



[www.epa.gov/hwpermitting](http://www.epa.gov/hwpermitting)



EPA 530-F-22-007  
December 2022

# RCRA Organic Air Emission Standards for TSDFs and Large Quantity Generators

## Introduction

Section 3004(n) of the [Resource Conservation and Recovery Act \(RCRA\)](#) requires the development of standards to monitor and control air emissions from hazardous waste treatment, storage, and disposal facilities (TSDFs) as necessary to protect human health and the environment. To implement this, EPA established the [RCRA Organic Air Emission Standards](#) under three subparts found in Title 40 of the Code of the Federal Regulations (CFR), [part 264](#) (permitted facilities) and [part 265](#) (interim status facilities). These standards are applicable to hazardous waste TSDFs and certain large quantity generators (LQGs). They establish performance, design, operation, monitoring, recordkeeping, and maintenance requirements for certain hazardous waste management units (HWMUs) and associated equipment and air emission control devices. Specifically, Subpart AA controls air emissions from certain process vents, Subpart BB controls air emissions from specified equipment leaks, and Subpart CC controls air emissions from certain tanks, containers, surface impoundments and miscellaneous units as applicable. TSDFs must address determination of organic concentrations and other properties of wastes in their Waste Analysis Plans; 40 CFR sections 264.13(a)(1), 264.13(b)(6), 265.13(a)(1) and 265.13(b)(6).<sup>1</sup> This document provides a high-level overview of those standards, including applicability and requirements, for TSDFs and LQGs.<sup>2</sup>

## Subpart AA – Air Emission Standards for Process Vents

- The [Subpart AA](#) standards require air emission controls for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 parts per million by weight (ppmw) if these operations are conducted in the following types of units<sup>3</sup>:

## Why is it Important to Regulate Air Emissions?

Emissions from hazardous waste management units include toxic organic compounds and ozone precursors. These can result in exposure to onsite workers and impact nearby communities. Adverse health effects such as cancer, and environmental effects such as crop damage, may result from exposure to these organic emissions. Organic air emissions can also increase the risk of fire or explosion.

## Applicability of the RCRA Organic Air Emission Standards to Recycling Units

Although units engaged in legitimate recycling of hazardous waste can be conditionally exempt from permitting under RCRA, 40 CFR section [261.6\(d\)](#) subjects certain recycling units to the Subpart AA and BB standards. Recycling units at facilities that are subject to RCRA permitting for storage, or are operating in interim status, must also comply with the applicable Subpart AA and BB regulations. Subpart CC does not apply to recycling units because the emission mechanisms for hazardous waste storage tanks differ significantly from the emission mechanisms of the distillation-type units used for recycling and certain treatment operations (e.g., air strippers and thin-film evaporators), which are regulated under subpart AA. (Refer to 61 Fed. Reg. 59,935, Nov. 25, 1996).

<sup>1</sup> Refer to 40 CFR sections 264.1034(d) or 265.1034(d) for Subpart AA, sections 264.1063(d) or 265.1063(d) for Subpart BB, and sections 264.1083 or 265.1084 for Subpart CC.

<sup>2</sup> The contents of this fact sheet do not have the force and effect of law. This fact sheet is intended only to provide clarity to the public about existing requirements under the law and EPA policies.

<sup>3</sup> Refer to 40 CFR sections [264.1030](#) or [265.1030](#).

- Units subject to the permitting standards of 40 CFR part [270](#) (i.e., permitted or interim status). Refer to 40 CFR sections [264.1030](#) or [265.1030](#).
  - Hazardous waste recycling units located at hazardous waste management facilities that store hazardous waste prior to recycling or are otherwise subject to the permitting requirements of 40 CFR part [270](#) (i.e., the facility has a RCRA permit or is in interim status).<sup>4</sup> Refer to 40 CFR sections [264.1030](#) or [265.1030](#).
  - “90-day” accumulation tanks or containers at LQGs. Refer to [40 CFR section 262.17\(a\)](#), formerly section 262.34(a), and 40 CFR sections [264.1030](#) or [265.1030](#).
- According to 40 CFR section [264.601](#), certain Subpart X miscellaneous units may also be subject to Subpart AA requirements, as appropriate, to control volatile organic emissions from the unit.
  - Refer to 40 CFR sections [264.1030](#) through [264.1036](#) or 40 CFR sections [265.1030](#) through [265.1035](#) for all of the air emission standards and related requirements for process vents, closed-vent systems, and control devices.
  - **Exemption provision.** The provisions of 40 CFR [264.1030\(e\)](#) and [265.1030\(d\)](#) exempt all process vents subject to Subpart AA that the facility owner or operator certifies are “equipped with and operating air emission controls in accordance with the . . . requirements of an applicable Clean Air Act regulation codified under 40 CFR part [60](#), part [61](#), or part [63](#).”<sup>5</sup>

## Air Emission Control Requirements

Facilities subject to Subpart AA must meet one of the following conditions presented in the regulations to reduce and/or destroy the organics in the waste stream (refer to 40 CFR section [264.1032\(a\)](#) or section [265.1032\(a\)](#)):

<sup>4</sup> Hazardous waste recycling units at facilities that do not store hazardous waste prior to recycling and are not otherwise subject to the permitting requirements of 40 CFR Part 270 are not subject to the Subpart AA standards.



*Example of a chemical plant distillation tower. Certain process vents associated with distillation and other processes that manage hazardous waste may be subject to Subpart AA.*

- Reduction of organic air emissions from *all* affected process vents at the facility to below 3.0 pounds per hour (1.4 kg/h) and 3.1 tons per year (2.8 Mg/yr).

**OR**

- Reduction of organic air emissions from all affected process vents at the facility by 95 percent by weight through the installation and operation of a control device.

Facilities must also comply with the test methods and procedures, monitoring, recordkeeping, and reporting requirements applicable to the affected units.

## Control Devices and Closed-Vent System

- Control devices include vapor recovery systems, enclosed combustion devices, and flares (refer to 40 CFR sections [264.1033 \(b\), \(c\) and \(d\)](#) or sections [265.1033\(b\), \(c\) and \(d\)](#)). Owners and operators may use other types of control devices as long as the emission reduction requirements of 40 CFR section [264.1032\(a\)](#) or section [265.1032\(a\)](#) are met.
- Closed-vent systems may also be installed to channel or route organics to the control device.

<sup>5</sup> For more information on the implementation of the Subpart AA compliance exemption provision, refer to the [“Implementing the RCRA/CAA Air Emission Controls Compliance Exemption/Election Provisions Through RCRA Permits”](#) document (EPA 530-R-19-006).

## Inspection and Monitoring

- Control devices used to comply with Subpart AA must be monitored by installing, calibrating, and operating a flow indicator and a continuous monitoring device such as, depending on the type of control device in use, a temperature monitoring, heat sensing monitoring, or organic compounds level monitoring device, following the requirements in 40 CFR section [264.1033\(f\)](#) or section [265.1033\(f\)](#). Readings from each monitoring device are required to be inspected at least once each operating day. Should exceedances occur, facilities must immediately implement corrective measures.
- Closed-vent systems used to comply with Subpart AA must be monitored at least annually. Any detectable emissions must be controlled as soon as possible, but typically not later than 15 calendar days after the emission is detected. Refer to 40 CFR section [264.1033\(l\)](#) or section [265.1033\(k\)](#).

## Recordkeeping

- The Subpart AA recordkeeping requirements in 40 CFR section [264.1035](#) or section [265.1035](#) include maintaining certain information in the facility record, such as:
  - A performance test plan for facilities using test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device.
  - Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Subpart AA.
- Recordkeeping requirements also include up-to-date documentation of compliance with the process vent standards in 40 CFR sections [264.1032](#) or section [265.1032](#), such as:
  - Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit; estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility); and the approximate location

within the facility of each affected unit (e.g., identify the HWMUs on a facility plot plan).

- Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests.
- Documentation of compliance with the process vent standards is also required for the RCRA permitting decision and must be included in the RCRA permit application. Refer to 40 CFR section [270.24](#).
- For process vents that are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act (CAA) regulation codified under 40 CFR part [60](#), part [61](#), or part [63](#), the owner or operator is still required to maintain with the facility operating record documentation demonstrating compliance under regulations at 40 CFR part [60](#), part [61](#), or part [63](#) available. Refer to 40 CFR section [264.1030\(e\)](#) or section [265.1030\(d\)](#).



*Example of a process vent with valve at the bottom.*

## Reporting

- Subpart AA requires that owners and operators of permitted facilities report to the Regional Administrator every six months, indicating, among other things, the dates when the control device exceeded or operated outside the design

specifications<sup>6</sup> without being corrected within 24 hours; the duration and cause of each exceedance or visible emissions; and any corrective measures taken. Refer to 40 CFR section [264.1036](#).

- There are no Subpart AA reporting requirements for owners and operators of interim status facilities or for LQGs.

## Subpart BB – Air Emissions Standards for Equipment Leaks

- The [Subpart BB](#) standards apply to certain equipment, such as pumps, compressors, pressure-relief devices, sampling connection systems, and valves, that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight if they are managed at the following types of units:
  - Units subject to the permitting requirements of 40 CFR part [270](#) (i.e., permitted or interim status). Refer to 40 CFR sections [264.1050](#) or [265.1050](#).
  - Hazardous waste recycling units located at hazardous waste management facilities that store hazardous waste prior to recycling or are otherwise subject to the permitting requirements of 40 CFR part 270 (i.e., the facility has a RCRA permit or is in interim status).<sup>7</sup> Refer to 40 CFR sections [264.1050](#) or [265.1050](#).
  - “90-day” accumulation tanks or containers at LQGs. Refer to 40 CFR section [262.17\(a\)](#), formerly section 262.34(a), and 40 CFR sections [264.1050](#) or [265.1050](#).
- According to 40 CFR section [264.601](#), certain Subpart X miscellaneous units may also be subject to Subpart BB requirements, as appropriate, to control volatile organic emissions from the equipment.
- Subpart BB requires organic air emission controls

for equipment leaks. The requirements vary depending on the type of equipment in use (e.g., pressure-relief devices in gas/vapor service, sampling connection systems).

- If the equipment contains or contacts hazardous waste or hazardous waste residues for less than 300 hours per calendar year, or if the equipment is in vacuum service, it is excluded from the requirements of 40 CFR sections [264.1052](#) to [264.1060](#), or 40 CFR sections [265.1050](#) to [265.1060](#), if it is identified as required in 40 CFR sections [264.1064\(g\)\(5\)](#), [264.1064\(g\)\(6\)](#), [265.1064\(g\)\(5\)](#) or [265.1064\(g\)\(6\)](#). However, that same equipment is not excluded from Subpart BB identification/marketing, recordkeeping, and reporting. Refer to 40 CFR sections [264.1050\(d\)](#) through [264.1050\(f\)](#), or 40 CFR sections [265.1050\(c\)](#) through [265.1050\(e\)](#).
- For all of the air emission standards and related requirements for equipment leaks, refer to 40 CFR sections [264.1050](#) through [264.1065](#), or 40 CFR sections [265.1050](#) through [265.1064](#).
- **Compliance election provision.** Subpart BB allows owners or operators to elect to demonstrate compliance with Subpart BB either via 40 CFR sections [264.1064](#) or [265.1064](#) or by documentation of compliance with an applicable CAA regulation codified under 40 CFR part [60](#), part [61](#), or part [63](#). A facility choosing compliance election continues to be subject to Subpart BB, which means the RCRA program still addresses Subpart BB in the permit (for TSDFs), and determines compliance by evaluating the CAA records that the owner or operator elects to maintain under 40 CFR [264.1064\(m\)](#) or [265.1064\(m\)](#) (for both TSDFs and LQGs).<sup>8</sup>

## Inspection and Monitoring

- Each piece of equipment that is subject to the Subpart BB standards must be marked so that it can be readily distinguished from other pieces of

<sup>6</sup> As defined in 40 CFR section [264.1035\(c\)\(4\)](#) and as indicated by the control device monitoring required by 40 CFR section [264.1033\(f\)](#).

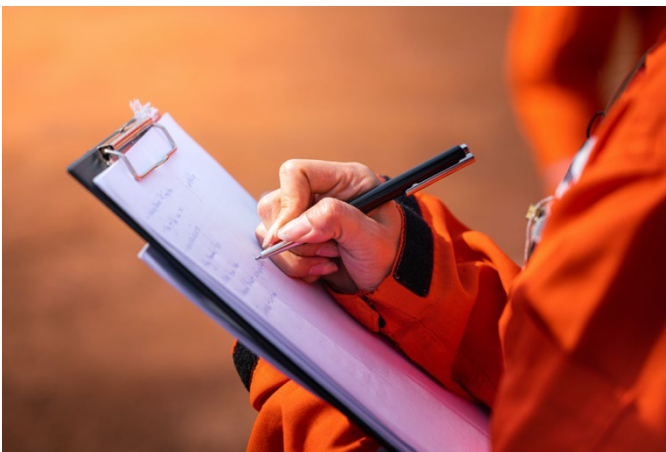
<sup>7</sup> Hazardous waste recycling units at facilities that do not store hazardous waste prior to recycling and are not otherwise subject to the permitting requirements of 40 CFR Part 270 are not subject

to the Subpart BB standards.

<sup>8</sup> For more information on the implementation of the Subpart BB compliance election provision, refer to the “[Implementing the RCRA/CAA Air Emission Controls Compliance Exemption/Election Provisions Through RCRA Permits](#)” document (EPA 530-R-19-006).

equipment, specifically tracked in the facility operating records and reflected in the RCRA permit application (refer to 40 CFR section [264.1050\(d\)](#), and section [265.1050\(c\)](#)).

- The equipment must be monitored and inspected regularly. Equipment-specific inspection, monitoring, and repair requirements are contained in 40 CFR sections [264.1052](#) through [264.1060](#), and 40 CFR sections [265.1052](#) through [265.1060](#).
- Most equipment leaks must be repaired no later than 15 calendar days after they are detected (e.g., 40 CFR section [264.1052\(c\)\(1\)](#) or section [265.1052\(c\)\(1\)](#)). However, a pressure-relief device in gas/vapor service must be returned to a condition of no detectable emissions no later than five calendar days after a pressure release (refer to 40 CFR section [264.1054](#) or section [265.1054\(b\)](#)).



## Recordkeeping

- Subpart BB recordkeeping requirements include: equipment identification number; type of equipment; approximate location within the facility, and methods of compliance monitoring (e.g., leak detection and repair (LDAR) program)<sup>9</sup>. When equipment leaks are detected, certain information must be recorded and kept in the facility operating record for at least three years. Refer to 40 CFR section [264.1064](#) or section [265.1064](#) for more specific recordkeeping requirements.
- Written LDAR programs, identification and tracking systems, equipment-specific monitoring

<sup>9</sup> For more information about LDAR programs, read the "[Leak Detection and Repair: A Best Practices Guide](#)."

and inspections systems, and training plans for employees are also required for the RCRA permitting decision and must be included in the RCRA permit application (refer to 40 CFR sections [270.14](#) or section [270.25](#)).

- Owners or operators electing to determine compliance by documentation in accordance with an applicable CAA regulation codified under 40 CFR part [60](#), part [61](#), or part [63](#), are required to keep such documentation, or make it readily available with the facility operating record. Refer to 40 CFR sections [264.1064\(m\)](#) or section [265.1064\(m\)](#).

## Reporting

- Subpart BB requires that owners and operators of permitted facilities report to the Regional Administrator every six months, indicating any instances during that period when a leaking valve, pump, or compressor was not repaired (as required by BB), and when a control device exceeded specifications (as indicated by monitoring activities) for longer than 24 hours without being corrected (refer to 40 CFR section [264.1065](#)). The reports must indicate dates, duration times, causes, and any corrective measures that were taken with respect to control devices. If, during the six-month period, no exceedances occur and all leaks are repaired at the facility, the owner and operator need not submit a report to the Regional Administrator.
- As in Subpart AA, there are no Subpart BB reporting requirements for owners and operators of interim status facilities or for LQGs.

## Subpart CC – Air Emission Standards for Tanks, Surface Impoundments, and Containers

- The Subpart CC standards apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in certain tanks, surface impoundments, or containers subject to 40 CFR parts 264 or 265 subparts I, J, or K. This includes LQGs (e.g., generators of 1,000 kg/month or more of non-acute hazardous waste) accumulating

hazardous waste in tanks or containers for up to 90 days (refer to 40 CFR section [262.17\(a\)](#), formerly section 262.34(a)).

- Additionally, according to 40 CFR section [264.601](#), Subpart X miscellaneous units are subject to Subpart CC requirements, as appropriate, to control volatile organic emissions from the units (e.g., drum shredders).
- Refer to 40 CFR section [264.1080](#) or section [265.1080](#) to determine if your waste management units are subject to the Subpart CC regulations.
- Subpart CC requires owners or operators to manage wastes in units that are closed such that emissions do not escape or are controlled.
- Generally, if a hazardous waste has an average volatile organic concentration of less than 500 parts per million by weight (ppmw) at the point of waste origination, or if the hazardous waste's organic content has been reduced to the extent described in 40 CFR section [264.1082\(c\)\(2\)](#) or section [265.1083\(c\)\(2\)](#) prior to entering the waste management unit, the unit is exempt from the air emission controls required under 40 CFR sections [264.1084](#) through [264.1087](#) or sections [265.1085](#) through [265.1088](#). Refer to 40 CFR section [264.1082\(c\)](#) or section [265.1083\(c\)](#).
- The procedures to be used for determining average volatile organic concentration and other waste characteristics are specified in 40 CFR section [264.1083](#) or section [265.1084](#).
- Refer to 40 CFR sections [264.1080](#) through [264.1090](#) or 40 CFR sections [265.1080](#) through [265.1090](#) for all of the air emission standards and related requirements for tanks, surface impoundments and containers.
- **Exemption provision.** The provisions of [40 CFR 264.1080\(b\)\(7\)](#) and [265.1080\(b\)\(7\)](#) exempt all hazardous waste management units subject to Subpart CC that the facility owner or operator certifies are "equipped with and operating air emission controls in accordance with the . . . requirements of an applicable Clean Air Act



*Example of a stainless-steel fuel tank with closure device secured in the closed position so that emissions are controlled.*

regulation codified under 40 CFR part [60](#), part [61](#), or part [63](#)."<sup>10</sup>

## Unit-Specific Requirements

- Subpart CC standards applicable to **tanks** containing hazardous wastes are specified in 40 CFR section [264.1084](#) and section [265.1085](#). For example, all tanks subject to the Subpart CC standards must be regularly inspected. Inspection procedures and requirements vary by type of tank control used. Records of all inspections, regardless of the control level, must be kept at the facility for a minimum of three years after the date of the inspection (refer to 40 CFR section [264.1089\(a\)](#) or section [265.1090\(a\)](#)). There are two levels of air emission controls for tanks which are determined based on the size of the tank, maximum organic vapor pressure of the waste, and whether the tank is used in a waste stabilization process. **Table 1** provides a matrix for determining the applicable level of control for tanks.
- Subpart CC standards applicable to **surface impoundments** containing hazardous wastes are found in 40 CFR section [264.1085](#) and section [265.1086](#). For example, an owner or operator must install and operate either a floating membrane

<sup>10</sup> For more information on the implementation of the Subpart AA compliance exemption provision, read the "[Implementing the RCRA/CAA Air Emission Controls Compliance Exemption/Election Provisions Through RCRA Permits](#)" document (EPA 530-R-19-006).

cover or a cover that is vented through a closed-vent system to a control device. The floating membrane cover must meet certain design requirements specified in the rule.

- Subpart CC standards applicable to **containers** of hazardous wastes are specified in 40 CFR section [264.1086](#) and section [265.1087](#). For example, if a Level 1 or 2 container is not going to be emptied within 24 hours after it is accepted at the facility, a visual inspection is required on or before the date the container is accepted and at least once a year thereafter. Repairs of defects in such containers must be completed within five days or the contents of the container must be removed from the container. Refer to 40 CFR sections [264.1086\(c\)\(4\)](#) and [264.1086\(d\)\(4\)](#); and 40 CFR sections [265.1087\(c\)\(4\)](#) and [265.1087\(d\)\(4\)](#). There are three levels of air emission controls for containers based on container size, light material service (which is determined by the vapor pressure of the organic constituents), and whether the container is used in a waste stabilization process. **Table 2** provides a matrix for determining the applicable control level for a container.



*Example of a pressure relief valve located on a tank.*

## Inspection and Monitoring

- Owners or operators are required to develop and implement a written plan and schedule to perform the inspections and monitoring of the air emission control equipment that is required in 40 CFR sections [264.1084](#) through [264.1087](#) for permitted facilities, or 40 CFR sections [265.1085](#) through

[265.1088](#) for interim status facilities and LQGs. Requirements vary by the type of waste management unit and the type of air emission controls used. Refer to 40 CFR section [264.1088](#) and section [265.1089](#).

## Recordkeeping

- Each owner or operator of a facility subject to Subpart CC must comply with the recordkeeping requirements found in 40 CFR section [264.1089](#) or section [265.1090](#), including documentation specific to the type of unit and air emissions control being used. For each tank using air emission controls the requirements include an identification number, a record of each inspection including location, description, date of detection, and corrective action for each defect detected.
- In the event that repair of the defect is delayed, the reason for delay and expected completion of repair date must also be recorded.
- For HWMUs that are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR part [60](#), part [61](#), or part [63](#) (refer to 40 CFR section [264.1080\(b\)\(7\)](#) and section [265.1080\(b\)\(7\)](#)), the owner or operator is still required to maintain records that document the rationale for the exemption. Refer to 40 CFR section [264.1089\(j\)](#) and section [265.1090\(j\)](#).

## Reporting

- Subpart CC requires owners or operators of permitted facilities to submit a written report within 15 calendar days of the time that the owner or operator becomes aware of a noncompliance occurrence with the conditions specified in:
  - 40 CFR section [264.1082\(c\)](#), as applicable, for tanks, surface impoundments or containers exempted from using air emission controls under that provision. Refer to 40 CFR section [264.1090\(a\)](#).
  - 40 CFR section [264.1084\(b\)](#), as applicable, for tanks using air emission controls in accordance with that provision. Refer to 40 CFR section [264.1090\(b\)](#).
- Owners or operators of a permitted facility using a control device in accordance with the requirements

of 40 CFR section [264.1087](#) shall submit a semiannual written report as applicable. Refer to 40 CFR sections [264.1090\(c\)](#) and [\(d\)](#).

- There are no Subpart CC reporting requirements for owners and operators of interim status facilities or for LQGs.

**Table 1. Determination of Applicable Level of Control for Tanks Containing Hazardous Waste Subject to the Subpart CC Regulations**

Tank Design Capacity	Maximum Organic Vapor Pressure of Hazardous Waste in Tank	Does Waste Stabilization Process Occur in the Tank?	Applicable Level of Control
<75 m <sup>3</sup> (19,800 gal)	≤ 76.6 kPa (11.1 psi)	Yes	Tank Level 2 Controls
<75 m <sup>3</sup> (19,800 gal)	≤ 76.6 kPa (11.1 psi)	No	Tank Level 1 Controls
<75 m <sup>3</sup> (19,800 gal)	> 76.6 kPa	Yes	Tank Level 2 Controls
<75 m <sup>3</sup> (19,800 gal)	> 76.6 kPa	No	Tank Level 2 Controls
≥ 75 m <sup>3</sup> (19,800 gal) and < 151 m <sup>3</sup> (39,900 gal)	≤ 27.6 kPa (4.0 psi)	Yes	Tank Level 2 Controls
≥ 75 m <sup>3</sup> (19,800 gal) and < 151 m <sup>3</sup> (39,900 gal)	≤ 27.6 kPa (4.0 psi)	No	Tank Level 1 Controls
≥ 75 m <sup>3</sup> (19,800 gal) and < 151 m <sup>3</sup> (39,900 gal)	> 27.6 kPa	Yes	Tank Level 2 Controls
≥ 75 m <sup>3</sup> (19,800 gal) and < 151 m <sup>3</sup> (39,900 gal)	> 27.6 kPa	No	Tank Level 2 Controls
≥ 151 m <sup>3</sup> (39,000 gal)	≤ 5.2 kPa (0.75 psi)	Yes	Tank Level 2 Controls
≥ 151 m <sup>3</sup> (39,000 gal)	≤ 5.2 kPa (0.75 psi)	No	Tank Level 1 Controls
≥ 151 m <sup>3</sup> (39,000 gal)	> 5.2 kPa	Yes	Tank Level 2 Controls
≥ 151 m <sup>3</sup> (39,000 gal)	> 5.2 kPa	No	Tank Level 2 Controls



**Table 2. Determination of Applicable Level of Control for Containers of Hazardous Waste Subject to the Subpart CC Regulations**

Container Design Capacity	Is the Container in Light Material Service? <sup>11</sup>	Does Waste Stabilization Process Occur in the Container?	Applicable Level of Control
≤ 0.1 m <sup>3</sup> (26.4 gal)	NA	NA	Container is Exempt from Air Emission Standards
> 0.1 m <sup>3</sup> (26.4 gal) and ≤ 0.46 m <sup>3</sup> (121 gal)	Yes	Yes	Container Level 3 Controls
> 0.1 m <sup>3</sup> (26.4 gal) and ≤ 0.46 m <sup>3</sup> (121 gal)	No	No	Container Level 1 Controls
> 0.1 m <sup>3</sup> (26.4 gal) and ≤ 0.46 m <sup>3</sup> (121 gal)	No	Yes	Container Level 3 Controls
> 0.1 m <sup>3</sup> (26.4 gal) and ≤ 0.46 m <sup>3</sup> (121 gal)	Yes	No	Container Level 1 Controls
> 0.46 m <sup>3</sup> (121 gal)	Yes	Yes	Container Level 3 Controls
> 0.46 m <sup>3</sup> (121 gal)	No	No	Container Level 1 Controls
> 0.46 m <sup>3</sup> (121 gal)	No	Yes	Container Level 3 Controls
> 0.46 m <sup>3</sup> (121 gal)	Yes	No	Container Level 2 Controls

## Definitions

**Average volatile organic concentration** – The mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of 40 CFR section [265.1084\(a\)](#). Refer to 40 CFR section [265.1081](#).

**Closed-vent system** – A system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device. Refer to 40 CFR section [264.1031](#).

**Container** – Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled. Refer to 40 CFR section [260.10](#).

**Control device** – An enclosed combustion device, vapor

recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale is not a control device. Refer to 40 CFR section [264.1031](#).

**Equipment** – Each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any other control devices or systems required by part [264](#) and part [265](#), of Subpart AA. Refer to 40 CFR section [264.1031](#).

**Enclosure** – A structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed vent system to a control device. Refer to 40 CFR section [265.1081](#).

**Hazardous waste management unit (HWMU)** – A contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant

<sup>11</sup> The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20°C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight.

likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed. Refer to 40 CFR section [260.10](#).

**In light material service** – A container that is used to manage a material for which both of the following conditions apply: (1) the vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20°C; and (2) the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight. Refer to 40 CFR section [265.1081](#).

**In vacuum service** – Equipment that is operating at an internal pressure that is at least 5 kPa below ambient pressure. Refer to 40 CFR section [264.1031](#).

**Large Quantity Generator (LQG)** – A generator who generates any of the following amounts in a calendar month: (1) Greater than or equal to 1,000 kilograms (2200 lbs) of non-acute hazardous waste; or (2) Greater than 1 kilogram (2.2 lbs) of acute hazardous waste listed in 40 CFR section [261.31](#) or section [261.33\(e\)](#); or (3) Greater than 100 kilograms (220 lbs) of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in 40 CFR section [261.31](#) or section [261.33\(e\)](#). Refer to 40 CFR section [260.10](#).

**Maximum organic vapor pressure** – The sum of the individual organic constituent partial pressures exerted by the material contained in a tank, at the maximum vapor-pressure-causing conditions (e.g., temperature, agitation, pH effects of combining wastes) reasonably expected to occur in the tank. Maximum organic vapor pressure is determined using the procedures specified in 40 CFR section [265.1084\(c\)](#). Refer to 40 CFR section [265.1081](#).

**Miscellaneous unit** – A hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards

under 40 CFR part [146](#), containment building, corrective action management unit, unit eligible for a research, development, and demonstration permit under 40 CFR section [270.65](#), or staging pile. Refer to 40 CFR section [260.10](#).

**No detectable organic emissions** – No escape of organics to the atmosphere as determined using the procedures specified in 40 CFR section [265.1084\(d\)](#). Refer to 40 CFR section [265.1081](#).

**Point of waste origination** – (1) When the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as defined in 40 CFR section [261](#). (2) When the facility owner or operator is not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste. Refer to 40 CFR section [265.1081](#).

**Process vent** – Any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations. Refer to 40 CFR section [264.1031](#).

**Surface impoundment or impoundment** – A facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons. Refer to 40 CFR section [260.10](#).

**Tank** – A stationary device designed to contain an accumulation of hazardous waste, which is constructed primarily of non-earthen materials that provide structural support. Refer to 40 CFR section [260.10](#).

**Volatile organic concentration** – The fraction by weight of the volatile organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the waste in accordance with the

requirements of 40 CFR section [265.1084](#). For the purpose of determining the volatile organic concentration of a hazardous waste, organic compounds with a Henry's law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) at 25 degrees Celsius must be included. 40 CFR Part [265 Appendix VI](#) presents a list of compounds known to have a Henry's law constant value less than the cutoff level. Refer to 40 CFR section [265.1081](#).

**Waste stabilization process** – Any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, third edition, September 1986, as incorporated by reference in 40 CFR section [260.11](#). A waste stabilization process involves mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification." This does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid. Refer to 40 CFR section [265.1081](#).