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

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

Organic Air Emission Standards; Revised Final Rule Issued

Effective Date: December 6, 1996

Background

On December 6, 1994, the U.S. Environmental Protection Agency (EPA) issued a final rule entitled "Hazardous Waste Treatment, Storage and Disposal Facilities and Hazardous Waste Generators; Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers." [59 FR 62896] The organic air emission standards apply to owners and operators of hazardous waste treatment, storage, and disposal facilities (TSDF) subject to RCRA subtitle C permitting requirements, and to certain hazardous waste generators accumulating waste in on-site tanks and containers. These air emission control requirements also apply to TSDF miscellaneous units.

The Department of Energy issued a Regulatory Bulletin explaining the provisions of this rule in August of 1995.¹

Since the original final rule was issued, EPA has delayed the effective date three times. The rule was originally scheduled to be effective as of June 5, 1995. The effective date was then changed to December 6, 1995.² EPA changed the date a second time to June 6, 1996.³ On June 5, 1996, EPA issued an amendment which further postponed the effective date of the requirements in the final rule until October 6, 1996.⁴

On August 14, 1995, EPA published "Proposed Rule; Data Availability," [60 FR 41870] and accepted comments on the appropriateness of the revisions that it was considering for the final subpart CC standards. Since that time, EPA has also engaged in repeated discussions with representatives of the groups filing petitions for review challenging the subpart CC standards. On February 9, 1996, EPA published "Final Rule; Technical Amendment," which made clarifying amendments in the regulatory text of the final standards. [61 FR 4903]

The latest change was made on November 25, 1996, when EPA issued an additional final rule which clarified that December 6, 1996, was the effective date of the rule. This effective date is for all provisions of the standards, including the applicability of 40 Code of Federal Regulations (CFR) Part 265 Subparts AA, BB, and CC to 90-day accumulation units.

EPA considered all comments in developing the final amendments published on November 25, 1996. [61 FR 59933] The amendments clarify provisions of the final subparts AA, BB, CC standards to better convey EPA's original intent, provide additional flexibility to owners/operators who must comply with the rules, and change the effective date of the requirements contained in the subpart CC standards.

The November 1996 final rule is markedly different from the December 1994 final rule. First, it entirely

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

² Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators—Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Amendment of final rule to postpone requirements, 60 FR 26828, May 19, 1995.

³ Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators—Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Amendment of final rule to postpone requirements, 60 FR 56592, November 13, 1995.

⁴ Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators—Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Amendment of final rule to postpone requirements, 61 FR 28508, June 5, 1996.



redrafted several sections of the rule to improve organizational structure and clarity. Second, in several sections of the rule, the technical requirements have been changed significantly or options added to increase flexibility for the source owner/operator. The revisions to the 1994 final rule discussed in the November 1996 rulemaking and related activities noted above, are the subject of this regulatory bulletin.

The Revised Final Rule

Changes to the subpart CC standards in 40 (CFR) 264 and 265 are identical, except where otherwise stated in this bulletin. Specific references are given for the 264 standards.

Effective Date

The final rule was signed by the EPA Administrator on October 4, 1996, and published on November 25, 1996. **The previous notices do not change the final compliance date of December 8, 1997, by which time all required air emission control equipment must be operating.** [61 FR 59937]

Applicability of Subpart CC

In the December 6, 1994, final rule, EPA deferred applicability of the final subpart CC standards to units used solely for on-site treatment or storage of hazardous waste generated in the course of certain remedial activities. [59 FR 62896] EPA intended that this deferral apply to remedial activities under the authority of RCRA corrective action, CERCLA response, similar federal authorities, or similar state authorities. [61 FR 4904]

EPA also deferred applicability of the subpart CC standards to hazardous waste management units used "solely" to treat or store radioactive mixed waste. [40 CFR 264.1080(b)(6) and 265.1080(b)(6)] In the February 1996 technical amendment [61 FR 4904], EPA clarified that use of the word "solely" does not preclude addition of other materials to a unit managing radioactive mixed waste if applicable regulations of the Atomic Energy Act or the Nuclear Waste Policy Act require that material other than radioactive mixed waste be added to the unit. [61 FR 4904] Therefore, if any materials other than radioactive mixed waste are added after December 6, 1996, to units used to treat or store mixed waste, the regulatory deferral of the unit will not apply unless the addition is pursuant to a regulatory requirement imposed by the Atomic Energy Act and/or the Nuclear Waste Policy Act. [61 FR 4904]

It is important to differentiate between situations in which the subpart CC standards are applicable but deferred

by EPA, and those in which the standards are not applicable. The following examples differentiate between the two situations:

- The subpart CC standards are not applicable to units in which RCRA hazardous wastes are not being stored.
- Units in which radioactive mixed wastes are treated and/or stored are subject to the subpart CC standards, and are eligible for a deferral; however, the standards are not applicable if these units are then flushed and non-RCRA wastes are treated and/or stored in the same units.

To eliminate regulatory overlap, the revised final amendments added an exemption for hazardous waste management units that are certified to be equipped with air emission controls operating in accordance with an applicable Clean Air Act regulation codified under 40 CFR Part 60, 61 or 63, with the sole exception of tanks being controlled through the use of an enclosure rather than a cover. [40 CFR 264.1080(b)(7) and 265.1080(b)(7)]

Definitions

EPA has amended and added several definitions. [40 CFR 265.1081] The complete list of definitions, including the 1994 final rule definitions, can be found in the table at the end of this regulatory bulletin.

General Standards

Several major changes have been made to the general Subpart CC standards in the revised final rule.

The average volatile organic (VO) concentration action level the hazardous waste must contain in order to be required to be managed in the units using air emission controls subject to subpart CC standards is being changed to 500 parts per million by weight (ppmw) as determined at the point of waste origination (the action level was 100 ppmw in the 1994 final rule). [40 CFR 264.1082(c)(1) and 265.1083(c)(1)]

EPA has revised several of the options found in 40 CFR 264.1082(c)(2) and 265.1083(c)(2) allowing TSDF owners and operators to demonstrate that waste has been effectively treated in accordance with the final subpart CC standards to reflect the new action level of 500 ppmw.

- The treatment option that requires at least 95 percent organic reduction efficiency and an average VO concentration of the waste at the point of waste treatment of less than 50 ppmw has been revised. The required average VO concentration is now 100 ppmw. [40 CFR 264.1082(c)(2)(ii) and 265.1083(c)(2)(ii)]

- The treatment option requiring a "removal rate (MR) for the process is greater" has been revised to read "removal rate (MR) for the process is equal to or greater." [40 CFR 264.1082(c)(2)(iii) and 265.1083(c)(2)(iii)]
- The treatment option that allows hazardous waste to be treated by an organic destruction or removal process to meet certain conditions, has been revised as follows [40 CFR 264.1082(c)(2)(v) and 265.1083(c)(2)(v)]:
 - The condition that only hazardous waste enter the process has been removed.
 - The condition that the exit concentration limit be "the lowest average VO concentration at the point of waste origination determined for each individual waste stream entering the process or 100 ppmw, whichever value is lower," has been revised by changing "100 ppmw" to "500 ppmw."

A new treatment option has been added that requires an organic reduction efficiency for the process equal to or greater than 95 percent be achieved, and the average VO concentration at the point of waste origination for each individual waste stream entering the process be certified to be less than 10,000 ppmw. [40 CFR 264.1082(c)(2)(vi) and 265.1083(c)(2)(vi)]

Three new exemptions from Subpart CC control requirements have been added:

- Tanks or surface impoundments used for biological treatment of hazardous waste in accordance with 40 CFR 264.1082(c)(2)(iv) or 265.1083(c)(2)(iv). [40 CFR 264.1082(c)(3) and 265.1083(c)(3)]
- Tanks, surface impoundments or containers for which all hazardous waste placed in the unit either meets organic limits for hazardous constituents specified in 40 C.F.R Part 268, "Land Disposal Restrictions," or are treated by the treatment technology established in 40 CFR 268.42(a), or an equivalent method. [40 CFR 264.1082(c)(4) and 265.1083(c)(4)]
- Tanks used for bulk feed of hazardous waste to a waste incinerator that meet certain conditions, including that they meet the National Emission Standards for Benzene Waste Operations found at 40 CFR Part 61, subpart RR. [40 CFR 264.1082(c)(5) and 265.1083(c)(5)]

EPA has also amended 40 CFR 264.1082(d) and 265.1083(d) to clarify that non-hazardous wastes are **not** subject to the subpart CC standards.

Waste Determination Procedures

Under the final subpart CC standards, a TSD owner or operator is not required to determine the VO concentration of the waste if it is placed in a tank, surface impoundment,

or container with the required air emission controls installed and operating. [61 FR 4906] However, in the February 1996 technical amendment [61 FR 4903], EPA clarified that an owner/operator must determine the average VO concentration for each hazardous waste placed in a waste management unit exempted from using air emission controls based on the VO concentration of the waste at its point of waste origination. [40 CFR 264.1083(a)(1) and (b)(1)]

The revised final amendments change the waste determination procedures such that, for both point of waste origination and point of waste treatment, a distinction is no longer made for:

- batch or continuous processes; or
- whether the owner/operator is the generator or receives the waste from off-site. [61 FR 59943].

The following provisions amend 40 CFR 265.1084, interim status waste determination procedures for owners/operators of hazardous waste TSDFs:

- Additional direct measurement methods may be used to determine the average VO concentration in a waste. [40 CFR 265.1084(a)(3)(iii)] EPA amended the rule to allow various test methods other than Method 25D (see 40 CFR part 60) to be used in waste determinations (e.g., Methods 624, 625, 1624 and 1625—all contained in 40 CFR part 136, appendix A). [61 FR 59942]
- A written sampling plan must be prepared and maintained in the facility operating records. [40 CFR 265.1084(a)(3)(ii)(C) and (c)(3)(i)]
- The equation used to calculate the average VO concentration of hazardous waste at the point of waste origination has been revised in 40 CFR 265.1084(a)(3)(iv) to correct an error with respect to the symbol representing the average VO concentration.
- The procedure used to determine the organic reduction efficiency for a treated hazardous waste has been revised to require that the VO concentration of each hazardous waste stream entering the treatment process be measured according to the requirements of 40 CFR 265.1084(a)(3). [40 CFR 265.1084(b)(5)(iii)IB] In addition, the nomenclature in 265.1084(b)(5)(iv) has been revised such that Q_{aj} represents the average mass quantity Q_a of waste exiting the process during run "j". [40 CFR 265.1084(b)(5)(iv)]

Tank Standards

The revised final rule establishes two levels of air emission control (referred to as Level 1 and Level 2 controls) for tanks managing hazardous waste having a maximum organic vapor pressure (MOVP) of less than 76.6 kilopascals (kPa). [61 FR 59944]

To meet Level 1 controls [40 CFR 264.1084(c)], the hazardous waste must be managed in a fixed-roof tank and meet specified MOVP levels for its capacity. [40 CFR 264.1084(b)(1) and 265.1085(b)(1)]

For the Level 2 controls, one of the following design options can be used [40 C.F.R 264.1084(d) and 265.1085(d)]:

- a fixed roof tank with an internal floating roof
- a tank with an external floating roof
- a tank vented through a closed vent system to a control device
- a pressure tank
- a tank inside an enclosure with the enclosure venting through a closed-vent system to an enclosed combustion control device [61 FR 59944]

The conditions applicable to managing hazardous waste in tanks in accordance with Tank Level 1 or Tank Level 2 controls have been revised as follows:

- The condition that waste not be mixed, stirred, agitated, nor circulated within the tank has been eliminated. [61 FR 59944]
- The requirement with respect to heating the wastes has been revised to require that the hazardous waste in the tank not be heated to a temperature that is greater than the temperature at which the MOVP was determined. [40 CFR 264.1084(b)(1)(ii) and 265.1085(b)(1)(ii)] The requirement in the 1994 final rule stated that the hazardous waste could not be heated except to prevent freezing or to maintain adequate waste flow. [61 FR 59944]
- The requirement that the hazardous waste not be treated by a process producing an exothermic reaction has been eliminated. [61 FR 59944]

EPA stated that the requirements that were eliminated from the 1994 final rule were unnecessary because they are adequately accounted for in the MOVP levels. [61 FR 5994]

Tank Level 1 operating requirements have been revised as follows:

- The revised rule now explicitly states that opening of closure devices and the fixed roof is allowed for the purpose of removal of sludge or other bottom residues or to provide access for other activities needed for normal operations. [40 CFR 264.1084(c)(3)(i)(B) and 265.1085(c)(3)(i)(B)]
- The 1994 final rule (inadvertently) read that a conservation vent must discharge through a closed vent system to a control device. The revised rule states that pressure relief devices, such as conservation vents, that vent to the atmosphere are allowed to maintain internal

tank pressure. [40 CFR 264.1084(c)(3)(ii) and 265.1085(c)(3)(ii)]

- The semiannual inspection requirement for fixed roof and closure devices has been changed to an annual inspection. [40 CFR 264.1084(c)(4)(ii) and 265.1085(c)(4)(ii)]
- Leak detection monitoring requirements have been eliminated. [61 FR 59944]
- The time to repair defects has been extended from 15 to 45 days. [40 CFR 264.1084(k) and 265.1085(k)]
- Recordkeeping requirements have been clarified to explicitly define the required information for the annual inspection. [40 CFR 264.1084(c)(4)(iv) and 265.1085(c)(4)(iv)]

Tank Level 2 air emission control requirements include options that were available in the 1994 final subpart CC rule (i.e., fixed roof tanks with an internal floating roof, external floating roof tanks, tanks vented through a closed-vent system to a control device, and pressure tanks), with the addition of a tank design option allowing the use of an enclosure vented through a closed-vent system to an enclosed combustion device or a control device designed and operated to reduce the total organic content of the inlet vapor stream by at least 95 percent by weight. [40 CFR 264.1084(i) and 265.1085(i)]

Additional important amendments in the 1996 revised final rule are:

- For a tank equipped with a fixed roof and internal floating roof, an operating requirement has been revised, such that, when the floating roof is on the leg supports, the process of filling, emptying, or refilling must be accomplished "as soon as practical" rather than "as rapidly as possible." [40 CFR 264.1084(e)(2)(i) and 265.1085(e)(2)(i)]
- For a tank with a fixed roof that is vented through a closed-vent system to a control device, operating requirements have been revised to be consistent with Tank Level 1 operating requirements, described above (i.e., opening of closure devices, conservation vents, and inspection, monitoring and recordkeeping requirements.) [40 CFR 264.1084(e)(2) & (3) and 265.1085(e)(2) & (3)]
- To be considered a pressure tank, the tank must be designed and operating to withstand the pressure of having the vapor head space of the waste of the tank compressed until the tank is filled to design capacity. [40 CFR 264.1084(h)(1) and 265.1085(h)(1)] There may be no detectable emissions during routine operations, including filling and emptying. [61 FR 59945]

The 1996 revised final rule eliminates the requirement that the transfer of solids and sludges between containers and tanks be done in a closed system. [40 CFR 264.1084(j) and 265.1085(j)]

Surface Impoundment Standards

The revised final rule adds the following provisions to 40 CFR 264.1085 and 265.1086 for surface impoundments:

Rigid Cover Surface Impoundments

- The revised rule now explicitly states that venting to a control device is not required and opening of closure devices, or removal of the cover, is allowed to remove accumulated sludge or other residues or to provide access for other activities needed for normal operations. [40 CFR 264.1085(d)(2)(i)(B) and 265.1086(d)(2)(i)(B)]
- The revised rule now explicitly states that the opening of a safety device on the cover, closed vent system, or control device is allowed at any time to avoid an unsafe condition. [40 CFR 264.1085(d)(2)(ii) and 265.1086(d)(2)(ii)]

Floating Membrane Cover Surface Impoundments

- The floating membrane cover must be designed to float during normal operation on the surface of the liquid contained in the surface impoundment. [40 CFR 264.1085(c)(2) and 265.1086(c)(2)] The 1994 final rule language was that the floating membrane cover must "enclose the entire surface area of the hazardous waste." [59 FR 62930]
- The revised rule now explicitly states that the opening of a safety device on the cover is allowed at any time to avoid an unsafe condition. [40 CFR 264.1085(c)(2)(ii) and 265.1086(c)(2)(ii)]
- A new provision has been added that allows the floating membrane cover to be equipped with emergency cover drains for removal of stormwater. [40 CFR 264.1085(c)(1)(v) and 265.1086(c)(1)(v)]

Applicable to All Surface Impoundments

- Visual inspection of the cover and closure device is required initially and annually, rather than semi-annually. [40 CFR 264.1085(c)(3) & (d)(3) and 265.1086(c)(3) & (d)(3)]
- Leak detection monitoring of the surface impoundment cover is only required initially and the requirement that periodic instrument monitoring be conducted has been

eliminated. [40 CFR 264.1085(c)(3) & (d)(3) and 265.1086(c)(3) & (d)(3)]

- The time to repair defects has been extended from 15 to 45 days. [40 CFR 264.1085(f) and 265.1086(f)]
- The 1994 final rule included closed system requirements for a hazardous waste transferred to or from a surface impoundment to a container. The revised final rule does not require closed system transfers for these types of transfers. [40 CFR 264.1085(e) and 265.1086(e)]

Container Standards

The revised final rule significantly amends the container standards to make them compatible with existing Department of Transportation (DOT) regulations, and to reduce inspection, monitoring, recordkeeping and reporting requirements. [61 FR 59946]

The revised container standards establish three levels of air emission control based on container design capacity, the total organic content of the hazardous waste, and the use of the container. [40 CFR 264.1086(b) and 265.1087(b)]

- Level 1 -- greater than 0.1m³(26.4 gal) and less than or equal to 0.46m³(122 gal) or greater than 0.46m³(122 gal) and not in light material service.
- Level 2 -- greater than 0.46m³(122 gal) and in light material service (see table of definitions).
- Level 3 -- greater than 0.1m³(26.4 gal) and conducting waste stabilization.

Level 1 controls apply to containers that are one of the following that: (1) meet DOT standards found at 49 CFR 173, 178, 179 and 180, (2) are covered with a cover and closure devices that when closed have no visible gaps, or (3) are open-topped with a vapor suppressing barrier. [40 CFR 264.1086(c)(1) and 265.1087(c)(1)]

Level 2 controls are required of containers that: (1) meet DOT standards found at 49 CFR 173, 170, 179 and 180, (2) operate with "no detectable organic emissions" as defined in 40 CFR 265.1081 and determined in accordance with the procedure specified in 40 CFR 264.1086(a), or (3) has been demonstrated within the preceding 12 months to be vapor-tight. [40 CFR 264.1086(d) and 265.1087(d)] Specific design, operating and other requirements are found in 40 CFR 264.1086 and 265.1087

Containers required to use Level 3 controls are:
(1) open containers placed in an enclosure vented through

a closed vent system to a control device, or (2) a covered container vented directly to a control device. [40 CFR 264.1086(e)(1) and 265.1087(e)(1)] If an enclosure is used, the revised standards specifically state that it must be designed to meet Procedure T in 40 CFR 52.741, Appendix B, "Criteria for and Verification of a Permanent or Temporary Total Enclosure." [40 CFR 264.1086 (e)(2)(i) and 265.1087(e)(2)(i)]

The waste transfer requirements specified in the 1994 final rule for containers are intended to reduce exposure of hazardous waste to the atmosphere. Under the revised final rule, there are no transfer requirements for Level 1 controls. [61 FR 59948] For containers using Level 2 controls, transfer requirements are revised to allow owner and operator flexibility in transferring wastes. The 1994 rule specified transfer requirements. [59 FR 62596] The revision cites the following examples of container-loading procedures considered to meet the waste transfer requirements: [40 CFR 264.1086(d)(2) and 265.1087(d)(2)]

- Using a submerged-fill method to load liquids into the container;
- Using a vapor-balancing or vapor-recovery system to collect and control the vapors displaced from the container during filling operations; and,
- Transferring waste through a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line prior to removing it from the container opening.

The revised final rule has simplified the inspection, monitoring, recordkeeping and reporting requirements for containers.

- the owner/operator using Level 1 or 2 controls must visually inspect the container and its cover and closure devices at the time they first manage the waste or take possession of it (with the exception of containers emptied within 24 hours after receipt) and annually thereafter. [40 CFR 264.1086(c)(4) & (d)(4) and 265.1087(c)(4) & (d)(4)] The leak detection instrument monitoring requirements have been eliminated. [61 FR 59948]
- There is only one recordkeeping and no reporting requirements for containers using Level 1 or Level 2 controls. In the facility record, the owner/operator must maintain a copy of the procedure used to determine that a container, with a capacity of greater than 0.46m³ and not meeting DOT standards, is not managing hazardous waste in light material service. [40 CFR 264.1086(c)(5) & (d)(5) and 265.1087(c)(5)]

The revised final rule also adds operating provisions specifying the duration of time that the cover, closure

devices and openings may be open. [40 CFR 264.1086(c)(3) & (d)(3) and 265.1087(c)(3) & (d)(3)]

Closed-Vent System and Control Device Standards

In the February 1996 technical amendments, EPA clarified that the carbon management requirements as described in the 1994 subpart CC standards are only applicable to carbon that is hazardous waste. [61 FR 4910] Carbon is hazardous if it exhibits a characteristic of hazardous waste or if it has absorbed a listed hazardous waste. [61 FR 4910] Carbon management requirements include thermal regeneration or reactivation and incineration. [40 CFR 264.1033(n) and 265.1033(n)]

The revised final rule adds provisions to allow up to 240 hours per year for periods of planned routine maintenance of a control device during which time the control device does not have to meet the performance standards. Recordkeeping requirements for these provisions are also being added. [40 CFR 264.1087(c)(2) and 265.1088(c)(2)]

Inspection and Monitoring Requirements

The revised final rule amends the inspection and monitoring requirements to reduce the burden on the owner or operator. [61 FR 59948] These revisions are as described above in each section. [40 CFR 264.1088 and 265.1089]

Recordkeeping Requirements

The recordkeeping requirements in the final subpart CC standards have been clarified to reduce the burden of these requirements on owners/operators of hazardous waste management units subject to the final rule. [61 FR 59948]

Recordkeeping requirements are found throughout the subpart CC standards as well as in 40 CFR 264.1089 and 265.1090, "Recordkeeping Requirements." Amendments to these provisions promulgated in the revised final rule are discussed as appropriate throughout this bulletin.

Reporting Requirements

40 CFR 264.1090(c) and (d) are amended to specify the noncompliance occurrences for control device operations that a facility owner/operator must report to the EPA Regional Administrator. [61 FR 4903] The

semiannual report shall describe each occurrence during the previous six-month period when either:

- A control device is operated continuously for 24 hours or longer in noncompliance with the operating values defined in 40 CFR 264.1035(c)(4); or
- A flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in 40 CFR 264.1033(d). [40 CFR 264.1090(c)]
A semiannual report is not required for a six-month

period during which all control devices are operated such that:

- During no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in 40 CFR 264.1035(c)(4); and
- No flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in 40 CFR 264.1033(d). [40 CFR 264.1090(d)]

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

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New and Amended Definitions [40 C.F.R. 265.1081]

<i>12/6/94 Final Rule</i>	<i>11/25/96 Final Rule</i>
<p>Closure Device: No definition provided.</p>	<p>Closure Device: 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 detectable 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).</p>
<p>Continuous Seal: No definition provided.</p>	<p>Continuous Seal: 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.</p>
<p>Cover: A device that is placed on or over a unit and forms a barrier between the entire waste surface and the space external to the unit. An example of a cover includes an enclosure surrounding a container. [40 CFR 265.1081]</p>	<p>Cover: 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.</p>
<p>Enclosure: No definition provided.</p>	<p>Enclosure: A structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.</p>
<p>External floating roof: A pontoon or double-deck type floating roof that rests on the surface of a hazardous waste being managed in a tank that has no fixed roof.</p>	<p>External floating roof: A pontoon-type or double-deck type cover that rests on the surface of the material managed in a tank with no fixed roof.</p>
<p>Fixed roof: A rigid cover that is installed in a stationary position so that it does not move with fluctuations in the level of the hazardous waste place in a tank.</p>	<p>Fixed roof: 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.</p>
<p>Floating roof: A pontoon-type or double-deck type cover that rests upon and is supported by the hazardous waste being managed in a tank, and is equipped with a closure seal or seals to close the space between the cover edge and the tank wall</p>	<p>Floating roof: A cover consisting of a double deck, pontoon single deck, or internal floating cover which rest upon and is supported by the material being contained, and is equipped with a continuous seal.</p>

<i>12/6/94 Final Rule</i>	<i>11/25/96 Final Rule</i>
Hard-piping: No definition provided	Hard-piping: Pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.
In light material service: No definition provided.	In light material service: 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° C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20° C is equal to or greater than 20 percent by weight.
Internal floating roof: A floating roof that rests or floats on the surface (but not necessarily in complete contact with it) of a hazardous waste being managed in a tank that has a fixed roof.	Internal floating roof: A cover that rest or floats on the material surface (but not necessarily in complete contact with it) inside a tank that has a fixed roof.
Malfunction: No definition provided.	Malfunction: 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: The equilibrium partial pressure exerted by the hazardous waste contained in a tank determined at the temperature equal to either: (1) the local maximum monthly average temperature as reported by the National Weather Service when the hazardous waste is stored or treated at ambient temperature; or (2) the highest calendar-month average temperature of the hazardous waste when the hazardous waste is stored at temperatures above the ambient temperature or when the hazardous waste is stored or treated at temperatures below the ambient temperature.	Maximum organic vapor pressure (MOVP): The sum of the individual organic constituent parts 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. MOVP is determined using the procedures specified in 265.1084(c).
Metallic shoe: No definition provided.	Metallic shoe: 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: No escape of organics from a device or system to the atmosphere as determined by an instrument reading less than 500 parts per million by volume (ppmv) above the background level at each joint, fitting, and seal when measured in accordance with the requirements of Method 21 in 40 CFR part 60, appendix A, and by no visible openings or defects in the device or system such as rips, tears, or gaps.	No detectable organic emissions: No escape of organics to the atmosphere as determined using the procedure specified in 40 CFR 265.1084(d).

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<p>Point of waste treatment: The point where a hazardous waste exits a waste management unit used to destroy, degrade, or remove organics in the hazardous waste.</p>	<p>Point of waste treatment: The point where a hazardous waste to be treated in accordance with 40 CFR 265.1083(c)(2) 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.</p>
<p>Safety device: No definition provided.</p>	<p>Safety device: A closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which function 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. 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 of 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.</p>
<p>Single-seal system: No definition provided.</p>	<p>Single-seal system: A floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.</p>
<p>Vapor-mounted seal: A foam-filled primary seal mounted continuously around the circumference of the tank so that there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the hazardous waste surface, and the floating roof.</p>	<p>Vapor-mounted seal: 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.</p>
<p>Volatile organic concentration or VO concentration: The fraction by weight of organic compounds in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement using Method 25D or by knowledge of the waste in accordance with the requirements of 40 CFR 265.1084.</p>	<p>Volatile organic concentration or VO concentration: The fraction by weight of the volatile organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the waste in accordance with the requirements of 40 CFR 265.1084. 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/m³) at 25 °C 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.</p>

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<p>Waste Determination: Performing all applicable procedures in accordance with 40 CFR 265.1084 to determine whether a hazardous waste meets those standards. Examples include performing the procedures in accordance with 265.1084 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 in the process used to treat the hazardous waste; determining 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.</p>	<p>Waste Determination: Revised “determining the organic reduction efficiency” to read “the organic reduction efficiency”.</p>
<p>Waste Stabilization: Any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids. A waste stabilization process includes mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture.</p>	<p>Waste Stabilization: The process does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid. Waste stabilization does not include processes that do not include mixing, or agitating and do not involve curing to absorb free liquid.</p>