KEY (for internal Agency use only)
▶ = Permitting/Corrective Action
▶ = Engineering
▶ = Chemistry
▶ = Financial Assurance
▶ = Geology

Hazardous Waste "Part B" Operating Permit Application
40 CFR 264 Subpart AA Module

The following links to guidance are for informational purposes only. Please do not include guidance with the permit application submittal.

Resource Conservation and Recovery Act Organic Air Emission Standards for Treatment, Storage, and Disposal Facilities and Large Quantity Generators

Applicability and Requirements of the RCRA Organic Air Emission Standards | US EPA

Add the permit application module information below to the end of Attachment D, Process Information.

Attachment D-AA ▶ Air Emission Standards for Process Vents

Applicability 40 CFR 264.1030

Check the appropriate box:

☐ No process vents exist that are subject to 40 CFR Part 264 Subpart AA:
Describe the method used (direct measurement or knowledge) for determining the total organic compound concentration of the waste stream is less than 10 ppmw following the procedures in 40 CFR 264.1034(d) and (e).

If this first box is checked, delete the remainder of D-AA.

☐ Process vents exist subject to 40 CFR Part 264, Subpart AA.

☐ Process vents are operated in accordance with the federal Clean Air Act (CAA) regulations codified under 40 CFR Parts 60, 61, or 63. Provide documentation of compliance under the CAA as follows:

(a) Location and description for each process vent and unit.
(b) A description of the pollution control equipment installed at each subject AA unit or emission control program being implemented at the facility.
(c) Identification of the current CAA requirement applicable to each subject AA unit or equipment, and the source of the requirement (e.g., construction permit, permit to install, regulations).
(d) A written statement that the owner/operator certifies all subject units are "operating air emission controls in accordance with the requirements of an applicable CAA regulation codified under 40 CFR parts 60, 61, or 63." This certified written

statement, accompanied by the specific information listed above, must state that all subject units are in compliance with applicable CAA requirements and that no unit for which the RCRA exemption is being claimed is currently exempted or will be exempted in the future from operating air emission controls because of emission averaging across the facility, via emission threshold determination, or for other reasons.

If **all** units subject to 40 CFR Part 264 Subpart AA are operated in accordance with the CAA, delete the remainder of D-AA below.

AA-1 Air Emissions from Process Vents

For each process vent that is subject to 40 CFR Part 264, Subpart AA, describe the process, unit type, and regulatory status. Identify whether process vents are associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(Check applicable boxes)

☐ Process Vents Associated with Distillation

☐ Process Vents Associated with Fractionation

☐ Process Vents Associated with Thin-film evaporation

☐ Process Vents Associated with Solvent Extraction

☐ Process Vents Associated with Air or Steam Stripping Operations

AA-2 Waste Streams 40 CFR 270.24(b), 40 CFR 264.1034(d)

Identify and describe each waste stream associated with each unit identified above that is not exempt under 40 CFR 264.1030. Describe the location at which each waste stream originates.

If claiming that a process vent is not subject to 40 CFR Part 264 Subpart AA because the total organic compound concentration of its associated waste stream is less than 10 ppmw, then describe the method used (direct measurement or knowledge) for determining the total organic compound concentration, following the procedures in 40 CFR 264.1034(d) and (e).

AA-3 Standards: Closed-Vent Systems and Control Devices 40 CFR 270.24(b), 40 CFR 264.1033

For each unit managing waste containing greater than 10 ppmw total organic compound, describe the closed-vent system and control device used to control organic compound emissions from process vents or reference a separate document in which this information is found and attach that document.

AA-3(a) Unit Description 40 CFR 270.24(b)(1)

Include the unit's annual throughput, operating hours, and approximate location of the unit within the facility on a facility plot plan.

AA-3(b) Operation and Maintenance 40 CFR 264.1033(f)

Describe how each control device is monitored and inspected to comply with 40 CFR 264.1033(f).

AA-3(c) Monitoring and Inspections 40 CFR 270.24(d)(2)

Provide records and dates of each compliance test required by 40 CFR 264.1033(l) for each closed-vent system.

AA-4 Emission Rates 40 CFR 270.24(b)(2)

Provide data and information describing each process vent's estimated emission rate based on operating parameters and conditions that exist when the unit is operating at the highest load or capacity level reasonably expected to occur. Also include the total emission rate for all affected vents at the facility.

AA-4(a) Emission Reductions 40 CFR 270.24(b)(2)

Describe emission reductions achieved by all add-on control devices.

AA-4(a)(1) Condenser or Adsorber and Closed-Vent System 40 CFR 264.1033(b)

If a closed-vent system and condenser or adsorber are used to control organic compound emissions from process vents, show vapor recovery efficiency of the condenser or adsorber and closed vent system, in terms of percent reduction by weight.

AA-4(a)(2) Thermal Vapor Incinerator and Closed-Vent System 40 CFR 264.1033(c)

If a closed-vent system and thermal vapor incinerator are used to control organic compound emissions from process vents, show the emissions reduction achieved by the thermal vapor incinerator and closed-vent system and thermal vapor incinerator in terms of percent reduction by weight.

AA-4(a)(3) Catalytic Vapor Incinerator and Closed-Vent System 40 CFR 264.1033(c)

If a closed-vent system and catalytic vapor incinerator are used to control organic compound emissions from process vents**,** show the emissions reduction achieved by the catalytic vapor incinerator and closed vent system, in terms of percent reduction by weight.

AA-4(a)(4) Boiler/Process Heater and Closed-Vent System 40 CFR 264.1033(c)

If a closed-vent system and a boiler or process heater are used to control organic compound emissions from process vents, show the emission reduction achieved by the boiler or process heater and closed-vent system, in terms of percent reduction by weight.

AA-4(a)(5) Flare and Closed-Vent System 40 CFR 264.1033(d)

If a closed-vent system and a flare are used to control organic compound emissions from process vents, demonstrate how the design and operation of the flare complies with the requirements found in 40 CFR 264.1033(d) and (e).

AA-4(a)(6) Carbon Adsorber and Closed-Vent System 40 CFR 264.1033(g) and (h)

If a closed-vent system and a carbon adsorption system are used to control organic compound emissions from process vents, demonstrate compliance of the design and

operation of the carbon adsorption system with the requirements found in 40 CFR 264.1033(g) and (h).

AA-4(a)(7) Performance Test Plan for Other Control Devices 40 CFR 270.24(c)

For permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with 40 CFR 264.1032, by using test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, attach a performance test plan that meets the requirements of 40 CFR 264.1035(b)(3).

AA-4(b) Emission Estimates 40 CFR 270.24(b)

Describe the method used for estimating emission rates (engineering calculations or source tests).

AA-4(b)(1) Engineering Calculations 40 CFR 270.24(b) and (d)

If engineering calculations are used to document compliance with the closed-vent system and control device, provide supporting data and calculations for above emission estimates, in accordance with 40 CFR 264.1035(b)(4)(iii).

AA-4(b)(1)(i) Certification Statements 40 CFR 270.24(d)(4) and (5), 40 CFR 264.1035(b)(4)

(a) Include a signed and dated statement certifying that operating parameters used in the design analysis represent conditions that exist when the unit is operating at its highest load or capacity level that is reasonably expected to occur.

(b) Include a signed and dated statement certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of 40 CFR 264.1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

AA-4(b)(2) Performance Test Plan 40 CFR 264.1032(c), 40 CFR 264.1034(c), 40 CFR 264.1035(b)(3)

If a performance test is used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, provide a description of the performance test plan and how it is determined that the test is conducted when the unit is operating at the highest load or capacity level. If the performance test plan is included as a separate document, attach the test plan.

AA-4(b)(2)(i) Performance Test Plan Description 40 CFR 264.1035(b)(3)(ii)

For each closed-vent system and control device, list the manufacturer's name and model number, type, dimensions, capacity, and construction materials.

AA-4(b)(2)(ii) Planned Timing 40 CFR 264.1034(c)

Show dates of planned performance tests or dates of past performance tests.

AA-4(b)(2)(iii) Sampling and Monitoring Procedures 40 CFR 264.1034(c), 40 CFR 264.1035(b)(3)(iii)

Describe sampling and monitoring procedures used during the performance test that includes sampling and monitoring locations, equipment used, and frequency. Performance tests must conform to the requirements of 40 CFR 264.1034(c). Methods 2

in 40 CFR Part 60 must be used to determine velocity and volumetric flow rate, and Method 18 or 25A in 40 CFR Part 60 must be used for organic compound content.

AA-4(b)(2)(iv) Performance Test Results 40 CFR 264.1034(c)

Show the performance test results in accordance with 40 CFR 264.1034(c). Show the final test results in this section and use the following sections to provide more details of the performance test.

AA-4(b)(2)(v) Description of Performance Test Runs 40 CFR 264.1034(c)

Provide a detailed description of test runs, including number, actual timing, and process conditions.

AA-4(b)(2)(vi) Velocity and Volumetric Flow Rate 40 CFR 264.1034(c)

Show the velocity and volumetric flow rate that was achieved during each test run.

AA-4(b)(2)(vii) Organic Compound Content 40 CFR 264.1034(c)

Provide the organic concentration of each applicable compound in the stack gas in ppm on a dry basis.

AA-4(b)(2)(viii) Total Organic Mass Flow Rate 40 CFR 264.1034(c)(1)(iv)

Provide the total organic compound mass flow rate based on an average of all test runs and show the method for calculating the results. The equation used for calculating the total organic mass compound flow rate is shown in 40 CFR 264.1034(c)(1)(iv).

AA-4(b)(2)(ix) Total Organic Compound Emissions 40 CFR 264.1034(c)(1)(v) and (vi)

Show total annual organic emissions from each process vent and from the sum of all affected process vents. Also show the method for calculating the results. Annual total organic emission rates from each process vent are calculated by multiplying the total hourly organic compound mass flow rate by the total annual hours of operation of each affected unit. Total organic compound emissions from all affected process vents are determined by summing the hourly total organic compound mass emission rates and by summing the annual total organic compound mass emission rates for all affected process vents.