

Technical
Assistance
Project



Environmental
Guidance

RCRA Subpart CC
Organic Air Emission Standards
Technical Amendment

*Questions & Answers
Update*

August 1998

U.S. Department of Energy
Office of Environmental Policy & Assistance
RCRA/CERCLA Division, EH-413
Washington, D.C.

Technical Assistance Project

***Resource Conservation and Recovery Act
Organic Air Emission Standards:***

Questions & Answers



August 1998

Prepared by

**U.S. Department of Energy
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Background

On June 21, 1990, the Environmental Protection Agency (EPA) published “Hazardous Waste Treatment, Storage and Disposal Facilities—Organic Air Emission Standards for Process Vents, Equipment Leaks (Subparts AA, BB); Final Rule,” which represented Phase I of EPA’s three-phased control program for volatile organic compounds (VOCs). (reference 1) The final rule was mandated by section 3004(n) of the Resource Conservation and Recovery Act (RCRA), which requires the development of regulations to control organic air emissions from hazardous waste treatment, storage, and disposal facilities (TSDFs).

EPA published the Phase II standards on December 6, 1994, as the “Hazardous Waste Treatment, Storage, and Disposal Facilities—Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers (Subpart CC); Final Rule.” (reference 2)

EPA continued to receive comments on the regulations. Based on their evaluation of the comments, EPA decided, in 1996, to issue a revised final rule amending the subpart AA and BB final rule and clarifying the language of the 1994 subpart CC final rule so as to provide greater flexibility in meeting the subpart AA, BB, and CC standards. (reference 3)

The final rule also was amended in 1997 to make technical amendments and to clarify the regulatory text. (reference 4)

Subpart AA regulates air emissions from process vents on the following units providing these units manage hazardous waste with greater than 10 parts per million by weight (ppmw) organics: distillation units, fractionation units, thin-film evaporation units, solvent extraction units, air stripping units, and steam stripping units. (reference 5) Subpart

BB applies to equipment leaks from equipment containing or contacting hazardous waste with greater than or equal to 10 percent organics content. Equipment covered by subpart BB includes: pumps, valves, compressors, sampling connections, open-ended valves or lines, pressure-relief devices, and flanges and other connectors. (reference 6)

In March of 1997, the Office of Environmental Policy and Assistance issued a Technical Assistance Project (TAP) report (reference 7) that answered specific questions posed by DOE field elements regarding the implementation of the subpart CC final rule and the February 1996 Technical Amendment issued by EPA. (reference 8)

The purpose of this TAP is to address additional questions regarding the subpart CC organic air emissions standards, as well as the conforming changes to subparts AA and BB.

Q What hazardous waste management units are subject to subpart CC requirements?

A Figure 1 is an applicability decision tree that can be used in determining whether a hazardous waste management unit is subject to subpart CC requirements. Detailed information on the various exemptions is found below in two categories, (1) RCRA permit, interim status, and less than 90-day standards exemptions and (2) specific subpart CC exemptions.

(1) RCRA Permit, Interim Status, and Less Than 90-Day Standards Exemptions

Units that are exempt from RCRA permit (under 40 CFR Part 264), interim status (under 40 CFR Part 265), and less than 90-day standards (under 40 CFR 262.34(a)(1)(i) or (ii)) are also exempt from subpart CC requirements. [40 CFR 264.1080(a) &

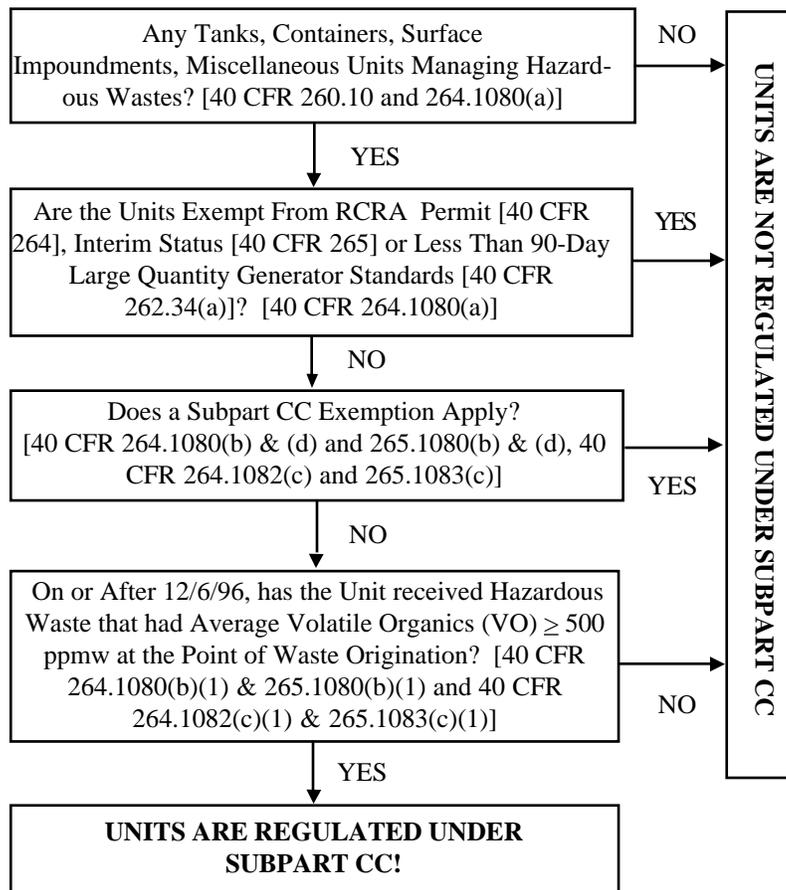
265.1080(a). Also see reference 9.] These exemptions include:

- o Wastewater treatment unit exemption. A wastewater treatment unit is a tank or tank system that is used to treat or store wastewater or wastewater sludges generated at a publicly-owned treatment works (POTW) subject to Sections 307(b) or 402 of the Clean Water Act or in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. [40 CFR 260.10, 264.1(g)(6), and 265.1(c)(10)]
- o Elementary neutralization unit exemption. A tank, container, or transport vehicle would meet this exemption if it

is used to neutralize wastes that are hazardous only for corrosivity. [40 CFR 260.10, 264.1(g)(6), and 265.1(c)(10)]

- o Emergency or spill management unit exemption. This exemption includes any unit used in an immediate response to a discharge or threat of a discharge of hazardous waste. These discharges may result, for example, from burst pipes, breached dikes or ruptured tanks or containers. To qualify for the exemption, the units must be used solely for the immediate responses to such releases, and not for subsequent storage of the released material after the emergency has

Figure 1
Applicability Decision Tree



ended. [40 CFR 264.1(g)(8)(i) and 265.1(c)(11)(i)]

- o *Totally enclosed treatment facility exemption.* To fit within this exemption these units must be directly connected to an industrial production process, used to treat hazardous waste and be designed and managed so that no hazardous waste or constituents from the hazardous waste are released to the environment during treatment. [40 CFR 260.10, 264.1(g)(5), and 265.1(c)(9)]
- o *Hazardous waste recycling unit exemption.* These units are used to recycle hazardous wastes into usable products. Although the recycling unit itself is not regulated, storage and transportation prior to recycling is regulated. However Subparts AA and BB may be applicable to recycling units. (See page 11 of this TAP). Residuals from these units may also be regulated. [40 CFR 261.6, 264.1(g)(2) and 265.1(c)(6)]
- o *Conditionally exempt small quantity generators.* These are facilities that generate less than 100 kilograms per month (220 pounds) of hazardous waste and never accumulate on-site more than 1,000 kilograms (2,200 pounds) of hazardous waste. If acute hazardous wastes are generated, the limit is 1 kilogram (2.2 pounds) for both the amount generated in a month and the amount allowed on site at any one time. [40 CFR 261.5]
- o *Small quantity generators.* These facilities generate between 100 and 1,000 kilograms per month of hazardous waste (220 to 2,200 pounds) and never accumulate on-site more than

6,000 kilograms (13,200 pounds) of hazardous waste. It should be noted that these generators, while not subject to subpart CC, are subject to certain tank and container technical standards, manifesting, contingency plans, and other requirements. [40 CFR 262.34(d) and (e)]

- o *Satellite accumulation unit exemption.* A satellite accumulation unit is any container that is (1) located at or near the point of generation of the hazardous waste and under the control of the operator, and (2) used to accumulate up to 55 gallons of the hazardous waste or 1 quart of acute hazardous waste. [40 CFR 262.34(c)]
- o *Other permitting exemptions.* This category includes [40 CFR 264.1 and 265.1]:
 - transporters storing manifested hazardous wastes at transfer facilities,
 - universal waste handlers, and
 - generators or owners/operators adding absorbent materials to hazardous wastes in containers.
- o *RCRA empty containers.* RCRA empty containers are exempt from regulation under 40 CFR parts 264 and 265. [40 CFR 261.7]

(2) Specific Subpart CC Exemptions and Deferrals

The following hazardous waste management units are specifically exempted or deferred under subpart CC:

- o Units that do **not** manage hazardous wastes received on or after December 6, 1996. [40 CFR 264.1080(b)(1) and 265.1080(b)(1)]

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- o Containers with a design capacity less than or equal to 0.1m³ (26.4 gallons). [40 CFR 264.1080(b)(2) and 265.1080(b)(2)]
 - o A tank or surface impoundment that has completed or is undergoing closure under an approved closure plan, provided no new hazardous waste is being placed in the unit, except as may be allowed under the closure plan. [40 CFR 264.1080(b)(3), (4) and 265.1080(b)(3), (4)]
 - o Units used on-site in connection with a required RCRA corrective action, CERCLA remediation, or similar state or federal cleanup program. [40 CFR 264.1080(b)(5) and 265.1080(b)(5)]
 - o Units used solely for managing mixed radioactive and hazardous waste in accordance with the Atomic Energy Act and the Nuclear Waste Policy Act. [40 CFR 264.1080(b)(6) and 265.1080(b)(6)] *Deferral*
 - o Units certified equipped and operating with air emission controls in accordance with CAA National Emission Standard for Hazardous Air Pollutants (NESHAPS) or New Source Performance Standard (NSPS) controls. [40 CFR 264.1080(b)(7) and 265.1080(b)(7)]
 - o Tanks with process vents as defined in 40 CFR 264.1031. [40 CFR 264.1080(b)(8) and 265.1080(b)(8)]
 - o Tanks or containers managing wastes from organic peroxide manufacturing or laboratory operations providing certain notification and documentation requirements in 40 CFR 265.1080(d)
- are undertaken. [40 CFR 264.1080(d) and 265.1080(d)]
- In addition, the following waste management units are exempt from the subpart CC standards specified in 40 CFR 264.1084 through 264.1087 (standards for tanks, surface impoundments, containers, and closed-vent systems). [61 FR 59953] *However, it should be noted that these units are subject to the inspection, recordkeeping, and reporting requirements found in 40 CFR 264.1088-1090 and 265.1089-1090.*
- o Units for which all individual hazardous waste streams entering the unit have an average VO concentration, at the point of waste origination, of less than 500 ppmw. [40 CFR 264.1082(c)(1) and 265.1083(c)(1)]
 - o Units for which the organic content of all the hazardous waste entering has been reduced by an organic destruction or removal process that achieves the condition specified in 40 CFR 264.1082(c)(2). [40 CFR 264.1082(c)(2) and 265.1083(c)(2)]
 - o A tank or surface impoundment used for biological treatment of hazardous waste in accordance with 40 CFR 264.1082(c)(2)(iv). [40 CFR 264.1082(c)(3) and 265.1083(c)(3)]
 - o Units which all hazardous waste placed in the unit either:
 - meets specified Land Disposal Restrictions in 40 CFR Part 268 [40 CFR 264.1082(c)(4)(i) and 265.1083(c)(4)(i)]; or
 - meets treatment technology established for the waste in 40 CFR 268.42(a) or an equivalent method

pursuant to 40 CFR 268.42(b). [40 CFR 264.1082(c)(4)(ii) and 265.1083(c)(4)(ii)]

- o A tank, located inside an enclosure vented to a control device, used for bulk feed of hazardous waste to a waste incinerator designed and operated in accordance with 40 CFR part 61, subpart FF—National Emission Standards for Benzene Waste Operations, and meets other conditions specified in 40 CFR 264.1082(c)(5). [40 CFR 264.1082(c)(5) and 265.1083(c)(5)]

Q How are miscellaneous “subpart X” units regulated under the subpart CC regulations?

A Miscellaneous units are any hazardous waste management units where hazardous waste is treated, stored, or disposed of that do not meet the definition of any other unit specifically regulated under RCRA (i.e., tanks, containers, incinerators, etc.) Examples of miscellaneous units include: open burning/detonation units, thermal treatment units (other than boilers, industrial furnaces, or incinerators), and mobile treatment units. [40 CFR 260.10] Miscellaneous units are regulated under tailored standards specific to the unit that are set forth in the permit. [40 CFR 264.601] EPA will generally decide whether the miscellaneous unit most closely resembles a tank, container or surface impoundment and will impose controls and standards that are most appropriate for the specific unit. [59 FR 62920]

Q Are less than 90-day large quantity generators (LQG) subject to the non-compliance reporting requirements of subpart CC?

A No. Subpart CC does not impose non compliance reporting requirements on less than 90-day LQGs; LQGs comply with the interim status standards of 40 CFR 265, which have no specific subpart CC reporting requirements. [40 CFR 262.34 & 40 CFR 265]

Q If a facility is a less than 90-day large quantity generator (LQG) one month, but a small quantity generator the next month, is that facility subject to subpart CC?

A Yes. However, the facility would only be subject to subpart CC during the months which the facility is a LQG. [40 CFR 262.34(a)(1), 264.200 and 265.1080(a)] To comply with subpart CC during months which the facility is a LQG, the facility may design/modify and operate units subject to subpart CC as if they were always operating under LQG status.

Q Are less than 90-day LQGs subject to subparts AA and BB?

A Yes. Less than 90-day LQGs, as described in 40 CFR 262.34 (a)(1)(i-ii), are now subject to air emission controls and standards under 40 CFR Part 265 subparts AA [40 CFR 265.1030(b)(3)] and BB [40 CFR 265.1050(b)(3)]. (Also see 61 FR 59935.) It should be noted that facilities that are newly subject to subparts AA or BB may extend the compliance date for installing closed-vent systems and control devices if they prepare an implementation schedule to install and operate these controls as soon as possible. The extension for subparts AA and BB controls can last for up to thirty months from the effective date of the rule (i.e., June 8, 1999). [40 CFR 265.1033(a)(2) and 265.1060(b). Also see 62 FR 64638-9.]

Q What are the conforming changes made to subpart AA by the November 1996 revised final rule?

A Generally these changes were made to be consistent with National Emission Standards for Organic Hazardous Air Pollutants (NESHAP): Off-Site Waste and Recovery Operations final rule (61 FR 34140, July 1, 1996), especially the requirements for recordkeeping, inspection, monitoring, maintenance, repairs, malfunctions, and reporting. [See 61 FR 59932]

- o The requirement to monitor the coolant fluid exit temperature has been dropped; only the temperature of the exhaust vent stream from the condenser exit must be monitored continuously. [40 CFR 264.1033(f)(2)(vi)(B) and 265.1033(f)(2)(vi)(B)]
- o The requirement for initial leak detection monitoring for negative pressure systems has been removed; visual inspections and pressure measurements, as well as the corresponding repair and recordkeeping, are required. [40 CFR 264.1033(k) & (l) and 265.1033(k) & (l)]
- o The eligibility of 40 CFR 265 subpart P facilities (Thermal Treatment facilities) to treat (hazardous waste) spent activated carbon has been restored, as long as they: (1) meet the control requirements of subpart CC, or (2) are units which are subject to 40 CFR part 61 or part 63. [61 FR 59936, 40 CFR 265.1033(n)]
- o Unsafe-to-monitor and delay of repair provisions, as well as the corresponding recordkeeping requirements, have been added. [40 CFR 264.1033(o) and 265.1033(o)]

Q What are the conforming changes made to subpart BB by the November 1996 revised final rule?

A Generally these changes were made to be consistent and up-to-date with the general decisions the EPA has made regarding leak detection and repair program requirements for organic air emission control in regulations under the Clean Air Act, e.g., NESHAP for Off-Site waste Recovery Operations (61 FR 34140, July 1, 1996), or the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, 40 CFR part 63, subpart H (59 FR 19402, April 22, 1994), i.e., the HON. The changes are summarized below.

- o The applicability provisions of subpart BB are revised to exclude equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year. [40 CFR 264.1050(f) and 265.1050(f). Also see 61 FR 59937] A record identifying this equipment must be kept. [40 CFR 264.1064(g)(6) and 265.1064(g)(6)]
- o The sampling connection system requirements are revised such that gas displaced during filling of the sample container is not required to be collected or captured. [40 CFR 264.1055 and 265.1055]
- o EPA eliminated the requirement for no detectable emissions to the atmosphere during return of the purged hazardous waste stream to the hazardous waste management process line, or during collection and recycling of the purged hazardous waste. [61 FR 59937]

- o Any connector that is ceramic, ceramic-lined or inaccessible is exempt from the subpart BB monitoring and recordkeeping requirements. [40 CFR 264.1055 and 265.1055]

Q What are the conforming changes made to subparts AA and BB by the December 1997 Clarifications and Technical Amendments to the final rule?

A The changes were generally made to clarify EPA’s original intent, and include the following [62 FR 64636]:

- o The applicability provisions of subparts AA and BB are revised to clarify that owners and operators receiving final permits before December 6, 1996, must comply with 40 CFR Part 265 subparts AA and BB until the permit is reviewed and reissued. [40 CFR 264.1030(c), 264.1050(c), 65.1030(c), and 265.1050(c). Also see 62 FR 64638 & 62 FR 64640.]
- o The closed-vent systems and control device requirements of subparts AA and BB are revised to clarify that:
 - units which become newly subject to subparts AA and BB after the effective date of December 21, 1990, as a result of an EPA regulatory or statutory change, are provided a 30-month implementation schedule (to install and operate required equipment); and
 - units which become newly subject to subparts AA or BB after that effective date due to any reason other than an EPA regulatory change or a statutory amendment **are not allowed to comply using an implementation schedule (i.e., they must be in compliance**

immediately). [40 CFR 264.1033(a)(2), 264.1060(b), 265.1033(a)(2) and 265.1060(b). Also see 62 FR 64639 & 62 FR 64640.]

- o The applicability provisions of subpart AA are revised to state that a process vent is not subject to the subpart AA standard if the owner or operator certifies that all process vents are equipped with and operating air emission controls in accordance with parts 60, 61 or 63 of the CAA. [40 CFR 264.1030(d) and 265.1030(d). Also see 62 FR 64638.]
- o The subpart BB alternative standards for “skip period” leak detection and repair of valves in gas/vapor service or in light liquid service are revised to clarify when monitoring may be performed on a quarterly basis or every six months. [40 CFR 264.1062(b) and 265.1062(b). Also see 62 FR 64640-1.]
- o The subpart BB recordkeeping requirements are amended to allow any equipment that contains or contacts hazardous waste that is subject to both subpart BB and 40 CFR part 60, 61, or 63 of the CAA, to demonstrate compliance with subpart BB through documenting compliance with the above mentioned CAA provisions or pursuant to 40 CFR 264.1064. This documentation shall be kept with or made readily available with the the facility operating record. [40 CFR 264.1064(m) and 265.1064(m). See also 62 FR 64641]

Q Are recycling units subject to subparts AA and BB?

A It depends. If the recycling unit is recycling a material that is excluded from the definition of solid waste under 40 CFR 261.2 or 261.4(a)(8), or their equivalent (corresponding) State requirement, it is not subject to subparts AA or BB. This is because subpart AA regulates only hazardous waste process vents managing hazardous waste with ≥ 10 ppmw organics, and subpart BB applies to leaks from equipment that contains or contacts hazardous waste with an organic concentration ≥ 10 percent. However, if recycling a solid and hazardous waste (one that has not been excluded from the solid waste definitions), the recycling unit may be subject to subparts AA and BB. Specifically, recycling units located at TSDFs that have interim status or a permit under RCRA are subject to subparts AA and BB. [40 CFR 264.1030(b)(2), 264.1050(b)(2), 265.1030(b)(2) and 265.1050(b)(2)]

References

1. Hazardous Waste Treatment, Storage, and Disposal Facilities—Organic Air Emission Standards for Process Vents, Equipment Leaks (Subparts AA, BB); Final Rule, 55 FR 22454, June 21, 1990.
2. Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators—Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Final Rule, 59 FR 62896, December 6, 1994.
3. Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators—Organic Air Emission Standards for Tanks, Surface Impoundments, and Con-
4. Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators—Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Final Rule, Clarification and Technical Amendment; 62 FR 64636, December 8, 1997.
5. RCRA Air Emission Standards for Hazardous Waste Treatment, Storage, and Disposal Facility (TSDF) Process Vents, U.S. DOE, Office of Environmental Policy and Assistance RCRA Information Brief, EH-231-020/0193 (January 1993)
6. RCRA Air Emission Standards for Hazardous Waste Treatment, Storage, and Disposal Facility (TSDF) Equipment Leaks, U.S. DOE, Office of Environmental Policy and Assistance RCRA Information Brief, EH-231-019/0193 (January 1993)
7. “RCRA Subpart CC Organic Air Emission Standards Technical Amendment, Questions and Answers,” U.S. DOE, Office of Environmental Policy and Assistance Technical Assistance Project, DOE/EH(RCRA)-9701, March 1997.
8. Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators—Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Final Rule, Technical Amendment; 61 FR 4903, February 9, 1996.
9. “Exclusions and Exemptions from RCRA Hazardous Waste Regulations,” U.S. DOE, Office of Environmental Policy and Assistance RCRA Information Brief, EH-231-034/0593, May 1993.

For Additional Information:

1. "Hazardous Waste Treatment, Storage and Disposal Facilities and Hazardous Waste Generators (RCRA Subpart CC), Organic Air Emission Standards; Final Rule Issued," U.S. Department of Energy, Office of Environmental Policy and Assistance, Regulatory Bulletin, August 1995.

2. "Hazardous Waste Treatment, Storage and Disposal Facilities and Hazardous Waste Generators (RCRA Subpart CC), Organic Air Emission Standards; Revised Final Rule Issued," U.S. Department of Energy, Office of Environmental Policy and Assistance, Regulatory Bulletin, September 1997.

3. "RCRA Subpart CC Organic Air Emission Standards: Tanks," U.S. DOE, Office of Environmental Policy and Assistance RCRA Information Brief, EH-413/9719, January 1998.

4. "RCRA Subpart CC Organic Air Emission Standards: Containers," U.S. DOE, Office of Environmental Policy and Assistance RCRA Information Brief, EH-413/9717, March 1998.

5. "RCRA Subpart CC Organic Air Emission Standards: Waste Determination," U.S. DOE, Office of Environmental Policy and Assistance RCRA Information Brief, EH-413/9718, March 1998.

Questions of policy or questions regarding policy decisions will not be dealt with in EH-413 Technical Assistance Projects unless that policy already has been established through appropriate documentation. Please refer any questions concerning the subject material covered in these Questions and Answers to:

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This Technical Assistance Project (TAP) supplements the March 1997, TAP entitled, "RCRA Subpart CC Organic Air Emission Standards Technical Amendment, Questions and Answers," DOE/EH(RCRA)-9701).