meet either of the following design requirements: (1) A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in section 66265.1034(b), and by visual inspections; or (2) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(1)

A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in section 66265.1034(b), and by visual inspections; or

(2)

A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other

pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(k)

The owner or operator shall monitor and inspect each closed-vent system required to comply with this section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:(1) Each closed-vent system that is used to comply with subsection (j)(1) of this section shall be inspected and monitored in accordance with the following requirements: (A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in section 66265.1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background. (B) After initial leak detection monitoring required in subsection (k)(1)(A) of this section, the owner or operator shall inspect and monitor the closed-vent system as follows: 1. Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in section 66265.1034(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is

unbolted). 2. Closed-vent system components or connections other than those specified in subsection (k)(1)(B)1. of this section shall be monitored annually and at other times as requested by the Department, except as provided for in subsection (n) of this section, using the procedures specified in section 265.1034(b) of this article to demonstrate that the components or connections operate with no detectable emissions. (C) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (k)(3) of this section. (D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in section 66265.1035. (2) Each closed-vent system that is used to comply with subsection (j)(2) of this section shall be inspected and monitored in accordance with the following requirements: (A) The closed-vent system 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 ductwork or piping or loose connections. (B) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this section. Thereafter, the owner or operator shall perform the inspections at least once every year. (C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k)(3) of this section. (D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in section 66265.1035. (3) The owner or operator shall repair all detected defects as follows: (A) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected,

except as provided for in subsection (k)(3)(C) of this section. (B) A first attempt at repair shall be made no later than 5 calendar days after the emission is detected. (C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown. (D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in section 66265.1035.

(1)

Each closed-vent system that is used to comply with subsection (j)(1) of this section shall be inspected and monitored in accordance with the following requirements: (A) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in section 66265.1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background. (B) After initial leak detection monitoring required in subsection (k)(1)(A) of this section, the owner or operator shall inspect and monitor the closed-vent system as follows: 1. Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in section 66265.1034(b) to demonstrate that it operates with no detectable emissions following

any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted). 2. Closed-vent system components or connections other than those specified in subsection (k)(1)(B)1. of this section shall be monitored annually and at other times as requested by the Department, except as provided for in subsection (n) of this section, using the procedures specified in section 265.1034(b) of this article to demonstrate that the components or connections operate with no detectable emissions. (C) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (k)(3) of this section. (D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in section 66265.1035.

(A)

An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to this section. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in section 66265.1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

(B)

After initial leak detection monitoring required in subsection (k)(1)(A) of this section, the owner or operator shall inspect and monitor the closed-vent system as follows: 1. Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in section 66265.1034(b)

to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted). 2. Closed-vent system components or connections other than those specified in subsection (k)(1)(B)1. of this section shall be monitored annually and at other times as requested by the Department, except as provided for in subsection (n) of this section, using the procedures specified in section 265.1034(b) of this article to demonstrate that the components or connections operate with no detectable emissions.

1.

Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in section 66265.1034(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

2.

Closed-vent system components or connections other than those specified in subsection (k)(1)(B)1. of this section shall be monitored annually and at other times as requested by the Department, except as provided for in subsection (n) of this section, using the procedures specified in section 265.1034(b) of this article to demonstrate that the components or connections operate with no detectable emissions.

(C)

In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of subsection (k)(3) of this section.

(D)

The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in section 66265.1035.

(2)

Each closed-vent system that is used to comply with subsection (j)(2) of this section shall be inspected and monitored in accordance with the following requirements: (A) The closed-vent system 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 ductwork or piping or loose connections. (B) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this section. Thereafter, the owner or operator shall perform the inspections at least once every year. (C) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k)(3) of this section. (D) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in section 66265.1035.

(A)

The closed-vent system 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 ductwork or piping or loose connections.

(B)

The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this section. Thereafter, the owner or operator shall perform the inspections at least once every year.

(C)

In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of subsection (k)(3) of this section.

(D)

The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in section 66265.1035.

(3)

The owner or operator shall repair all detected defects as follows: (A) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (k)(3)(C) of this section. (B) A first attempt at repair shall be made no later than 5 calendar days after the emission is detected. (C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown. (D) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in section 66265.1035.

(A)

Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (k)(3)(C) of this section.

(B)

A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

(C)

Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

(D)

The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in section 66265.1035.

(l)

Closed-vent systems and control devices used to comply with provisions of this article shall be operated at all times when emissions may be vented to them.

(m)

The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon: (1) Regenerated or reactivated in a thermal treatment unit that meets one of the following: (A) The owner or operator of the unit has been issued a final permit under chapter 20 which implements the requirements of chapter 14, article 16; or (B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of articles 27 and 30 of either this article or of chapter 14; or (C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or 40 CFR part 63. (2) Incinerated in a hazardous waste incinerator for which the owner or operator either: (A) Has been issued a final permit under chapter 20 which implements the requirements of chapter 14, article

15; or (B) Has designed and operates the incinerator in accordance with the interim status requirements of article 15 of this chapter. (3) Burned in a boiler or industrial furnace for which the owner or operator either: (A) Has been issued a final permit under chapter 20 which implements the requirements of chapter 16, article 8; or (B) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of chapter 16, article 8.

(1)

Regenerated or reactivated in a thermal treatment unit that meets one of the following: (A) The owner or operator of the unit has been issued a final permit under chapter 20 which implements the requirements of chapter 14, article 16; or (B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of articles 27 and 30 of either this article or of chapter 14; or (C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or 40 CFR part 63.

(A)

The owner or operator of the unit has been issued a final permit under chapter 20 which implements the requirements of chapter 14, article 16; or

(B)

The unit is equipped with and operating air emission controls in accordance with the applicable requirements of articles 27 and 30 of either this article or of chapter 14; or

(C)

The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or 40 CFR part 63.

(2)

Incinerated in a hazardous waste incinerator for which the owner or operator either:

(A) Has been issued a final permit under chapter 20 which implements the requirements of chapter 14, article 15; or (B) Has designed and operates the incinerator in accordance with the interim status requirements of article 15 of this chapter.

(A)

Has been issued a final permit under chapter 20 which implements the requirements of chapter 14, article 15; or

(B)

Has designed and operates the incinerator in accordance with the interim status requirements of article 15 of this chapter.

(3)

Burned in a boiler or industrial furnace for which the owner or operator either: (A) Has been issued a final permit under chapter 20 which implements the requirements of chapter 16, article 8; or (B) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of chapter 16, article 8.

(A)

Has been issued a final permit under chapter 20 which implements the requirements of chapter 16, article 8; or

(B)

Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of chapter 16, article 8.

(n)

Any components of a closed-vent system that are designated, as described in section 66265.1035(c)(9), as unsafe to monitor are exempt from the requirements of subsection (k)(1)(B)2. of this section if:(1) The owner or operator of the closed-vent system determines that the components of the closed-vent

system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)2. of this section; and (2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)2. of this section as frequently as practicable during safe-to-monitor times.

(1)

The owner or operator of the closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)2. of this section; and

(2)

The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)2. of this section as frequently as practicable during safe-to-monitor times.