

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Applicability 40 CFR 264/5.1030

1. Does the facility have affected units permitted under Part 270; or is it permitted under Part 270 with permit-exempt recycling units; or is it a less than 90-day accumulation unit exempt from permitting, which is not a recycling unit under 40 CFR 261.6?
 - a. What is the **effective date** for this facility? (The effective date is generally either 6/21/90, or any date of start-up after 12/21/90, or 12/6/94, or 12/6/96).
 - b. For interim status facilities, have these requirements been incorporated into Part B application submission?
2. Are there any of the following hazardous waste management processes at the facility?

distillation, fractionation, thin-film evaporation, solvent extraction, air stripping, or steam stripping

Standards 40 CFR 264/5.1032

Waste Streams

3. Are there waste streams associated with any separation processes that contain 10 ppmw or greater organics concentration?
264/5.1032 (a)
 - a. If they claim waste streams below 10 ppmw, were proper means to determine concentration used? 264/5.1034 (d) (1 or 2)
 - b. Was date of initial determination before their effective date? 264/5.1034 (e)
 - c. Where other analysis performed annually or upon change to waste streams? 264/5.1034 (e) (2 or 3)

Facility Emissions Rates (Before Controls)

4. Is the hourly process vent organic emission rate $\geq$ 3 lb/hr?

Is the yearly process vent organic emission rate $\geq$ 3.1 tons/yr?
 - a. If performance tests were made, were they according to 264/5.1034 (c)?
 - b. If engineering calculations were used, were they according to 264/5.1035 (b) (ii)?

Checklist
Process Vents Applications
Part 264/265 Subpart AA

- c. Has owner/operator signed statement that test conditions portray worst case actual operating conditions?
- d. Were the facility emissions rates determined by the effective date ?

Facility Emission Rates After Control Devices or Change in Operations

- 5. 5a. Are the process vent organic emission rate for the facility ≤ 3 lb/hr and ≤ 3.1 tons/year, or are they reduced by 95%?
- 5b. If performance tests were used, were they in accordance with 264/5.1034(c) and was the test plan in accordance with 264/5.1035(b) (3) ?
- 5c. If engineering calculations were used, were they in accordance with 264/5.1035(b) (4) ?
- 5d. For facilities (with an effective date of 12/6/96) without the control devices installed, did they have an installation plan in the operating record by the effective date? [264.5/1033(a) (2) and 264/5.1035(b) (1)]
- 5e. Will the control devices be installed by 30 months after the effective date? [264.5/1033(a) (2) and 264/5.1035(b) (1)]
- 5f. For facilities (with an effective date of 6/21/90, 12/21/90 or 12/6/94) without the control devices installed by the effective date, did they have an installation plan in the operating record by the effective date? [264.5/1033(a) (2) and 264/5.1035(b) (1)]
- 5g. Were the control devices installed by 18 months after the effective date? [264.5/1033(a) (2) and 264/5.1035(b) (1)]

Reporting 40 CFR 264,1036

- 6. For facilities with final permits incorporating this rule, have they sent in semi-annual reports of exceedances lasting longer than 24 hours?

(Use Individual control device worksheets to continue Inspection)

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Summary Sheet for Control Devices (CD)

<u>Control Device</u>	<u>CD #</u>	<u>On Unit</u>	<u>For Vent #s</u>
Condenser			
Adsorber (Regen)			
Adsorber (Nonreg)			
Boiler			
Process Heater			
Catalytic Vapor Incinerator			
Thermal Vapor Incinerator			
Flare			

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Condenser

Operating Parameters:

List the operating parameters and the limits set for each in the permit or for interim status facilities, the limits the facility gave based on their engineering calculations 40 CFR 264/5.1035(b) (4) (iii) (E)

or performance tests 40 CFR 264/5.1035(b) (2) (ii).

Operating Parameter	Limit	Have they met these limits
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Are all design documentation, monitoring, operating, and inspection information in the facility operating record ? 40 CFR 264/5.1035 (c)

Monitoring: A and either B or C

- A. flow indicator 264/5.1033 (f) (1)
 - records hourly
 - installation point correct
 - daily inspection 264/5.1033 (f) (3)

AND

- B. [organic compound] in condenser exhaust vent stream
 - continuously record 264/5.1033(f) (2) (vi) (A)
 - daily inspection 264/5.1033(f) (3)

OR

- C. temperature monitoring device 264/5.1033(f) (2) (vi) (B)
 - continuously record condenser accuracy:
 - +/- 1 % of Temp being monitored or .5 degrees C (whichever is greater)
 - inspect daily 264/5.1033(f) (3)

Repair:

immediately upon daily inspection 264/5.1033(f) (3)

Exceedances: 264/5.1035 (c) (4) (vi or vii)

if monitoring [organics] in exhaust:

- when [organics] > 20% above design outlet [organics]

if monitoring T:

- T exhaust > 6 deg above design avg exhaust T
- cause of exceedance given
- measures taken to correct cause provided

Closed-vent systems associated with the control device 264/5.1033(j)

- standard: No Detectable Emissions and no visual emissions
- monitor: At facility effective date, and annually thereafter
- repair: Start within 5 days, complete within 15 days

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Catalytic Vapor Incinerator

Operating Parameters:

List the operating parameters and the limits set for each in the permit or for interim status facilities, the limits the facility gave based on their engineering calculations 40 CFR 264/5.1035(b) (4) (iii) (B)

or performance tests 40 CFR 264/5.1035(b) (2) (ii).

Operating Parameter	Limit	Have they met these limits
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Are all design documentation, monitoring, operating, and inspection information in the facility operating record ? 40 CFR 264/5.1035 ©

Monitoring: 264/5.1033(f); A and B

- A. flow indicator 264/5.1033 (f) (1)
 - records hourly
 - installation point correct
 - daily inspection 264/5.1033 (f) (3)

AND

- B. temperature monitoring device 264/5.1033(f) (2) (ii)
 - continuously record temperature accuracy at 2 locations:
 - +/- 1 % of Temp being monitored or .5 degrees C (whichever is greater)
 - one installed in vent stream at closest point to bed inlet
 - one installed in vent stream at closest point to bed outlet
 - inspect daily 264/5.1033(f) (3)

Repair:

immediately upon daily inspection 264/5.1033(f) (3)

Exceedances: 264/5.1035 (c) (4) (iii)

T at catalyst bed inlet is >28 degrees C below the average design temperature in the design analysis, or

T difference across the catalyst bed is less than 80% of the design average temperature established in the design analysis
cause of exceedance given 264/5.1035(c) (5)
measures taken to correct cause provided 264/5.1035(c) (5)

Closed-vent systems associated with the control device 264/5.1033(j)

standard:	No Detectable Emissions and no visual emissions
monitor:	At facility effective date, and annually thereafter
repair:	Start within 5 days, complete within 15 days

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Thermal Vapor Incinerator

Operating Parameters:

List the operating parameters and the limits set for each in the permit or for interim status facilities, the limits the facility gave based on their engineering calculations 40 CFR 264/5.1035(b) (4) (iii) (A) or performance tests 40 CFR 264/5.1035(b) (2) (ii).

Operating Parameter	Limit	Have they met these limits
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Are all design documentation, monitoring, operating, and inspection information in the facility operating record ? 40 CFR 264/5.1035 ©

Monitoring: 264/5.1033(f); A and B

A. flow indicator 264/5.1033 (f) (1)
records hourly
installation point correct
daily inspection 264/5.1033 (f) (3)

AND

B. temperature monitoring device 264/5.1033(f) (2) (i)
continuously record temperature accuracy at 1 location:
+/- 1 % of Temp being monitored or .5 degrees C (whichever is greater)
installed in combustion chamber at a location downstream of the combustion zone
inspect daily 264/5.1033(f) (3)

Repair:

immediately upon daily inspection 264/5.1033(f) (3)

Exceedances: 264/5.1035 (c) (4) (iii)

if designed to operate with a minimum residence time of .5 sec at a minimum temperature of 760 C: each period when combustion T is below 760 C.

if designed for >95% organic emission reduction efficiency:
period when T in combustion zone >28 degrees C below the average design temperature in the design analysis
cause of exceedance given 264/5.1035(c) (5)
measures taken to correct cause provided 264/5.1035(c) (5)

Closed-vent systems associated with the control device 264/5.1033(j)

standard: No Detectable Emissions and no visual emissions
monitor: At facility effective date, and annually thereafter
repair: Start within 5 days, complete within 15 days

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Boiler/Process Heater

Operating Parameters:

List the operating parameters and the limits set for each in the permit or for interim status facilities, the limits the facility gave based on their engineering calculations 40 CFR 264/5.1035(b) (4) (iii) (C)

or performance tests 40 CFR 264/5.1035(b) (2) (ii).

Operating Parameter	Limit	Have they met these limits
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Are all design documentation, monitoring, operating, and inspection information in the facility operating record ? 40 CFR 264/5.1035 (c)

Monitoring: A and either B or C

- A. flow indicator 264/5.1033 (f) (1)
records hourly
installation point correct
daily inspection 264/5.1033 (f) (3)

AND

- B. If design heat input capacity less than 44 MW:
a temperature monitoring device equipped with a continuous recorder 264/5.1033(f) (2) (iv)
installed in furnace downstream of combustion zone
accuracy of +/- 1% of temperature being monitored, or .5 degrees C (whichever is greater)
inspect daily 264/5.1033(f) (3)

OR

- C. If design heat input capacity greater than or equal to 44 MW:
continuously record 264/5.1033(f) (2) (v)
parameter that indicates good combustion practices
inspect daily 264/5.1033(f) (3)

Repair:

immediately upon daily inspection 40 CFR 264/5.1033(f) (3)

Exceedances: 40 CFR 264/5.1035(c) (4) (iv)

period when T flame zone > 28 deg. C below design avg. flame zone T established in design analysis
Position changes where vent stream is introduced
Cause of exceedance given 40 CFR 264/5.1035(c) (5)
Measures taken to correct cause provided 264/5.1035(c) (5)

Closed-vent systems associated with the control device 264/5.1033(j)

standard: No Detectable Emissions and no visual emissions
monitor: At facility effective date, and annually thereafter
repair: Start within 5 days, complete within 15 days

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Flares

Operating Parameters:

List the operating parameters and the limits set for each in the permit or for interim status facilities, the limits the facility gave based on engineering calculations 40 CFR 264/5.1035(b)(4)(iii)(D) and 1033(d); or performance tests 40 CFR 264/5.1035(b)(2)(ii).

Operating Parameter	Limit	Have they met these limits
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Are all design documentation, monitoring, operating, and inspection information in the facility operating record ? 40 CFR 264/5.1035(c)

Standard: 40 CFR 264/5.1033(d)

A flare cannot be used if net heating value of gas being combusted is less than 200 BTU/scf (7.45 MJ/scm) (non-assisted); or if less than 300 BTU/scf (11.2 MJ/scm) (steam or air-assisted). If heating value met, no visible emissions, except for 5 minutes/any 2 consecutive hrs flame present at all times
designed with an exit velocity <18.3 m/s (60 ft/s), unless net heating value >1000 BTU/scf (37.3 MJ/scm), and then:
if steam-assisted or non-assisted:
60 ft/s < Ve < 400 ft/s (122 m/s) and Ve < Vmax, calculated based on 264/5.1033(e)(4); or
if air-assisted: Ve < Vmax, calculated based on 264/5.1033(e)(5)

Monitoring: A and B

- A. flow indicator 264/5.1033(f)(1)
 - records hourly
 - installation point
 - daily inspection 264/5.1033(f)(3)
- B. heat sensing device for continuous ignition of pilot flame
 - continuously record 264/5.1033(f)(2)(iii)
 - inspect daily 264/5.1033(f)(3)

Repair:

immediately upon daily inspection 264/5.1033(f)(3)

Exceedances: 264/5.1035(c)(4)(v)

period when pilot flame is not ignited
cause of exceedance given 40 CFR 264/5.1035(c)(5)
measures taken to correct cause provided 40 CFR 264/5.1035(c)(5)

Closed-vent systems associated with the control device 264/5.1033(j)

standard: No Detectable Emissions and no visual emissions
monitor: At facility effective date, annually thereafter
repair: start by 5 days/complete by 15

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Carbon Adsorbers - Regenerative

Operating Parameters:

List the operating parameters and the limits set for each in the permit or for interim status facilities, the limits the facility gave based on their engineering calculations 40 CFR 264/5.1035(b) (4) (iii) (F)

or performance tests 40 CFR 264/5.1035(b) (2) (ii).

Operating Parameter	Limit	Have they met these limits
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Are all design documentation, monitoring, operating, and inspection information in the facility operating record ? 40 CFR 264/5.1035 (c)

Monitoring: A and either B or C and D

- A. flow indicator 264/5.1033 (f) (1)
 - records hourly
 - installation point correct
 - daily inspection 264/5.1033 (f) (3)

AND

- B. Monitoring device to measure concentration of organic compounds in carbon bed exhaust vent stream
 - continuously record 264/5.1033(f) (2) (vii)
 - daily inspection 264/5.1033 (f) (3)

OR

- C. Device to measure a parameter that indicates regeneration on a regular, predetermined time cycle
 - continuously record 264/5.1033(f) (2) (vii)
 - inspect daily 264/5.1033 (f) (3)

AND

- D. Replace carbon at regular, predetermined time interval that is < carbon service life 264/5.1033(g)

Repair: Immediately upon daily inspection 264/5.1033(f) (3)

Exceedances: 264/5.1035(c) (4) (viii and ix):

if design is based on monitoring organic compound:

- periods when organic compound exhaust >20% above design exhaust vent concentration level

if design is based on regeneration time, any period when flow continues past predetermined regeneration time

Cause of exceedance given? 264/5.1035(c) (5)

Measures taken to correct cause for exceedance? 264/5.1035(c) (5)

Has 264/5.1035(c) (6) been met?

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Carbon Adsorbers - Regenerative

Closed-vent systems associated with the control device 264/5.1033(j)
standard: No Detectable Emissions and no visual emissions
monitor: At facility effective date, annually thereafter
repair: start by 5 days/complete by 15

Checklist
Process Vents Applications
Part 264/265 Subpart AA

Carbon Adsorbers - Non-Regenerative

Operating Parameters:

List the operating parameters and the limits set for each in the permit or for interim status facilities, the limits the facility gave based on its engineering calculations 264/5.1035(b)(4)(iii)(G) and 264/5.1033(h)

or performance tests 40 CFR 264/5.1035(b)(2)(ii).

Operating Parameter	Limit	Have they met these limits
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Are all design documentation, monitoring, operating, and inspection information in the facility operating record ? 264/5.1035(c)

Monitoring: A and either B or C

- A. flow indicator 264/5.1033(f)(1)
 - records hourly
 - installation point
 - daily inspection 264/5.1033(f)(3), AND
- B. If design based on monitoring organic compd in exhaust vent stream: 40 CFR 264/5.1033(h)
 - monitor daily or at time <20% time carbon life established in design analysis (whichever is longer)
 - replace carbon immediately when breakthrough indicated, OR
- C. replace carbon at regular predetermined time interval less than design carbon replacement interval

Repair:

immediately upon daily inspection 264/5.1033(f)(3)

Exceedances: 264/5.1035(c)(6) or (7)

if monitoring organics in exhaust:

- date and time when monitored for breakthrough and monitoring device reading
- date when carbon is replaced with fresh carbon
- cause of exceedance given 264/5.1035(c)(5)
- measures taken to correct cause provided 264/5.1035(c)(5)

Closed-vent system

standard: No Detectable Emissions and no visual emissions
monitor: At facility effective date, annually thereafter
repair: First attempt within 5 days, complete within 15 days