



RCRA Subpart CC Organic Air Emission Standards: *Containers*

BACKGROUND: In 1984, Congress passed the Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA). Section 3004(n) of HSWA directed EPA to promulgate regulations for monitoring and control of air emissions from hazardous waste treatment, storage, and disposal facilities (TSDFs). EPA is addressing TSDF air emissions by implementing 3004(n) in a phased approach. The first of three phases was completed with the promulgation of final RCRA standards (55 *FR* 22454, June 21, 1990) to reduce organic emissions vented from units treating hazardous wastes by distillation, fractionation, thin-film evaporation, solvent extraction, steam and air stripping, as well as from leaks in piping and equipment used for hazardous waste management processes. The second phase involved the promulgation of final RCRA organic air emissions standards for surface impoundments, tanks, containers, and miscellaneous units (59 *FR* 62896, December 6, 1994). The final rule was significantly amended in 1996 to better convey the EPA's original intent, to provide additional flexibility to owners and operators who must comply with the rules, and to change the effective date of the requirements (61 *FR* 59932, November 25, 1996). The final rule also was amended in December, 1997, to make technical amendments and to clarify the regulatory text (62 *FR* 64636, December 8, 1997). The last phase will involve assessment of the first two phases and publication of further regulations or guidance as needed. The subject of this Information Brief is the Phase Two regulations specifically dealing with containers.

STATUTES: Resource Conservation and Recovery Act (RCRA), Hazardous and Solid Waste Amendments (HSWA) of 1984.

REGULATIONS: 40 CFR Parts 264 and 265, Subparts AA, BB, and CC §§1030-1090.

REFERENCES:

1. "Hazardous Waste Treatment, Storage and Disposal Facilities and Hazardous Waste Generators (RCRA Subpart CC), Organic Air Emission Standards; Final Rule Issued," Department of Energy, Office of Environmental Policy and Assistance, RCRA/CERCLA Division (EH-413) 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," Department of Energy, Office of Environmental Policy and Assistance, RCRA/CERCLA Division (EH-413) Regulatory Bulletin, September 1997.
3. "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 Final Rule. Amendment: 61 *FR* 4903, February 9, 1996 Final Rule; Technical Amendment. Amendment: 61 *FR* 59932, November 25, 1996 Final Rule. Amendment: 62 *FR* 64636, December 8, 1997 Final Rule; Clarification and Technical Amendment.

Who must comply with these regulations?

The 40 CFR 264.1086 and 265.1087 Subpart CC requirements apply to containers with design capacity larger than 0.1 m³ (26.4 gallons) that manage a hazardous waste that, at the point of waste origination, had a greater than or equal to 500 parts per million by weight (ppmw) volatile organics (VO) content, and that are not expressly exempted from the rule. [§264.1082(c)(1), §264.1086(b)(1), §265.1083(c)(1) & §265.1087(b)(1)]. Exemptions

specific to the Subpart CC rule are found at 40 CFR 264.1080 and 265.1080. In addition, hazardous waste management units that are exempt from RCRA permits (under 40 CFR part 264), interim status (under 40 CFR part 265), and less than 90-day standards [under §262.34(a)(1)(i)(ii)] are also exempt from Subpart CC requirements. Examples of containers include drums, carboys, dumpsters, bags, boxes, roll-offs, and other packages. Transport vehicles, such as tank trucks and rail cars also are considered containers under RCRA. [59 *FR* 62917]

How are the container standards organized?

The container standards are organized into three levels based on container design capacity, total organic content of the waste, and use of the container:

- **Level 1:** Larger than 0.1 m³ (26.4 gallons) and less than or equal to 0.46 m³ (122 gallons); or larger than 0.46 m³ (122 gallons) and not in light material service. [§264.1086(b)(1)(i)-(ii) & §265.1087(b)(1)(i)-(ii)]
- **Level 2:** Larger than 0.46 m³ (122 gallons) and managing hazardous waste in light material service. [§264.1086(b)(1)(iii) §265.1087(b)(1)(iii)]
- **Level 3:** Larger than 0.1 m³ (26.4 gallons) that *treat* a hazardous waste by a stabilization process. [§264.1086(b)(2) & §265.1087(b)(2)]

How is “in light material service” defined?

“In light material service” means the container is used to manage a material in which 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. [§265.1081] “Light materials” more readily volatilize and therefore may be subject to more stringent controls.

What are the Level 1 control specifications?

There are three design options. The container must:

- meet Department of Transportation (DOT) standards (49 CFR Parts 173, 178, 179 and 180);
- have a cover and closure device that forms a continuous barrier over the container so that there are no visible gaps; or
- be an open-top container that has a barrier placed on or over the hazardous waste that suppresses organic vapors so that no hazardous waste is exposed to the atmosphere. [§264.1086(c) & §265.1087(c)]

Level 1 Operating Specifications

- Opening of the closure device is allowed for filling or removing waste (i.e., sampling, waste transfers) and to perform routine activities (i.e., measure depth of waste) but must be reclosed immediately after the process or activity ceases. [§264.1086(c)(3)(i-iii) & §265.1087(c)(3)(i-iii)]

- Opening of vacuum relief valves, conservation vents, or pressure relief devices is allowed for maintaining internal pressure. The valve, vent, or device must be designed and operated with no detectable organic emissions when in the closed position. [§264.1086(c)(3)(iv) & §265.1087(c)(3)(iv)]
- Opening of a safety device is allowed to avoid an unsafe condition. [§264.1086(c)(3)(v) & §265.1087(c)(3)(v)]

Level 1 Inspection and Monitoring

The owner/operator must visually inspect the container, cover and closure devices to check for defects at the time they first manage hazardous waste or accept possession of the container (unless emptied within 24 hours of receipt); and annually thereafter. The visual inspection must be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to subpart CC). No leak detection monitoring is required. If a defect is detected, repair must be made within 5 days or the container should be removed from service. [§264.1086(c)(4) & §265.1087(c)(4)]

What are the Level 2 control specifications?

There are three design options. The container must:

- meet DOT standards (49 CFR Parts 173, 178, 179 and 180);
- operate with no detectable organic emissions as defined in 40 CFR 265.1081; or
- have been tested within the last 12 months to be vapor tight by using 40 CFR Part 60, Appendix A, Method 27. [§264.1086(d)(1) & §265.1087(d)(1)]

Level 2 Operating Specifications

The operating specifications are the same as those for Level 1 containers as stated above (i.e., opening of covers, closure devices, conservation vents and pressure relief devices). [§264.1086(d)(3) & §265.1087(d)(3)] Container Level 2 standards include an additional requirement that waste transfers must minimize exposure of the hazardous waste to the atmosphere (e.g., submerged fill methods). [§264.1086(d)(2) & §265.1087(d)(2)]

Level 2 Inspection and Monitoring

The inspection and monitoring requirements are the same as those stated above for Level 1 containers. [§264.1086(d)(4) & §265.1087(d)(4)]

What are the Level 3 control options?

There are two design options. The container must be:

- covered and vented directly through a closed-vent system to a control device or
- open and located inside an enclosure which is exhausted through a closed-vent system to a control device. [§264.1086(e) & §265.1087(e)]

Level 3 Operating Specifications

- If directly venting vapors to a control device, the equipment must satisfy the specific design and operating criteria found in 40 CFR 264.1087 and 265.1088. [§264.1086(e)(2)(ii) & §265.1087(e)(2)(ii)]
- If using an enclosure, it must meet the design and operating criteria for a permanent total enclosure as specified in “Procedure T — Criteria for Verification of a Permanent or Temporary Total Enclosure,” under 40 CFR 52.741, Appendix B. [§264.1086(e)(2)(i) & §265.1087(e)(2)(i)]
- The container, enclosure, control device or closed-vent system may have a safety relief device as defined in 40 CFR 265.1081. [§264.1086(e)(3) & §265.1087(e)(3)]

Level 3 Inspection and Monitoring

The closed-vent system and control devices must be inspected and monitored as specified in 40 CFR 264.1087(c)(7) and 265.1088(c)(7). [§264.1086(e)(4) & §265.1087(e)(4)]

What are the recordkeeping requirements?

- Level 1 containers must maintain in the facility record, a copy of the procedure used to determine that non-DOT containers with capacities equal to or greater than 0.46 m³ (122 gallons) are not managing hazardous waste in “light material service.” [§264.1086(c)(5) & §265.1087(c)(5)]
- There are no recordkeeping requirements for Level 2 containers except as indicated in the previous bullet.
- Level 3 containers must maintain a copy of:
 - The design documentation for enclosures (including “Procedure T” calculations and measurements) and
 - documentation and routine maintenance records for closed-vent systems and control devices (must be retained for at least 3 years). [§264.1089(d) & §265.1090(d)]
- For all Levels of containers, a written inspection/monitoring plan must be included in the operating

record. [§264.1088(b) & §265.1089(b)] In addition, the following occurrences trigger recordkeeping requirements:

- Claiming exemptions under the hazardous waste organic concentration conditions specified in 40 CFR 264.1082(c)(1) or (c)(2) [§264.1089(f)(1) & §265.1090(f)(1)];
- claiming exemption under 40 CFR 264.1082(c)(2)(vii) (organic destruction in a hazardous waste incinerator) or 40 CFR 264.1082(c)(2)(viii) (organic destruction using a boiler or industrial furnace) [§264.1089(f)(2) & §265.1090(f)(2)];
- designating a cover as “unsafe to inspect and monitor” [§264.1089(g) & §265.1090(g)];
- electing to use documentation pursuant to 40 CFR Part 60, Subpart VV or 40 CFR Part 61, Subpart V [§264.1089(h) & §265.1090(h)];
- claiming that the standards are not applicable to a container meeting 40 CFR 264.1080(d) [§264.1089(i) & §265.1090(i)]; and
- claiming that the standards are not applicable to a container meeting 40 CFR 264.1080(b)(7) (the container is being operated in accordance with Clean Air Act regulations) [§264.1089(j) & §265.1090(j)]

What are the reporting requirements?

There are no specific reporting requirements for containers in subpart CC. However, owners and operators managing hazardous waste in a container exempted under 40 CFR 264.1082(c) or 265.1083(c) must report certain noncompliance events to the Regional Administrator. Examples of such occurrences include placing a hazardous waste in a container having an average VO concentration equal to or greater than 500 ppmw at the point of waste origination, or placing a treated hazardous waste in a container when the treatment process fails to achieve the required organic destruction efficiency. [§264.1090(a)]

Questions of policy or questions requiring policy decisions will not be dealt with in EH-413 Information Briefs unless that policy already has been established through appropriate documentation. Please refer any questions concerning the subject material covered in this Information Brief to:

**Jerry Coalgate,
RCRA/CERCLA Division, EH-413
202-586-6075
jerry.coalgate@eh.doe.gov**

