



Environmental Guidance Regulatory Bulletin

Office of Environmental Policy & Assistance • RCRA/CERCLA Division (EH-413)

August 1995

Hazardous Waste Treatment, Storage and Disposal Facilities and Hazardous Waste Generators (RCRA Subpart CC)

of the regulatory program. These standards also provide air emission control requirements for certain hazardous waste generators accumulating waste on-site in RCRA permit-exempt tanks and containers. This second phase is the subject of this Regulatory Bulletin. The third phase will address any remaining risks posed by hazardous waste TSDF to assess the need for additional regulations.

Organic Air Emission Standards; Final Rule Issued

Effective Date: December 6, 1995

DOE Comments on the Proposed Rule

On July 22, 1991, EPA published the proposed rule for Phase II of the regulatory program entitled "Hazardous Waste Treatment, Storage and Disposal Facilities: Organic Air Emissions Standards for Tanks, Surface Impoundments and Containers (RCRA Subpart CC)." [56 Fed. Reg. 33491] In response the Department of Energy (DOE) provided comments to EPA on October 21, 1991.¹ A copy of the consolidated comments was submitted to Program Offices and Field Elements on December 9, 1991.² DOE provided detailed comments on issues of concern to the Department, particularly the unique problems associated with the management of radioactive mixed wastes. Included in this bulletin is a chart summarizing the major differences between the provisions of the rule as proposed and the final rule (see p. 7).

Background

The Hazardous and Solid Waste Amendments (HSWA) of 1984 added section 3004(n) to the Resource Conservation and Recovery Act (RCRA). This provision directed the Environmental Protection Agency (EPA) to promulgate regulations for the monitoring and control of air emissions from hazardous waste treatment, storage and disposal facilities (TSDF) as may be necessary for the protection of human health and the environment.

EPA has developed a three-phased regulatory program to implement this directive. The first phase was completed in June 1990 with the promulgation of RCRA air standards that control organic emissions vented from certain hazardous waste treatment processes (i.e., distillation, fractionation, thin-film evaporation, solvent extraction, steam stripping, and air stripping), and from leaks in certain ancillary equipment used for hazardous waste management processes. [55 Fed. Reg. 25454]

The promulgation of RCRA air standards for tanks, surface impoundments, containers and miscellaneous units operated at TSDF marks the completion of the second phase

The proposed rule would have instituted new testing requirements, expanded inspection requirements, and modified the way containers are filled and managed. Additionally, the proposed rule would have prohibited organic air emissions resulting from waste accumulation by requiring tight cover control device standards.

In its comments DOE stated that the issue of radioactive mixed waste was "of utmost concern" because the requirements of the proposed rule did not take into consideration the unique problems associated with the management of radioactive mixed wastes. [DOE Comments, p.3] This type of waste warrants special consideration because it poses unique hazards and handling difficulties not encountered with non-radioactive hazardous wastes. This issue is especially significant because large quantities of radioactive mixed wastes are generated and stored for future

¹ "Department of Energy Comments on Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers at Hazardous Waste Treatment, Storage and Disposal Facilities Proposed Rule (July 22, 1991; 56 Fed. Reg. 33490)"

² EH-231 Memorandum dated 12/09/91, Subject: "Consolidated Department of Energy (DOE) Response to VOC Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Proposed Rule."

treatment and/or disposal at DOE facilities. If required to comply with the proposed rule, DOE workers would face potential exposure to radiation as a result of increased inspection and sampling of wastes.

Additionally, DOE noted that the requirement for unvented containers in the proposed rule would increase the potential for explosions due to the buildup of hydrogen gas in drums and containers of radioactive mixed waste. [DOE Comments, p.3] An explosion involving radioactive and hazardous wastes would be extremely hazardous to personnel managing these drums and containers.

DOE requested that EPA revise the proposed rule to reflect an alternative regulatory approach for management of radioactive mixed waste at TSDF which would balance the desire to reduce VOC emissions with the need to protect workers from exposure to radiation and possible drum explosions. [DOE Comments, p.4] In lieu of providing an alternative approach, DOE suggested that it would work with EPA to develop alternative measures for managing radioactive mixed wastes that would minimize radiation and explosion hazards. [DOE Comments, p.5]

The Final Rule

On December 6, 1994, EPA issued the final rule entitled "Hazardous Waste Treatment, Storage and Disposal Facilities and Hazardous Waste Generators; Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers."³ [59 Fed. Reg. 62896] The final rule provides air emission standards as a new subpart CC in 40 C.F.R. 264 and 265. Subpart CC under 40 C.F.R. 264 establishes standards for owners and operators of permitted TSDF while subpart CC under 40 C.F.R. 265 establishes standards for owners and operators of interim-status TSDF.

Changes to the subpart CC standards in 40 C.F.R. 264 and 265 are identical, with the exception of the reporting requirements. There are no reporting requirements under 40 C.F.R. 265 subpart CC for owners and operators of interim-status TSDF.

Effective Date

The final rule was originally scheduled to be effective as of June 5, 1995. The effective date was then changed on May 19, 1995 to December 6, 1995.⁴ [60 Fed. Reg. 26828] This change, however, affects only the general effective date and not any of the compliance dates specified in the rule. The requirements of the rule apply only to hazardous waste placed in the affected tanks, surface impoundments,

containers and other units on or after June 5, 1995, except under certain conditions specified in the rule. [59 Fed. Reg. 62896]

Applicability of Subpart CC

The requirements of subpart CC apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers. [40 C.F.R. 264.1080(a)] The requirements of subpart CC do not apply to the following waste management units: [40 C.F.R. 264.1080(b)(1)-(b)(6)]

- Units in which waste was placed before June 5, 1995, and to which no waste was added on or after June 5, 1995.
- Containers with design capacities less than or equal to 0.1m³ (2.9 gal).
- Tanks and surface impoundments in which waste is no longer being added and which are undergoing or have undergone closure pursuant to an approved closure plan.
- Units used solely for on-site treatment or storage of hazardous waste as part of remediation activities required by RCRA, CERCLA or other federal or state authority.⁵
- Units used solely for managing radioactive mixed waste under the Atomic Energy Act and the Nuclear Waste Policy Act.⁵

General Standards

Subpart CC requires all TSDF owners and operators to install and operate emission controls on tanks, surface impoundments, and containers, except when the hazardous waste placed in the unit is determined to meet either of the following conditions:

- The average volatile organic concentration of hazardous waste at the point of waste origination is less than 100 parts per million by weight (ppmw) as determined by procedures specified in 40 C.F.R. 264.1083(a). [40 C.F.R. 264.1082(c)(1)]
- The organic content of the hazardous waste is reduced by organic destruction or removal processes that achieve any of the conditions specified in 40 C.F.R. 264.1082(c)(2)(i)-(c)(2)(vii).

In addition, when a process is used for the purpose of

³Since the issuance of the final rule, EPA has indicated that it plans to revise portions of the standards, particularly the container standards.

⁴EH-413 Memorandum dated 6/14/95, Subject: "Notice of Postponed Effective Date for Volatile Organic Compound (VOC) Emissions Final Rule."

⁵ EPA has decided to temporarily defer application of the subpart CC standards to waste management units used solely to treat or store hazardous wastes generated on-site from remedial activities required under RCRA corrective action or CERCLA response authorities (or similar state remediation authorities), and to waste management units used solely to manage *radioactive mixed wastes*. [59 Fed. Reg. 62897]

treating a hazardous waste, each material removed from or exiting the process that is not a hazardous waste must be managed in a waste management unit in accordance with the standards of 40 C.F.R. 264.1084-1087 if the average volatile organic concentration of the material is greater than or equal to 100 ppmw. [40 C.F.R. 264.1082(d)]

Each non-hazardous material removed from or exiting a process used to treat hazardous waste must be managed in a waste management unit in accordance with the standards of 40 C.F.R. 264.1084-1087 if the average volatile organic concentration is greater than or equal to 100 ppmw. [40 C.F.R. 264.1082(d)]

Waste Determinations

40 C.F.R. 264.1082(e)(1) authorizes Regional Administrators to perform or request owners and operators to perform waste determinations for hazardous wastes exempted from using air emission controls. Regional Administrators may require owners and operators to perform these waste determinations under the direction of authorized representatives observing the collection of hazardous waste samples. [40 C.F.R. 264.1082(e)(2)] Waste determinations must be performed in accordance with the requirements outlined in 40 C.F.R. 264.1083(a)-(c).

Tank Standards

The new air emission control requirements apply to owners and operators of hazardous waste management units who place hazardous wastes into any of the following types of tanks: [40 C.F.R. 264.1084(b)(1)-(b)(4)]

- A tank equipped with a cover that is vented through a closed-vent system to a control device in accordance with the following cover requirements: [40 C.F.R. 264.1084(d)(1)(i) and (d)(1)(ii)]
 - The cover and all cover openings must be designed to operate with no detectable organic emissions when all cover openings are closed and sealed.
 - Cover openings must be closed and sealed whenever hazardous waste is present in the tank, except when it is necessary to use the cover opening to: (1) add, remove, inspect, or sample the material in the tank, (2) inspect, maintain, repair or replace equipment located inside the tank, or (3) vent gases or vapors from the tank to a closed-vent system connected to a control device. [40 C.F.R. 264.1084(f)(1)-(f)(3)]
- A tank equipped with a fixed roof and an internal floating roof.
- A tank equipped with an external floating roof.
- A pressure tank designed to operate as a closed-system, meaning that the tank operates with no detectable organic emissions when hazardous waste is in the tank.

Alternatively, tank owners or operators may place hazardous waste in a tank equipped with a cover (i.e., fixed roof) if the hazardous waste meets all of the following conditions: [40 C.F.R. 264.1084(c)(1)-(c)(4)]

- The hazardous waste has not been mixed, stirred, agitated, or circulated within the tank in a manner resulting in splashing, frothing, or visible turbulent flow on the waste surface during normal process operations.
- The hazardous waste has not been heated in the tank except to prevent the waste from freezing or to follow normal process operations.
- The hazardous waste has not been treated using a waste stabilization process or one that produces an exothermic reaction.
- The maximum organic vapor pressure of the hazardous waste is less than the applicable values specified in 40 C.F.R. 264.1084(c)(4).

The new standards also require tank owners and operators to maintain enclosed pipes or other closed-systems to transfer hazardous waste between tanks and other tanks, surface impoundments, or containers. [40 C.F.R. 264.1084(e)(1) and (e)(2)] The tank standards do not apply to tanks containing hazardous waste that meets the conditions specified in 40 C.F.R. 264.1082(c) (see conditions in the "General Standards" section of this bulletin). Additionally, the standards do not apply to tanks used for biological treatment of hazardous waste. [40 C.F.R. 264.1084(a)(1) and (a)(2)]

Alternative Control Requirements for Tanks

Subpart CC provides alternative control requirements for owners and operators of tanks equipped with fixed roofs and internal floating roofs, as well as tanks equipped with external floating roofs. [40 C.F.R. 264.1091(a)] Owners and operators of tanks equipped with fixed roofs and internal floating roofs must design, install, operate and maintain roofs that meet the requirements of 40 C.F.R. 265.1091(a)(1)(i) - (a)(1)(ix), and they must also perform the inspection and monitoring requirements of 40 C.F.R. 265.1091(b)(1) (alternative emissions control requirements for owners and operators of interim-status tanks). [40 C.F.R. 264.1091(a)(1) and (b)(1)] Additionally, owners and operators of these tanks must record the following information, listed in 40 C.F.R. 265.1091(c)(1)(i)-(c)(1)(iv), in the operating record: [40 C.F.R. 264.1092(c)(1)]

- Description of control equipment design
- Tank inspection information
- Nature of tank defects
- Repairs made to tanks

Owners and operators of tanks equipped with external

floating roofs must design, install, operate and maintain roofs that meet the requirements of 40 C.F.R. 265.1091 (a)(2)(i)-(a)(2)(iii), and they must also perform the inspection and monitoring requirements of 40 C.F.R. 265.1091(b)(2) (alternative emissions control requirements for owners and operators of interim-status tanks). [40 C.F.R. 264.1091(a)(2) and (b)(2)] Additionally, owners and operators of these tanks must record the following information, listed in 40 C.F.R. 265.1091(c)(2), in the operating record: [40 C.F.R. 264.1091(c)(2)(i)-(c)(2)(iv)]

- Description of control equipment design
- Gap measurements
- Seal gap measurements for which the accumulated area of gaps between the tank wall and the mechanical shoe or liquid mounted primary seal exceed 212 cm² per meter of tank diameter, and for which the width of any portion of any gap exceeds 3.81 cm.

Surface Impoundment Standards

The new air emission control requirements apply to owners and operators of surface impoundments into which hazardous waste is placed. Hazardous waste must be placed into a surface impoundment equipped with a cover that is vented through a closed-vent system to a control device in accordance with the following requirements: [40 C.F.R. 264.1085(d)(1)(i)-(d)(1)(iii)]

- The cover and all cover openings must be designed to operate with no detectable organic emissions when all cover openings are closed and sealed.
- Cover openings must be closed and sealed (i.e., a gasketed lid or cap) whenever hazardous waste is present in the surface impoundment, except when it is necessary to use the cover opening to: (1) add, remove, inspect or sample the material in the surface impoundment; (2) inspect, maintain, repair or replace equipment located underneath the cover; (3) remove treatment residues from the surface impoundment; or (4) vent gases or vapors from the surface impoundment to a closed-vent system connected to a control device. [40 C.F.R. 264.1085(g)(1)-(g)(4)]

Alternatively, surface impoundment owners or operators may place hazardous waste in a surface impoundment equipped with a floating membrane cover when the waste meets all of the following conditions: [40 C.F.R. 264.1085 (c)(1)-(c)(3)]

- The waste has not been mixed, stirred, agitated or circulated within the surface impoundment in a manner resulting in splashing, frothing or visible turbulent flow on the waste surface during normal process operations.
- The waste in the surface impoundment has not been heated.

- The waste has not been treated using a waste stabilization process or one that produces an exothermic reaction.

Floating membrane cover design and operation requirements are not specified in 40 C.F.R. 264.1085. However, 40 C.F.R. 264.1085(e) refers to 40 C.F.R. 265.1086(e)(1)-(e)(4) (floating membrane cover requirements for interim-status surface impoundments). The following floating membrane cover requirements must be met by owners and operators of both permitted and interim-status surface impoundments:

- The entire surface area of the hazardous waste must be enclosed by the cover so that no air spaces are vented to the atmosphere.
- The cover must be designed to operate with no detectable organic emissions when all cover openings are closed and sealed.
- Each cover opening must be closed and sealed whenever hazardous waste is in the surface impoundment.
- The synthetic membrane material used for the floating membrane cover must meet the specific requirements of 40 C.F.R. 265.1086(e)(4).

Owners and operators of surface impoundments are also required to maintain enclosed pipes or other closed-systems to transfer hazardous waste between surface impoundments and other tanks, surface impoundments, and containers. [40 C.F.R. 264.1085(f)(1) and (f)(2)] Surface impoundment standards do not apply to surface impoundments containing hazardous waste that meets the conditions specified in 40 C.F.R. 264.1082(c). [40 C.F.R. 264.1085(a)(1)] (see conditions in the "General Standards" section of this bulletin). Additionally, the standards do not apply to surface impoundments used for biological treatment of hazardous waste in accordance with the requirements of 40 C.F.R. 264.1082 (c)(2)(iv). [40 C.F.R. 264.1085(a)(2)]

Container Standards

Subpart CC air emission control standards apply to owners and operators of containers with design capacities greater than 0.1 m³ (2.9 gal) into which hazardous waste is placed. Hazardous waste must be placed in one of the following types of containers: [40 C.F.R. 264.1086(b)(1)(i)-(b)(1)(iii)]

- A container equipped with a secured cover with no detectable organic emissions. Container openings must be tested for leaks.
- A container with a cover that has a design capacity less than or equal to 0.46m³ (13.5 gal). A container with a cover that has a design capacity greater than 0.46m³ (13.5 gal) is subject to the requirements of 40 C.F.R. 264.1086(b)(3).
- A container attached to or part of any truck, trailer or

railcar proven to be organic vapor tight when all container openings are closed and sealed.

Owners and operators of containers who treat hazardous waste using a waste stabilization process, a process which adds heat to the waste, or a process that produces an exothermic reaction must meet the following requirements: [40 C.F.R. 264.1086(b)(2)(i) and (b)(2)(ii)]

- If a container is open during the treatment process, it must be located inside an enclosure vented through a closed-vent system through a control device.
- The enclosure must be designed and operated in accordance with the requirements of 40 C.F.R. 264.1086(b)(2)(ii).

Owners and operators of containers who transfer hazardous waste into containers with design capacities greater than 0.46m³ (13.5 gal) must meet the following requirements: [40 C.F.R. 264.1086(b)(3)(i) and (b)(3)(ii)]

- Hazardous waste transfer by pumping must be performed using a conveyance system that uses a tube to add the waste into a container. During the waste transfer, the cover must remain in place and container openings must be closed and sealed.
- Hazardous waste transferred by any other means must be performed such that the cover remains in place and container openings are closed and sealed.

Additionally, the new standards require container openings to be closed and sealed whenever hazardous waste is present in the container, subject to the exceptions of 40 C.F.R. 1086(c)(1)-(c)(3). The standards do not apply to containers into which hazardous waste is placed that meets the conditions specified in 40 C.F.R. 264.1082(c) (see conditions in the "General Standards" section of this bulletin).

Closed-Vent System and Control Device Standards

Under the new subpart CC requirements, closed-vent systems used in controlling air emissions must route gases, vapors and fumes emitted from hazardous waste to a control device. [40 C.F.R. 264.1087(b)(1)] Owners and operators of closed-vent systems that contain one or more bypass devices must meet the requirements of 40 C.F.R. 264.1087(b)(3). Additionally, closed-vent systems will be monitored annually and at any other time as requested by the Regional Administrator. [40 C.F.R. 264.1033(k)(2)]

The subpart CC standards require control devices to be operating at all times when gases, vapors or fumes are vented from waste management units. [40 C.F.R. 264.1087(c)(2)] Control devices must be either enclosed combustion devices, flares, or control devices designed to achieve at least a 95% reduction in the total organic content

of the vapor stream vented to the device. [40 C.F.R. 1087(c)(1)] Owners and operators must demonstrate that control devices achieve the performance requirements of 40 C.F.R. 264.1087(c)(1) by using performance tests or design analyses. [40 C.F.R. 264.1087(c)(5)(i)]

Owners and operators of waste management units using carbon adsorption systems must adhere to the following requirements: [40 C.F.R. 264.1087(c)(3)(i) and (c)(3)(ii)]

- All activated carbon in control devices must be replaced with fresh carbon on a regular basis.
- All carbon removed from control devices must be managed in accordance with the requirements of 40 C.F.R. 264.1033(m). This provision requires carbon to be managed in one of the following manners: (1) regenerated or reactivated in a permitted thermal treatment unit; (2) incinerated by a permitted process; or (3) burned in a permitted boiler or industrial furnace.

Safety Devices for Tanks, Surface Impoundments and Containers

Safety devices that vent directly to the atmosphere may be used on covers, enclosures, closed-vent systems, or control devices for tanks, surface impoundments and containers. [40 C.F.R. 264.1084(g), 1085(h), 1086(d)] Safety devices must not be used for planned or routine venting of organic vapors and must remain in a closed, sealed position at all times, except to prevent damage during an unplanned event (e.g., a sudden power outage). [40 C.F.R. 264.1084(g)(1)(2), 1085(h)(1)(2), 1086(d)(1)(2)]

Inspection and Monitoring Requirements

The new air emission control standards provide inspection and monitoring requirements for owners and operators of tanks, surface impoundments, containers, closed-vent systems, and control devices. [40 C.F.R. 264.1088(a)-(d)] Owners and operators of these units must implement a written plan and schedule to perform the inspection and monitoring requirements and incorporate the written plan into a facility inspection plan. [40 C.F.R. 264.1088(e)]

Covers for tanks, surface impoundments, and containers must be inspected and monitored for detectable organic emissions in accordance with procedures specified in 40 C.F.R. 265.1089(f)(1)-(f)(7) (inspection and monitoring requirements for interim-status tanks, containers, closed-vent systems, and control devices). [40 C.F.R. 264.1088(b)] These provisions require inspection and monitoring of covers to be performed as follows:

- Covers and cover openings must be visually inspected and monitored for detectable organic emissions on or before the date that the waste management unit becomes subject to the subpart CC standards, and at other times as requested by the Regional Administrator.

Thereafter, visual inspection and monitoring must be performed at least once every six months, except for cover openings that have: (1) continuously remained closed and sealed; and (2) been designated unsafe to inspect and monitor (including those openings on covers installed and placed in operation before December 6, 1994).

- A cover is designated unsafe to inspect and monitor if: (1) the owner or operator determines that inspection or monitoring of the cover would expose a worker to dangerous, hazardous, or other unsafe conditions; and (2) the owner or operator develops and implements a written plan and schedule to inspect and monitor the cover as frequently as practicable during times when a worker can safely access the cover.
- Covers and cover openings must be visually inspected for evidence of defects or leaks, such as visible holes, gaps, tears or splits. If a leak is detected, the owner or operator must repair the leak.
- A cover installed and placed in operation before December 6, 1994 is designated unsafe to inspect and monitor if: (1) the owner or operator determines that inspection or monitoring of the cover would require elevating a worker to a height greater than two meters above a support surface; and (2) the owner or operator develops and implements a written plan and schedule to inspect the cover at least once per calendar year.

Additionally, owners and operators of tanks buried partially or entirely underground are required to comply with cover inspection and monitoring requirements only for portions of the tank cover and connections to the tank cover or tank body that extend to or above the ground surface and can be opened to the atmosphere. [40 C.F.R. 264.1088(b)(2)]

Recordkeeping Requirements

Owners and operators of facilities subject to subpart CC requirements must record and maintain information on covers installed on tanks, floating membrane covers installed on surface impoundments, and container enclosures used to control air emissions, closed-vent systems, and control devices. Generally, the information required includes design description and certification that specifications are met for each unit. Specific recordkeeping requirements for each type of unit are described in 40 C.F.R. 264.1089. This section of subpart CC also lists other records required to be maintained as well as the exceptions to recordkeeping requirements. Required records must be maintained in an operating log for a minimum of three years or until the air emission control equipment is replaced or no longer used. [40 C.F.R. 264.1089(g)]

Reporting Requirements

The reporting requirements of 40 C.F.R. 264.1090 are applicable to owners and operators of waste management units exempted from using air emission controls under 40 C.F.R. 264.1082(c). Exempted owners and operators must follow the requirements listed in 40 C.F.R. 264.1090(a) which include reporting to the Regional Administrator within 15 days of placing hazardous waste in a unit in noncompliance with conditions specified in 40 C.F.R. 264.1082(c)(1) or (c)(2).

As stated earlier, the reporting requirements of 40 C.F.R. 264.1090 are not applicable to interim-status TSDF tanks, surface impoundments or containers. While there are no reporting requirements for interim-status facilities, there are recordkeeping requirements under 40 C.F.R. 265.1090.

Subpart CC reporting requirements also apply to owners and operators of waste management units using air emission controls on tanks, and to those using control devices. Tank owners and operators must report to the Regional Administrator whenever waste is managed in the tank in noncompliance with 40 C.F.R. 264.1084(c)(1)-(c)(4). Owners and operators of control devices are required to submit semi-annual written reports to the Regional Administrator in accordance with 40 C.F.R. 264.1090(c).

Please direct questions regarding RCRA Subpart CC Organic Air Emission Standards Final Rule to:

Jerry Coalgate

DOE Office of Environmental

Policy & Assistance

RCRA/CERCLA Division, EH-413

1000 Independence Ave., S.W.

Washington, DC 20585

at (202) 586-6075



Changes Between Proposed and Final Rule

Proposed Rule	Final Rule
Applicability	
<ul style="list-style-type: none"> Applicable to owners and operators of all permitted and interim-status TSDF. Exceptions from control requirements provided for units in which hazardous waste placed in the units has a volatile organic concentration less than 500 ppmw. [56 Fed. Reg. 33519] 	<ul style="list-style-type: none"> Specifically exempts certain tanks, surface impoundments, and containers into which owners or operators have stopped adding hazardous waste. [40 C.F.R. 264.1080(b)(3)] Not applicable to containers with design capacity less than 0.1m³ regardless of organic content of hazardous waste handled in the container. [40 C.F.R. 264.1080(b)(2)] Defers application of subpart CC standards for waste management units used solely to treat or store wastes generated on-site from remedial activities required under RCRA corrective action or CERCLA response. Also defers application for waste management units used solely to manage radioactive waste. [40 C.F.R. 264.1080(b)(5) and (b)(6)] Exempts units from air emission control requirements if hazardous waste placed in a unit has an average volatile organic concentration less than 100 ppmw. [40 C.F.R. 264.1082(c)(1)]
Treated Hazardous Waste	
<ul style="list-style-type: none"> Exempts TSDF owners and operators who treat waste streams to reduce the volatile organic concentration below 500 ppmw by a means other than dilution (or evaporation into the atmosphere), from control requirements for subsequent downstream tanks, surface impoundments, or containers managing the waste streams. Exemption does not apply to waste units in which the treatment process occurs. [56 Fed. Reg. 33519] 	<ul style="list-style-type: none"> TSDF owners or operators who treat hazardous waste to remove or destroy organics in the waste by a process that meets or exceeds a minimum level of performance are exempt from control requirements for affected units operated downstream of the treatment process. Exemption does not apply to waste units in which the treatment process occurs. Conditions under which treated hazardous wastes are exempt from control requirements have been revised and expanded. [40 C.F.R. 264.1082(c)(2)(i)-(c)(2)(vii)]
Tank Standards (changes also made to surface impoundment standards at 40 C.F.R. 264.1085)	
<ul style="list-style-type: none"> Organic emission controls required for tanks into which hazardous waste containing 500 ppmw or more of volatile organics is placed. No exemptions provided. [56 Fed. Reg. 33523] 	<ul style="list-style-type: none"> Exempts tanks used for biological treatment of hazardous waste from tank standards. [40 C.F.R. 264.1084(a)(2)] Adds provisions addressing emergency venting of tanks and air emission controls. [40 C.F.R. 264.1084(g)(2)] Organic emission controls required for tanks into which hazardous waste containing 100 ppmw or more of volatile organics is placed. [40 C.F.R. 264.1084(a)(1)] Regulatory text clarified regarding tank cover design and operating requirements. [40 C.F.R. 264.1084(d)(1)] Conditions clarified that must be met for tanks to use fixed-roof types of covers without any additional controls. [40 C.F.R. 264.1084(c)(1)-(c)(4)]

<i>Proposed Rule</i>	<i>Final Rule</i>
Container Standards	
<ul style="list-style-type: none"> • Applicable to owners and operators who store, handle, or prepare hazardous waste for management in containers. [56 Fed. Reg. 33525] • Requires owners and operators to keep hazardous waste containers closed during waste storage except when waste is added or removed. [56 Fed. Reg. 33525] 	<ul style="list-style-type: none"> • Limits applicability of subpart CC standards to containers having a design capacity greater than or equal to 0.1m³. [40 C.F.R. 264.1086(a)] • Allows for containers to be open during treatment process when necessary. Containers must be located in an enclosure connected to a closed-vent system with an operating organic emission control device. [40 C.F.R. 264.1086(b)(2)(i)]
Inspection and Monitoring Requirements	
<ul style="list-style-type: none"> • Inspection and monitoring of covers required to be performed weekly. [56 Fed. Reg. 33527] • Leak repairs on tank and surface impoundment covers required to be performed within 15 calendar days. Repairs made beyond 15 calendar days would be allowed for surface impoundment covers when a surface impoundment is a “critical component of a company’s manufacturing process.” [56 Fed. Reg. 33527] 	<ul style="list-style-type: none"> • Required interval for visual inspection of covers is once every six months. [40 C.F.R. 264.1088(b)] • Leak repairs on tank and surface impoundment covers may be delayed beyond 15 calendar days under certain conditions specified in the rule. [40 C.F.R. 264. 1088 (b)].
Recordkeeping Requirements	
<ul style="list-style-type: none"> • Requires records of design and monitoring data to be kept for covers and enclosures. [56 Fed. Reg. 33528] 	<ul style="list-style-type: none"> • Requires cover design documentation only for floating roof-type tank covers, surface impoundment covers and container enclosures. [40 C.F.R. 264.1089(a)(1)-(a)(3)]
Reporting Requirements	
<ul style="list-style-type: none"> • Requires owners and operators of permitted TSDF to submit reports to EPA only when events occur that result or may result in the facility being in noncompliance with certain requirements of the proposed standards. [56 Fed. Reg. 33528] 	<ul style="list-style-type: none"> • Permitted TSDF owners and operators must report to the Regional Administrator within 15 calendar days of becoming aware of circumstances resulting in noncompliance with the requirements of 40 C.F.R. 264. [40 C.F.R. 264.1090(a)]