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RCRA Subpart CC: Questions and Answers

RCRA Programs Branch

RCRA HAZARDOUS WASTE AIR EMISSION STANDARDS
RCRA Subpart CC: Questions and Answers
Working Draft - Do Not Distribute, Cite, or Quote

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When using this document, remember that it is not legally binding and does not replace any applicable Federal regulations such as the "Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators; Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers [December 6, 1994 (59 FR 62896) and amended regulations, or any State and local rules that may apply to your facility."

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1.0 INTRODUCTION

Regulatory History

Under the authority of the Resource Conservation and Recovery Act (RCRA), the Environmental Protection Agency (EPA) created a regulatory framework addressing the management of solid waste and hazardous waste. The Hazardous and Solid Waste Amendments (HSWA) of 1984 added §3004(n) to RCRA, requiring EPA to develop regulations to monitor and control air emissions from hazardous waste management operations. As a result, EPA established a phased approach to implement the air emission standards. Phase I addressed organic emissions from process vents associated with certain hazardous waste management processes (Subpart AA) and leaks from

specific types of equipment used in hazardous waste management processes (Subpart BB) (55 FR 25454; June 21, 1990). In the December 6, 1994, *Federal Register*, EPA completed Phase II of the RCRA air emission program by promulgating regulations to address organic air emissions from tanks, surface impoundments, and containers at 40 CFR Parts 264/265, Subpart CC (59 FR 62896).

Since promulgation of the Subpart CC final rule EPA has published several clarifications and amendments that are discussed below.

On September 29, 1995, EPA issued an administrative stay of the Subpart CC standards for certain facilities within the organic peroxide manufacturing industry (60 FR 50426). The wastes that these facilities typically generate are inherently unstable and cannot be safely confined in a closed unit. Therefore, with the exception of recordkeeping, Subpart CC does not apply to these facilities provided certain criteria are met. On February 9, 1996 (61 FR 4903), EPA made several clarifying amendments to the regulatory text of the December 6, 1994, final standards. This notice corrected several typographical and grammatical errors, and clarified preamble language. On November 25, 1996, a second amendment to the Subpart CC final standards was published (61 FR 59932). This amendment substantially amended the regulations in order to provide additional flexibility to owners/operators subject to the Subpart CC regulations. This notice also established the December 6, 1996, effective date for implementation of the Subpart CC air emission standards. Further amendments were made on October 8, 1997 (62 FR 52642), December 8, 1997 (62 FR 64658), March 6, 1998 (63 FR 11131), April 22, 1998 (63 FR 19838), September 15, 1998 (63 FR 49392), October 7, 1998 (63 FR 53847), and January 21, 1999 (64 FR 3389).

Scope of Document

This document is a compilation of common questions received by EPA and the RCRA, Superfund & EPCRA Hotline concerning the Subpart CC air emission standards. It is to be used as guidance in assisting the regulated community and public in their understanding of the Subpart CC standards, but is not intended to replace or supersede the regulations.

Readers should use this document in conjunction with the codified regulations as follows:

C The final published rule in the December 6, 1994, *Federal Register* (59 FR 62896),

C The clarification notice published in the February 9, 1996,

Federal Register (61 FR 4903),
C The regulatory amendments published in the November 25, 1996, *Federal Register* (61 FR 59932),
C All recent amendments published on October 8, 1997 (62 FR 52642), December 8, 1997 (62 FR 64658), March 6, 1998 (63 FR 11131), April 22, 1998 (63 FR 19838), September 15, 1998 (63 FR 49392), October 7, 1998 (63 FR 53847), and January 21, 1999 (64 FR 3389), and
C The guidance document, *Hazardous Waste Treatment, Storage, and Disposal Facilities - Background Information for Promulgated Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers* (EPA-453/R-94-0766) referred to hereafter as the Subpart CC Background Document, November 1994.
C In addition, readers should contact their implementing agency regarding site-specific regulatory determinations and other interpretive matters.

For additional information on the Subpart CC regulations, call the RCRA, Superfund & EPCRA Hotline at (800) 424-9346 or, in the Washington DC area, (703) 412-9810. To reach the Hotline via TDD call (800) 553-7672 or (703) 412-3323. The Hotline is open Monday through Friday from 9:00 AM to 6:00 PM EST, excluding Federal holidays. The Hotline responds to questions from the regulated community, and the public pertaining to RCRA, Underground Storage Tanks (USTs), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), the Emergency Planning and Community Right-to-Know Act (EPCRA), §112(r) of the Clean Air Act (CAA), the Oil Pollution Act (OPA), and other related EPA programs.

All regulatory references in this document are to Title 40 of the Code of Federal Regulations (CFR), unless otherwise noted. In addition, please note that the Subpart CC regulations contained in Parts 264 and 265 are identical, except for reporting requirements. There are no reporting requirements under 40 CFR Part 265 for owners/operators of interim status TSDFs, or for LQGs. Thus, with the exception of the reporting requirements which are found only in Part 264, any reference made in this document towards a particular requirement of 40 CFR may be applied to the regulations contained in either Part 264 or 265. For convenience, where possible, this document only contains references to the Part 265 regulations.

General Overview

Subpart CC applies to all tanks, surface impoundments, and containers at treatment,

storage, and disposal facilities (TSDFs), and to large quantity generators (LQGs)

accumulating hazardous waste in permit-exempt tanks and containers. By requiring air emission controls on these units, EPA expected to reduce nationwide organic emissions by approximately 970,000 Mg/yr from tanks, surface impoundments, and containers located at TSDFs, and 73,000 Mg/yr from LQG sites. Subpart CC requires that owners/operators install specific air emission controls on all tanks, surface impoundments, and containers, unless the facility owner/operator can demonstrate that the unit qualifies for one of the Subpart CC exemptions. Units exempt from the air emission standards include those that manage waste that has been treated to reduce or remove organics in one of the manners specified in the rule, and units that manage waste that meet the land disposal restriction (LDR) treatment standards of §268.40. Subpart CC also contains exemptions for certain types of units (e.g., small containers) as well as for units managing certain types of wastes (e.g., radioactive mixed wastes).

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2.0 DEFINITIONS

Following is a list of definitions from the RCRA Subpart CC rules found in §265.1081:

Average volatile organic concentration or average VO concentration means the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of Sec. 265.1084 of this subpart.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Continuous seal means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous

seal.
Cover means a device that provides a continuous barrier over the hazardous waste
managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover
may have openings (such as access hatches, sampling ports, gauge wells) that are necessary
for operation, inspection, maintenance, and repair of the unit on which the cover is used. A
cover may be a separate piece of equipment which can be detached and removed from the
unit or a cover may be formed by structural features permanently integrated into the design
of the unit.
Enclosure means 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.
External floating roof means a pontoon-type or double-deck type cover that rests on
the surface of the material managed in a tank with no fixed roof.
Fixed roof means a cover that is mounted on a unit in a stationary position and does
not move with fluctuations in the level of the material managed in the unit.
Floating membrane cover means a cover consisting of a synthetic flexible membrane
material that rests upon and is supported by the hazardous waste being managed in a surface
impoundment.
Floating roof means a cover consisting of a double deck, pontoon single deck, or
internal floating cover which rests upon and is supported by the material being contained,
and is equipped with a continuous seal.

Hard-piping means pipe or tubing that is manufactured and properly installed in
accordance with relevant standards and good engineering practices.
In light-material service means the container is used to manage a material for which
both of the following conditions apply: The vapor pressure of one or more of the organic
constituents in the material is greater than 0.3 kilopascals (kPa) at 20 deg.C; and the total
concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa
at 20 deg.C is equal to or greater than 20 percent by weight.
Internal floating roof means a cover that rests or floats on the material surface (but not
necessarily in complete contact with it) inside a tank that has a fixed roof.
Liquid-mounted seal means a foam or liquid-filled primary seal mounted in contact
with the hazardous waste between the tank wall and the floating roof continuously around

the circumference of the tank.
Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
Maximum organic vapor pressure means the sum of the individual organic constituent partial pressures exerted by the material contained in a tank, at the maximum vapor pressure-causing conditions (i.e., temperature, agitation, pH effects of combining wastes, etc.) reasonably expected to occur in the tank. For the purpose of this subpart, maximum organic vapor pressure is determined using the procedures specified in Sec. 265.1084(c) of this subpart.
Metallic shoe seal means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in Sec. 265.1084(d) of this subpart.
Point of waste origination means (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 part 261. [Note: In this case, this term is being used in a manner similar to the use of the term point of generation in air standards established for waste management operations under authority of the Clean Air Act in 40 CFR parts 60, 61, and 63.] (2) When the facility owner and operator are 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.

Point of waste treatment means the point where a hazardous waste to be treated in accordance with Sec. 265.1083(c)(2) of this subpart exits the treatment process. Any waste determination shall be made before the waste is conveyed, handled, or otherwise managed in a manner that allows the waste to volatilize to the atmosphere.
Safety device means a closure device such as a pressure relief valve, frangible disc,

fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

Single-seal system means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

Vapor-mounted seal means a continuous seal that is mounted such that there is a vapor space between the hazardous waste in the unit and the bottom of the seal.

Volatile organic concentration or VO concentration means 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 Section 265.1084 of this subpart. For the purpose of determining the VO 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 1.8×10^{-6} atmospheres/gram-mole/m^3) at 25 degrees Celsius must be included. Appendix VI of this subpart presents a list of compounds known to have a Henry's law constant value less than the cutoff level.

Waste determination means performing all applicable procedures in accordance with the requirements of Sec. 265.1084 of this subpart to determine whether a hazardous waste meets standards specified in this subpart. Examples of a waste determination include performing the procedures in accordance with the requirements of

Section 265.1084 of this subpart to determine the average VO concentration of a hazardous waste at the point of waste origination; the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards; or the maximum volatile organic vapor

pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

Waste stabilization process means 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 amended by Update I, November 15, 1992 (incorporated by reference–refer to Section 260.11 of this chapter). A waste stabilization process includes 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.

Questions and Answers

Question 2.1 **How is "volatile organic" defined for purposes of Subpart CC?**

Answer 2.1 Although EPA does not specifically define the term "volatile organic" for purposes of Subpart CC, the presence of volatile organics in the waste is determined according to Method 25D of Part 60, Appendix A. Method 25D is used as a definitive test method for purposes of determining the volatile organic concentration of waste materials being placed in units subject to Subpart CC. EPA's objective in developing Method 25D was to define a practical screening procedure that provided a relative measure of the organic emission potential of a waste. It is not intended to be an actual

measure of the organic emissions from waste at the facility (Subpart CC Background Document, pp. 8-6). The owner/operator is, however, allowed to subtract any Method 25D contribution that is a result of including a compound with a low potential to volatilize [having a Henry's law constant of less than 0.1 Y/X (mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase) at 25°C]. A table listing the known compounds meeting this criterion is found in Appendix VI of Part 265.

Question 2.2 **What is the definition of "waste stabilization"?**

Answer 2.2 "Waste stabilization" is any physical or chemical process used to reduce the mobility of hazardous constituents in hazardous waste or to eliminate free liquids, as determined by Test Method 9095, the paint filter liquids test.

Waste stabilization includes mixing hazardous waste with binders or other materials and curing the resultant hazardous waste and binder mixture. An example of waste stabilization is the mixing of Portland cement into a liquid waste and curing the resultant mixture. Other synonymous terms used to refer to the waste stabilization process are "waste fixation" and "waste solidification" (§265.1081). The process of adding non-reactive waste absorbent material to the surface of the waste is specifically excluded from the definition of waste stabilization.

A process that does not involve mixing of hazardous waste with a binder and subsequent curing of the resulting mixture is not waste stabilization.

Examples of operations that are not waste stabilization are the cleaning of tanks and the dewatering of sludge where the intent is to eliminate free liquids from the waste (Subpart CC Background Document, pp. 6-58).

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3.0 COMMON ACRONYMS

AEA Atomic Energy Act
ARAR Applicable or Relevant and Appropriate Requirements
BIF Boiler and Industrial Furnace
CAA Clean Air Act

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
DOE Department of Energy
DOT Department of Transportation
EPA Environmental Protection Agency
EPCRA Emergency Planning and Community Right-to-Know Act
HSWA Hazardous and Solid Waste Amendments
LDR Land Disposal Restrictions
LQG Large Quantity Generator
NDO Natural Draft Openings
NESHAP National Emission Standards for Hazardous Air Pollutants
NRC Nuclear Regulatory Commission
NSPS New Source Performance Standards
ppmw parts per million by weight
RCRA Resource Conservation and Recovery Act
SQG Small Quantity Generator
TSDF Treatment, Storage, and Disposal Facility

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4.0 APPLICABILITY

Summary of Subpart CC Requirements

The Subpart CC regulations apply to owners and operators of all tanks, surface impoundments, and containers at TSDFs, and to all LQGs accumulating hazardous waste in permit-exempt tanks and containers. However, only units managing wastes with an average volatile organic concentration at the point of waste originiation of greater than or equal to 500 ppmw need to be equipped with emission control equipment. Other units need only follow the waste determination and recordkeeping requirements, as discussed later in this document.

The following types of units are not subject to Subpart CC:

C Tanks, surface impoundments, and containers that hold hazardous waste but have not received hazardous waste on or after December 6, 1996;

C Tanks and surface impoundments that have stopped receiving hazardous waste and for which the owner/operator has begun implementing or completed closure pursuant to an approved closure plan;

C Containers with a design capacity less than or equal to 0.1 m_3 (approximately 26 gallons);

C Units exempt from RCRA regulation under §265.1, such as wastewater treatment units or elementary neutralization units (Note: LQGs accumulating hazardous waste in tanks and containers are among the permitting exclusions found in §265.1; however, these types of units are subject to the requirements of

Subpart CC);
C Tanks, surface impoundments, and containers equipped with and operating air
emission controls in accordance with an applicable CAA standard codified under Part
60, Part 61, or Part 63, with the exception of tanks being controlled through the use of
an enclosure rather than a cover; and
C A tank that has a process vent as defined in §264.1031. Note: Subpart AA may apply.
EPA has granted a temporary deferral from the Subpart CC standards for the following types
of units:
C Waste management units used solely to treat or store hazardous waste generated on
site from remedial activities required under RCRA corrective action, CERCLA
response authorities, or any other similar State or Federal remediation authorities;
and

C Waste management units used solely to manage radioactive mixed waste, in
accordance with all applicable regulations under the authority of the Atomic Energy
Act and the Nuclear Waste Policy Act.
The effective date for units subject to the requirements of Subpart CC is December 6,
1996 (§265.1082(a)(1)). At facilities where required air emission control equipment cannot
be in operation by the effective date of the rule, the owner/operator must prepare an
implementation schedule for the installation of such equipment, specifying dates by which
progress will be made toward compliance with Subpart CC. The implementation schedule
must demonstrate that required air emission controls will be in operation at the facility no
later than December 8, 1997 (§265.1082(a)(2)). Tanks in which waste stabilization operations
are performed are allowed an extended compliance period. If air emission controls on these
units cannot be installed by the December 6, 1996, effective date, these tanks may also
establish an implementation schedule to ensure that required controls will be in place as soon
as possible, but not later than June 8, 1998 (59 FR 62896, 62912; December 6, 1994).

Question and Answers

Question 4.1 **How does Subpart CC apply to transporters of hazardous waste?**

Answer 4.1 Subpart CC does not specifically apply to persons transporting hazardous
waste; however, transporters may be indirectly affected as a result of their
business relations with LQGs and TSDFs. In many cases, transportation

companies lease units (e.g., 55-gallon drums, tank trucks, railcars, and roll-off boxes) to generators or TSDFs for on-site accumulation. Thus, in order for generators and TSDFs to maintain compliance with Subpart CC, transporters may need to demonstrate that the containers they provide meet the air emission standards of Subpart CC (59 FR 62896, 62902; December 6, 1994).

Question 4.2 **Section 265.1085 provides standards for owners/operators of hazardous waste tanks subject to Subpart CC. Are sumps also subject to these air emission standards?**

Answer 4.2 A sump is defined as a pit or reservoir that meets the definition of a tank and serves to collect hazardous waste for transport to hazardous waste TSDFs (§260.10). Since sumps meet the definition of tank they are subject to the air emission control standards for tanks in §265.1085. However, sumps that are operated in compliance with a CAA requirement (e.g., the

benzene waste operations National Emission Standard for Hazardous Air Pollutants (NESHAP) of Part 61, Subpart FF) are exempt from Subpart CC regulation (§265.1080(b)(7)).

Question 4.3 **Are miscellaneous units subject to Subpart CC?**

Answer 4.3 Subpart CC air emission standards may be among the regulatory requirements for a miscellaneous unit seeking a permit under Part 264, Subpart X. Section 264.601 allows EPA to issue permits to miscellaneous units at TSDFs on a case-by-case basis. These permits must include terms and provisions necessary to protect human health and the environment. The December 6, 1994, *Federal Register* amended §264.601 to include the Subpart AA, BB, and CC air emission standards as conditions that EPA may incorporate into Subpart X permits.

Question 4.4 **A facility solely manages hazardous wastes with an organic content below 500 ppmw. Is this facility subject to the Subpart CC regulations?**

Answer 4.4 A facility that solely manages hazardous waste with an average volatile organic concentration of less than 500 ppmw is still subject to the Subpart CC regulations. The facility's units would not need to be equipped with Subpart CC air emission controls if the facility owner/operator

documents
the results from a waste determination which indicate that the hazardous
waste has an organic content below the 500 ppmw action level. The facility
is still responsible for recordkeeping and for conducting initial and annual
waste determinations (§265.1083(c)(1)).

Question 4.5 **A facility has a characteristic hazardous waste with an average volatile
organic concentration of greater than 500 ppmw. The waste is commingled
and diluted with other waste streams until the organic concentration is
below 500 ppmw. Are the downstream units into which the waste is placed subject to Subpart CC controls? What if the waste stream lost its
characteristic as a result of the mixing?**

Answer 4.5 In the situation where the average volatile organic concentration of the
waste drops below 500 ppmw, the receiving units would continue to be
subject to Subpart CC because (1) this waste is still hazardous, (2) it had a
volatile organic concentration of greater than 500 ppmw at its point of
origination, and (3) it has not been adequately treated by an organic removal
or destruction method specified in §265.1083(c)(2). EPA does not view
dilution as an adequate method for treatment of organics as it does not
destroy or remove the organics in the waste stream and therefore, the
original potential for organic emissions from the waste mixture remains
(59 FR 62896, 62915; December 6, 1994).

Alternatively, Subpart CC would cease to apply in a situation where the
waste becomes non-hazardous as a result of dilution since Subpart CC is not
applicable to non-hazardous waste (December 8, 1997; 62 FR 64636; 64644).
As a result, air emission controls are not required for tanks, surface
impoundments, and containers holding non-hazardous waste, even if the
volatile organic concentration exceeds 500 ppmw (61 FR 4903, 4906;
February 9, 1996). The LDR standards, however, prohibit the dilution of a
waste in lieu of adequate treatment (§268.3(a)).

Question 4.6 **How does Subpart CC apply to no migration variances under the LDR
program?**

Answer 4.6 Presently, Subpart CC does not affect no migration variances under LDR.

On August 11, 1992, EPA proposed a revision to the substantive requirements for submitting a petition to demonstrate "no migration" from a land disposal unit (57 FR 35940, 35948). According to the December 6, 1994, *Federal Register*, this proposal includes amending §268.6 to require, as a condition for receiving a no migration variance, that the applicant demonstrate that the land disposal unit complies with applicable air emission standards (59 FR 62896, 62902). As a result, surface impoundments would have to demonstrate compliance with Subpart CC in order to receive an LDR no migration variance.

Question 4.7 **A TSDF generates small quantity generator (SQG) amounts of waste (i.e., between 100 and 1,000 kg of hazardous waste per month) which they store in containers. Are these containers exempt as SQG accumulation units, or regulated as TSDF containers?**

Answer 4.7 The containers would be subject to Subpart CC regulation. All tanks, surface impoundments, and containers at a TSDF are subject to all applicable Subpart CC requirements regardless of the unit's status as a generator accumulation unit.

Effective Dates

Question 4.8 **What is the effective date of Subpart CC for facilities newly subject to RCRA (and thus the Subpart CC regulations) as a result of a new waste listing or characteristic?**

Answer 4.9 As EPA develops new hazardous waste listings and characteristics, the effective date of the Subpart CC standards will be the effective date of the new listing or characteristic. If an owner/operator cannot install the required air emission controls by this date, an implementation schedule must be prepared indicating that the required controls will be installed and operating no later than 30 months after the effective date of the rule which subjects the unit to hazardous waste regulation (§265.1082(b)(2)).

Exemptions/deferrals

Question 4.10 **Sections 265.1080(b)(3) and (4) exclude tanks and surface impoundments that have begun implementing or that have completed closure pursuant to an approved closure plan from Subpart CC. Do containers qualify for this exclusion?**

Answer 4.10 Containers do not qualify for the closure exclusion.

EPA promulgated the exclusion for tanks and surface impoundments undergoing closure to prevent Subpart CC standards from hindering or preventing closure activities (59 FR 62896, 62913; December 6, 1994). Unlike tanks and surface impoundments, there are no detailed unit-specific closure standards for containers in Part 264/265, Subpart I. As a result containers must meet the

general closure standards found in Part 264/265, Subpart G. According to these standards, owners/operators must remove any wastes at closure and dispose or decontaminate any remaining structures or equipment (46 FR 2802, 2831; January 12, 1981). EPA took the position that the closure activities for containers would be adversely affected by compliance with Subpart CC, since these standards are less complex than the closure standards for tanks and surface impoundments.

Question 4.11 **Subpart CC defers the regulation of waste management units used for the on-site storage or treatment of remediation wastes (§265.1080(b)(5)). What specific conditions must be met in order to qualify for this exemption?**

Answer 4.11 Section 265.1080(b)(5) contains a temporary deferral for tanks, surface impoundments, and containers used to treat or store hazardous wastes generated during remedial activities required under RCRA corrective action, CERCLA response authorities, or similar Federal or State authorities.

The deferral of regulation for remediation wastes from Subpart CC applies only to the on-site management of remediation wastes. Tanks, surface impoundments, and containers managing a combination of wastes generated by both remedial actions and other processes at the facility or site are currently regulated by Subpart CC. In addition, a TSDF that receives waste from an off-site location must manage the waste in accordance with Subpart CC (59 FR 62896, 62914; December 6, 1994).

Remediation wastes from non-RCRA and non-CERCLA State or Federal remedial authorities may also qualify for the exclusion. For example, the regulation of waste from a cleanup required under the Toxic Substance Control Act (TSCA) would be deferred under §265.1080(b)(5). In addition,

remedial wastes generated as a result of a separately funded State cleanup program would be temporarily deferred from Subpart CC.

Question 4.12 **The Subpart CC regulations do not apply to units used for handling wastes generated as a result of a remedial activity required under RCRA corrective action authorities, CERCLA, or similar Federal or State authority (§265.1080(b)(5)). Does waste generated as a result of a voluntary cleanup also meet the terms of this exclusion?**

Answer 4.12 Waste generated from voluntary corrective action programs at RCRA facilities can meet the criteria of this exclusion provided there is some level of ongoing oversight from a qualified party. For example, a voluntary corrective action program conducted under the supervision of a State hazardous waste agency, or by a third party directed by the State, may qualify for the exclusion. Alternatively, a cleanup that is completely voluntary, with no State involvement or oversight, will not meet the terms of the exclusion and any waste generated will be subject to Subpart CC standards. In every case, owners/operators must contact their implementing agency to determine the applicability of Subpart CC to a specific voluntary cleanup.

Question 4.13 **Subpart CC provides a regulatory deferral for tanks, surface impoundments, and containers used to manage radioactive mixed waste (§265.1080(b)(6)). What are the specific conditions under which mixed waste is exempt from air emission control standards?**

Answer 4.13 EPA has temporarily deferred Subpart CC for tanks, surface impoundments, and containers used solely to manage radioactive mixed wastes. Radioactive mixed wastes, which are radioactive materials that are also hazardous under RCRA, are jointly regulated by EPA, under RCRA, and the Nuclear Regulatory Commission (NRC), under the Atomic Energy Act (AEA). When developing the Subpart CC regulations for mixed waste, EPA considered NRC waste management requirements in order to avoid conflicting or inconsistent requirements for such waste. For example, the Subpart CC requirement that containers be sealed with vapor leak-tight covers would conflict with the NRC requirement that drums holding radioactive mixed wastes be vented through special filters in order to

prevent the hydrogen concentration in the drum from reaching dangerous levels (59 FR 62896, 62914; December 6, 1994). Because of this potential for Subpart CC air emission standards to interfere with NRC requirements, EPA decided to temporarily defer the applicability of Subpart CC for affected units holding radioactive mixed waste until EPA could further investigate methods for the effective control of organic emissions from units holding such wastes.

Question 4.14 **A facility has wastes that are presently managed as mixed waste, and therefore eligible for the mixed waste deferral (§265.1080(b)(6)). However, a Department of Energy (DOE) administrative action results in the wastes no longer being designated as mixed waste, but as being solely hazardous. Is this waste immediately subject to Subpart CC regulation or may the facility use an implementation schedule?**

Answer 4.14 Mixed waste that becomes solely hazardous waste would be immediately subject to the Subpart CC requirements. The implementation schedule option is available only to waste that is newly identified as a regulated hazardous waste due to EPA action. It is not available to waste that is newly subject to RCRA regulation due to the facility's, or another agency's, actions.

For example, mixed waste is deferred from Subpart CC regulation (§265.1080(b)(6)). If mixed waste loses its radioactive designation due to DOE action, it becomes solely hazardous waste and the mixed waste deferral no longer applies. Because it is subject to regulation due to non-EPA action, it is immediately subject to Subpart CC on the effective date of the agency action and the facility is not given the option of using an implementation schedule to comply with RCRA air emission standards.

Question 4.15 **The mixed waste deferral only applies to units that solely manage mixed waste (§265.1080(b)(6)). Does this suggest that the placement of a hazardous waste container in the same storage area as a mixed waste container causes the facility to lose its deferral?**

Answer 4.15 For the purposes of the Subpart CC standards, EPA considers each individual container to be a unit. There is no reason that a container not

regulated as a result of the mixed waste deferral cannot be placed in a storage area with a container subject to the Subpart CC standards. EPA recommends that owners/operators mark the containers to distinguish the ones that are exempt, so that an inspector can readily determine compliance with the Subpart CC container standards.

Question 4.16 **Units meeting the CAA requirements of Part 60, Part 61, or Part 63 are exempt from Subpart CC controls (§265.1080(b)(7)). Does compliance with a State air requirement also allow a facility to claim this exemption?**

Answer 4.16 In order to be exempt from the Subpart CC regulation under §265.1080(b)(7), the unit must be equipped with air emission controls operated in compliance with a standard under Part 60, Part 61, or Part 63. No other standards qualify the unit for this exclusion. However, if compliance with another standard, such as a State regulation, also meets the compliance requirements of Part 60, Part 61, or Part 63, the facility owner/operator may be able to document that the unit is operated in compliance with these standards and is thus exempt from Subpart CC.

Question 4.17 **Hazardous waste that has been treated in a hazardous waste incinerator, or boiler or industrial furnace (BIF) is not subject to the Subpart CC control requirements (§§265.1083(c)(2)(vii) and (viii)). Are owners/operators required to perform any sampling to support that the waste is no longer subject to Subpart CC controls?**

Answer 4.17 Subpart CC does not require that owners/operators treating hazardous waste in incinerators or BIFs perform any additional waste determinations or performance tests to ensure that Subpart CC standards have been achieved, provided that they comply with the standards for incinerators (Parts 264/265, Subpart O) or BIFs (Part 266, Subpart H). EPA considers the unit specific requirements to be sufficient in demonstrating organic destruction of 95 percent or more. As a result, EPA does not feel it is necessary to perform any additional testing (December 8, 1997; 62 FR 64649).

Question 4.18 **A facility manages a metal bearing sludge that has an average volatile**

organic concentration of greater than 500 ppmw organics. The LDR treatment standard for this waste does not account for the organic constituents found in the waste. Is this waste eligible for the LDR exemption found at §265.1083(c)(4)?

Answer 4.18 Subpart CC contains an exemption to the air emission standards for units storing hazardous waste that either meets the numerical concentration limits for organic hazardous constituents applicable to the waste, found in the LDR Treatment Standards at §268.40, or has been treated by the

treatment technology designated in §268.42(a) (§265.1083(c)(4)). If there is no treatment standard for organics in the waste code's treatment standard, the facility may still claim this exclusion by meeting the §268.48 universal treatment standards for all organic constituents present in the waste (See the discussion of "applicable standard" for UTS in the December 8, 1997; 62 FR 64644).

5.0 WASTE DETERMINATION

General Information

The Subpart CC regulations apply to all tanks, surface impoundments, and containers used to manage hazardous waste at TSDFs and LQG sites. However, only units that manage hazardous waste with an average volatile organic concentration of greater than or equal to 500 ppmw require air emission controls. The average volatile organic concentration determination is made at the "point of waste origination." An initial determination is required before any portion of the hazardous waste is placed in a waste management unit that is not equipped with and operating and operating Subpart CC air emission controls.

Subsequent waste determinations must be made for each averaging period that waste is placed in the unit and whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to the action level of 500 ppmw.

Owners/operators may use either direct measurement or knowledge of the waste to determine the average volatile organic concentration. Direct measurement requires analysis in accordance with the requirements of Method 25D of Part 60, Appendix A, or one of the

other methods specified in §265.1084(a)(3)(iii). Results obtained from a method other than
Method 25D must be adjusted to equate to a Method 25D concentration. This is
accomplished by multiplying the total concentration measured values by the appropriate fm
factors for the constituents in the waste. These fm factors are referenced in the rulemaking
docket as item number F-95-CE3A-S0010.
According to §265.1084(a)(4), owners/operators may also use their knowledge of the
waste to determine the average volatile organic concentration of the waste. They may use
information that they have prepared, or use information supplied by the generator.
Examples of such information include adjusted results obtained by another test method,
organic material balances for the source or process generating the waste, documentation that
the waste is generated by a process for which no organics-containing materials are used, or
other knowledge based on manifests, shipping papers, or waste certification notices
(§265.1084(a)(4)(i)-(iii)).
All applied knowledge and chosen test methods need not account for any organic
compounds present in the waste with a Henry's Law constant of less than 0.1 Y/X at 25°C. A
list of organic compounds that meet this requirement is found in Appendix VI of Part 265.

Questions and Answers

Question 5.1 **Subpart CC emission control requirements apply to all tanks, surface
impoundments, and containers managing hazardous waste with an average
volatile organic concentration of greater than 500 ppmw. At what point
are facilities required to test hazardous waste in order to determine
whether it exceeds this 500 ppmw action level?**

Answer 5.1 The average volatile organic concentration must be determined at the
waste's point of origination (§265.1084(a)). For TSDFs, the point of
origination depends on whether the waste was generated on site or off site.
When the TSDF is the generator of the hazardous waste, the point of waste
origination is 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 Part 261. When the TSDF is not the generator of the hazardous waste, the
point of origination is the point where the owner/operator accepts delivery

or takes possession of the hazardous waste. EPA considers this to be the point when and where the TSDF accepts the waste manifest (61 FR 4903, 4907; February 9, 1996).

For LQGs, the point of origination is the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste under Part 261. If a waste is generated at a place that cannot not be accessed, such as in an underground storage tank, however, the sample may be taken from a point downstream of the place of generation, provided the waste sample from that point accurately reflects the waste at its point of waste origination (61 FR 4903, 4906; February 9, 1996).

Question 5.2 **When using direct measurement to determine the average volatile organic concentration of a hazardous waste, Subpart CC requires owners/operators to designate and record an averaging period of less than or equal to one year (§265.1084(a)(3)(ii)(A)). How many samples must be collected during that averaging period by owners/operators required to test their hazardous waste to determine the volatile organic concentration?**

Answer 5.2 The facility owner/operator must identify several points, or discrete quantities, which represent the complete range of organic compositions and quantities that occur during an averaging period (§265.1084(a)(3)(ii)(B)). As a result, the number of samples required during an averaging period is dependent on the number of discrete quantities an owner/operator must choose to represent the complete range of organic compositions and

quantities. Examples of a discrete quantity of a hazardous waste include the quantity of material generated during a process operating mode under a specific set of normal operating conditions, or the total quantity of material delivered to a facility in a container. For each of these established discrete quantities, the owner/operator must collect at least four waste samples, within the same one-hour period, that are representative of the normal range of operating conditions for the discrete quantity (§265.1084(a)(3)(ii)(B)). Such normal operating conditions include

fluctuations in ambient temperature and cyclic process operations such as startup or shutdown, but do not include process malfunctions, maintenance activities, or equipment cleaning. Although a minimum of four samples of each discrete quantity is required, EPA expects that an owner/operator would want to collect more than four samples for analysis if a significant probability of sampling error exists for a particular hazardous waste stream or if a waste batch is not homogenous and contains more than four distinct components (Subpart CC Background Document, pp. 6-28). (See additional discussion in 62 FR 64646; December 8, 1997.)

Question 5.3 **When determining the applicability of Subpart CC to a waste stream the owner/operator must take at least four individual waste samples (§265.1084(a)(3)(ii)(B)). May these samples be combined and then analyzed for volatile organic concentration, or must each sample be analyzed individually? What if the owner/operator is unable to take four individual samples?**

Answer 5.3 Each sample must be analyzed individually using Method 25D of Part 60, Appendix A, or one or more other appropriate methods listed in §265.1084(a)(3)(iii)(B) through (I). After each sample has been analyzed, the results are averaged to determine the waste's average volatile organic concentration. This individual sample analysis accounts not only for variability in waste streams, but also variability in sampling methods.

If the owner/operator is unable to analyze four individual samples using one or more of the methods listed in §265.1084(a)(3)(iii)(A) through (I), the resultant waste determination cannot be counted as direct measurement. It may be possible, however, to count the waste determination as an application of knowledge if the facility can show that the collected samples are representative of the volatile organic concentration of the entire waste stream.

Question 5.4 **If the owner/operator of a TSDF uses the generator's waste analysis information to demonstrate that waste is not subject to the air emission standards, how often must this information be updated to maintain compliance with Subpart CC? Can the generator send the information to**

the TSDF monthly or annually, or must the appropriate information accompany each waste shipment?

Answer 5.4 The Subpart CC regulations do not require that waste analysis information accompany every shipment of hazardous waste sent from the generator to a TSDF. If the waste analysis information received from the generator with the first shipment of waste is representative of subsequent shipments to the TSDF, the TSDF can continue to rely on the original waste analysis information, within certain limits. Owners/operators are required to update the waste analysis information at least once every twelve months following the date of the original analysis (§265.1083(c)(1)). It is not the responsibility of the generator to supply the TSDF with waste analysis documentation. Rather, it is the TSDF's option to use this information to perform volatile organic concentration determinations. In all cases, it is the responsibility of the person with custody of the waste to obtain valid information to make compliance determinations. Therefore, the TSDF should only use shipping papers, waste certifications, or other generator-prepared information that is known to be accurate (61 FR 4903, 4907; February 9, 1996).

Question 5.5 **Is the owner/operator of a hazardous waste management unit that is already in compliance with the Subpart CC standards required to perform a new waste determination each time treated hazardous waste is added to the unit?**

Answer 5.5 A waste determination is required only for a treated hazardous waste placed in a tank, container, or surface impoundment if the unit is exempt from air emission control requirements under §265.1083(c)(2)(i)-(c)(2)(vi). A waste determination is also not necessary when hazardous waste is treated using an incinerator designed and operated in accordance with Subpart O or a BIF designed and operated in accordance with Part 266 Subpart H (62 FR 64647; December 8, 1997). Owners/operators are not required to perform a waste determination on waste placed into a unit that already meets the Subpart CC requirements (59 FR 62896, 62915; December 6, 1994).

6.0 GENERATORS

General Information

LQGs are allowed to accumulate hazardous waste on site without a permit or interim status as long as the owner/operator complies with the accumulation requirements of §262.34 (§270.1(c)(2)(i)). This section requires compliance with Part 265, Subpart I, for waste stored in containers and Part 265, Subpart J, for waste stored in tanks. The November 25, 1996, *Federal Register* revised §265.178 of Subpart I and §265.202 of Subpart J, to require that tanks and containers operate in compliance with Subpart CC. As a result, LQGs are subject to the general Subpart CC requirements and the unit-specific air emission control standards for tanks (§265.1085) and containers (§265.1087). Subpart CC does not apply to SQGs or conditionally-exempt SQGs accumulating hazardous waste on site as they are not subject to the standards of §§265.178 or 265.202.

Question and Answers

Question 6.1 **Prior to promulgation of Subpart CC, LQGs were not subject to the air emission standards for process vents and equipment leaks under Subparts AA and BB. Are LQGs now subject to Subparts AA and BB in addition to Subpart CC?**

Answer 6.1 In order to maintain permit-exempt status under RCRA, LQGs accumulating hazardous waste in tanks and containers must comply with all applicable standards in Part 265, Subparts AA, BB, and CC (§§265.178 and 265.202).

EPA estimates that nationwide baseline organic emissions from LQG accumulation tanks and containers is approximately 73,000 Mg/yr. Given the significant organic emissions from these tanks and containers, EPA determined that it was necessary to subject LQGs to Subparts AA and BB as well as Subpart CC (59 FR 62896, 62910; December 6, 1994). The requirement that LQGs comply with Subparts AA and BB is independent of Subpart CC applicability. Thus, it is possible for a LQG to be subject to Subparts AA or BB, but not Subpart CC.

Question 6.2 **A facility does not generate hazardous waste at a uniform rate. Some months they produce large quantity amounts of waste (i.e., 1,000 kilograms of hazardous waste, or one kilogram of acutely hazardous waste) while in other months they generate SQG amounts. Is this "episodic generator"**

subject to the Subpart CC regulations?
Answer 6.2 Episodic generators are subject to Subpart CC, even during the months in which they produce small quantities of waste. If any of a facility's hazardous waste is managed under the LQG regulations, all of the hazardous waste is subject to applicable Subpart CC regulations.
Question 6.3 **How does Subpart CC affect satellite accumulation areas?**
Answer 6.3 Subpart CC does not apply to satellite accumulation areas. EPA decided not to subject satellite accumulation containers to the air emission control requirements because of their widespread use by manufacturing process owners/operators to collect small quantities of as-generated hazardous waste, and their integrated use with manufacturing operations (59 FR 62896, 62910; December 6, 1994).

7.0 TANK STANDARDS

General Information

The Subpart CC regulations require owners/operators of TSDFs and LQGs to control organic air emissions from tanks managing hazardous waste with an average volatile organic concentration of greater than or equal to 500 ppmw at the point of waste origination. There are two regulatory classes of tanks, Level 1 and Level 2. Level 1 tanks are those tanks that meet maximum vapor pressure limits based on design capacity, are not heated above the temperature at which the maximum vapor pressure was determined, and are not units in which waste stabilization is conducted. Level 2 tanks are those tanks that either do not meet the Level 1 tank criteria, or that the owner/operator has chosen to operate using Level 2 tank criteria.
A Level 1 tank must be operated with a fixed roof that forms a continuous barrier over all hazardous waste stored in the tank. All openings in the fixed roof must be either equipped with a closure device or connected by a closed-vent system to a control device (§265.1085(c)).
Level 2 tanks have several different options for compliance with the Subpart CC standards. They may be equipped with either a fixed roof and an internal floating roof, an external floating roof, or a cover vented through a closed-vent system to a control device.
Level 2 tanks may also be pressure tanks that are operated in a closed system, with no detectable emissions at any time. Finally, Level 2 tanks may be located inside a permanent

total enclosure that is vented through a closed-vent system to an enclosed combustion
control device (§265.1085(d)).

Questions and Answers

Question 7.1 **In order to qualify as a Level 1 tank, the unit must contain waste with a maximum organic vapor pressure below the regulatory limit for the tank's design capacity. At what point should the owner/operator determine the vapor pressure of the waste?**

Answer 7.1 The owner/operator should determine the maximum organic vapor pressure on a worst-case scenario basis. For example, if the waste will be heated in the tank at any time or enters the tank heated, the maximum vapor pressure should be determined when the waste is at its maximum temperature. If stirred at any time, the vapor pressure should be tested when the waste is being stirred. If the vapor pressure exceeds the limits under these circumstances, the tank must be fitted with Level 2 controls (§265.1085(b)(2)).

Question 7.2 **What procedures may an owner/operator use to demonstrate that a tank is below the maximum allowable vapor pressures allowed for a Level 1 tank?**

Answer 7.2 An owner/operator can determine the maximum organic vapor pressure by either direct measurement or applying knowledge of the waste (§265.1084(c)(2)). To determine the vapor pressure using direct measurement, the owner/operator may use any of the following analytical methods: Method 25E in Part 60, Appendix A; methods described in American Petroleum Institute Publication 2517, Third Edition; methods obtained from standard reference texts; ASTM Method 2879-92; or any other method approved by the Regional Administrator (§265.1084(c)(3)(ii)).

To determine the organic vapor pressure of a waste using knowledge, the owner/operator must prepare and record information that documents the maximum organic vapor pressure of hazardous waste in the tank. An example of information that may be used is documentation that the hazardous waste is generated by a process for which at other locations it previously has been determined by direct measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate design capacity category (§265.1084(c)(4)).

Question 7.3 **Can an owner/operator open the cover of a Level 1**

tank to sample the waste for testing purposes without venting resultant emissions through a closed-vent system to a control device?

Answer 7.3 An owner/operator can open the cover of a tank to sample waste without venting emissions through a closed-vent system to a control device (59 FR 62896, 62917; December 6, 1994). Owners/operators using a cover or fixed roof to meet the air emission control requirements for Level 1 tanks must comply with the cover design and operating standards. According to these requirements, each closure device must be secured in the closed position at all times the hazardous waste is in the tank, except when it is necessary to use the cover opening to perform routine inspection, maintenance, or other activities need for normal operations (§265.1085(c)(3)(i)). For example, when a worker needs to open a port or hatch to maintain or repair equipment, the resulting emissions do not need to be vented through a closed-vent system to a control device (62 FR 64648; December 8, 1997).

Question 7.4 **The standards for a fixed roof with an internal floating roof used to comply with the Level 2 tank regulations specify that the process of filling, emptying, or refilling a tank "shall be continuous and shall be completed as soon as practical" (§265.1085(e)(2)(i)). How does EPA define "continuous" for purposes of complying with these standards?**

Answer 7.4 In order to be considered "continuous" for purposes of compliance with §265.1085(e)(2)(i), waste feed operations must proceed without significant interruption or breaks in the flow of hazardous waste. This requirement is intended to prevent the mismanagement of hazardous wastes and prevent the escape of volatile organics into the atmosphere. EPA considers significant interruption to be any time period beyond what is necessary to complete normal waste feed operations, taking into consideration the amount of waste and nature of handling (61 FR 4903, 4910; February 9, 1996). For example, if waste is being added to the tank by emptying the contents of several individual containers, it is permissible to interrupt the flow of hazardous waste long enough to switch containers and

continue
waste feed operations.
Question 7.5 **One of the Level 2 tank compliance options is the use of a pressure tank**
that operates as a closed system with no detectable emissions to the
atmosphere (§265.1085(d)(4)). Would a tank that vents only to an incinerator, and never to the ambient air, meet this requirement?
Answer 7.5 All openings of a pressure tank must be equipped with closure devices that
function with no detectable emissions, and the pressure tank must operate
as a closed system with no venting, except to an emergency or safety device.
Consequently, a tank that routinely vents to any other device or unit, such
as an incinerator, would not meet the definition of a pressure tank and must
meet one of the other Level 2 options in order to be in compliance with
Subpart CC.
Question 7.6 **A Level 2 tank may be located inside a permanent total enclosure vented to**
a closed-vent system connected to an enclosed combustion device

(§265.1085(d)(5)). This enclosure must be operated in accordance with
"Procedure T - Criteria for and Verification of a Permanent or Temporary
Total Enclosure" under §52.741, Appendix B. One of the provisions of this
procedure requires the evaluation of all natural draft openings (NDOs).
Procedure T defines an NDO as a permanent opening that remains open
during operating procedure. Is a door that remains closed, but not sealed,
during operation of the combustion unit considered an NDO?
Answer 7.6 A door that remains closed during operation of the combustion unit does
not qualify as an NDO for the purposes of Procedure T. In many instances,
these doors are an industrial version of a garage door, with crevices along
the sides, top and bottom that let air in and out even when the door is
closed. These cracks or openings along the door would need to be evaluated and counted as NDOs. A door that remains open during times
when hazardous waste is managed in the enclosed tank would be considered an NDO (62 FR 64649; December 8, 1997).
Question 7.7 How are Subpart CC Standards applied to horizontal fixed-roof tanks?

Answer 7.7 This question is addressed in the Subpart CC Background Information Document at pages 6-49 and 6-50. Specifically, any hatches or openings
which would be in contact with the waste placed in the tank (i.e., those

below the normal high liquid level of the tank) would be subject to Subpart J and, if applicable, Subpart BB. Those openings or hatches which are above the normal high liquid level are subject to Subpart CC.

Question 7.8 Can vapor balancing back to a container being loaded be used for tanks subject to Subpart CC?

Answer 7.8 Tanks subject to Level 1 tank standards are subject to controls specified at 40 CFR 265.1085(c)(1) through (c)(4). 40 CFR 265.1085(c)(3) specifies when a closure device can be open. Specifically, sub-item (c)(3)(ii) allows opening of a spring-loaded conservation vent during normal operating conditions such as when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations. As such, vapor balancing would only be allowable if the vapors were released through a valve such as a conservation vent.

Tanks subject to Level 2 tank standards are required to meet one of five control options specified in 40 CFR 265.1085(d). Since vapor-balancing is not one of the 5 control options specified, it could not be used. Vapor balancing would be appropriate control for loading Level 2 containers.

8.0 CONTAINER STANDARDS

General Information

The Subpart CC regulations require owners/operators of TSDFs and LQGs to control organic air emissions from containers managing hazardous waste with an average volatile organic concentration of greater than or equal to 500 ppmw at the point of waste origination.

There are three regulatory categories of containers, Level 1, Level 2, and Level 3. Level 1 containers are all containers that have a design capacity between 0.1 m^3 and 0.46 m^3 (approximately 26 gallons and 119 gallons respectively), and containers with a design capacity greater than 0.46 m^3 that are not in light material service (§§265.1087(b)(1)(i) and (ii)). Level 2 containers have a design capacity greater than 0.46 m^3 and operate in light material service (§265.1087(b)(1)(iii)). The third category, Level 3, consists of all containers with a design capacity greater than 0.1 m^3 that must remain uncovered for waste stabilization (§265.1087(b)(2)). Containers with a design capacity less than or equal to 0.1 m^3 are exempt from Subpart CC regulation (§265.1080(b)(2)).

Level 1 containers have three compliance options under the Subpart CC regulations. The first option is to meet all applicable Department of

Transportation (DOT) packaging requirements under 49 CFR Parts 173, 178, 179, and 180. The other Level 1 container compliance options are to employ a cover and closure devices that form a continuous barrier over the container openings, or to cover the waste in the container with an organic-vapor suppressing barrier, such as a foam (§265.1087(c)).

Level 2 containers may also meet DOT packaging standards in order to comply with the Subpart CC air emission requirements. A second option is to demonstrate that the container operates with no detectable organic emissions as determined by Method 21 of Part 60, Appendix A. For a Level 2 container attached to a truck, trailer, or rail car, a third option is to demonstrate, using Method 27 of Part 60, Appendix A, that the unit is organic vapor-tight (§265.1087(d)).

Level 3 container emissions must be either vented directly through a closed-vent system to a control device, or vented inside an enclosure which is exhausted through a closed-vent system to a control device (§265.1087(e)).

Questions and Answers

Question 8.1 **Does Subpart CC contain any provisions that prevent owners/operators from changing waste management operations at their facility in order to manage hazardous waste in units that are exempt from the Subpart CC standards? For example, can an owner/operator change from managing hazardous waste in containers that are subject to Subpart CC (e.g., 55-gallon drums) to managing their wastes in very small containers that are exempt from regulation (i.e., less than 26 gallons)?**

Answer 8.1 Owners/operators have the option to determine the most appropriate way to manage hazardous wastes generated at their facilities. There is no provision in Subpart CC that prevents owners/operators from altering management operations at the facility to incorporate exempt units. If EPA does not feel that the Subpart CC standards reduce risks posed by such operations in a manner that is protective of human health and the environment, additional standards may be promulgated (59 FR 62896, 62901; December 6, 1994).

Question 8.2 **According to the RCRA hazardous waste container standards, containers must be kept closed at all times except when adding or removing hazardous waste (§265.173(a)). Do the Subpart CC standards modify**

this
requirement?
Answer 8.2 Subpart CC does not change the requirement that containers be kept closed
at all times except when adding or removing hazardous waste. Subpart CC
requires that covers and closure devices be installed on containers with
each closure device secured and maintained in a closed position at all times
that hazardous waste is in the container except when it is necessary to use
an opening to add or remove waste or when access inside the container is
needed to perform routine activities other than transfer of hazardous waste.
Such routine activities might include measuring the depth of or sampling
the material in the container or accessing equipment in the container
(§§265.1087(c)(3) and 265.1087(d)(3)).
Question 8.3 **Typical loading of a tank truck includes leaving the dome open to relieve**
pressure and to measure tanker liquid levels. How does Subpart CC apply
to this type of loading operation? Is the truck in compliance while the
dome is open?
Answer 8.3 As described in Answer 8.2, the Subpart CC container standards require that
covers and closure devices be installed on containers with each closure

device secured and maintained in a closed position at all times that
hazardous waste is in the container except when conducting specific
activities, such as adding or removing the material in the container or
performing other routine activities such as measuring the depth of the
material (§§265.1087(c)(3) and §265.1087(d)(3)). Tank trucks are typically
subjuect to Level 2 standards and §265.11111087(d)(2) emissions controls.
The dome can only be open if it is the fitted opening through which loading is
to occurr. An open dome is a violation of §265.1087(d)(2).
Question 8.4 **Residues remaining in containers that are rendered empty in accordance**
with §261.7 are not regulated under the hazardous waste regulations. Do
the Subpart CC standards apply to these "RCRA-empty" containers?
Answer 8.4 Subpart CC does not apply to containers that have been rendered
RCRA-empty in accordance with §261.7. The Subpart CC standards only
apply to tanks, surface impoundments, or containers that manage

hazardous
waste (§265.1080(a)). Containers that have been rendered RCRA-empty are
no longer managing hazardous waste, and therefore, are not subject to
Subpart CC. Containers that are not RCRA-empty, however, are fully
subject to the applicable Subpart CC air emission control requirements.

Question 8.5 **How does Subpart CC affect roll-off boxes used for long-term hazardous
waste storage?**

Answer 8.5 Roll-off boxes meet the definition of container in §260.10 and must comply
with the air emission requirements for containers. For example, to satisfy
the Container Level 1 requirements, the roll-off box may be equipped with a
cover and closure devices that form a continuous barrier over the container
openings when the cover and closure devices are secured in a closed
position. The cover may be a separate cover installed on the container such
as a suitably secured tarp on the roll-off box. Alternatively, an organicvapor
suppressing barrier may be placed over the hazardous waste in the
roll-off box such that no hazardous waste is exposed to the atmosphere
(§265.1087(c)(1)(ii), and 265.1087(c)(1)(iii)).

Question 8.6 **What are the Subpart CC requirements for vacuum trucks?**

Answer 8.6 In general, vacuum trucks used to manage hazardous waste are subject to
the Subpart CC regulations. If a vacuum truck is used to treat, store,
dispose of waste at a TSDF or LQG site, the vacuum truck must comply with
the Subpart CC container standards applicable to the size of the truck and
vapor pressure of the waste. During waste transfers to vacuum trucks,
venting is allowed through the opening through which the waste is
transferred or through a second opening that would serve as a vent (62 FR
64651; December 8, 1997, 40 CFR 265.1087(d)(3)(iv)).

Question 8.7 **One of the compliance options for a Level 2 container is to operate with no
detectable organic emissions at all times (§265.1087(d)(1)(ii)). No
detectable organic emissions is defined as no escape of organics to the
atmosphere as determined using Method 21 of Part 60, Appendix A
(§265.1081). Is the owner/operator required to actually test the container
using Method 21?**

Answer 8.7 The Subpart CC regulations do not require actual

performance of the Method 21 test. Rather, the regulations require that the containers be operated such that they would pass the Method 21 test if it were to be performed. It is the responsibility of the facility owner/operator to determine what testing should be performed, or what other precautionary measures should be taken, to ensure that the containers operate in compliance with this requirement. Any Method 21 monitoring to determine if the containers operate with no detectable organic emissions is conducted at the owner's discretion (62 FR 64653; December 8, 1997).

Question 8.8 **Section 265.1087(d)(1)(iii) allows owners/operators to use Method 27 to test trucks, tankers, and railcars for vapor-tightness. Is it permissible to use an equivalent DOT leakage test method (i.e., 49 CFR §180.407(h)) to demonstrate compliance with this Subpart CC requirement?**

Answer 8.8 The DOT leakage test is not an equivalent test method for demonstrating compliance with the requirements of Subpart CC. Method 27 is a test

method that is used to demonstrate the integrity of seals on container openings. The DOT test specifically blocks off the seals on openings that are evaluated under Method 27, and is thus not an equivalent means of demonstrating compliance with this standard. If, however, the DOT leakage test confirms that the unit is in compliance with all of the DOT packaging requirements then the unit would be in compliance with Subpart CC (§§265.1087(c)(1)(i) and 265.1087(d)(1)(i)).

Question 8.9 **Has EPA established a list of approved containers that meet or exceed the standards specified in Subpart CC?**

Answer 8.9 EPA has not established a list of approved containers that meet or exceed the standards of Subpart CC. As a matter of practice, EPA does not endorse the use of specific products to facilitate compliance with any regulatory standards. Owners/operators must ensure that any container used to manage hazardous waste exceeding the 500 ppmw threshold satisfies Subpart CC standards by conducting any required tests before waste is placed into the unit.

Question 8.10 How should a manufacturer manage containers of waste gelcoats (styrene monomers) that is intended to be polymerized prior to disposal as non-hazardous waste?

Answer 8.10 During storage, the manufacturer must manage the containers consistent with the requirements of 40 CFR 265.173(a) (see question 8.2) and 265.1087(b)(1)(i) or (iii), as applicable. When polymerizing the waste, the containers must be managed consistent with 265.1087(b)(2) and (e). The state agency should also be contacted, as state specific requirements may also apply.

9.0 CLOSED-VENT SYSTEMS AND CONTROL DEVICES

General Information

Closed-vent systems must be designed to route gases, fumes, and vapors from the hazardous waste management unit to a control device (§265.1088(b)(1)). Closed-vent systems must be designed and operated with no detectable organic emissions, as determined by Method 21 of Part 60, Appendix A, and visual inspections, or operated below atmospheric pressure in accordance with the Subpart AA standards for process vents (§265.1088(b)(2)).

There are additional requirements for closed-vent systems (§265.1088(b)(3) with bypasses.

In order to satisfy the Subpart CC requirements, control devices must meet the performance standards found in §265.1088(c). A control device must be either designed and operated to reduce the total organic content of the waste by at least 95 percent by weight, be an enclosed combustion device designed in accordance with Subpart AA, or be a flare designed and operated in accordance with §§265.1088(c)(1)(i)-(iii). Control devices must be in operation whenever gases or vapors are vented from the waste management unit through the closed-vent system to the control device (§265.1033(l)).

Questions and Answers

Question 9.1 **The Subpart CC methods require that air emissions be vented through a closed-vent system to a control device. Must a specific type of closed-vent system be used in order for the facility to be compliance with Subpart CC?**

Answer 9.1 A closed-vent system can be designed either to operate as a pressure system per §265.1033(j)(i) or below atmospheric pressure as §265.1033(j)(2).

Question 9.2 **A control device receives emissions from several tanks - only one of which is regulated under Subpart CC. Is the owner/operator required to demonstrate the required 95 percent efficiency of the control device based**

solely on the influent from the regulated tank, or should the efficiency of the control device be calculated based on the combined emissions from all tanks?

Answer 9.2 The owner/operator is responsible for demonstrating that the control device will achieve the required 95 percent organic removal efficiency solely for air emissions from the unit that is subject to the Subpart CC standards. Therefore, an owner/operator can block off the waste stream influent from the non-regulated unit and demonstrate compliance with only the waste stream that is entering the control device from the unit that is subject to Subpart CC.

Question 9.3 **A facility chooses to install a control device in a situation where its use is not required by Subpart CC. Is this control device subject to the requirements of §265.1088?**

Answer 9.3 No. A voluntary control device must remove or destroy organics in the vent stream and operate whenever hazardous waste is managed in the unit to which it is attached. EPA has not placed any more substantive requirements on control devices that are used voluntarily.

Question 9.4 **If owners/operators choose to use a control device that also meets the definition of a RCRA hazardous waste management unit, is this unit subject to the unit-specific standards in Parts 264, 265, and 266, or to the permitting standards of Part 270?**

Answer 9.4 Any unit that is used solely as a control device to satisfy the RCRA air emission standards is not considered a hazardous waste management unit subject to the unit-specific regulations of Parts 264, 265, and 266, or the permitting requirements of Part 270. This policy applies to all control devices, regardless of whether they meet the definition of a RCRA hazardous waste management unit, as long as the unit is functioning solely

as a control device. If the unit is also managing a separate hazardous waste stream it must then comply with the appropriate standards in Parts 264, 265, 266, and 270. Note, however, that the air emission regulations do not limit EPA's omnibus permitting authority. EPA may still impose any permit conditions determined to be necessary to protect human health and the environment at permitted facilities (RCRA §3005(c)).

Question 9.5 **What are the management standards for spent carbon that is removed from carbon adsorption systems?**

Answer 9.5 Subpart CC requires that all carbon removed from a control device which is hazardous waste be managed in accordance with §265.1033(m). All carbon that meets the definition of hazardous waste must be handled in compliance with specific management standards when removed from the control device, regardless of the volatile organic concentration of the carbon (62 FR 64654; December 8, 1997). Spent carbon removed from control devices must be regenerated or reactivated in a unit that is either a Subpart X thermal treatment unit, a unit equipped with and operating air emission controls in compliance with Subparts AA and CC, or a unit that is equipped with and operating air emission controls in compliance with Part 61 or Part 63 of the CAA. The carbon may also be burned in an incinerator regulated under Subpart O or in a BIF regulated under Part 266, Subpart H (§265.1033(m)).

Question 9.6 **Under what circumstances may a tank's safety device vent directly to the atmosphere?**

Answer 9.6 Safety devices may be opened to allow air emissions to vent directly to the atmosphere whenever doing so is necessary to avoid an unsafe condition (§§265.1085(c)(3)(iii) and 265.1085(g)(2)(ii)). They may not, however, be used for the planned or routine venting of organic vapors. Safety devices function exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting to the atmosphere during an unplanned, accidental, or emergency event.

Question 9.7 **Is "delay of repair" allowed for closed-vent systems operated in compliance with Subpart CC?**

Answer 9.7 The Subpart CC standards for closed-vent systems do contain a specific "delay of repair" provision. Closed-vent systems complying with the Subpart CC standards are subject to the design and operating standards for closed-vents in Subpart AA (§265.1088(b)). The Subpart AA standards require that a first attempt at repair be made within five days after a leak is detected. If repair is infeasible without a process shutdown, or

if emissions
from the immediate repair would exceed those fugitive emissions that
would result from operating the leaking vent, repair may be delayed beyond
this time period. In these instances all repair must be completed before the
end of the next process unit shutdown (§265.1033(k)(3)(iii)).

Question 9.8 **Has EPA developed a program to certify emission control equipment under Subpart CC? If so, has EPA developed a list of approved manufacturers?**

Answer 9.8 EPA has not developed a program to certify or approve Subpart CC air
emission control equipment or equipment manufacturers. As a matter of
practice, EPA does not endorse the use of specific products or manufacturers to facilitate compliance with any regulatory standards.
Owners/operators must ensure that all emission control equipment used to
comply with Subpart CC standards meets the applicable requirements of the
rule.

10.0 INSPECTION AND MONITORING

General Information

Subpart CC requires that all covers, closed-vent systems, and control devices subject
to Subpart CC be inspected and monitored to ensure that organic air emissions are being
controlled. The inspection and monitoring requirements for each of these control
mechanisms are different.
In general, Level 2 tanks and containers are subject to more requirements than Level
1 units. In most instances, tanks, surface impoundments, and containers are required to be
inspected initially on or before the date the unit becomes subject to the Subpart CC air
emission standards, and annually thereafter. Owners/operators must develop and implement
a written plan and schedule to indicate how all inspection and monitoring activities will be
implemented at the facility. A copy of the plan and schedule must be placed into the
facility's inspection plan as required under §265.15 (§265.1089(b)).

Questions and Answers

Question 10.1 **What are the inspection requirements for owners/operators complying with the Level 1 tank standards?**

Answer 10.1 Owners/operators of Level 1 tanks are initially required to visually inspect
the air emission control equipment for defects (e.g., visible cracks in the
roof sections or damaged seals on the closure devices), on or

before the date
the tank becomes subject to the Subpart CC air emission standards (§265.1085(c)(4)(ii)). Thereafter, the air emission control equipment must
be inspected at least once every year. Inspection and monitoring may be
performed at intervals longer than one year only under certain conditions,
such as when inspecting a cover may expose a worker to dangerous or
unsafe conditions (§265.1085(l)(1)).

Question 10.2 **What are the specific tank repair requirements when a leak is detected in**
accordance with the inspection and monitoring requirements of Subpart
CC?

Answer 10.2 Owners/operators must make a first attempt to repair the leak no later than
five calendar days after detecting the leak. In all cases, the leak must be
repaired no later than 45 calendar days after detection, with the following
exception. Repairs may be delayed beyond 45 days if repair requires
emptying or removal of a tank from service where no alternative tank
capacity is available such that production processes at the facility will be
disrupted. In such cases, repair must be completed the next time the
process unit generating the hazardous waste stops operation for any reason
(§265.1085(k)). Repair of the tank defect must be completed before the
process or production unit resumes operation.

Question 10.3 **What are the monitoring requirements for inaccessible tanks?**

Answer 10.3 If a tank is buried partially or entirely underground, an owner/operator is
required to inspect and monitor only those portions of the tank cover and
those connections to the tank (i.e., fill ports, access hatches) that are located
on or above the ground surface (§265.1085(l)(2)).

Question 10.4 **Are owners/operators of containers that meet the DOT regulations on**
packaging hazardous materials required to perform monitoring?

Answer 10.4 Owners/operators of Level 1 and Level 2 containers that meet all applicable
DOT regulations are required to perform initial visual inspection to show
compliance with the Subpart CC standards. However, these containers are
not required to do any subsequent monitoring (61 FR 59932, 59947; November 25, 1996).

Question 10.5 **At what times must containers be visually inspected?**

Answer 10.5 Owners/operators are required to visually inspect the container and the cover and closure devices to check for defects at the time the owner/operator first places waste into the container or accepts possession of

the container at the facility. However, in those situations where it would not be possible to inspect a container on the date it is accepted at the facility, it would be acceptable for the container to be inspected prior to that date (62 FR 64650; December 8, 1997). Containers that are emptied within 24 hours of receipt at the facility are not required to go through this visual inspection (§§265.1087(c)(4)(i) and 265.1087(d)(4)(i)). If a container used for managing hazardous waste remains at the facility for at least a year, the container and its cover and closure devices must be visually inspected annually for defects such as cracks, holes, or gaps into the interior of the container when the cover and closure devices are secured in the closed position.

Question 10.6 **How often must closed-vent systems be inspected and monitored?**

Answer 10.6 An owner/operator using a closed-vent system to comply with the Subpart CC air emission standards must perform initial leak detection monitoring using Method 21 of Part 60, Appendix A, on or before the date the system becomes subject to Subpart CC. Thereafter, closed-vent system joints, seams, and other connections that are permanently or semi-permanently sealed must be visually inspected at least once per year. Other connections must be monitored for leaks using Method 21 annually and at other times as requested by the Regional Administrator. Components of a closed-vent system that are designated as unsafe-to-monitor are subject only to monitoring as frequently as practicable during safe-to-monitor times (§265.1033(n)).

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11.0 RECORDKEEPING AND REPORTING

General Information

All TSDFs and LQGs subject to Subpart CC standards are required to maintain records of certain information concerning methods of compliance for each tank, surface impoundment, and container at the facility. All records must be maintained in the facility's operating record for at least three years, with the exception of air emission control equipment design documentation. These documents must be kept in the operating record until the equipment is either replaced or is no longer in service (§265.1090(a)).

Containers, tanks and surface impoundments each have unique recordkeeping requirements. The only recordkeeping requirement for Level 1 containers is to maintain a copy of the procedure used to determine that containers with a capacity greater than 0.46 m_3 that do not meet DOT standards are not managing hazardous wastes in light material service (§265.1087(c)(5)). Level 2 containers have no specific recordkeeping requirements. However, records of inspections required by §265.1089 must be kept in accordance with the general inspection requirements of §265.15. Containers using Level 3 controls must maintain records of the most recent set of calculations and measurements used to verify that the permanent total enclosure requirements are being met, and all documentation required for closed-vent systems (§265.1090(d)). Records for facilities with Level 1 or Level 2 tanks must include tank identification numbers, a record of each required inspection, and other information specific to the type of tank (§§265.1090(b)(1) and (2)). Owners/operators of surface impoundments subject to Subpart CC must maintain records of surface impoundment identification numbers, descriptions of the floating membrane cover design and certifications, and records of each required inspection (§265.1090(c)).

Under Subpart CC only permitted TSDF owner/operators are required to follow reporting requirements. Owner/operators must submit reports for every incident where a hazardous waste subject to Subpart CC is placed in a tank, surface impoundment, or container not meeting Subpart CC requirements (§264.1090(a) and (b)). Facilities are also required to submit semiannual written reports to the Regional Administrator. Reports must describe every incident during the previous six months where a subject unit operated out of compliance for periods longer than 24 hours. If all subject units were in compliance during the preceding six-month period, it is not necessary to file a report (§264.1090(d)).

Questions and Answers

Question 11.1 **The organic content of a hazardous waste is removed using one of the organic destruction or removal processes described in §265.1083(c)(2). What are the notification requirements when transporting this waste for subsequent management at another TSDF?**

Answer 11.1 Under Subpart CC, there are no specific notification requirements for the transport of treated waste. A TSDF does not need to use air emission controls on units storing waste that has been treated to destroy or remove organics (62 FR 64650; December 8, 1997). The owner/operator, however, must keep records in the facility operating log of the waste determination certifying that the units are not subject to Subpart CC (§265.1090(f)(1)). For example, an owner/operator may maintain a record of test results, measurements, calculations, waste sample analyses and data, and other documentation in order to certify that the hazardous waste stored in affected units has been treated to the appropriate Subpart CC standards.

Question 11.2 **Why are there no reporting requirements for owners/operators complying with the Part 265 interim status Subpart CC standards?**

Answer 11.2 EPA did not include Subpart CC reporting requirements for interim status facilities in an effort to avoid placing any unnecessary regulatory burden on existing facilities and in order to facilitate the Agency's permitting process.

The Agency has established a consistent approach to regulating interim status facilities, requiring compliance with technical standards while omitting some of the more administrative requirements that require facilities to maintain direct, continuous contact with the Agency. Interim status standards can generally be met in a straightforward manner without the need for substantial interpretation by with regulatory authorities.

authorities. In this way, the Agency is able to minimize individual contact with the regulated community during the interim status period, enabling the Agency to focus directly on establishing site-specific permit conditions for those facilities that have already submitted a Part B permit application

(45 FR 33066, 33159; May 19, 1980).

12.0 WASTE TRANSFER

General Information

The transfer of hazardous waste between tanks, surface impoundments, and containers regulated under Subpart CC is subject to specific requirements depending on the types of units involved.

For hazardous waste transfers between containers, transfers involving Level 2 and Level 3 containers are subject to regulation. Any transfer of waste in or out of a Level 2 or Level 3 container must be conducted in a manner that minimizes exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices. Use of a submerged-fill pipe or other submerged-fill method, a vapor-balancing system or vapor-recovery system to collect and control displaced vapors, are a few examples of practices EPA recommends for meeting these requirements (§§265.1087(d)(2) and (e)(6)).

The transfer of waste between two Level 1 containers, between a tank and a Level 1 containers, or between a surface impoundment and a Level 1 container is not subject to regulation (61 FR 59932; 59946; November 25, 1996).

The transfer of hazardous waste subject to Subpart CC between two tanks, between a tank and a surface impoundment, or between two surface impoundments, must be conducted using continuous hard piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. A drain system that meets requirements of Part 63, Subpart RR - National Emission Standards for Individual Drain Systems is considered to be a closed system (§§265.1085(j) and 265.1086(e)).

Questions and Answers

Question 12.1 **Must waste transfer operations that are being conducted in accordance with Subpart CC be connected to a control device?**

Answer 12.1 Although the transfer of waste between some units subject to Subpart CC must meet certain requirements, as specified in the regulations, emissions from waste transfer operations need not be vented through a closed-vent system to a control device. However, one control option for an individual drain system is venting through a closed-vent system to a control device.

Question 12.2 **What are the requirements for the transfer of waste**

from a satellite accumulation unit to a tank regulated under Subpart CC?

Answer 12.2 The transfer of hazardous waste from a satellite accumulation unit to a Subpart CC tank is not subject to any waste transfer requirements, but is subject to Subpart BB Equipment Leak Standards between the exempt unit and a Subpart CC tank, or surface impoundment. The transfer of waste from a satellite accumulation area into a Level 2 or Level 3 container, however, must be conducted in a manner that minimizes exposure of the waste to the atmosphere (§§265.1087(d)(2) and (e)(6)).

Question 12.3 **What Subpart CC emission controls apply to the transfer of hazardous waste from a unit subject to the requirements of Subpart CC into a tank truck?**

Answer 12.3 A tank truck meets the §260.10 definition of container and is subject to the Subpart CC requirements. Thus, when transferring wastes into these units, all appropriate Subpart CC waste transfer requirements apply (Subpart CC Background Document, pp. 6-97). If the tank truck meets the definition of a Level 2, the waste transfer must be conducted in a manner that minimizes exposure of the waste to the atmosphere §§265.1087(d)(2) and (e)(6)).

(If the truck is a Level 1 container, no waste transfer requirements would apply. (See 62 FR 64651 for further discussion of truck-related transfers)

13.0 SUBPARTS AA AND BB

General Information

The Subpart CC final rules had a significant impact on the existing air emission regulations found at Part 264/265, Subparts AA and BB. As a result of Subpart CC, LQGs were subjected to full regulation under Subparts AA and BB. The Subpart CC final rules also made several other modifications to these subparts. For example, the Subpart CC rules changed the Subpart AA monitoring requirements for two control devices - condensers and negative pressure systems - to ease the regulatory burden on facilities (§§265.1033(f)(2) and 265.1033(j)(2)). Subpart CC also added unsafe-to-monitor and delay-of-repair provisions to Subpart AA (§§265.1033(n) and 265.1033(k)(3)). Subpart BB regulates equipment which contains or contacts waste with an organic concentration of greater than ten percent. As a result of the Subpart CC rules, equipment that contains or

contacts hazardous waste less
than 300 hours per year is no longer subject to Subpart BB regulation (§265.1050(e)). Also,
ceramic and inaccessible connectors are no longer subject to monitoring or recordkeeping
requirements (§265.1058(e)).

Questions and Answers

Question 13.1 **Are facilities newly subject to Subparts AA and BB due to the Subpart CC
final rule allowed to take advantage of the 30-month implementation
period (§265.1033(a)(2))?**

Answer 13.1 No. All treatment, storage and disposal facilities and large quantity generators
had to comply by December 6, 1996.

Question 13.2 **Prior to promulgation of Subpart CC, LQGs were not subject to existing air
emission standards for process vents and equipment leaks under Subparts
AA and BB. Are LQGs now subject to Subparts AA and BB in addition to
Subpart CC?**

Answer 13.2 In order to maintain permit-exempt status under RCRA, LQGs accumulating
hazardous waste in tanks and containers must comply with the appropriate
standards in Part 265, Subparts AA, BB, and CC (§§265.178 and 265.202).
EPA considers the extension of air emission control requirements to this
category of hazardous waste generators necessary to implement a system of
air emission controls from the point a waste is generated through the point
the waste is treated. The requirement that LQGs comply with Subparts AA
and BB is independent of Subpart CC applicability. Thus, it is possible for a
LQG to be subject to Subparts AA or BB, but not Subpart CC.

Question 13.3 **Are recycling units at LQG sites subject to Subparts AA and BB?**

Answer 13.3 Recycling units that gain their permit-exempt status by virtue of being
recycling units, and that are located at LQG sites, are not subject to Subparts
AA and BB (62 FR 64638; December 8, 1997). Recycling units are subject to
Subparts AA and BB when located on hazardous waste management facilities otherwise subject to the permitting requirements of Part 270
(§§265.1030(b)(2) and 265.1050(b)(2)).

Question 13.4 **Subpart BB requires the implementation of a leak detection and repair
(LDAR) program for certain pieces of equipment. When must LQGs begin
this monthly monitoring program?**

Answer 13.4 The initial monthly monitoring survey required under the LDAR program must be completed prior to the effective date of the Subpart CC rule, December 6, 1996. Owners/operators must begin monitoring early enough to allow sufficient time to complete all necessary initial monitoring prior to the December 6, 1996, effective date. It is not acceptable to only begin the LDAR program on that date.

14.0 PERMITTING

General Information

Owners/operators of TSDFs are required to obtain an operating permit under Subtitle C of RCRA which outlines the site-specific administrative and technical standards with which a TSDF must comply in order to manage hazardous waste. The TSDF universe includes two types of TSDFs, permitted and interim status. Permitted TSDFs are facilities whose permit applications have been reviewed and approved by EPA. Once a final permit is issued, owners/operators are required to comply with the conditions of the permit and the regulations in Part 264. Any changes to a TSDF's permit must be approved by EPA. Interim status facilities are facilities who were in existence on the effective date of regulatory amendments that caused the facility to become subject to Subtitle C regulation.

Owners/operators of interim status facilities are required to submit a Part A application form to EPA and comply with a set of self-implementing regulations in Part 265 until their Part B application is reviewed by EPA. This permit approval process is found in Part 270.

With the promulgation of the Subpart CC air emission standards, both permitted and interim status facilities are required to comply with the air emission regulations and implement any changes to those units that are affected by Subpart CC.

The December 6, 1994, *Federal Register* rescinded the permit-as-a-shield provision in §270.4 to require immediate compliance with Part 265, Subpart CC in order to guarantee reduced health risks resulting from new air emission controls (59 FR 62896, 62920).

Therefore, permit-as-a-shield cannot be used for compliance with the air emission standards (§270.4(a)(4)). Owners/operators of existing permitted facilities are required to comply with Part 265, Subpart CC by the December 6, 1996, effective date. Subpart CC does not require EPA, or the TSDF, to initiate a permit modification specifically

to add the Part 264, air emission regulations to the facility's permit. For a facility whose permit was issued before December 6, 1996, EPA will incorporate the Part 264 standards when the permit is reviewed or reissued, or when the facility submits a Class 3 permit modification request. All approved permits and Class 3 permit modifications issued by EPA after December 6, 1996, should incorporate the requirements of Part 264, Subparts AA, BB, and CC.

Questions and Answers

Question 14.1 **How does Subpart CC affect interim status facilities that have submitted their Part B permit applications prior to December 6, 1996?**

Answer 14.1 Owners/operators of interim status TSDFs that have submitted Part B applications to EPA, but have not received a draft permit as of December 6, 1996, are required to modify their Part B application to incorporate the

requirements of Part 264, Subparts AA, BB, and CC prior to draft permit issuance. If the owner/operator has received a draft permit as of December 6, 1996, the requirements of Part 264, Subparts AA, BB, and CC must be incorporated into the permit prior to final permit determination. The Regional Administrator may establish, on a case-by-case basis, a reasonable date for submittal of the revised Part B application (59 FR 62896, 62921; December 6, 1994).

If an owner/operator of a interim status facility has submitted a Part B application, but has not been issued a final permit by December 6, 1996, the Part B application must be amended to incorporate the Subpart CC standards. Any Part B amendments should be sent to the EPA Regional Office until the State has become authorized for these regulations (59 FR 62896, 62921; December 6, 1994).

15.0 STATE AUTHORIZATION

General Information

The Subpart CC regulations were promulgated under the authority of HSWA. Therefore, the Subpart CC regulations are applicable in all States regardless of the individual State's authorization status. In a base-authorized State HSWA regulations are implemented and enforced by the EPA Regional Offices until the individual State receives interim

authorization under RCRA §3006(g)(2) or final authorization under RCRA §3006(b) (59 FR 62896, 62921; December 6, 1994).

Questions and Answers

Question 15.1 **If a waste is defined as hazardous on the State level, but not the Federal level, would the waste be subject to Subpart CC?**

Answer 15.1 Currently, Subpart CC only applies to tanks, surface impoundments, and containers handling wastes identified as hazardous under the Federal RCRA program. State-imposed requirements which are beyond the scope of the Federally-approved program are not enforceable by Federal EPA (§271.1(i)(2)), but maybe enforceable by the authorized state.

Question 15.2 **The air emission regulations in an authorized State maintain a 100 ppmw action level for the application of emission controls. Are owner/operators required to meet this more stringent provision prior to the State receiving authorization for the Subpart CC program?**

Answer 15.2 EPA has the authority to implement and enforce State regulations that are more stringent than the Federal rules. Since the State's 100 ppmw action

level is more stringent than the Federal 500 ppmw action level, this action level would be enforced by the Region until the State became authorized for Subpart CC (50 FR 28702; 28730; July 15, 1985).

Question 15.3 **If a facility has been issued a permit by an authorized State that has adopted but has not been authorized for Subpart CC, does the facility need a permit modification to incorporate the Part 264, Subpart CC requirements?**

Answer 15.3 The Part 264, Subpart CC standards will be incorporated into a facility's permit when the permit is renewed, reopened, or the owner/operator submits a Class 3 modification request. Although EPA eliminated the permit-as-a-shield provision for compliance with the Subpart CC requirements, EPA did not require owners/operators to initiate a permit modification to add these provisions. All permit modifications will be initiated by the EPA Regional Office at the appropriate time until the State becomes authorized for the Subpart CC rules. In some instances, State air emission regulations may be more stringent or broader in scope than the Federal program, and may specifically require a TSDF initiated permit

modification to include the Part 264 standards.

16.0 INTERFACE WITH OTHER LAWS

General Information

RCRA §1006(b) directs EPA to coordinate all provisions of RCRA with the appropriate provisions of other environmental laws. EPA's intention is to minimize, if not eliminate, to the extent possible the overlapping of regulatory requirements of multiple acts.

Consequently, RCRA air emission standards must be consistent with, and not duplicative of, other standards. Subpart CC should complement other laws to create a comprehensive program for addressing organic air emissions from all waste and related materials recovery operations.

Question 16.1 **Will Subpart CC be considered an applicable or relevant and appropriate requirement (ARAR) at CERCLA sites managing hazardous waste?**

Answer 16.1 Presently, remediation waste at a CERCLA site is deferred from the Subpart CC standards (§265.1080(b)(5)). If, however, the temporary deferral for units managing remediation wastes is removed, the Subpart CC emission control standards would likely be considered ARARs for certain types of remedial and removal actions. Subpart CC may be "applicable" to on-site remedial actions that use tanks, surface impoundments, and containers to manage hazardous wastes with an average volatile organic concentration of greater than 500 ppmw. Subpart CC may be "relevant and appropriate" for other types of units managing these wastes that are not specifically subject to Subpart CC, such as waste piles, landfills, and land treatment units (59 FR 62896, 62902; December 6, 1994). It is important to note that hazardous waste managed on site at a CERCLA facility is only subject to the substantive requirements of Subpart CC. Administrative requirements (e.g., recordkeeping and reporting) are not applied as they are not included in the definition of applicable or relevant and appropriate requirements (55 FR 8666, 8756; March 8, 1990).

Question 16.2 **Does Subpart CC apply to hazardous waste units managing radioactive mixed waste?**

Answer 16.2 Mixed waste is waste that contains a hazardous waste component, managed

under RCRA, and a radioactive waste component, managed under AEA. In general, §1006(a) of RCRA provides that if application of both RCRA and AEA regulations creates a conflict, the AEA regulation would take precedence to the extent of the inconsistency between the regulations (52 FR 15937, 15940; May 1, 1987). EPA has acknowledged that in certain cases Subpart CC standards are not compatible with the requirements for the safe management of radioactive mixed wastes. One example of this is a drum storing mixed waste that generates hydrogen gas during the radioactive decay process. Such a drum could not operate with no detectable emissions as required by Subpart CC because the hydrogen gas buildup would pose an explosive hazard (59 FR 62896, 62903; December 6, 1994). As a consequence of such potential inconsistencies, EPA has decided to temporarily defer the application of Subpart CC standards to tanks, surface impoundments, and containers that manage radioactive mixed waste (§265.1080(b)(6)).

Question 16.3 **Are facilities that are in compliance with the CAA NESHAP or New Source Performance Standard (NSPS) requirement subject to Subpart CC?**

Answer 16.3 There is a specific exemption from Subpart CC for tanks, surface impoundments, and containers (with the exception of a tank in an enclosure) that are in compliance with the CAA NESHAP or NSPS regulations (§265.1080(b)(7)). To qualify for this exemption an owner/operator must certify that organic air emission controls are being used in accordance with the CAA regulations found at Part 60, Part 61, or Part 63. The CAA exemption only applies to units that are using required CAA organic air emission controls. If a unit is in compliance with a CAA standard through an "emission averaging" or "bubbling" provision it does not qualify for this exemption, as EPA believes that emissions are not being controlled to the extent necessary to protect human health and the environment (61 FR 59932, 59939; November 25, 1996).

Question 16.4 **Does Subpart CC contain an exemption for containers complying with DOT regulations?**

Answer 16.4 Containers complying with DOT regulations are not specifically exempt from Subpart CC. An owner/operator may use a container which meets

DOT specifications under 49 CFR Parts 173, 178, 179, and 180 and has a

design capacity less than 0.46 m_3 (approximately 119 gallons), to comply with the air emission control requirements for containers (§§265.1087(c)(1)(i) and 265.1087(d)(1)(i)). These DOT containers would be exempt from annual Subpart CC inspection and monitoring requirements (61 FR 59932, 59947; November 25, 1996). To be in compliance with Subpart CC the unit must meet substantive DOT standards. A unit that is exempt from the DOT packaging requirements, with the sole exception of lab packs used for combination packaging as specified in 49 CFR §173.12, remains subject to Subpart CC requirements (§§265.1087(f)(3) and 265.1087(f)(4)). For example, a DOT packaging which is not among those specified under Subpart CC container standards would have to be visually inspected for visible gaps or cracks in the container (62 FR 64650; December 8, 1997).

Question 16.5 How does Subpart CC relate to the Off-Site Waste Recovery NESHAP under the Clean Air Act?

Answer 16.5 40 CFR 265.1085(b)(7) states that the requirements of Subpart CC do not apply to a hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable CAA regulation codified under 40 CFR Part 60, 61 or 63. The Off-Site Waste Recovery NESHAP is codified at 40 CFR Part 63, Subpart DD. If the above conditions are met for the hazardous waste management unit, and the unit is not exempted from compliance with the Off-Site Recovery NESHAP for some reason, then RCRA Subpart CC does not apply to the subject hazardous waste management unit.

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LIST OF RESOURCES

SUBPART CC

January 21, 1999; 64 FR 3382 - Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators; Organic Emission Standards for Tanks, Surface Impoundments, and Containers; Final Rule

December 8, 1997; 62 FR 64636 - Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators; Organic Emission Standards for Tanks, Surface Impoundments, and Containers; Final Rule, EPA530-Z-97-011.

November 25, 1996; 61 FR 59932 - Hazardous Waste Treatment,

Storage, and Disposal
Facilities (TSDFs) and Hazardous Waste Generators; Organic Air Emission Standards for
Tanks, Surface Impoundments, and Containers; Final Rule, EPA530-Z-96-010.
February 9, 1996; 61 FR 4903 - Hazardous Waste Treatment, Storage, and Disposal Facilities
(TSDFs) and Hazardous Waste Generators; Organic Air Emission Standards for Tanks,
Surface Impoundments, and Containers; Final Rule; Technical Amendment.
December 6, 1994; 59 FR 62896 - Hazardous Waste Treatment, Storage, and Disposal
Facilities (TSDFs) and Hazardous Waste Generators; Organic Air Emission Standards for
Tanks, Surface Impoundments, and Containers; Final Rule, EPA530-Z-94-013.
July 22, 1991; 56 FR 33490 - Hazardous Waste Treatment, Storage, and Disposal Facilities
(TSDFs) and Hazardous Waste Generators; Organic Air Emission Standards for Tanks,
Surface Impoundments, and Containers; Proposed Rule, OSW-FR-91-028.
Hazardous Waste TSDFs - Background Information for Promulgated Organic Air Emission
Standards for Tanks, Surface Impoundments, and Containers (Subpart CC Background
Document), November 1994, EPA453-R-94-076b, PB95-149 274.
Hazardous Waste TSDFs - Regulatory Impact Analysis for Promulgated Air Emission
Standards for Tanks, Surface Impoundments, and Containers, November 1994,
EPA453-R-94-077b, PB95-144 499.

SUBPARTS AA AND BB

June 21, 1990; 55 FR 25454 - Hazardous Waste Treatment, Storage, and Disposal Facilities
(TSDFs) - Organic Air Emission Standards for Process Vents and Equipment Leaks; Final
Rule, OSW-FR-90-015.
February 5, 1987; 52 FR 3748 - Hazardous Waste Treatment, Storage, and Disposal Facilities
(TSDFs) - Organic Air Emission Standards for Process Vents and Equipment Leaks; Proposed
Rule, OSW-FR-87-007.
Seminar Publication: Organic Air Emissions from Waste Management Facilities, August
1992, EPA625-R-92-003, PB93-215 598.
Hazardous Waste TSDFs - Background Information for Proposed Organic Emission Standards
for Process Vents and Equipment Leaks, June 1991, EPA450-3-89-023,
Volume I: Main Text, PB91-233 577
Volume II: Appendices A-F, PB91-233 585
Volume III: Appendices G-L, PB91-233 593.
Hazardous Waste TSDFs - Background Information for Promulgated Organic Emission

Standards for Process Vents and Equipment Leaks, June 1990, EPA450-3-89-009, PB90-252
503.
Hazardous Waste TSDFs - Technical Guidance Document for RCRA Air Emission Standards
for Process Vents and Equipment Leaks, July 1990, EPA450-3-89-021, PB90-263 880.
RCRA TSDF Air Emission - Background Technical Memoranda for Proposed Standards,
October 1986, EPA450-3-86-009.

AVAILABILITY

Type of Document Availability

Federal Registers and electronic availability
information
RCRA, Superfund & EPCRA Hotline
(703) 412-9810 or (800) 424-9346
625 Series Office of Research and Development
Center for Environmental Research
Information
US EPA
26 West Martin Luther King Drive
Cincinnati, OH 45268
(513) 569-6847
450 Series Office of Air Quality Planning and Standards
Library Services (MD-35)
US EPA
Research Triangle Park, NC 27711
(919) 541-2777
PB Series National Technical Information Service
Department of Commerce
5285 Point Royal Road
Springfield, VA 22161
(703) 487-4650 or (800) 553-6847
Federal Registers and background docket
materials
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