

GUIDEBOOK TO HAWAII ADMINISTRATIVE RULES
CHAPTER 11-261.1
HAZARDOUS WASTE MANAGEMENT:
IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

IMPORTANT

This guidebook is provided to assist regulated businesses and the public in understanding Hawaii Administrative Rules (HAR) chapters 11-260.1 to 11-279.1, which now incorporate by reference portions of the Code of Federal Regulations (CFR).

This guidebook is intended to be used as a convenient aid to understanding the Hawaii Administrative Rules pertaining to hazardous waste. It should not, however, be thought of as a substitute for the actual text of the regulations themselves.

Please go to <http://health.hawaii.gov/shwb/hazwaste/> or call the Department of Health Solid and Hazardous Waste Branch at (808) 586-4226 to obtain a copy of the Hawaii Administrative Rules regulating hazardous waste and used oil within the state of Hawaii.

- The table of contents for 40 CFR part 261 is provided below for convenience.
- 40 CFR part 261 (July 1, 2024) is incorporated by reference in §11-261.1-1, HAR with substitutions made in §11-261.1-2 and amendments made in §§11-261.1-3 to 11-261.1-32.
- The text of 40 CFR part 261 (July 1, 2024) is copied below and changes made to the incorporated text in §§11-261.1-2 to 11-261.1-32, HAR have been made. *Hazardous waste lists in subpart D and some appendices have not been reproduced. 40 CFR §261.151, as incorporated and amended in chapter 11-261.1, HAR, has not been reproduced. See chapter 11-261.1, HAR, and 40 CFR part 261; links are provided.*
- Amendments made in §§11-261.1-3 to 11-261.1-32 are shown using “track changes.” Substitutions made in §11-261.1-2 are not shown using “track changes.” Exceptions in §11-261.1-2(b), (d), and (e), HAR, have been noted in blue.
- All references to provisions of 40 C.F.R. parts 124, 260 to 268, 270, 273, and 279 in the text pasted below mean the Hawaii Administrative Rules analog, as incorporated and amended in chapters 11-260.1 to 11-279.1, except as noted in §11-261.1-2(d) and (e) and in blue here.
- Please review the [information about how to cite chapters 11-260.1 to 11-279.1, HAR](#).

IF PRINTING, print these additional documents, if needed:

- [Chapter 11-261.1, Hawaii Administrative Rules](#) (40 CFR §261.151, as incorporated and amended in chapter 11-261.1, HAR)
- [40 CFR §261.31 Hazardous wastes from specific sources \(waste codes F list\)](#)
- [40 CFR §261.32 Hazardous wastes from specific sources \(waste codes K list\)](#)
- [40 CFR §261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof \(waste codes P & U lists\)](#)

- [Appendix VII to 40 CFR Part 261--Basis for Listing Hazardous Waste](#)
- [Appendix VIII to 40 CFR part 261--Hazardous Constituents](#)

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Subpart A—General

§ 261.1 Purpose and scope.

(a) This part identifies those solid wastes which are subject to regulation as hazardous wastes under parts 262 through 265, 268, and parts 270, and 124 of this chapter and which are subject to the notification requirements of section 342J-6.5, HRS. In this part:

(1) Subpart A defines the terms “solid waste” and “hazardous waste”, identifies those wastes which are excluded from regulation under parts 262 through 266, 268 and 270 of this subchapter and establishes special management requirements for hazardous waste which is recycled.

(2) Subpart B sets forth the criteria used by [the] state department of health to identify characteristics of hazardous waste and to list particular hazardous wastes.

(3) Subpart C identifies characteristics of hazardous waste.

(4) Subpart D lists particular hazardous wastes.

(b) (1) The definition of solid waste contained in this part applies only to wastes that also are hazardous for purposes of the regulations implementing subtitle C of RCRA. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

(2) This part identifies only some of the materials which are solid wastes and hazardous wastes under chapter 342J, HRS. A material which is not defined as a solid waste in this part, or is not a hazardous waste identified or listed in this part, is still a solid waste and a hazardous waste for purposes of sections 342J-6, 342J-7, 342J-8, 342J-9(a), 342J-9(b), 342J-10, and 342J-11, HRS, if:

(i) In the case of sections 342J-6, 342J-7, 342J-9(a), 342J-9(b), 342J-10, and 342J-11, HRS, the department has reason to believe that the material may be a solid waste as the term is defined in section 342J-2, HRS, and a hazardous waste as the term is defined in section 342J-2, HRS; or(ii) In the case of section 342J-8, HRS, the statutory elements are established.

(c) For the purposes of §§ 261.2 and 261.6:

(1) A “spent material” is any material that has been used, spilled, or otherwise contaminated and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) “Sludge” has the same meaning used in § 260.10 of this chapter;

(3) A “by-product” is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is “reclaimed” if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents. In addition, for purposes of § 261.4(a)(23) and (24), smelting, melting, and refining furnaces are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the same requirements as those specified for metals recovery from hazardous waste found in § 266.100(d)(1) through (3) of this

chapter, and if the residuals meet the requirements specified in § 266.112 of this chapter.

(5) A material is “used or reused” if it is either:

- (i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or
- (ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) “Scrap metal” is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is “recycled” if it is used, reused, or reclaimed.

(8) A material is “accumulated speculatively” if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. Materials must be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period must be documented through an inventory log or other appropriate method. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under § 261.4(c) are not to be included in making the calculation. Materials that are already defined as solid wastes also are not to be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling, however.

(9) “Excluded scrap metal” is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(10) “Processed scrap metal” is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (i.e., sorted), and, fines, drosses and related materials which have been agglomerated. (Note: shredded circuit boards being sent for recycling are not

considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled (§ 261.4(a)(14)).

(11) “Home scrap metal” is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(12) “Prompt scrap metal” is scrap metal as generated by the metal working/fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

§ 261.2 Definition of solid waste.

(a) (1) A solid waste is any discarded material that is not excluded under § 261.4(a) or that is not excluded by a variance granted under §§ 260.30 and 260.31 or that is not excluded by a non-waste determination under §§ 260.30 and 260.34.

(2) (i) A *discarded material* is any material which is:

(A) Abandoned, as explained in paragraph (b) of this section; or

(B) Recycled, as explained in paragraph (c) of this section; or

(C) Considered inherently waste-like, as explained in paragraph (d) of this section; or

(D) A military munition identified as a solid waste in § 266.202.

(ii) [Reserved]

(b) Materials are solid waste if they are *abandoned* by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned or incinerated; or

(4) Sham recycled, as explained in paragraph (g) of this section.

(c) Materials are solid wastes if they are recycled—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

(1) Used in a manner constituting disposal.

(i) Materials noted with a “*” in Column 1 of Table 1 are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) Burning for energy recovery.

(i) Materials noted with a “*” in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products are not solid wastes if they are themselves fuels.

(3) Reclaimed. Materials noted with a “-” in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with an “*” in column 3 of Table 1 are solid wastes when reclaimed unless they meet the requirements of §§ 261.4(a)(17), or 261.4(a)(23), 261.4(a)(24), or 261.4(a)(27).

(4) Accumulated speculatively. Materials noted with a “*” in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/fuel (§ 261.2(c)(2))	Reclamation (§ 261.2(c)(3)), except as provided in §§ 261.4(a)(17), 261.4(a)(23), 261.4(a)(24) or 261.4(a)(27)	Speculative accumulation (§ 261.2(c)(4))
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
By-products (listed in 40 CFR 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	—	—

TABLE 1—Continued

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/fuel (§ 261.2(c)(2))	Reclamation (§ 261.2(c)(3)), except as provided in §§ 261.4(a)(17), 261.4(a)(23), 261.4(a)(24) or 261.4(a)(27)	Speculative accumulation (§ 261.2(c)(4))
Scrap metal that is not excluded under 40 CFR 261.4(a)(13)	(*)	(*)	(*)	(*)

NOTE: The terms “spent materials,” “sludges,” “by-products,” and “scrap metal” and “processed scrap metal” are defined in § 261.1.

(d) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

- (i) The material must contain a bromine concentration of at least 45%; and
- (ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and

- (iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).
- (3) The director will use the following criteria to add wastes to that list:
 - (i) (A) The materials are ordinarily disposed of, burned, or incinerated; or
(B) The materials contain toxic constituents listed in [appendix VIII of part 261 \[federal\]](#) and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and
 - (ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) Materials that are not solid waste when recycled.

- (1) Materials are not solid wastes when they can be shown to be recycled by being:
 - (i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or
 - (ii) Used or reused as effective substitutes for commercial products; or
 - (iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at § 261.4(a)(17) apply rather than this paragraph.
- (2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1) (i) through (iii) of this section):
 - (i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or
 - (ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or
 - (iii) Materials accumulated speculatively; or
 - (iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

(f) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.

Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(g) Sham recycling. A hazardous secondary material found to be sham recycled is considered discarded and a solid waste. Sham recycling is recycling that is not legitimate recycling as defined in § 260.43.

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

- (1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and
- (2) It meets any of the following criteria:

- (i) It exhibits any of the characteristics of hazardous waste identified in subpart C of this part. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under § 261.4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under subpart C is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in table 1 to § 261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

- (ii) It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part.

- (iii) [Reserved]

- (iv) It is a mixture of solid waste and one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of this section, paragraph (g) of this section, or paragraph (h) of this section; however, the following mixtures of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2)(i) or (ii) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and;

- (A) One or more of the following spent solvents listed in § 261.31—benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene or the scrubber waters derived-from the combustion of these spent solvents—Provided, That the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million, OR the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean

Air Act, as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption must use an aerated biological wastewater treatment system and must use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the director. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(B) One or more of the following spent solvents listed in § 261.31- methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived-from the combustion of these spent solvents— Provided That the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million, OR the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 25 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the director. A facility must file a copy of a revised

sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(C) One of the following wastes listed in § 261.32, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation—heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050), crude oil storage tank sediment from petroleum refining operations (EPA Hazardous Waste No. K169), clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations (EPA Hazardous Waste No. K170), spent hydrotreating catalyst (EPA Hazardous Waste No. K171), and spent hydrorefining catalyst (EPA Hazardous Waste No. K172); or

(D) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in §§ 261.31 through 261.33, arising from *de minimis* losses of these materials. For purposes of this paragraph (a)(2)(iv)(D), *de minimis* losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for *de minimis* quantities of wastes listed in §§ 261.31 through 261.32, or any nonmanufacturing facility that claims an exemption for *de minimis* quantities of wastes listed in subpart D of this part must either have eliminated the discharge of wastewaters or have included in its Clean Water Act permit application or submission to

its pretreatment control authority the constituents for which each waste was listed (in 40 CFR 261 appendix VII) of this part; and the constituents in the table “Treatment Standards for Hazardous Wastes” in 40 CFR 268.40 for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents). A facility is eligible to claim the exemption once the permit writer or control authority has been notified of possible *de minimis* releases via the Clean Water Act permit application or the pretreatment control authority submission. A copy of the Clean Water permit application or the submission to the pretreatment control authority must be placed in the facility's on-site files; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in subpart D of this part, Provided, That the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; or

(F) One or more of the following wastes listed in § 261.32—wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157)—

Provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight OR the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file copy of their sampling and analysis plan with the director. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling

and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(G) Wastewaters derived-from the treatment of one or more of the following wastes listed in § 261.32—organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156).—Provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter OR the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels must file copy of their sampling and analysis plan with the director. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected.

(v) *Rebuttable presumption for used oil.* Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of

part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in subpart D of this part, when the waste first meets the listing description set forth in subpart D of this part.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in subpart C of this part.

(c) Unless and until it meets the criteria of paragraph (d) of this section:

(1) A hazardous waste will remain a hazardous waste.

(2) (i) Except as otherwise provided in paragraph (c)(2)(ii), (g) or (h) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

(A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

(B) Waste from burning any of the materials exempted from regulation by § 261.6(a)(3)(iii) and (iv).

(C) (1) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns,

flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in paragraphs (6), (7), and (13) of the definition for “Industrial furnace” in 40 CFR 260.10), that are disposed in solid waste management units under chapter 342H, HRS, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	Maximum for any single composite sample—TCLP (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

(2) A one-time notification and certification must be placed in the facility's files and sent to the state department of health for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to solid waste management units under chapter 342H, HRS. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the solid waste management units under chapter 342H, HRS receiving the waste changes. However, the generator or treater need only notify the state department of health on an annual basis if such changes occur. Such notification and certification should be sent to the state department of health by the end of the calendar year, but no later than December 31. The

notification must include the following information: The name and address of the solid waste management units under chapter 342H, HRS receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(D) Biological treatment sludge from the treatment of one of the following wastes listed in § 261.32—organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156), and wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157).

(E) Catalyst inert support media separated from one of the following wastes listed in § 261.32—Spent hydrotreating catalyst (EPA Hazardous Waste No. K171), and Spent hydrorefining catalyst (EPA Hazardous Waste No. K172).

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in subpart C of this part. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of part 268, even if they no longer exhibit a characteristic at the point of land disposal.)

(2) In the case of a waste which is a listed waste under subpart D of this part, contains a waste listed under subpart D of this part or is derived from a waste listed in subpart D of this part, it also has been excluded from paragraph (c) of this section.

(e) [Reserved]

(f) Notwithstanding paragraphs (a) through (d) of this section and provided the debris as defined in part 268 of this chapter does not exhibit a characteristic identified at subpart C of this part, the following materials are not subject to regulation under 40 CFR parts 260, 261 to 266, 268, or 270:

(1) Hazardous debris as defined in part 268 of this chapter that has been treated using one of the required extraction or destruction technologies specified in Table 1 of § 268.45 of this chapter; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

- (2) Debris as defined in part 268 of this chapter that the director, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.
- (g) **(1) A hazardous waste that is listed in subpart D of this part solely because** it exhibits one or more characteristics of ignitability as defined under § 261.21, corrosivity as defined under § 261.22, or reactivity as defined under § 261.23 is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in subpart C of this part.
- (2) The exclusion described in paragraph (g)(1) of this section also pertains to:
- (i) Any mixture of a solid waste and a hazardous waste listed in subpart D of this part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (a)(2)(iv) of this section; and
 - (ii) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in subpart D of this part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (c)(2)(i) of this section.
- (3) Wastes excluded under this section are subject to part 268 of this chapter (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.
- (4) Any mixture of a solid waste excluded from regulation under § 261.4(b)(7) and a hazardous waste listed in subpart D of this part solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (a)(2)(iv) of this section is not a hazardous waste, if the mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part for which the hazardous waste listed in subpart D of this part was listed.
- (h) **(1) Hazardous waste containing radioactive waste is no longer a hazardous waste when** it meets the eligibility criteria and conditions of 40 CFR part 266, Subpart N (“eligible radioactive mixed waste”).
- (2) The exemption described in paragraph (h)(1) of this section also pertains to:
- (i) Any mixture of a solid waste and an eligible radioactive mixed waste; and
 - (ii) Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.
- (3) Waste exempted under this section must meet the eligibility criteria and specified conditions in 40 CFR 266.225 and 40 CFR 266.230 (for storage and treatment) and in 40 CFR 266.310 and 40 CFR 266.315 (for transportation and disposal). Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

§ 261.4 Exclusions.

(a) Materials which are not solid wastes. The following materials are not solid wastes for the purpose of this part:

- (1) (i) Domestic sewage; and
- (ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment, except

as prohibited by § 266.505 and Clean Water Act requirements at 40 CFR 403.5(b). “Domestic sewage” means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended.

[Comment: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.]

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(6) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

(7) Spent sulfuric acid used to produce virgin sulfuric acid provided it is not accumulated speculatively as defined in § 261.1(c) of this chapter.

(8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(9) (i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and

(ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(iii) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in paragraphs (a)(9)(i) and (a)(9)(ii) of this section, so long as they meet all of the following conditions:

(A) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose;

(B) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both;

(C) Any unit used to manage wastewaters and/or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases;

(D) Any drip pad used to manage the wastewaters and/or spent wood preserving solutions prior to reuse complies with the standards in part 265, subpart W of this chapter, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and

(E) Prior to operating pursuant to this exclusion, the plant owner or operator prepares a one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The plant must maintain a copy of that document in its on-site records until closure of the facility. The exclusion applies so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the Director for reinstatement. The Director may reinstate the exclusion upon finding that the plant has returned to compliance with all conditions and that the violations are not likely to recur.

(10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic (TC) specified in section 261.24 of this part when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

(12) (i) Oil-bearing hazardous secondary materials (i.e., sludges, byproducts, or spent materials) that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process (SIC code 2911—including, but not limited to, distillation, catalytic cracking, fractionation, or thermal cracking units (i.e., cokers)) unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under this paragraph, provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery and still be

excluded under this provision. Except as provided in paragraph (a)(12)(ii) of this section, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (i.e., from sources other than petroleum refineries) are not excluded under this section. Residuals generated from processing or recycling materials excluded under this paragraph (a)(12)(i), where such materials as generated would have otherwise met a listing under subpart D of this part, are designated as F037 listed wastes when disposed of or intended for disposal.

(ii) Recovered oil that is recycled in the same manner and with the same conditions as described in paragraph (a)(12)(i) of this section. Recovered oil is oil that has been reclaimed from secondary materials (including wastewater) generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172.) Recovered oil does not include oil-bearing hazardous wastes listed in subpart D of this part; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in 40 CFR 279.1.

(13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.

(14) Shredded circuit boards being recycled provided that they are:

(i) Stored in containers sufficient to prevent a release to the environment prior to recovery; and

(ii) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

(16) [Reserved]

(17) Spent materials (as defined in § 261.1) (other than hazardous wastes listed in subpart D of this part) generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation, provided that:

(i) The spent material is legitimately recycled to recover minerals, acids, cyanide, water or other values;

(ii) The spent material is not accumulated speculatively;

(iii) Except as provided in paragraph (a)(17)(iv) of this section, the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building must be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support (except smelter buildings may have partially earthen floors provided the secondary material is stored on the non-earthen portion), and have a roof suitable for diverting rainwater away from the foundation; a tank must be free standing, not be a surface impoundment (as defined in 40 CFR 260.10), and be manufactured of a

material suitable for containment of its contents; a container must be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate which may be subject to wind dispersal, the owner/operator must operate these units in a manner which controls fugitive dust. Tanks, containers, and buildings must be designed, constructed and operated to prevent significant releases to the environment of these materials.

(iv) The director may make a site-specific determination, after public review and comment, that only solid mineral processing spent material may be placed on pads rather than tanks containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The decision-maker must affirm that pads are designed, constructed and operated to prevent significant releases of the secondary material into the environment. Pads must provide the same degree of containment afforded by the non-RCRA tanks, containers and buildings eligible for exclusion.

(A) The decision-maker must also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways are: The volume and physical and chemical properties of the secondary material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

(B) Pads must meet the following minimum standards: Be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal, have run on/runoff controls, be operated in a manner which controls fugitive dust, and have integrity assurance through inspections and maintenance programs.

(C) Before making a determination under this paragraph, the director must provide notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

(v) The owner or operator provides notice to the director providing the following information: The types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in land-based units. This notification must be updated when there is a change in the type of materials recycled or the location of the recycling process.

(vi) For purposes of paragraph (b)(7) of this section, mineral processing spent materials must be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and

characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

(18) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (SIC code 2911) along with normal petroleum refinery process streams, provided:

- (i) The oil is hazardous only because it exhibits the characteristic of ignitability (as defined in § 261.21) and/or toxicity for benzene (§ 261.24, waste code D018); and
- (ii) The oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An “associated organic chemical manufacturing facility” is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. “Petrochemical recovered oil” is oil that has been reclaimed from secondary materials (i.e., sludges, byproducts, or spent materials, including wastewater) from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

(19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in § 261.1(c).

(20) Hazardous secondary materials used to make zinc fertilizers, provided that the following conditions specified are satisfied:

- (i) Hazardous secondary materials used to make zinc micronutrient fertilizers must not be accumulated speculatively, as defined in § 261.1(c)(8).
- (ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers must:
 - (A) Submit a one-time notice to the director in whose jurisdiction the exclusion is being claimed, which contains the name, address and EPA ID number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in this paragraph (a)(20).
 - (B) Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose must be an engineered structure made of non-earthen materials that provide

structural support, and must have a floor, walls and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose must be structurally sound and, if outdoors, must have roofs or covers that prevent contact with wind and rain. Containers used for this purpose must be kept closed except when it is necessary to add or remove material, and must be in sound condition. Containers that are stored outdoors must be managed within storage areas that:

- (1) Have containment structures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; and
- (2) Provide for effective drainage and removal of leaks, spills and accumulated precipitation; and
- (3) Prevent run-on into the containment system.

(C) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of this paragraph (a)(20).

(D) Maintain at the generator's or intermediate handlers's facility for no less than three years records of all shipments of excluded hazardous secondary materials. For each shipment these records must at a minimum contain the following information:

- (1) Name of the transporter and date of the shipment;
- (2) Name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and
- (3) Type and quantity of excluded secondary material in each shipment.

(iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials must:

(A) Store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in paragraph (a)(20)(ii)(B) of this section.

(B) Submit a one-time notification to the director that, at a minimum, specifies the name, address and EPA ID number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in this paragraph (a)(20).

(C) Maintain for a minimum of three years records of all shipments of excluded hazardous secondary materials received by the manufacturer, which must at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material.

(D) Submit to the director an annual report that identifies the total quantities of all excluded hazardous secondary materials that were

used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process(s) from which they were generated.

(iv) Nothing in this section preempts, overrides or otherwise negates the provision in § 262.11 of this chapter, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in paragraph (a)(20)(ii)(A) of this section, and that afterward will be used only to store hazardous secondary materials excluded under this paragraph, are not subject to the closure requirements of 40 CFR Parts 264 and 265.

(21) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under paragraph (a)(20) of this section, provided that:

(i) The fertilizers meet the following contaminant limits:

(A) For metal contaminants:

Constituent	Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

(B) For dioxin contaminants the fertilizer must contain no more than eight (8) parts per trillion of dioxin, measured as toxic equivalent (TEQ).

(ii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than every six months, and for dioxins no less than every twelve months. Testing must also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the product(s) introduced into commerce.

(iii) The manufacturer maintains for no less than three years records of all sampling and analyses performed for purposes of determining compliance with the requirements of paragraph (a)(21)(ii) of this section. Such records must at a minimum include:

- (A) The dates and times product samples were taken, and the dates the samples were analyzed;
- (B) The names and qualifications of the person(s) taking the samples;
- (C) A description of the methods and equipment used to take the samples;
- (D) The name and address of the laboratory facility at which analyses of the samples were performed;
- (E) A description of the analytical methods used, including any cleanup and sample preparation methods; and
- (F) All laboratory analytical results used to determine compliance with the contaminant limits specified in this paragraph (a)(21).

(23) Hazardous secondary material generated and legitimately reclaimed within the United States or its territories and under the control of the generator, provided that the material complies with paragraphs (a)(23)(i) and (ii) of this section:

- (i)
 - (A) The hazardous secondary material is generated and reclaimed at the generating facility (for purposes of this definition, generating facility means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator); or
 - (B) The hazardous secondary material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in § 260.10 of this chapter, and if the generator provides one of the following certifications: “on behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], which is controlled by [insert generator facility name] and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material,” or “on behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], that both facilities are under common control, and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material.” For purposes of this paragraph, “control” means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in § 260.10 shall not be deemed to “control” such facilities. The generating and receiving facilities must both maintain at their facilities for no less than three years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records must contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the

exclusion. These requirements may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations); or

(C) The hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies the following: “On behalf of [insert tolling contractor name], I certify that [insert tolling contractor name] has a written contract with [insert toll manufacturer name] to manufacture [insert name of product or intermediate] which is made from specified unused materials, and that [insert tolling contractor name] will reclaim the hazardous secondary materials generated during this manufacture. On behalf of [insert tolling contractor name], I also certify that [insert tolling contractor name] retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process”. The tolling contractor must maintain at its facility for no less than three years records of hazardous secondary materials received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer must maintain at its facility for no less than three years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records must contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations). For purposes of this paragraph, tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

- (ii) (A) The hazardous secondary material is contained as defined in § 260.10 of this chapter. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a solid waste.
- (B) The hazardous secondary material is not speculatively accumulated, as defined in § 261.1(c)(8).
- (C) Notice is provided as required by § 260.42 of this chapter.
- (D) The material is not otherwise subject to material-specific management conditions under paragraph (a) of this section when

reclaimed, and it is not a spent lead-acid battery (see §§ 266.80 and 273.2 of this chapter).

(E) Persons performing the recycling of hazardous secondary materials under this exclusion must maintain documentation of their legitimacy determination on-site. Documentation must be a written description of how the recycling meets all three factors in § 260.43(a) and how the factor in § 260.43(b) was considered. Documentation must be maintained for three years after the recycling operation has ceased.

(F) The emergency preparedness and response requirements found in subpart M of this part are met.

(24) Hazardous secondary material that is generated and then transferred to another person for the purpose of reclamation is not a solid waste, provided that:

(i) The material is not speculatively accumulated, as defined in § 261.1(c)(8);

(ii) The material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in § 260.10 of this chapter, and is packaged according to applicable Department of Transportation regulations at 49 CFR parts 173, 178, and 179 while in transport;

(iii) The material is not otherwise subject to material-specific management conditions under paragraph (a) of this section when reclaimed, and it is not a spent lead-acid battery (see §§ 266.80 and 273.2 of this chapter);

(iv) The reclamation of the material is legitimate, as specified under § 260.43 of this chapter;

(v) The hazardous secondary material generator satisfies all of the following conditions:

(A) The material must be contained as defined in § 260.10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of recycling. Hazardous secondary material managed in a unit with leaks or other continuing releases is discarded and a solid waste.

(B) Prior to arranging for transport of hazardous secondary materials to a reclamation facility (or facilities) where the management of the hazardous secondary materials is not addressed under a RCRA part B permit, a hazardous waste management permit issued by an authorized state, or interim status standards, the hazardous secondary material generator must make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that each reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment. If the hazardous secondary material will be passing through an intermediate facility where the management of

the hazardous secondary materials is not addressed under a RCRA part B permit, a hazardous waste management permit issued by an authorized state, or interim status standards, the hazardous secondary material generator must make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator must perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts must be repeated at a minimum of every three years for the hazardous secondary material generator to claim the exclusion and to send the hazardous secondary materials to each reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary material generator, provided by the reclaimer or intermediate facility, and/or provided by a third party. The hazardous secondary material generator must affirmatively answer all of the following questions for each reclamation facility and any intermediate facility:

- (1) Does the available information indicate that the reclamation process is legitimate pursuant to § 260.43 of this chapter? In answering this question, the hazardous secondary material generator can rely on their existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as information from other sources (e.g., the reclamation facility, audit reports, etc.) about the reclamation process.
- (2) Does the publicly available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to [§260.42 of this chapter \[includes federal regulations and corresponding regulations of any authorized state\]](#) and have they notified the appropriate authorities that the financial assurance condition is satisfied per [paragraph \(a\)\(24\)\(vi\)\(F\) of this section \[includes federal regulations and corresponding regulations of any authorized state\]](#)? In answering these questions, the hazardous secondary material generator can rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per [§260.42 of this chapter \[includes federal regulations and corresponding regulations of any authorized state\]](#), including the requirement in

§260.42(a)(5) [includes federal regulations and corresponding regulations of any authorized state] to notify appropriate authorities whether the reclaimer or intermediate facility has financial assurance.

(3) Does publicly available information indicate that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has not been classified as a significant noncomplier with RCRA Subtitle C? In answering this question, the hazardous secondary material generator can rely on the publicly available information from [EPA](#) or the state. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has been classified as a significant non-complier with RCRA Subtitle C, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary materials properly? In answering this question, the hazardous secondary material generator can obtain additional information from [EPA](#), the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials.

(4) Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third party of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.

(5) If residuals are generated from the reclamation of the excluded hazardous secondary materials, does the reclamation facility have the permits required (if any) to manage the residuals? If not, does the reclamation facility have a contract with an appropriately permitted facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these

questions, the hazardous secondary material generator can rely on publicly available information from [EPA](#) or the state, or information provided by the facility itself.

(C) The hazardous secondary material generator must maintain for a minimum of three years documentation and certification that reasonable efforts were made for each reclamation facility and, if applicable, intermediate facility where the management of the hazardous secondary materials is not addressed under a RCRA part B permit, a hazardous waste management permit issued by an authorized state, or interim status standards prior to transferring hazardous secondary material. Documentation and certification must be made available upon request by a regulatory authority within 72 hours, or within a longer period of time as specified by the regulatory authority. The certification statement must:

(1) Include the printed name and official title of an authorized representative of the hazardous secondary material generator company, the authorized representative's signature, and the date signed;

(2) Incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of excluded hazardous secondary materials to [insert name(s) of reclamation facility and any intermediate facility], reasonable efforts were made in accordance with 40 C.F.R. section 261.4(a)(24)(v)(B), as incorporated and amended in section 11-261.1-1, Hawaii Administrative Rules, to ensure that the hazardous secondary materials would be recycled legitimately, and otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information."

(D) The hazardous secondary material generator must maintain at the generating facility for no less than three (3) years records of all off-site shipments of hazardous secondary materials. For each shipment, these records must, at a minimum, contain the following information:

(1) Name of the transporter and date of the shipment;

(2) Name and address of each reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent;

(3) The type and quantity of hazardous secondary material in the shipment.

(E) The hazardous secondary material generator must maintain at the generating facility for no less than three (3) years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for all off-site shipments of hazardous secondary materials.

Confirmations of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt);

(F) The hazardous secondary material generator must comply with the emergency preparedness and response conditions in subpart M of this part.

(vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in § 260.10 of this chapter satisfy all of the following conditions:

(A) The reclaimer and intermediate facility must maintain at its facility for no less than three (3) years records of all shipments of hazardous secondary material that were received at the facility and, if applicable, for all shipments of hazardous secondary materials that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records must at a minimum contain the following information:

(1) Name of the transporter and date of the shipment;

(2) Name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility which the hazardous secondary materials were received from;

(3) The type and quantity of hazardous secondary material in the shipment; and

(4) For hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the (subsequent) reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.

(B) The intermediate facility must send the hazardous secondary material to the reclaimer(s) designated by the hazardous secondary materials generator.

(C) The reclaimer and intermediate facility must send to the hazardous secondary material generator confirmations of receipt for all off-site shipments of hazardous secondary materials.

Confirmations of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt).

(D) The reclaimer and intermediate facility must manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and must be contained. An “analogous raw material” is a raw material for which a hazardous secondary material is a substitute and serves the same function and has similar physical and chemical properties as the hazardous secondary material.

(E) Any residuals that are generated from reclamation processes will be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to subpart C of 40 CFR part 261, or if they themselves are specifically listed in subpart D of 40 CFR part 261, such residuals are hazardous wastes and must be managed in accordance with the applicable requirements of chapters 11-260.1 to 11-270.1.

(F) The reclaimer and intermediate facility have financial assurance as required under subpart H of 40 CFR part 261[.]

(vii) In addition, all persons claiming the exclusion under this paragraph (a)(24) of this section must provide notification as required under § 260.42 of this chapter.

(25) Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, provided that the hazardous secondary material generator complies with the applicable requirements of paragraph (a)(24)(i)–(v) of this section (excepting paragraph (a)(24)(v)(B)(2) of this section for foreign reclaimers and foreign intermediate facilities), and that the hazardous secondary material generator also complies with the following requirements:

(i) Notify [EPA](#) of an intended export before the hazardous secondary material is scheduled to leave the United States. A complete notification must be submitted at least sixty (60) days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a twelve (12) month or lesser period. The notification must be in writing, signed by the hazardous secondary material generator, and include the following information:

(A) Name, mailing address, telephone number and EPA ID number (if applicable) of the hazardous secondary material generator;

(B) A description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste and the U.S. DOT proper shipping name, hazard class and ID number (UN/NA) for each hazardous secondary material as identified in 49 CFR parts 171 through 177;

(C) The estimated frequency or rate at which the hazardous secondary material is to be exported and the period of time over which the hazardous secondary material is to be exported;

(D) The estimated total quantity of hazardous secondary material;

(E) All points of entry to and departure from each foreign country through which the hazardous secondary material will pass;
(F) A description of the means by which each shipment of the hazardous secondary material will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.));
(G) A description of the manner in which the hazardous secondary material will be reclaimed in the country of import;
(H) The name and address of the reclaimer, any intermediate facility and any alternate reclaimer and intermediate facilities; and
(I) The name of any countries of transit through which the hazardous secondary material will be sent and a description of the approximate length of time it will remain in such countries and the nature of its handling while there (for purposes of this section, the terms “EPA Acknowledgment of Consent”, “country of import” and “country of transit” are used as defined in 40 CFR 262.81 with the exception that the terms in this section refer to hazardous secondary materials, rather than hazardous waste):

- (ii) Notifications must be submitted electronically using [EPA’s](#) Waste Import Export Tracking System (WIETS), or its successor system.
- (iii) Except for changes to the telephone number in paragraph (a)(25)(i)(A) of this section and decreases in the quantity of hazardous secondary material indicated pursuant to paragraph (a)(25)(i)(D) of this section, when the conditions specified on the original notification change (including any exceedance of the estimate of the quantity of hazardous secondary material specified in the original notification), the hazardous secondary material generator must provide [EPA](#) with a written renotification of the change. The shipment cannot take place until consent of the country of import to the changes (except for changes to paragraph (a)(25)(i)(I) of this section and in the ports of entry to and departure from countries of transit pursuant to paragraphs (a)(25)(i)(E) of this section) has been obtained and the hazardous secondary material generator receives from [EPA](#) an EPA Acknowledgment of Consent reflecting the country of import’s consent to the changes.
- (iv) Upon request by [EPA](#), the hazardous secondary material generator shall furnish to [EPA](#) any additional information which a country of import requests in order to respond to a notification.
- (v) [EPA](#) will provide a complete notification to the country of import and any countries of transit. A notification is complete when [EPA](#) receives a notification which [EPA](#) determines satisfies the requirements of paragraph (a)(25)(i) of this section. Where a claim of confidentiality is asserted with respect to any notification information required by paragraph (a)(25)(i) of this section, [EPA](#) may find the notification not complete until any such claim is resolved in accordance with [40 CFR 260.2 \[federal\]](#).
- (vi) The export of hazardous secondary material under this paragraph (a)(25) is prohibited unless the hazardous secondary material generator

receives from EPA an EPA Acknowledgment of Consent documenting the consent of the country of import to the receipt of the hazardous secondary material. Where the country of import objects to receipt of the hazardous secondary material or withdraws a prior consent, EPA will notify the hazardous secondary material generator in writing. EPA will also notify the hazardous secondary material generator of any responses from countries of transit.

(vii) Prior to each shipment, the hazardous secondary material generator or a U.S. authorized agent must:

(A) Submit Electronic Export Information (EEI) for each shipment to the Automated Export System (AES) or its successor system, under the International Trade Data System (ITDS) platform, in accordance with 15 CFR 30.4(b).

(B) Include the following items in the EEI, along with the other information

required under 15 CFR 30.6:

- (1) EPA license code;
- (2) Commodity classification code per 15 CFR 30.6(a)(12);
- (3) EPA consent number;
- (4) Country of ultimate destination per 15 CFR 30.6(a)(5);
- (5) Date of export per 15 CFR 30.6(a)(2);
- (6) Quantity of waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or
- (7) EPA net quantity reported in units of kilograms, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(viii) A copy of the EPA Acknowledgment of Consent must accompany the shipment. The shipment must conform to the terms of the EPA Acknowledgment of Consent.

(ix) If a shipment cannot be delivered for any reason to the reclaimer, intermediate facility or the alternate reclaimer or alternate intermediate facility, the hazardous secondary material generator must re-notify EPA of a change in the conditions of the original notification to allow shipment to a new reclaimer in accordance with paragraph (iii) of this section and obtain another EPA Acknowledgment of Consent.

(x) Hazardous secondary material generators must keep a copy of each notification of intent to export and each EPA Acknowledgment of Consent for a period of three years following receipt of the EPA Acknowledgment of Consent. They may satisfy this recordkeeping requirement by retaining electronically submitted notifications or electronically generated Acknowledgements in their account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, provided that such copies are readily available for viewing and production if requested by any

EPA or authorized state inspector. No hazardous secondary material generator may be held liable for the inability to produce a notification or Acknowledgement for inspection under this section if they can demonstrate that the inability to produce such copies are due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system for which the hazardous secondary material generator bears no responsibility.

(xi) Hazardous secondary material generators must file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency and ultimate destination of all hazardous secondary materials exported during the previous calendar year. Annual reports must be submitted electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. Such reports must include the following information:

- (A) Name, mailing and site address, and EPA ID number (if applicable) of the hazardous secondary material generator;
- (B) The calendar year covered by the report;
- (C) The name and site address of each reclaimer and intermediate facility;
- (D) By reclaimer and intermediate facility, for each hazardous secondary material exported, a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste, the DOT hazard class, the name and U.S. EPA ID number (where applicable) for each transporter used, the consent number(s) under which the hazardous secondary material was shipped and for each consent number, the total amount of hazardous secondary material shipped and the number of shipments exported during the calendar year covered by the report;
- (E) A certification signed by the hazardous secondary material generator which states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

(xii) All persons claiming an exclusion under this paragraph (a)(25) must provide notification as required by § 260.42 of this chapter.

(26) Solvent-contaminated wipes, as defined in 40 C.F.R. section 260.10, as incorporated and amended in section 11-260.1-1, that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that

- (i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled with the accumulation start date and "Excluded Solvent-

Contaminated Wipes.” The containers must be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container must be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for cleaning;

(iii) At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes must contain no free liquids as defined in § 260.10 of this chapter.

(iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes must be managed according to the applicable regulations found in 40 CFR parts 260 through 273;

(v) Generators must maintain at their site the following documentation:

(A) Name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;

(B) Documentation that the 180-day accumulation time limit in 40 CFR 261.4(a)(26)(ii) is being met;

(C) Description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning;

(vi) The solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the Clean Water Act.

(27) Hazardous secondary material that is generated and then transferred to another person for the purpose of remanufacturing is not a solid waste, provided that:

(i) The hazardous secondary material consists of one or more of the following spent solvents: Toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, NN-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, and/or methanol;

(ii) The hazardous secondary material originated from using one or more of the solvents listed in paragraph (a)(27)(i) of this section in a commercial grade for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing

(NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510).

(iii) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in paragraph (a)(27)(i) of this section to a remanufacturer in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510).

(iv) After remanufacturing one or more of the solvents listed in paragraph (a)(27)(i) of this section, the use of the remanufactured solvent shall be limited to reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and the paints and coatings manufacturing sectors (NAICS 325510) or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the Chemical Data Reporting Rule of the Toxic Substances Control Act (40 CFR parts 704, 710-711), including Industrial Function Codes U015 (solvents consumed in a reaction to produce other chemicals) and U030 (solvents become part of the mixture);

(v) After remanufacturing one or more of the solvents listed in paragraph (a)(27)(i) of this section, the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces, or other articles. (These disallowed continuing uses correspond to chemical functional uses in Industrial Function Code U029 under the Chemical Data Reporting Rule of the Toxics Substances Control Act.); and

(vi) Both the hazardous secondary material generator and the remanufacturer must:

(A) Notify the director, and update the notification every two years per 40 CFR 260.42;

(B) Develop and maintain an up-to-date remanufacturing plan which identifies:

(1) The name, address and EPA ID number of the generator(s) and the remanufacturer(s),

(2) The types and estimated annual volumes of spent solvents to be remanufactured,

(3) The processes and industry sectors that generate the spent solvents,

(4) The specific uses and industry sectors for the remanufactured solvents, and

(5) A certification from the remanufacturer stating “on behalf of [insert remanufacturer facility name], I certify that this facility is a remanufacturer under pharmaceutical manufacturing (NAICS 325412), basic organic chemical

manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510), and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial-grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63, or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in 40 CFR part 261, subparts AA (vents), BB (equipment) and CC (tank storage);”;

(C) Maintain records of shipments and confirmations of receipts for a period of three years from the dates of the shipments;

(D) Prior to remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in subparts I and J of 40 CFR part 261, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored;

(E) During remanufacturing, and during storage of the hazardous secondary materials prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63; or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in 40 CFR part 261 subparts AA (vents), BB (equipment) and CC (tank storage); and

(F) Meet the requirements prohibiting speculative accumulation per 40 CFR 261.1(c)(8).

(b) Solid wastes which are not hazardous wastes. The following solid wastes are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. “Household waste” means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to

be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility:

- (i) Receives and burns only
 - (A) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and
 - (B) Solid waste from commercial or industrial sources that does not contain hazardous waste; and
 - (ii) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.
- (2)** Solid wastes generated by any of the following and which are returned to the soils as fertilizers:
- (i) The growing and harvesting of agricultural crops.
 - (ii) The raising of animals, including animal manures.
- (3)** Mining overburden returned to the mine site.
- (4)** (i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.
- (6)** (i) Wastes which fail the test for the Toxicity Characteristic because chromium is present or are listed in subpart D due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:
- (A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and
 - (B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and
 - (C) The waste is typically and frequently managed in non-oxidizing environments.
- (ii) Specific wastes which meet the standard in paragraphs (b)(6)(i) (A), (B), and (C) (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic) are:
- (A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
 - (B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet

finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and overburden from the mining of uranium ore), except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.

(i) For purposes of § 261.4(b)(7) beneficiation of ores and minerals is restricted to the following activities; crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

(ii) For the purposes of § 261.4(b)(7), solid waste from the processing of ores and minerals includes only the following wastes as generated:

(A) Slag from primary copper processing;

(B) Slag from primary lead processing;

(C) Red and brown muds from bauxite refining;

(D) Phosphogypsum from phosphoric acid production;

(E) Slag from elemental phosphorus production;

- (F) Gasifier ash from coal gasification;
- (G) Process wastewater from coal gasification;
- (H) Calcium sulfate wastewater treatment plant sludge from primary copper processing;
- (I) Slag tailings from primary copper processing;
- (J) Fluorogypsum from hydrofluoric acid production;
- (K) Process wastewater from hydrofluoric acid production;
- (L) Air pollution control dust/sludge from iron blast furnaces;
- (M) Iron blast furnace slag;
- (N) Treated residue from roasting/leaching of chrome ore;
- (O) Process wastewater from primary magnesium processing by the anhydrous process;
- (P) Process wastewater from phosphoric acid production;
- (Q) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;
- (R) Basic oxygen furnace and open hearth furnace slag from carbon steel production;
- (S) Chloride process waste solids from titanium tetrachloride production;
- (T) Slag from primary zinc processing.

(iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under paragraph (b) of this section if the owner or operator:

- (A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and,
- (B) Legitimately reclaims the secondary mineral processing materials.

(8) Cement kiln dust waste, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.

(9) Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of § 261.24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under part 280 of this chapter, chapter 342L, HRS, or rules adopted pursuant to chapter 342L, HRS.

(12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(13) Non-terne plated used oil filters that are not mixed with wastes listed in subpart D of this part if these oil filters have been gravity hot-drained using one of the following methods:

- (i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
- (ii) Hot-draining and crushing;
- (iii) Dismantling and hot-draining; or
- (iv) Any other equivalent hot-draining method that will remove used oil.

(14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

(15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:

- (i) The solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178 and K181 if these wastes had been generated after the effective date of the listing;
- (ii) The solid wastes described in paragraph (b)(15)(i) of this section were disposed prior to the effective date of the listing;
- (iii) The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;
- (iv) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act.
- (v) As of February 13, 2001, leachate or gas condensate derived from K169-K172 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (e.g., shutdown of wastewater treatment system), provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of this paragraph (b)(15)(v) after the emergency ends.

(16) [Reserved]

(18) Solvent-contaminated wipes, as defined in 40 C.F.R. section 260.10, as incorporated and amended in section 11-260.1-1, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided that

- (i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled with the accumulation start date and "Excluded Solvent-

Contaminated Wipes.” The containers must be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container must be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for disposal;

(iii) At the point of being transported for disposal, the solvent-contaminated wipes must contain no free liquids as defined in § 260.10 of this chapter.

(iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes must be managed according to the applicable regulations found in 40 CFR parts 260 through 273;

(v) Generators must maintain at their site the following documentation:

(A) Name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;

(B) Documentation that the 180 day accumulation time limit in 40 CFR 261.4(b)(18)(ii) is being met;

(C) Description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal;

(vi) The solvent-contaminated wipes are sent for disposal

(A) To a municipal solid waste landfill regulated under 40 CFR part 258, including 40 CFR 258.40, or to a hazardous waste landfill regulated under [40 CFR parts 264 or 265 \[federal\]](#), or equivalent state regulations; or

(B) To a municipal waste combustor or other combustion facility regulated under section 129 of the Clean Air Act or to a hazardous waste combustor, boiler, or industrial furnace regulated under [40 CFR parts 264, 265, or 266 subpart H \[federal\]](#), or equivalent state regulations.

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under parts 262 through 265, 268, 270, and 124 of this chapter or to the notification requirements of section 342J-6.5, HRS until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(d) Samples.

(1) Except as provided in paragraphs (d)(2) and (4) of this section, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this part or parts 262 through 268 or part 270 or part 124 of this chapter or to the notification requirements of section 342J-6.5, HRS, when:

- (i) The sample is being transported to a laboratory for the purpose of testing; or
- (ii) The sample is being transported back to the sample collector after testing; or
- (iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or
- (iv) The sample is being stored in a laboratory before testing; or
- (v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or
- (vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

(2) In order to qualify for the exemption in paragraphs (d)(1)(i) and (ii) of this section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

- (i) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or
- (ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(A) Assure that the following information accompanies the sample:

- (1) The sample collector's name, mailing address, and telephone number;
- (2) The laboratory's name, mailing address, and telephone number;
- (3) The quantity of the sample;
- (4) The date of shipment; and
- (5) A description of the sample.

(B) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in paragraph (d)(1) of this section.

(4) In order to qualify for the exemption in paragraphs (d)(1)(i) and (ii) of this section, the mass of a sample that will be exported to a foreign laboratory or that will be imported to a U.S. laboratory from a foreign source must additionally not exceed 25 kg.

(e) Treatability Study Samples.

(1) Except as provided in paragraphs (e)(2) and (4) of this section, persons who generate or collect samples for the purpose of conducting treatability studies as defined in 40 CFR 260.10, are not subject to any requirement of 40 CFR parts 261 through 263 or to the notification requirements of Section 342J-6.5, HRS, nor are such samples included in the quantity determinations of 40 C.F.R. sections 262.13 and 262.16(b), as incorporated and amended in section 11-262.1-1 when:

- (i) The sample is being collected and prepared for transportation by the generator or sample collector; or
- (ii) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or
- (iii) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

(2) The exemption in paragraph (e)(1) of this section is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

- (i) The generator or sample collector uses (in “treatability studies”) no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and
- (ii) The mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste; and
- (iii) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of paragraph A or B of this subparagraph are met.

(A) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:

- (1) The name, mailing address, and telephone number of the originator of the sample;
- (2) The name, address, and telephone number of the facility that will perform the treatability study;
- (3) The quantity of the sample;
- (4) The date of shipment; and
- (5) A description of the sample, including its EPA Hazardous Waste Number.

- (iv) The sample is shipped to a laboratory or testing facility which is exempt under § 261.4(f) or has an appropriate hazardous waste management permit issued by an authorized state, a RCRA permit or interim status.
 - (v) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:
 - (A) Copies of the shipping documents;
 - (B) A copy of the contract with the facility conducting the treatability study;
 - (C) Documentation showing:
 - (1) The amount of waste shipped under this exemption;
 - (2) The name, address, and EPA identification number of the laboratory or testing facility that received the waste;
 - (3) The date the shipment was made; and
 - (4) Whether or not unused samples and residues were returned to the generator.
 - (vi) The generator reports the information required under paragraph (e)(2)(v)(C) of this section in its biennial report.
- (3) The director may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The director may grant requests on a case-by-case basis for quantity limits in excess of those specified in paragraphs (e)(2) (i) and (ii) and (f)(4) of this section, for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste:
- (i) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process (e.g., batch versus continuous), size of the unit undergoing testing (particularly in relation to scale-up considerations), the time/quantity of material required to reach steady state operating conditions, or test design considerations such as mass balance calculations.
 - (ii) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.
 - (iii) The additional quantities and timeframes allowed in paragraph (e)(3)(i) and (ii) of this section are subject to all the provisions in paragraphs (e)(1) and (e)(2)(iii) through (vi) of this section. The generator or sample collector must apply to the director and provide in writing the following information:

- (A) The reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;
- (B) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;
- (C) A description of the technical modifications or change in specifications which will be evaluated and the expected results;
- (D) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and
- (E) Such other information that the director considers necessary.

(4) In order to qualify for the exemption in paragraph (e)(1)(i) of this section, the mass of a sample that will be exported to a foreign laboratory or testing facility, or that will be imported to a U.S. laboratory or testing facility from a foreign source must additionally not exceed 25 kg.

(f) Samples Undergoing Treatability Studies at Laboratories and Testing

Facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this part, part 124, parts 262-266, 268, and 270, or to the notification requirements of section 342J-6.5, HRS provided that the conditions of paragraphs (f)(1) through (11) of this section are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to paragraphs (f)(1) through (11) of this section. Where a group of MTUs are located at the same site, the limitations specified in (f)(1) through (11) of this section apply to the entire group of MTUs collectively as if the group were one MTU.

- (1) No less than 45 days before conducting treatability studies, the facility notifies the director in writing that it intends to conduct treatability studies under this paragraph.
- (2) The laboratory or testing facility conducting the treatability study has an EPA identification number.
- (3) No more than a total of 10,000 kg of “as received” media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other “as received” hazardous waste is subject to initiation of treatment in all treatability studies in any single day. “As received” waste refers to the waste as received in the shipment from the generator or sample collector.
- (4) The quantity of “as received” hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous

waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to “as received” hazardous waste. (5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(7) The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

- (i) The name, address, and EPA identification number of the generator or sample collector of each waste sample;
- (ii) The date the shipment was received;
- (iii) The quantity of waste accepted;
- (iv) The quantity of “as received” waste in storage each day;
- (v) The date the treatment study was initiated and the amount of “as received” waste introduced to treatment each day;
- (vi) The date the treatability study was concluded;
- (vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(9) The facility prepares and submits a report to the director by March 15 of each year, that includes the following information for the previous calendar year:

- (i) The name, address, and EPA identification number of the facility conducting the treatability studies;
- (ii) The types (by process) of treatability studies conducted;
- (iii) The names and addresses of persons for whom studies have been conducted (including their EPA identification numbers);
- (iv) The total quantity of waste in storage each day;
- (v) The quantity and types of waste subjected to treatability studies;
- (vi) When each treatability study was conducted;
- (vii) The final disposition of residues and unused sample from each treatability study.

(10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under § 261.3 and, if so, are subject to parts 261 through 268, and part 270 of this chapter, unless the residues and unused samples are returned to the sample originator under the § 261.4(e) exemption.

(11) The facility notifies the director by letter when the facility is no longer planning to conduct any treatability studies at the site.

(g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C.1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. For this paragraph (g), the following definitions apply:

(1) The term *dredged material* has the same meaning as defined in 40 CFR 232.2;

(2) The term *permit* means:

- (i) A permit issued by the U.S. Army Corps of Engineers (Corps) or an approved State under section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344);
- (ii) A permit issued by the Corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413); or
- (iii) In the case of Corps civil works projects, the administrative equivalent of the permits referred to in paragraphs (g)(2)(i) and (ii) of this section, as provided for in Corps regulations (for example, see 33 CFR 336.1, 336.2, and 337.6).

(i) [Reserved]

(j) Airbag waste.

(1) Airbag waste at the airbag waste handler or during transport to an airbag waste collection facility or designated facility is not subject to regulation under parts 262 through 268, part 270, or part 124 of this chapter, and is not subject to the notification requirements of section 342J-6.5, HRS[,] provided that:

- (i) The airbag waste is accumulated in a quantity of no more than 250 airbag modules or airbag inflators, for no longer than 180 days;
- (ii) The airbag waste is packaged in a container designed to address the risk posed by the airbag waste and labeled “Airbag Waste–Do Not Reuse”;
- (iii) The airbag waste is sent directly to either:
 - (A) An airbag waste collection facility in the United States under the control of a vehicle manufacturer or their authorized representative, or under the control of an authorized party administering a remedy program in response to a recall under the National Highway Traffic Safety Administration, or
 - (B) A designated facility as defined in 40 CFR 260.10;
- (iv) The transport of the airbag waste complies with all applicable U.S. Department of Transportation regulations in 49 C.F.R. part 171 to 180 during transit; and

- (v) The airbag waste handler maintains at the handler facility for no less than three (3) years records of all off-site shipments of airbag waste and all confirmations of receipt from the receiving facility. For each shipment, these records must, at a minimum, contain the name of the transporter and date of the shipment; name and address of receiving facility; and the type and quantity of airbag waste (i.e., airbag modules or airbag inflators) in the shipment. Confirmations of receipt must include the name and address of the receiving facility; the type and quantity of the airbag waste (i.e., airbag modules and airbag inflators) received; and the date it was received. Shipping records and confirmations of receipt must be made available for inspection and may be satisfied by routine business records (e.g., electronic or paper financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt).
- (2) Once the airbag waste arrives at an airbag waste collection facility or designated facility, it becomes subject to all applicable hazardous waste regulations, and the facility receiving airbag waste is considered the hazardous waste generator for the purposes of the hazardous waste regulations and must comply with the requirements of 40 CFR part 262.
- (3) Reuse in vehicles of defective airbag modules or defective airbag inflators subject to a recall under the National Highway Traffic Safety Administration is considered sham recycling and prohibited under 40 CFR 261.2(g).

§ 261.5 [Reserved.]

§ 261.6 Requirements for recyclable materials.

- (a) (1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as “recyclable materials.”
- (2) The following recyclable materials are not subject to the requirements of this section but are regulated under subparts C through N of part 266 of this chapter and all applicable provisions in parts 268, 270, and 124 of this chapter.
 - (i) Recyclable materials used in a manner constituting disposal (40 CFR part 266, subpart C);
 - (ii) Hazardous wastes burned (as defined in section 266.100(a)) in boilers and industrial furnaces that are not regulated under subpart O of part 264 or 265 of this chapter (40 CFR part 266, subpart H);
 - (iii) Recyclable materials from which precious metals are reclaimed (40 CFR part 266, subpart F);
 - (iv) Spent lead-acid batteries that are being reclaimed (40 CFR part 266, subpart G).
- (3) The following recyclable materials are not subject to regulation under parts 262 through parts 268, 270 or 124 of this chapter, and are not subject to the notification requirements of section 342J-6.5, HRS:

(i) Industrial ethyl alcohol that is reclaimed except that exports and imports of such recyclable materials must comply with the requirements of 40 CFR part 262, subpart H.

(A) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in §262.83, export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in subpart H of part 262, and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

(B) Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and must ensure that it is delivered to the facility designated by the person initiating the shipment.

(ii) Scrap metal that is not excluded under § 261.4(a)(13);

(iii) Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under § 261.4(a)(12);

(iv) (A) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under § 279.11 of this chapter and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under § 279.11 of this chapter; and

(C) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under § 279.11 of this chapter.

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of parts 260 through 268 of this chapter, but is regulated under part 279 of this chapter. Used

oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) Hazardous waste that is exported or imported for purpose of recovery is subject to the requirements of 40 CFR part 262, subpart H.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of parts 262 and 263 of this chapter and the notification requirements under section 342J-6.5, HRS, except as provided in paragraph (a) of this section.

(c) (1) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of subparts A through L and AA through DD of 40 CFR parts 264 and 265, and under 40 CFR parts 124, 266, 268, and 270 and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section. (The recycling process itself is exempt from regulation except as provided in paragraph (d) of this section.)

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in paragraph (a) of this section:

(i) Notification requirements under section 342J-6.5, HRS;

(ii) Sections 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies) of this chapter.

(iii) Section 261.6(d) of this chapter.

(iv) Section 265.75 of this chapter (biennial reporting requirements).

(d) Owners or operators of facilities subject to hazardous waste management permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of subparts AA and BB of part 264 or 265 of this chapter.

§ 261.7 Residues of hazardous waste in empty containers.

(a) (1) Any hazardous waste remaining in either: an empty container; or an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under parts 261 through 268, 270, or 124 this chapter or to the notification requirements of section 342J-6.5, HRS.

(2) Any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under parts 261 through 268, 270 and 124 of this chapter and to the notification requirements of section 342J-6.5, HRS.

(b) (1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in §§ 261.31 or 261.33(e) of this chapter is empty if:

(i) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

- (ii) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or
 - (iii)
 - (A) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size; or
 - (B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.
- (2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.
- (3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in §§ 261.31 or 261.33(e) is empty if:
 - (i) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;
 - (ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or
 - (iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.
- (c) Containers of hazardous waste pharmaceuticals and electronic nicotine delivery systems are subject to § 266.507 for determining when they are considered empty, in lieu of this section, except as provided by § 266.507(c) and (d).

§ 261.8 PCB wastes regulated under Toxic Substance Control Act.

The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under part 761 of this chapter and that are hazardous only because they fail the test for the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) are exempt from regulation under parts 261 through 265, and parts 268, 270, and 124 of this chapter, and the notification requirements of section 342J-6.5, HRS.

§ 261.9 Requirements for Universal Waste.

The wastes listed in this section are exempt from regulation under parts 262 through 270 of this chapter except as specified in part 273 of this chapter and, therefore are not fully regulated as hazardous waste. The wastes listed in this section are subject to regulation under 40 CFR part 273:

- (a) Batteries as described in 40 CFR 273.2;
- (b) Pesticides as described in § 273.3 of this chapter;
- (c) Mercury-containing equipment as described in § 273.4 of this chapter;
- (d) Lamps as described in § 273.5 of this chapter;
- (e) Aerosol cans as described in § 273.6 of this chapter;
- (f) Electronic items as described in 40 C.F.R. section 273.6.1, as incorporated and amended in section 11-273.1-1; and

(g) Solar panels as described in 40 C.F.R. section 273.6.2, as incorporated and amended in section 11-273.1-1.

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste

§ 261.10 Criteria for identifying the characteristics of hazardous waste.

(a) The director shall identify and define a characteristic of hazardous waste in subpart C only upon determining that:

- (1) A solid waste that exhibits the characteristic may:
 - (i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
 - (ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and
- (2) The characteristic can be:
 - (i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or
 - (ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

(b) [Reserved]

§ 261.11 Criteria for listing hazardous waste.

(a) The director shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

- (1) It exhibits any of the characteristics of hazardous waste identified in subpart C.
- (2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)
- (3) [Wastes listed in accordance with these criteria will be designated Toxic wastes.] It contains any of the toxic constituents listed in appendix VIII and, after considering the following factors, the director concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:
 - (i) The nature of the toxicity presented by the constituent.
 - (ii) The concentration of the constituent in the waste.
 - (iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types

of improper management considered in paragraph (a)(3)(vii) of this section.

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Such other factors as may be appropriate.

Substances will be listed on appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

(b) The director may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in section 342J-2, HRS.

Subpart C—Characteristics of Hazardous Waste

§ 261.20 General.

(a) A solid waste, as defined in § 261.2, which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this subpart.

[Comment: § 262.11 of this chapter sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this subpart]

(b) A hazardous waste which is identified by a characteristic in this subpart is assigned every EPA Hazardous Waste Number that is applicable as set forth in this subpart. This number must be used in complying with the notification requirements of section 342J-6.5, HRS and all applicable recordkeeping and reporting requirements under parts 262 through 265, 268, and 270 of this chapter.

(c) For purposes of this subpart, the director will consider a sample obtained using any of the applicable sampling methods specified in appendix I to be a representative sample within the meaning of part 260 of this chapter.

[Comment: Since the appendix I sampling methods are not being formally adopted by the director, a person who desires to employ an alternative sampling method is not

required to demonstrate the equivalency of his method under the procedures set forth in §§ 260.20 and 260.21.]

§ 261.21 Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than a solution containing less than 24 percent alcohol by volume and at least 50 percent water by weight, that has a flash point less than 60 °C (140 °F), as determined by using one of the following ASTM standards: ASTM D93–79, D93–80, D3278–78, D8174–18, or D8175–18 as specified in SW–846 Test Methods 1010B or 1020C (all incorporated by reference, see § 260.11 of this subchapter).

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas.

(i) The term “compressed gas” shall designate any material or mixture having in the container an absolute pressure exceeding 40 p.s.i. at 70 °F or, regardless of the pressure at 70 °F, having an absolute pressure exceeding 104 p.s.i. at 130 °F; or any liquid flammable material having a vapor pressure exceeding 40 p.s.i. absolute at 100 °F as determined by ASTM Test D-323.

(ii) A compressed gas shall be characterized as ignitable if any one of the following occurs:

(A) Either a mixture of 13 percent or less (by volume) with air forms a flammable mixture or the flammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be the ASTM E 681–85 (incorporated by reference, see § 260.11 of this subchapter), or other equivalent methods approved by the Associate Administrator, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation.

(B) It is determined to be flammable or extremely flammable using 49 CFR 173.115(l).

(4) It is an oxidizer. An oxidizer for the purpose of this subchapter is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter.

(i) An organic compound containing the bivalent -O-O- structure and which may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals must be classed as an organic peroxide unless:

(A) The material meets the definition of a Division 1.1, 1.2, or 1.3 explosive, as defined in § 261.23(a)(8), in which case it must be classed as an explosive,

- (B) The material is forbidden to be offered for transportation according to 49 CFR 172.101 and 49 CFR 173.21,
- (C) It is determined that the predominant hazard of the material containing an organic peroxide is other than that of an organic peroxide, or
- (D) According to data on file with the Pipeline and Hazardous Materials Safety Administration in the U.S. Department of Transportation, it has been determined that the material does not present a hazard in transportation.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

§ 261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

- (1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.
- (2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 °C (130 °F) as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, and as incorporated by reference in § 260.11 of this chapter.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

§ 261.23 Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

- (1) It is normally unstable and readily undergoes violent change without detonating.
- (2) It reacts violently with water.
- (3) It forms potentially explosive mixtures with water.
- (4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
- (7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
- (8) It is a forbidden explosive as defined in 49 CFR 173.54, or is a Division 1.1, 1.2 or 1.3 explosive as defined in 49 CFR 173.50 and 173.53.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

§ 261.24 Toxicity characteristic.

(a) A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table 1 which corresponds to the toxic contaminant causing it to be hazardous. [\[Click here for a high quality copy of Table 1.\]](#)

TABLE 1—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC

EPA HW No. ¹	Contaminant	CAS No. ²	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	⁴ 200.0
D024	m-Cresol	108-39-4	⁴ 200.0
D025	p-Cresol	106-44-5	⁴ 200.0
D026	Cresol	⁴ 200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	³ 0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	³ 0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	³ 5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

¹ Hazardous waste number.

² Chemical abstracts service number.

³ Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

⁴ If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

Subpart D—Lists of Hazardous Wastes

§ 261.30 General.

(a) A solid waste is a hazardous waste if it is listed in this subpart, unless it has been excluded from this list.

(b) The director will indicate his basis for listing the classes or types of wastes listed in this subpart by employing one or more of the following Hazard Codes:

Ignitable Waste (I)
Corrosive Waste (C)
Reactive Waste (R)
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

Appendix VII identifies the constituent which caused the director to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of section 342J-6.5, HRS and certain recordkeeping and reporting requirements under parts 262 through 265, 268, and 270 of this chapter.

(d) The following hazardous wastes listed in § 261.31 are identified as acute hazardous wastes (H) and are subject to the generator category limits for acutely hazardous wastes established in table 1 of § 262.13 of this subchapter: EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026 and F027.

§ 261.31 Hazardous wastes from non-specific sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded and listed in appendix IX.

[\[See list in 40 CFR section 261.31\]](#)

(b) Listing Specific Definitions:

- (1) For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.
- (2)
 - (i) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and (A) the unit employs a minimum of 6 hp per million gallons of treatment volume; and either (B) the hydraulic retention time of the unit is no longer than 5 days; or (C) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.
 - (ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that: (A) the unit is an aggressive biological treatment unit as defined in this subsection; and (B) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.
- (3)
 - (i) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.
 - (ii) For the purposes of the F038 listing, (A) sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and (B) floats are considered to be generated at the moment they are formed in the top of the unit.
- (4) For the purposes of the F019 listing, the following apply to wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process.
 - (i) Motor vehicle manufacturing is defined to include the manufacture of automobiles and light trucks/utility vehicles (including light duty vans, pick-up trucks, minivans, and sport utility vehicles). Facilities must be engaged in manufacturing complete vehicles (body and chassis or unibody) or chassis only.
 - (ii) Generators must maintain in their on-site records documentation and information sufficient to prove that the wastewater treatment sludges to be exempted from the F019 listing meet the conditions of the listing. These records must include: the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility.

Generators must maintain these documents on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Regional Administrator or director.

§ 261.32 Hazardous wastes from specific sources.

(a) The following solid wastes are listed hazardous wastes from specific sources unless they are excluded and listed in appendix IX.

[\[See list in 40 CFR section 261.32\]](#)

(b) Listing Specific Definitions:

(1) For the purposes of the K181 listing, dyes and/or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or FDA certified colors that are classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes and/or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes and/or pigments, are not included in the K181 listing.

(c) K181 Listing Levels. Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 listing, unless the conditions in the K181 listing are met.

Constituent	Chemical abstracts No.	Mass levels (kg/yr)
Aniline	62-53-3	9,300
o-Anisidine	90-04-0	110
4-Chloroaniline	106-47-8	4,800
p-Cresidine	120-71-8	660
2,4-Dimethylaniline	95-68-1	100
1,2-Phenylenediamine	95-54-5	710
1,3-Phenylenediamine	108-45-2	1,200

(d) Procedures for demonstrating that dyes and/or pigment nonwastewaters are not K181. The procedures described in paragraphs (d)(1)-(d)(3) and (d)(5) of this section establish when nonwastewaters from the production of dyes/pigments would not be hazardous (these procedures apply to wastes that are not disposed in landfill units or treated in combustion units as specified in paragraph (a) of this section). If the nonwastewaters are disposed in landfill units or treated in combustion units as described in paragraph (a) of this section, then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 listing description, the generator must maintain documentation as described in paragraph (d)(4) of this section.

(1) Determination based on no K181 constituents. Generators that have knowledge (e.g., knowledge of constituents in wastes based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed) that their wastes contain none of the K181 constituents (see paragraph (c) of this section) can use their knowledge to determine that their waste is not K181. The generator must document the basis for all such determinations on an annual basis and keep each annual documentation for three years.

(2) Determination for generated quantities of 1,000 MT/yr or less for wastes that contain K181 constituents. If the total annual quantity of dyes and/or pigment nonwastewaters generated is 1,000 metric tons or less, the generator can use knowledge of the wastes (e.g., knowledge of constituents in wastes based on prior analytical data and/or information about raw materials used, production processes used, and reaction and degradation products formed) to conclude that annual mass loadings for the K181 constituents are below the listing levels of paragraph (c) of this section. To make this determination, the generator must:

- (i) Each year document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 metric tons.
 - (ii) Track the actual quantity of nonwastewaters generated from January 1 through December 31 of each year. If, at any time within the year, the actual waste quantity exceeds 1,000 metric tons, the generator must comply with the requirements of paragraph (d)(3) of this section for the remainder of the year.
 - (iii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.
 - (iv) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:
 - (A) The quantity of dyes and/or pigment nonwastewaters generated.
 - (B) The relevant process information used.
 - (C) The calculations performed to determine annual total mass loadings for each K181 constituent in the nonwastewaters during the year.
- (3) Determination for generated quantities greater than 1,000 MT/yr for wastes that contain K181 constituents. If the total annual quantity of dyes and/or pigment nonwastewaters generated is greater than 1,000 metric tons, the generator must perform all of the steps described in paragraphs ((d)(3)(i)-(d)(3)(xi) of this section) in order to make a determination that its waste is not K181.
- (i) Determine which K181 constituents (see paragraph (c) of this section) are reasonably expected to be present in the wastes based on knowledge of the wastes (e.g., based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed).
 - (ii) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator must comply with the procedures for using knowledge described in paragraph (d)(2) of this section and keep the records described in paragraph (d)(2)(iv) of this section. For determinations based on sampling and analysis, the generator must comply with the sampling and analysis and recordkeeping requirements described below in this section.
 - (iii) Develop a waste sampling and analysis plan (or modify an existing plan) to collect and analyze representative waste samples for the K181 constituents reasonably expected to be present in the wastes. At a minimum, the plan must include:
 - (A) A discussion of the number of samples needed to characterize the wastes fully;
 - (B) The planned sample collection method to obtain representative waste samples;

- (C) A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes.
 - (D) A detailed description of the test methods to be used, including sample preparation, clean up (if necessary), and determinative methods.
- (iv) Collect and analyze samples in accordance with the waste sampling and analysis plan.
 - (A) The sampling and analysis must be unbiased, precise, and representative of the wastes.
 - (B) The analytical measurements must be sufficiently sensitive, accurate and precise to support any claim that the constituent mass loadings are below the listing levels of paragraph (c) of this section.
- (v) Record the analytical results.
- (vi) Record the waste quantity represented by the sampling and analysis results.
- (vii) Calculate constituent-specific mass loadings (product of concentrations and waste quantity).
- (viii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.
- (ix) Determine whether the mass of any of the K181 constituents listed in paragraph (c) of this section generated between January 1 and December 31 of any year is below the K181 listing levels.
- (x) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:
 - (A) The sampling and analysis plan.
 - (B) The sampling and analysis results (including QA/QC data)
 - (C) The quantity of dyes and/or pigment nonwastewaters generated.
 - (D) The calculations performed to determine annual mass loadings.
- (xi) Nonhazardous waste determinations must be conducted annually to verify that the wastes remain nonhazardous.
 - (A) The annual testing requirements are suspended after three consecutive successful annual demonstrations that the wastes are nonhazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.
 - (B) The annual testing requirements are reinstated if the manufacturing or waste treatment processes generating the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.
 - (C) If the annual testing requirements are suspended, the generator must keep records of the process knowledge information used to support a nonhazardous determination. If testing is reinstated, a description of the process change must be retained.
- (4) Recordkeeping for the landfill disposal and combustion exemptions. For the purposes of meeting the landfill disposal and combustion condition set out in the K181 listing description, the generator must maintain on site for three years

documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design standards set out in the listing description, or was treated in combustion units as specified in the listing description.

(5) Waste holding and handling. During the interim period, from the point of generation to completion of the hazardous waste determination, the generator is responsible for storing the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the subtitle C requirements during the interim period, the generator could be subject to an enforcement action for improper management.

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in § 261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section, unless the container is empty as defined in § 261.7(b) or § 266.507 of this chapter.

[Comment: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, [the] state department of health considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

[Comment: The phrase “commercial chemical product or manufacturing chemical intermediate having the generic name listed in...” refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraph (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraph (e) or (f), such waste will be listed in either § 261.31 or § 261.32 or will be identified as a hazardous waste by the characteristics set forth in subpart C of this part.]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H).

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

[**\[See list in 40 CFR section 261.33\]**](#)

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T) unless otherwise designated.

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

[**\[See list in 40 CFR section 261.33\]**](#)

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§ 261.35 Deletion of certain hazardous waste codes following equipment cleaning and replacement.

(a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of paragraphs (b) and (c) of this section.

These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(b) Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

(1) Generators shall do one of the following:

- (i) Prepare and follow an equipment cleaning plan and clean equipment in accordance with this section;
- (ii) Prepare and follow an equipment replacement plan and replace equipment in accordance with this section; or
- (iii) Document cleaning and replacement in accordance with this section, carried out after termination of use of chlorophenolic preservations.

(2) Cleaning Requirements.

(i) Prepare and sign a written equipment cleaning plan that describes:

- (A) The equipment to be cleaned;
- (B) How the equipment will be cleaned;
- (C) The solvent to be used in cleaning;
- (D) How solvent rinses will be tested; and
- (E) How cleaning residues will be disposed.

(ii) Equipment must be cleaned as follows:

- (A) Remove all visible residues from process equipment;
- (B) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(iii) Analytical requirements.

- (A) Rinses must be tested by using an appropriate method.
- (B) "Not detected" means at or below the following lower method calibration limits (MCLs): The 2,3,7,8-TCDD-based MCL—0.01 parts per trillion (ppt), sample weight of 1000 g, IS spiking level of 1 ppt, final extraction volume of 10-50 µL. For other congeners—multiply the values by 1 for TCDF/PeCDD/PeCDF, by 2.5 for HxCDD/HxCDF/HpCDD/HpCDF, and by 5 for OCDD/OCDF.

(iv) The generator must manage all residues from the cleaning process as F032 waste.

(3) Replacement requirements.

(i) Prepare and sign a written equipment replacement plan that describes:

- (A) The equipment to be replaced;
- (B) How the equipment will be replaced; and

- (C) How the equipment will be disposed.
 - (ii) The generator must manage the discarded equipment as F032 waste.
- (4) Documentation requirements.
 - (i) Document that previous equipment cleaning and/or replacement was performed in accordance with this section and occurred after cessation of use of chlorophenolic preservatives.
- (c) The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:
 - (1) The name and address of the facility;
 - (2) Formulations previously used and the date on which their use ceased in each process at the plant;
 - (3) Formulations currently used in each process at the plant;
 - (4) The equipment cleaning or replacement plan;
 - (5) The name and address of any persons who conducted the cleaning and replacement;
 - (6) The dates on which cleaning and replacement were accomplished;
 - (7) The dates of sampling and testing;
 - (8) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;
 - (9) A description of the tests performed, the date the tests were performed, and the results of the tests;
 - (10) The name and model numbers of the instrument(s) used in performing the tests;
 - (11) QA/QC documentation; and
 - (12) The following statement signed by the generator or his authorized representative: I certify under penalty of law that all process equipment required to be cleaned or replaced under 40 CFR 261.35 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

Subparts F-G [Reserved]

Subpart H—Financial Requirements for Management of Excluded Hazardous Secondary Materials

§ 261.140 Applicability.

- (a) The requirements of this subpart apply to owners or operators of reclamation and intermediate facilities managing hazardous secondary materials excluded under 40 CFR § 261.4(a)(24), except as provided otherwise in this section.
- (b) States and the Federal government are exempt from the financial assurance requirements of this subpart.

§ 261.141 Definitions of terms as used in this subpart.

The terms defined in § 265.141(d), (f), (g), and (h) of this chapter have the same meaning in this subpart as they do in § 265.141 of this chapter.

§ 261.142 Cost estimate.

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility.

(1) The estimate must equal the cost of conducting the activities described in paragraph (a) of this section at the point when the extent and manner of the facility's operation would make these activities the most expensive; and

(2) The cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct these activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of "parent corporation" in § 265.141(d) of this subchapter.) The owner or operator may use costs for on-site disposal in accordance with applicable requirements if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under § 265.113(d) of this subchapter, facility structures or equipment, land, or other assets associated with the facility.

(4) The owner or operator may not incorporate a zero cost for hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under § 265.113(d) of this subchapter that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 261.143. For owners and operators using the financial test or corporate guarantee, the cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the director as specified in § 261.143(e)(3). The adjustment may be made by recalculating the cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in paragraphs (b)(1) and (2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the cost estimate by the inflation factor. The result is the adjusted cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the cost estimate no later than 30 days after a change in a facility's operating plan or design that would increase the costs of conducting the activities described in paragraph (a) or no later than 60 days after an unexpected event which increases the cost of conducting the

activities described in paragraph (a) of this section. The revised cost estimate must be adjusted for inflation as specified in paragraph (b) of this section.

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest cost estimate prepared in accordance with paragraphs (a) and (c) and, when this estimate has been adjusted in accordance with paragraph (b), the latest adjusted cost estimate.

§ 261.143 Financial assurance condition.

Per § 261.4(a)(24)(vi)(F) of this chapter, an owner or operator of a reclamation or intermediate facility must have financial assurance as a condition of the exclusion as required under § 261.4(a)(24) of this chapter. He must choose from the options as specified in paragraphs (a) through (e) of this section.

(a) Trust fund.

(1) An owner or operator may satisfy the requirements of this section by establishing a trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the director. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 261.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 261.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current cost estimate covered by the agreement.

(3) The trust fund must be funded for the full amount of the current cost estimate before it may be relied upon to satisfy the requirements of this section.

(4) Whenever the current cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(5) If the value of the trust fund is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the director for release of the amount in excess of the current cost estimate.

(6) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the director for release of the amount in excess of the current cost estimate covered by the trust fund.

(7) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (5) or (6) of this section, the director will instruct the trustee to release to the owner or operator such funds as the director specifies in writing. If the owner or operator begins final closure under subpart G of 40 CFR part 264 or 265, an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized

bills to the director. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the director will instruct the trustee to make reimbursements in those amounts as the director specifies in writing, if the director determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with § 261.143(i) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the director does not instruct the trustee to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(8) The director will agree to termination of the trust when:

- (i) An owner or operator substitutes alternate financial assurance as specified in this section; or
- (ii) The director releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(b) Surety bond guaranteeing payment into a trust fund.

(1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the director. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 261.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the director. This standby trust fund must meet the requirements specified in paragraph (a) of this section, except that:

- (i) An originally signed duplicate of the trust agreement must be submitted to the director with the surety bond; and
- (ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:
 - (A) Payments into the trust fund as specified in paragraph (a) of this section;
 - (B) Updating of Schedule A of the trust agreement (see § 261.151(a)) to show current cost estimates;
 - (C) Annual valuations as required by the trust agreement; and
 - (D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

- (i) Fund the standby trust fund in an amount equal to the penal sum of the bond before loss of the exclusion under § 261.4(a)(24) of this chapter or
- (ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin closure issued by the director becomes final, or within 15 days after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction; or
- (iii) Provide alternate financial assurance as specified in this section, and obtain the director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current cost estimate, except as provided in paragraph (f) of this section.

(7) Whenever the current cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the director, or obtain other financial assurance as specified in this section to cover the increase.

Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this section.

(c) Letter of credit.

(1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the director. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 261.151(c).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the director will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the director. This standby trust fund must meet the

requirements of the trust fund specified in paragraph (a) of this section, except that:

- (i) An originally signed duplicate of the trust agreement must be submitted to the director with the letter of credit; and
 - (ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:
 - (A) Payments into the trust fund as specified in paragraph (a) of this section;
 - (B) Updating of Schedule A of the trust agreement (see § 261.151(a)) to show current cost estimates;
 - (C) Annual valuations as required by the trust agreement; and
 - (D) Notices of nonpayment as required by the trust agreement.
- (4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number (if any issued), name, and address of the facility, and the amount of funds assured for the facility by the letter of credit.
- (5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the director have received the notice, as evidenced by the return receipts.
- (6) The letter of credit must be issued in an amount at least equal to the current cost estimate, except as provided in paragraph (f) of this section.
- (7) Whenever the current cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current cost estimate and submit evidence of such increase to the director, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the amount of the credit may be reduced to the amount of the current cost estimate following written approval by the director.
- (8) Following a determination by the director that the hazardous secondary materials do not meet the conditions of the exclusion under § 261.4(a)(24), the director may draw on the letter of credit.
- (9) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the director within 90 days after receipt by both the owner or operator and the director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the director will draw on the letter of credit. The director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the director will draw on the letter of credit if the owner or

operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the director.

(10) The director will return the letter of credit to the issuing institution for termination when:

- (i) An owner or operator substitutes alternate financial assurance as specified in this section; or
- (ii) The director releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(d) Insurance.

(1) An owner or operator may satisfy the requirements of this section by obtaining insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the director[.] At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 261.151(d).

(3) The insurance policy must be issued for a face amount at least equal to the current cost estimate, except as provided in paragraph (f) of this section. The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The insurance policy must guarantee that funds will be available whenever needed to pay the cost of removal of all hazardous secondary materials from the unit, to pay the cost of decontamination of the unit, to pay the costs of the performance of activities required under subpart G of 40 CFR parts 264 or 265, as applicable, for the facilities covered by this policy. The policy must also guarantee that once funds are needed, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the director, to such party or parties as the director specifies.

(5) After beginning partial or final closure under 40 CFR parts 264 or 265, as applicable, an owner or operator or any other authorized person may request reimbursements for closure expenditures by submitting itemized bills to the director. The owner or operator may request reimbursements only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the director will instruct the insurer to make reimbursements in such amounts as the director specifies in writing if the director determines that the expenditures are in accordance with the approved plan or otherwise justified. If the director has reason to believe that the maximum cost over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with paragraph (h) of this section, that the owner or operator is no longer required to maintain financial assurance for the particular facility. If the director does not instruct the insurer to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(6) The owner or operator must maintain the policy in full force and effect until the director consents to termination of the policy by the owner or operator as specified in paragraph (i)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations warranting such remedy as the director deems necessary. Such violation will be deemed to begin upon receipt by the director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

- (i) The director deems the facility abandoned; or
- (ii) Conditional exclusion or interim status is lost, terminated, or revoked; or
- (iii) Closure is ordered by the director or a U.S. district court or other court of competent jurisdiction; or
- (iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or
- (v) The premium due is paid.

(9) Whenever the current cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the director, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the face amount may be reduced to the amount of the current cost estimate following written approval by the director.

(10) The director will give written consent to the owner or operator that he may terminate the insurance policy when:

- (i) An owner or operator substitutes alternate financial assurance as specified in this section; or
- (ii) The director releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(e) Financial test and corporate guarantee.

(1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (e)(1)(i) or (ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 261.151(e)). The phrase "current plugging and abandonment cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (§ 144.70(f) of this chapter).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 261.151(e); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator

satisfies paragraph (e)(1)(i) of this section that are different from the data in the audited financial statements referred to in paragraph (e)(3)(ii) of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any differences.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in paragraph (e)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the director of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

- (i) Request the extension;
- (ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;
- (iii) Specify for each facility to be covered by the test the EPA Identification Number (if any issued), name, address, and current cost estimates to be covered by the test;
- (iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations in this subpart;
- (v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and
- (vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the director within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he must send notice to the director of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements.

The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (e)(3) of this section. If the director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (e)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The director will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in paragraph (e)(3) of this section when:

- (i) An owner or operator substitutes alternate financial assurance as specified in this section; or
- (ii) The director releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(10) An owner or operator may meet the requirements of this section by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (e)(1) through (8) of this section and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in § 261.151(g)(1). A certified copy of the guarantee must accompany the items sent to the director as specified in paragraph (e)(3) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

- (i) Following a determination by the director that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under § 261.4(a)(24) of this chapter, the guarantor will dispose of any hazardous secondary material as hazardous waste and close the facility in accordance with closure

requirements found in parts 264 or 265 of this chapter, as applicable, or establish a trust fund as specified in paragraph (a) of this section in the name of the owner or operator in the amount of the current cost estimate.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the director within 90 days after receipt by both the owner or operator and the director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d) of this section, respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The director may use any or all of the mechanisms to provide for the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the director must include a list showing, for each facility, the EPA Identification Number (if any issued), name, address, and the amount of funds assured by the mechanism. If the facilities covered by the mechanism are in more than one state, identical evidence of financial assurance must be submitted to and maintained with the state agency regulating hazardous waste in all such states or with the appropriate Regional Administrator if the facility is located in an unauthorized state. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for any of the facilities covered by the mechanism, the director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Removal and Decontamination Plan for Release

(1) An owner or operator of a reclamation facility or an intermediate facility who wishes to be released from his financial assurance obligations under § 261.4(a)(24)(vi)(F) of this chapter must submit a plan for removing all hazardous secondary material residues to the director at least 180 days prior to the date on which he expects to cease to operate under the exclusion.

(2) The plan must include, at least:

(A) For each hazardous secondary materials storage unit subject to financial assurance requirements under § 261.4(a)(24)(vi)(F), a description of how all excluded hazardous secondary materials will be recycled or sent for recycling, and how all residues, contaminated containment systems (liners, etc), contaminated soils, subsoils, structures, and equipment will be removed or decontaminated as necessary to protect human health and the environment, and

(B) A detailed description of the steps necessary to remove or decontaminate all hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to protect human health and the environment; and

(C) A detailed description of any other activities necessary to protect human health and the environment during this timeframe, including, but not limited to, leachate collection, run-on and run-off control, etc; and

(D) A schedule for conducting the activities described which, at a minimum, includes the total time required to remove all excluded hazardous secondary materials for recycling and decontaminate all units subject to financial assurance under § 261.4(a)(24)(vi)(F) and the time required for intervening activities which will allow tracking of the progress of decontamination.

(3) The director will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. He will also, in response to a request or at his discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the plan. The director will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The director will approve, modify, or disapprove the plan within 90 days of its receipt. If the director does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The director will approve or modify this plan in writing within 60 days. If the director modifies the plan, this modified plan becomes the approved plan. The director must assure that the approved plan is consistent with paragraph (h) of this section. A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

(4) Within 60 days of completion of the activities described for each hazardous secondary materials management unit, the owner or operator must submit to the director, by registered mail, a certification that all hazardous secondary materials

have been removed from the unit and the unit has been decontaminated in accordance with the specifications in the approved plan. The certification must be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification must be furnished to the director, upon request, until he releases the owner or operator from the financial assurance requirements for § 261.4(a)(24)(vi)(F).

(i) Release of the owner or operator from the requirements of this section. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per paragraph (h), the director will notify the owner or operator in writing that he is no longer required under § 261.4(a)(24)(vi)(F) to maintain financial assurance for that facility or a unit at the facility, unless the director has reason to believe that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan. The director shall provide the owner or operator a detailed written statement of any such reason to believe that all hazardous secondary materials have not been removed from the unit or that the unit has not been decontaminated in accordance with the approved plan.

§§ 261.144-261.146 [Reserved]

§ 261.147 Liability requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or an intermediate facility subject to financial assurance requirements under § 261.4(a)(24)(vi)(F) of this chapter, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in paragraphs (a)(1), (2), (3), (4), (5), or (6) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement, or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 261.151(h). The wording of the certificate of insurance must be identical to the wording specified in § 261.151(i). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the director. If the facilities are located in more than one state, identical evidence of financial assurance must be submitted to and maintained with the state agency regulating hazardous waste in all such states or with the appropriate Regional Administrator if the facility is located in an

unauthorized state. If requested by the director, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in paragraphs (f) and (g) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in paragraphs (a)(1) through (a)(6) of this section; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is entered between the owner or operator and third-party claimant for liability coverage under paragraphs (a)(1) through (a)(6) of this section; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under paragraphs (a)(1) through (a)(6) of this section.

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or intermediate facility with land-based units, as defined in § 260.10 of this chapter, which are used to manage

hazardous secondary materials excluded under § 261.4(a)(24) of this chapter or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least \$3 million per occurrence with an annual aggregate of at least \$6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least \$4 million per occurrence and \$8 million annual aggregate. This liability coverage may be demonstrated as specified in paragraph (b)(1), (2), (3), (4), (5), or (6) of this section:

- (1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.
 - (i) Each insurance policy must be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 261.151(h). The wording of the certificate of insurance must be identical to the wording specified in § 261.151(i). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the director. If the facilities are located in more than one state, identical evidence of financial assurance must be submitted to and maintained with the state agency regulating hazardous waste in all such states or with the appropriate Regional Administrator if the facility is located in an unauthorized state. If requested by the director, the owner or operator must provide a signed duplicate original of the insurance policy.
 - (ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.
- (2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in paragraphs (f) and (g) of this section.
- (3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.
- (4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.
- (5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.
- (6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a

financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as “primary” coverage and shall specify other assurance as “excess” coverage.

(7) An owner or operator shall notify the director in writing within 30 days whenever:

- (i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in paragraphs (b)(1) through (b)(6) of this section; or
- (ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is entered between the owner or operator and third-party claimant for liability coverage under paragraphs (b)(1) through (b)(6) of this section; or
- (iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under paragraphs (b)(1) through (b)(6) of this section.

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the director that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment and/or storage at the facility or group of facilities, the owner or operator may obtain a variance from the director. The request for a variance must be submitted in writing to the director. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The director may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the director to determine a level of financial responsibility other than that required by paragraph (a) or (b) of this section.

(d) Adjustments by the director. If the director determines that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment and/or storage at the facility or group of facilities, the director may adjust the level of financial responsibility required under paragraph (a) or (b) of this section as may be necessary to protect human health and the environment. This adjusted level will be based on the director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the director determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting

from the operations of a facility that is not a surface impoundment, pile, or land treatment facility, he may require that an owner or operator of the facility comply with paragraph (b) of this section. An owner or operator must furnish to the director, within a reasonable time, any information which the director requests to determine whether cause exists for such adjustments of level or type of coverage.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per § 261.143(h), the director will notify the owner or operator in writing that he is no longer required under § 261.4(a)(24)(vi)(F) to maintain liability coverage for that facility or a unit at the facility, unless the director has reason to believe that that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan.

(f) Financial test for liability coverage.

(1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of paragraph (f)(1) (i) or (ii) of this section:

(i) The owner or operator must have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least \$10 million; and

(C) Assets in the United States amounting to either:

(1) At least 90 percent of his total assets; or

(2) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least \$10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either:

(1) At least 90 percent of his total assets; or

(2) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in paragraph (f)(1) of this section refers to the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of this section and the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of 40 CFR 264.147 and 265.147.

(3) To demonstrate that he meets this test, the owner or operator must submit the following three items to the director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 261.151(f). If an owner or operator is using the financial test to demonstrate both assurance as specified by § 261.143(e), and liability coverage, he must submit the letter specified in § 261.151(f) to cover both forms of financial responsibility; a separate letter as specified in § 261.151(e) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies paragraph (f)(1)(i) of this section that are different from the data in the audited financial statements referred to in paragraph (f)(3)(ii) of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any difference.

(4) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in paragraph (f)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the director of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (f)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the director within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in this section. Evidence of liability coverage must be submitted to the director within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The director will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

(1) Subject to paragraph (g)(2) of this section, an owner or operator may meet the requirements of this section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (f)(6) of this section. The wording of the guarantee must be identical to the wording specified in § 261.151(g)(2). A certified copy of the guarantee must accompany the items sent to the director as specified in paragraph (f)(3) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

- (ii) [Reserved]
- (2)
 - (i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of:
 - (A) The State in which the guarantor is incorporated; and
 - (B) [T]he State of Hawaiihave submitted a written statement to [the] state department of health that a guarantee executed as described in this section and § 261.151(g)(2) is a legally valid and enforceable obligation in their respective states.
 - (ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this section only if:
 - (A) The non-U.S. corporation has identified a registered agent for service of process in the State of Hawaii and in the State in which it has its principal place of business; and if
 - (B) The Attorney General or Insurance Commissioner of the State of Hawaii and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to [the] state department of health that a guarantee executed as described in this section and § 261.151(g)(2) is a legally valid and enforceable obligation in their respective states.
- (h) Letter of credit for liability coverage.**
 - (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this paragraph and submitting a copy of the letter of credit to the director.
 - (2) The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.
 - (3) The wording of the letter of credit must be identical to the wording specified in § 261.151(j).
 - (4) An owner or operator who uses a letter of credit to satisfy the requirements of this section may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.
 - (5) The wording of the standby trust fund must be identical to the wording specified in § 261.151(m).
- (i) Surety bond for liability coverage.**
 - (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond that conforms to the requirements of this paragraph and submitting a copy of the bond to the director.
 - (2) The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond must be identical to the wording specified in § 261.151(k) of this chapter.

(4) A surety bond may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of:

(i) The State in which the surety is incorporated; and

(ii) [T]he State of Hawaii

have submitted a written statement to [the] state department of health that a surety bond executed as described in this section and § 261.151(k) is a legally valid and enforceable obligation in their respective states.

(j) Trust fund for liability coverage.

(1) An owner or operator may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the director.

(2) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(3) The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this section to cover the difference. For purposes of this paragraph, “the full amount of the liability coverage to be provided” means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by this section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund must be identical to the wording specified in § 261.151(l).

§ 261.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in § 261.143(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee.

(b) An owner or operator who fulfills the requirements of § 261.143 or § 261.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or

operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 261.151 Wording of the instruments.

[Use [chapter 11-261.1, Hawaii Administrative Rules](#). This section not reproduced.]

Subpart I—Use and Management of Containers

§ 261.170 Applicability.

This subpart applies to hazardous secondary materials excluded under the remanufacturing exclusion at § 261.4(a)(27) and stored in containers.

§ 261.171 Condition of containers.

If a container holding hazardous secondary material is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the hazardous secondary material must be transferred from this container to a container that is in good condition or managed in some other way that complies with the requirements of this part.

§ 261.172 Compatibility of hazardous secondary materials with containers.

The container must be made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous secondary material to be stored, so that the ability of the container to contain the material is not impaired.

§ 261.173 Management of containers.

(a) A container holding hazardous secondary material must always be closed during storage, except when it is necessary to add or remove the hazardous secondary material.

(b) A container holding hazardous secondary material must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

§ 261.175 Containment.

(a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section.

(b) A containment system must be designed and operated as follows:

- (1) A base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;
- (2) The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;
- (3) The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.
- (4) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in paragraph (b)(3) of this section to contain any run-on which might enter the system; and
- (5) Spilled or leaked material and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

§ 261.176 Special requirements for ignitable or reactive hazardous secondary material.

Containers holding ignitable or reactive hazardous secondary material must be located at least 15 meters (50 feet) from the facility's property line.

§ 261.177 Special requirements for incompatible materials.

- (a) Incompatible materials must not be placed in the same container.
- (b) Hazardous secondary material must not be placed in an unwashed container that previously held an incompatible material.
- (c) A storage container holding a hazardous secondary material that is incompatible with any other materials stored nearby must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

§ 261.179 Air emission standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a container in accordance with the applicable requirements of subparts AA, BB, and CC of this part.

Subpart J—Tank Systems

§ 261.190 Applicability.

- (a) The requirements of this subpart apply to tank systems for storing or treating hazardous secondary material excluded under the remanufacturing exclusion at § 261.4(a)(27).
- (b) Tank systems, including sumps, as defined in § 260.10, that serve as part of a secondary containment system to collect or contain releases of hazardous secondary materials are exempted from the requirements in § 261.193(a).

§ 261.191 Assessment of existing tank system's integrity.

- (a) Tank systems must meet the secondary containment requirements of § 261.193, or the remanufacturer or other person that handles the hazardous secondary material must determine that the tank system is not leaking or is unfit for use. Except as provided in paragraph (c) of this section, a written assessment reviewed and certified by a qualified Professional Engineer must be kept on file at the remanufacturer's facility or other facility that stores or treats the hazardous secondary material that attests to the tank system's integrity.
- (b) This assessment must determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the material(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:
 - (1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;
 - (2) Hazardous characteristics of the material(s) that have been and will be handled;
 - (3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available (otherwise, an estimate of the age); and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment must include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer that addresses cracks, leaks, corrosion, and erosion.

Note to paragraph (b)(5)(ii): The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.

(c) If, as a result of the assessment conducted in accordance with paragraph (a) of this section, a tank system is found to be leaking or unfit for use, the remanufacturer or other person that stores or treats the hazardous secondary material must comply with the requirements of § 261.196.

§ 261.192 [Reserved]

§ 261.193 Containment and detection of releases.

(a) Secondary containment systems must be:

(1) Designed, installed, and operated to prevent any migration of materials or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

Note to paragraph (a): If the collected material is a hazardous waste under part 261 of this chapter, it is subject to management as a hazardous waste in accordance with all applicable requirements of parts 262 through 265, 266, and 268 of this chapter. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.

(b) To meet the requirements of paragraph (a) of this section, secondary containment systems must be at a minimum:

(1) Constructed of or lined with materials that are compatible with the materials(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external

- hydrological forces), physical contact with the material to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic);
- (2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;
- (3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous secondary material or accumulated liquid in the secondary containment system at the earliest practicable time; and
- (4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked material and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment.
- (c) Secondary containment for tanks must include one or more of the following devices:
- (1) A liner (external to the tank);
 - (2) A vault; or
 - (3) A double-walled tank.
- (d) In addition to the requirements of paragraphs (a), (b), and (c) of this section, secondary containment systems must satisfy the following requirements:
- (1) External liner systems must be:
 - (i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;
 - (ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.
 - (iii) Free of cracks or gaps; and
 - (iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the material if the material is released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the material).
 - (2) Vault systems must be:
 - (i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;
 - (ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;
 - (iii) Constructed with chemical-resistant water stops in place at all joints (if any);

- (iv) Provided with an impermeable interior coating or lining that is compatible with the stored material and that will prevent migration of material into the concrete;
 - (v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the material being stored or treated is ignitable or reactive; and
 - (vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.
- (3) Double-walled tanks must be:
- (i) Designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell;
 - (ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and
 - (iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time.

Note to paragraph (d)(3): The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tanks" may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(e) [Reserved]

(f) Ancillary equipment must be provided with secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of paragraphs (a) and (b) of this section except for:

- (1) Aboveground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;
- (2) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;
- (3) Sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and
- (4) Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

§ 261.194 General operating requirements.

(a) Hazardous secondary materials or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:

- (1) Spill prevention controls (e.g., check valves, dry disconnect couplings);
- (2) Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

- (3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.
- (c) The remanufacturer or other person that stores or treats the hazardous secondary material must comply with the requirements of § 261.196 of this subpart if a leak or spill occurs in the tank system.

§ 261.195 [Reserved]

§ 261.196 Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the remanufacturer or other person that stores or treats the hazardous secondary material must satisfy the following requirements:

- (a) Cessation of use; prevent flow or addition of materials. The remanufacturer or other person that stores or treats the hazardous secondary material must immediately stop the flow of hazardous secondary material into the tank system or secondary containment system and inspect the system to determine the cause of the release.
- (b) Removal of material from tank system or secondary containment system.
 - (1) If the release was from the tank system, the remanufacturer or other person that stores or treats the hazardous secondary material must, within 24 hours after detection of the leak or, if the remanufacturer or other person that stores or treats the hazardous secondary material demonstrates that it is not possible, at the earliest practicable time, remove as much of the material as is necessary to prevent further release of hazardous secondary material to the environment and to allow inspection and repair of the tank system to be performed.
 - (2) If the material released was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.
- (c) Containment of visible releases to the environment. The remanufacturer or other person that stores or treats the hazardous secondary material must immediately conduct a visual inspection of the release and, based upon that inspection:
 - (1) Prevent further migration of the leak or spill to soils or surface water; and
 - (2) Remove, and properly dispose of, any visible contamination of the soil or surface water.
- (d) Notifications, reports.
 - (1) Any release to the environment, except as provided in paragraph (d)(2) of this section, must be reported to the director within 24 hours of its detection. If the release has been reported pursuant to 40 CFR part 302, that report will satisfy this requirement.
 - (2) A leak or spill of hazardous secondary material is exempted from the requirements of this paragraph if it is:
 - (i) Less than or equal to a quantity of 1 pound, and
 - (ii) Immediately contained and cleaned up.
 - (3) Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the director:

- (i) Likely route of migration of the release;
 - (ii) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
 - (iii) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the director as soon as they become available.
 - (iv) Proximity to downgradient drinking water, surface water, and populated areas; and
 - (v) Description of response actions taken or planned.
- (e) Provision of secondary containment, repair, or closure.
 - (1) Unless the remanufacturer or other person that stores or treats the hazardous secondary material satisfies the requirements of paragraphs (e)(2) through (4) of this section, the tank system must cease to operate under the remanufacturing exclusion at 40 CFR 261.4(a)(27).
 - (2) If the cause of the release was a spill that has not damaged the integrity of the system, the remanufacturer or other person that stores or treats the hazardous secondary material may return the system to service as soon as the released material is removed and repairs, if necessary, are made.
 - (3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.
 - (4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the remanufacturer or other person that stores or treats the hazardous secondary material must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of § 261.193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of paragraph (f) of this section are satisfied. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with § 261.193 of this subpart prior to being returned to use.
- (f) Certification of major repairs. If the remanufacturer or other person that stores or treats the hazardous secondary material has repaired a tank system in accordance with paragraph (e) of this section, and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the remanufacturer or other person that stores or treats the hazardous secondary material has obtained a certification by a qualified Professional Engineer that the repaired system is capable of handling hazardous secondary materials without release for the intended life of the system. This certification must be kept on file at the facility and maintained until closure of the facility.

Note 1 to § 261.196: The director may, on the basis of any information received that there is or has been a release of hazardous secondary material or hazardous constituents into the environment, issue an order under section 342J-8, HRS requiring corrective action or such other response as deemed necessary to protect human health or the environment.

Note 2 to § 261.196: 40 CFR part 302 may require the owner or operator to notify the National Response Center of certain releases.

§ 261.197 Termination of remanufacturing exclusion.

Hazardous secondary material stored in units more than 90 days after the unit ceases to operate under the remanufacturing exclusion at 40 CFR 261.4(a)(27) or otherwise ceases to be operated for manufacturing, or for storage of a product or a raw material, then becomes subject to regulation as hazardous waste under parts 261 through 266, 268, 270, and 124 of this chapter, as applicable.

§ 261.198 Special requirements for ignitable or reactive materials.

(a) Ignitable or reactive material must not be placed in tank systems, unless the material is stored or treated in such a way that it is protected from any material or conditions that may cause the material to ignite or react.

(b) The remanufacturer or other person that stores or treats hazardous secondary material which is ignitable or reactive must store or treat the hazardous secondary material in a tank that is in compliance with the requirements for the maintenance of protective distances between the material management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), (incorporated by reference, see § 260.11).

§ 261.199 Special requirements for incompatible materials.

(a) Incompatible materials must not be placed in the same tank system.

(b) Hazardous secondary material must not be placed in a tank system that has not been decontaminated and that previously held an incompatible material.

§ 261.200 Air emission standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a tank in accordance with the applicable requirements of subparts AA, BB, and CC of this part.

Subparts K-L [Reserved]

Subpart M—Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials

§ 261.400 Applicability.

The requirements of this subpart apply to those areas of an entity managing hazardous secondary materials excluded under § 261.4(a)(23) and/or (24) where hazardous secondary materials are generated or accumulated on site.

(a) A generator of hazardous secondary material, or an intermediate or reclamation facility, that accumulates 6000 kg or less of hazardous secondary material at any time must comply with §§ 261.410 and 261.411.

(b) A generator of hazardous secondary material, or an intermediate or reclamation facility that accumulates more than 6000 kg of hazardous secondary material at any time must comply with §§ 261.410 and 261.420.

§ 261.410 Preparedness and prevention.

(a) Maintenance and operation of facility. Facilities generating or accumulating hazardous secondary material must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous secondary materials or hazardous secondary material constituents to air, soil, or surface water which could threaten human health or the environment.

(b) Required equipment. All facilities generating or accumulating hazardous secondary material must be equipped with the following, unless none of the hazards posed by hazardous secondary material handled at the facility could require a particular kind of equipment specified below:

(1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(2) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(c) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(d) Access to communications or alarm system.

(1) Whenever hazardous secondary material is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under paragraph (b) of this section.

(2) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone

(immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under paragraph (b) of this section.

(e) Required aisle space. The hazardous secondary material generator or an intermediate or reclamation facility must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(f) Arrangements with local authorities.

(1) The hazardous secondary material generator or an intermediate or reclamation facility must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(i) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous secondary material handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(ii) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(iii) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

(iv) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(2) Where state or local authorities decline to enter into such arrangements, the hazardous secondary material generator or an intermediate or reclamation facility must document the refusal in the operating record.

§ 261.411 Emergency procedures for facilities generating or accumulating 6000 kg or less of hazardous secondary material.

A generator or an intermediate or reclamation facility that generates or accumulates 6000 kg or less of hazardous secondary material must comply with the following requirements:

(a) At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in paragraph (d) of this section. This employee is the emergency coordinator.

(b) The generator or intermediate or reclamation facility must post the following information next to the telephone:

(1) The name and telephone number of the emergency coordinator;

- (2) Location of fire extinguishers and spill control material, and, if present, fire alarm; and
- (3) The telephone number of the fire department, unless the facility has a direct alarm.
- (c) The generator or an intermediate or reclamation facility must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;
- (d) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:
 - (1) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;
 - (2) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;
 - (3) In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator or an intermediate or reclamation facility has knowledge that a spill has reached surface water, the generator or an intermediate or reclamation facility must immediately notify the government official designated as the on-scene coordinator from the Hawaii department of health's Hazard Evaluation and Emergency Response Office via the State Hospital at (808) 236-8200 after business hours or directly at (808) 586-4249 during business hours and the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include the following information:
 - (i) The name, address, and U.S. EPA Identification Number of the facility;
 - (ii) Date, time, and type of incident (e.g., spill or fire);
 - (iii) Quantity and type of hazardous waste involved in the incident;
 - (iv) Extent of injuries, if any; and
 - (v) Estimated quantity and disposition of recovered materials, if any.

§ 261.420 Contingency planning and emergency procedures for facilities generating or accumulating more than 6000 kg of hazardous secondary material.

A generator or an intermediate or reclamation facility that generates or accumulates more than 6000 kg of hazardous secondary material must comply with the following requirements:

- (a) Purpose and implementation of contingency plan.
 - (1) Each generator or an intermediate or reclamation facility that accumulates more than 6000 kg of hazardous secondary material must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water.
 - (2) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents which could threaten human health or the environment.

(b) Content of contingency plan.

(1) The contingency plan must describe the actions facility personnel must take to comply with paragraphs (a) and (f) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.

(2) If the generator or an intermediate or reclamation facility accumulating more than 6000 kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part. The hazardous secondary material generator or an intermediate or reclamation facility may develop one contingency plan which meets all regulatory requirements. [The] state department of health recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

(3) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to § 261.410(f).

(4) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see paragraph (e) of this section), and this list must be kept up-to-date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(5) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(6) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(c) Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be:

(1) Maintained at the facility; and

(2) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(d) Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(1) Applicable regulations are revised;

- (2) The plan fails in an emergency;
 - (3) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or changes the response necessary in an emergency;
 - (4) The list of emergency coordinators changes; or
 - (5) The list of emergency equipment changes.
- (e) Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in paragraph (f). Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of hazardous secondary material(s) handled by the facility, and type and complexity of the facility.
- (f) Emergency procedures.
- (1) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:
 - (i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
 - (ii) Notify appropriate State or local agencies with designated response roles if their help is needed.
 - (2) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.
 - (3) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).
 - (4) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:
 - (i) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) He must immediately notify the government official designated as the on-scene coordinator from the Hawaii department of health's Hazard Evaluation and Emergency Response Office via the State Hospital at (808) 236-8200 after business hours or directly at (808) 586-4249 during business hours and the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

- (A) Name and telephone number of reporter;
- (B) Name and address of facility;
- (C) Time and type of incident (e.g., release, fire);
- (D) Name and quantity of material(s) involved, to the extent known;
- (E) The extent of injuries, if any; and
- (F) The possible hazards to human health, or the environment, outside the facility.

(5) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.

(6) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(7) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of parts 262, 263, and 265 of this chapter.

(8) The emergency coordinator must ensure that, in the affected area(s) of the facility:

- (i) No secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and
- (ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(9) The hazardous secondary material generator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the director. The report must include:

- (i) Name, address, and telephone number of the hazardous secondary material generator;
- (ii) Name, address, and telephone number of the facility;
- (iii) Date, time, and type of incident (e.g., fire, explosion);
- (iv) Name and quantity of material(s) involved;
- (v) The extent of injuries, if any;

- (vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
 - (vii) Estimated quantity and disposition of recovered material that resulted from the incident.
- (g) Personnel training. All employees must be thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

Subparts N-Z [Reserved]

Subpart AA—Air Emission Standards for Process Vents

§ 261.1030 Applicability.

The regulations in this subpart apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or stream stripping operations that manage hazardous secondary materials excluded under the remanufacturing exclusion at § 261.4(a)(27) with concentrations of at least 10 ppmw, unless the process vents are equipped with operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.

§ 261.1031 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Resource Conservation and Recovery Act and parts 260-266.

Air stripping operation is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

Bottoms receiver means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

Closed-vent system means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

Condenser means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

Connector means flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

Continuous recorder means a data-recording device recording an instantaneous data value at least once every 15 minutes.

Control device means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or

other organics for use, reuse, or sale (e.g., a primary condenser on a solvent recovery unit) is not a control device.

Control device shutdown means the cessation of operation of a control device for any purpose.

Distillate receiver means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

Distillation operation means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by this subpart.

Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

Flow indicator means a device that indicates whether gas flow is present in a vent stream.

First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

Fractionation operation means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

Hazardous secondary material management unit shutdown means a work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit for less than 24 hours is not a hazardous secondary material management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous secondary material management unit shutdowns.

Hot well means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

In gas/vapor service means that the piece of equipment contains or contacts a hazardous secondary material stream that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains or contacts a material stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 °C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at

20 °C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

In situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

Malfunction means any sudden failure of a control device or a hazardous secondary material management unit or failure of a hazardous secondary material management unit to operate in a normal or usual manner, so that organic emissions are increased.

Open-ended valve or line means any valve, except pressure relief valves, having one side of the valve seat in contact with hazardous secondary material and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

Process vent means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

Repaired means that equipment is adjusted, or otherwise altered, to eliminate a leak.

Sampling connection system means an assembly of equipment within a process or material management unit used during periods of representative operation to take samples of the process or material fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Separator tank means a device used for separation of two immiscible liquids.

Solvent extraction operation means an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.

Startup means the setting in operation of a hazardous secondary material management unit or control device for any purpose.

Steam stripping operation means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

Surge control tank means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

Thin-film evaporation operation means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly

of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

Vapor incinerator means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

Vented means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (working losses) or by natural means such as diurnal temperature changes.

§ 261.1032 Standards: Process vents.

(a) The remanufacturer or other person that stores or treats hazardous secondary materials in hazardous secondary material management units with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous secondary material with organic concentrations of at least 10 ppmw shall either:

- (1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr), or
- (2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

(b) If the remanufacturer or other person that stores or treats the hazardous secondary material installs a closed-vent system and control device to comply with the provisions of paragraph (a) of this section the closed-vent system and control device must meet the requirements of § 261.1033.

(c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests must conform with the requirements of § 261.1034(c).

(d) When a remanufacturer or other person that stores or treats the hazardous secondary material and the director do not agree on determinations of vent emissions and/or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in § 261.1034(c) shall be used to resolve the disagreement.

§ 261.1033 Standards: Closed-vent systems and control devices.

(a) (1) The remanufacturer or other person that stores or treats the hazardous secondary materials in hazardous secondary material management units using closed-vent systems and control devices used to comply with provisions of this part shall comply with the provisions of this section.

(2) [Reserved]

(b) A control device involving vapor recovery (e.g., a condenser or adsorber) shall be designed and operated to recover the organic vapors vented to it with an efficiency of

95 weight percent or greater unless the total organic emission limits of § 261.1032(a)(1) for all affected process vents can be attained at an efficiency less than 95 weight percent.

(c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(d) (1) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (e)(1) of this section, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
(2) A flare shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f)(2)(iii) of this section.
(3) A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (e)(2) of this section.

(4) (i) A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (e)(3) of this section, less than 18.3 m/s (60 ft/s), except as provided in paragraphs (d)(4)(ii) and (iii) of this section.
(ii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in paragraph (e)(3) of this section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
(iii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in paragraph (e)(3) of this section, less than the velocity, V_{\max} , as determined by the method specified in paragraph (e)(4) of this section and less than 122 m/s (400 ft/s) is allowed.

(5) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V_{\max} , as determined by the method specified in paragraph (e)(5) of this section.

(6) A flare used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(e) (1) Reference Method 22 in 40 CFR part 60 shall be used to determine the compliance of a flare with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.
(2) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \left[\sum_{i=1}^n C_i H_i \right]$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 °C;

K = Constant, 1.74×10^{-7} (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20 °C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR part 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82 (incorporated by reference as specified in § 260.11); and

H_i = Net heat of combustion of sample component i , kcal/9 mol at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83 (incorporated by reference as specified in § 260.11) if published values are not available or cannot be calculated.

(3) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR part 60 as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(4) The maximum allowed velocity in m/s, V_{max} , for a flare complying with paragraph (d)(4)(iii) of this section shall be determined by the following equation:

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$$

Where:

28.8 = Constant,

31.7 = Constant,

H_T = The net heating value as determined in paragraph (e)(2) of this section.

(5) The maximum allowed velocity in m/s, V_{max} , for an air-assisted flare shall be determined by the following equation:

$$V_{max} = 8.706 + 0.7084 (H_T)$$

Where:

8.706 = Constant,

0.7084 = Constant,

H_T = The net heating value as determined in paragraph (e)(2) of this section.

(f) The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor and inspect each control device required to comply with this section to ensure proper operation and maintenance of the control device by implementing the following requirements:

(1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

(2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

- (i) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or ± 0.5 $^{\circ}\text{C}$, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.
- (ii) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or ± 0.5 $^{\circ}\text{C}$, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.
- (iii) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
- (iv) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or ± 0.5 $^{\circ}\text{C}$, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone.
- (v) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used.
- (vi) For a condenser, either:
 - (A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser, or
 - (B) A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ± 1 percent of the temperature being monitored in degrees Celsius ($^{\circ}\text{C}$) or ± 0.5 $^{\circ}\text{C}$, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).
- (vii) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:
 - (A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

- (B) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.
- (3) Inspect the readings from each monitoring device required by paragraphs (f)(1) and (2) of this section at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this section.
- (g) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of § 261.1035(b)(4)(iii)(F).
- (h) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:
 - (1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of § 261.1035(b)(4)(iii)(G), whichever is longer.
 - (2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of § 261.1035(b)(4)(iii)(G).
- (i) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.
- (j) A remanufacturer or other person that stores or treats hazardous secondary material at an affected facility seeking to comply with the provisions of this part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
- (k) A closed-vent system shall meet either of the following design requirements:
 - (1) A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in § 261.1034(b) of this subpart, and by visual inspections; or
 - (2) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure

gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(l) The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor and inspect each closed-vent system required to comply with this section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

(1) Each closed-vent system that is used to comply with paragraph (k)(1) of this section shall be inspected and monitored in accordance with the following requirements:

(i) An initial leak detection monitoring of the closed-vent system shall be conducted by the remanufacturer or other person that stores or treats the hazardous secondary material on or before the date that the system becomes subject to this section. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor the closed-vent system components and connections using the procedures specified in § 261.1034(b) of this subpart to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

(ii) After initial leak detection monitoring required in paragraph (l)(1)(i) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor a component or connection using the procedures specified in § 261.1034(b) of this subpart to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

(B) Closed-vent system components or connections other than those specified in paragraph (l)(1)(ii)(A) of this section shall be monitored annually and at other times as requested by the director, except as provided for in paragraph (o) of this section, using the procedures specified in § 261.1034(b) of this subpart to demonstrate that the components or connections operate with no detectable emissions.

(iii) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect or leak in accordance with the requirements of paragraph (l)(3) of this section.

- (iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in § 261.1035 of this subpart.
- (2) Each closed-vent system that is used to comply with paragraph (k)(2) of this section shall be inspected and monitored in accordance with the following requirements:
 - (i) The closed-vent system shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
 - (ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year.
 - (iii) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (l)(3) of this section.
 - (iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in § 261.1035 of this subpart.
- (3) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair all detected defects as follows:
 - (i) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in paragraph (l)(3)(iii) of this section.
 - (ii) A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.
 - (iii) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.
 - (iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the defect repair in accordance with the requirements specified in § 261.1035 of this subpart.

- (m) Closed-vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.
- (n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:
- (1) Regenerated or reactivated in a thermal treatment unit that meets one of the following:
 - (i) The owner or operator of the unit has been issued a final permit under [40 CFR part 270 \[federal\]](#) which implements the requirements of [40 CFR part 264, subpart X \[federal\]](#) or a state hazardous waste permit under chapter 11-270.1 which implements the requirements of 40 C.F.R. part 264, subpart X, as incorporated and amended in section 11-264.1-1; or
 - (ii) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of subparts AA and CC of either this part or of 40 CFR part 265; or
 - (iii) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or 40 CFR part 63.
 - (2) Incinerated in a hazardous waste incinerator for which the owner or operator either:
 - (i) Has been issued a final permit under [40 CFR part 270 \[federal\]](#) which implements the requirements of [40 C.F.R. part 264, subpart O \[federal\]](#) or a state hazardous waste permit under chapter 11-270.1 which implements the requirements of 40 C.F.R. part 264, subpart O, as incorporated and amended in section 11-264.1-1; or
 - (ii) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR part 265, subpart O.
 - (3) Burned in a boiler or industrial furnace for which the owner or operator either:
 - (i) Has been issued a final permit under [40 CFR part 270 \[federal\]](#) which implements the requirements of [40 CFR part 266, subpart H \[federal\]](#) or a state hazardous waste permit under chapter 11-270.1 which implements the requirements of C.F.R. part 266, subpart H, as incorporated and amended in section 11-266.1-1; or
 - (ii) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 40 CFR part 266, subpart H.
- (o) Any components of a closed-vent system that are designated, as described in § 261.1035(c)(9) of this subpart, as unsafe to monitor are exempt from the requirements of paragraph (l)(1)(ii)(B) of this section if:
- (1) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (l)(1)(ii)(B) of this section; and

(2) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in paragraph (l)(1)(ii)(B) of this section as frequently as practicable during safe-to-monitor times.

§ 261.1034 Test methods and procedures.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this subpart shall comply with the test methods and procedural requirements provided in this section.

(b) When a closed-vent system is tested for compliance with no detectable emissions, as required in § 261.1033(l) of this subpart, the test shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air (less than 10 ppm of hydrocarbon in air).

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The background level shall be determined as set forth in Reference Method 21.

(6) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(c) Performance tests to determine compliance with § 261.1032(a) and with the total organic compound concentration limit of § 261.1033(c) shall comply with the following:

(1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with the following reference methods and calculation procedures:

(i) Method 2 in 40 CFR part 60 for velocity and volumetric flow rate.

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(iii) Each performance test shall consist of three separate runs; each run conducted for at least 1 hour under the conditions that exist when the hazardous secondary material management unit is operating at the

highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18.

$$E_h = Q_{2sd} \left\{ \sum_{i=1}^n C_i MW_i \right\} [0.0416] [10^{-6}]$$

Where:

E_h = Total organic mass flow rate, kg/h;

Q_{2sd} = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

C_i = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MW_i = Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m³ (@293 K and 760 mm Hg);

10^{-6} = Conversion from ppm

(B) For sources utilizing Method 25A.

$E_h = (Q)(C)(MW)(0.0416)(10^{-6})$

Where:

E_h = Total organic mass flow rate, kg/h;

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

C = Organic concentration in ppm, dry basis, as determined by Method 25A;

MW = Molecular weight of propane, 44;

0.0416 = Conversion factor for molar volume, kg-mol/m³ (@293 K and 760 mm Hg);

10^{-6} = Conversion from ppm.

(v) The annual total organic emission rate shall be determined by the following equation:

$E_A = (E_h)(H)$

Where:

E_A = Total organic mass emission rate, kg/y;

E_h = Total organic mass flow rate for the process vent, kg/h;

H = Total annual hours of operations for the affected unit, h.

(vi) Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates (E_h , as determined in paragraph (c)(1)(iv) of this section) and by summing the annual total organic mass emission rates (E_A , as determined

in paragraph (c)(1)(v) of this section) for all affected process vents at the facility.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material at an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (i) Sampling ports adequate for the test methods specified in paragraph (c)(1) of this section.
- (ii) Safe sampling platform(s).
- (iii) Safe access to sampling platform(s).
- (iv) Utilities for sampling and testing equipment.

(4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the remanufacturer's or other person's that stores or treats the hazardous secondary material control, compliance may, upon the director's approval, be determined using the average of the results of the two other runs.

(d) To show that a process vent associated with a hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this subpart, the remanufacturer or other person that stores or treats the hazardous secondary material must make an initial determination that the time-weighted, annual average total organic concentration of the material managed by the hazardous secondary material management unit is less than 10 ppmw using one of the following two methods:

(1) Direct measurement of the organic concentration of the material using the following procedures:

- (i) The remanufacturer or other person that stores or treats the hazardous secondary material must take a minimum of four grab samples of material for each material stream managed in the affected unit under process conditions expected to cause the maximum material organic concentration.
- (ii) For material generated onsite, the grab samples must be collected at a point before the material is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the material after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For material generated offsite, the grab samples must be collected at the inlet to the first material management unit that receives the material provided the material has been transferred to the facility in a closed system such as a tank truck and the material is not diluted or mixed with other material.

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060A (incorporated by reference under 40 CFR 260.11) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or analyzed for its individual organic constituents.

(iv) The arithmetic mean of the results of the analyses of the four samples shall apply for each material stream managed in the unit in determining the time-weighted, annual average total organic concentration of the material. The time-weighted average is to be calculated using the annual quantity of each material stream processed and the mean organic concentration of each material stream managed in the unit.

(2) Using knowledge of the material to determine that its total organic concentration is less than 10 ppmw. Documentation of the material determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a material stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same material stream where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.

(e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous secondary materials with time-weighted, annual average total organic concentrations less than 10 ppmw shall be made as follows:

(1) By the effective date that the facility becomes subject to the provisions of this subpart or by the date when the material is first managed in a hazardous secondary material management unit, whichever is later, and

(2) For continuously generated material, annually, or

(3) Whenever there is a change in the material being managed or a change in the process that generates or treats the material.

(f) When a remanufacturer or other person that stores or treats the hazardous secondary material and the director do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous secondary material with organic concentrations of at least 10 ppmw based on knowledge of the material, the dispute may be resolved by using direct measurement as specified at paragraph (d)(1) of this section.

§ 261.1035 Recordkeeping requirements.

(a) (1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material of more than one hazardous secondary material management unit subject to the provisions of this subpart may comply with the

recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material must keep the following records on-site:

(2) Up-to-date documentation of compliance with the process vent standards in § 261.1032, including:

(i) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous secondary material management units on a facility plot plan).

(ii) Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action (e.g., managing a material of different composition or increasing operating hours of affected hazardous secondary material management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

(3) Where a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan must be developed and include:

(i) A description of how it is determined that the planned test is going to be conducted when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

(ii) A detailed engineering description of the closed-vent system and control device including:

(A) Manufacturer's name and model number of control device.

(B) Type of control device.

(C) Dimensions of the control device.

(D) Capacity.

(E) Construction materials.

- (iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.
- (4) Documentation of compliance with § 261.1033 shall include the following information:
- (i) A list of all information references and sources used in preparing the documentation.
 - (ii) Records, including the dates, of each compliance test required by § 261.1033(k).
 - (iii) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions” (incorporated by reference as specified in § 260.11) or other engineering texts acceptable to the director that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with paragraphs (b)(4)(iii)(A) through (G) of this section may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below.
 - (A) For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.
 - (B) For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.
 - (C) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.
 - (D) For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in § 261.1033(d).
 - (E) For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and

design average temperatures of the coolant fluid at the condenser inlet and outlet.

(F) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

(G) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(iv) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous secondary material management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(v) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of § 261.1032(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of § 261.1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

(vi) If performance tests are used to demonstrate compliance, all test results.

(c) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of this part shall be recorded and kept up-to-date at the facility. The information shall include:

- (1) Description and date of each modification that is made to the closed-vent system or control device design.
- (2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with § 261.1033 (f)(1) and (2).
- (3) Monitoring, operating, and inspection information required by § 261.1033(f) through (k).
- (4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:
 - (i) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 °C, period when the combustion temperature is below 760 °C.
 - (ii) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, period when the combustion zone temperature is more than 28 °C below the design average combustion zone temperature established as a requirement of paragraph (b)(4)(iii)(A) of this section.
 - (iii) For a catalytic vapor incinerator, period when:
 - (A) Temperature of the vent stream at the catalyst bed inlet is more than 28 °C below the average temperature of the inlet vent stream established as a requirement of paragraph (b)(4)(iii)(B) of this section, or
 - (B) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of paragraph (b)(4)(iii)(B) of this section.
 - (iv) For a boiler or process heater, period when:
 - (A) Flame zone temperature is more than 28 °C below the design average flame zone temperature established as a requirement of paragraph (b)(4)(iii)(C) of this section, or
 - (B) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of paragraph (b)(4)(iii)(C) of this section.
 - (v) For a flare, period when the pilot flame is not ignited.
 - (vi) For a condenser that complies with § 261.1033(f)(2)(vi)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of paragraph (b)(4)(iii)(E) of this section.
 - (vii) For a condenser that complies with § 261.1033(f)(2)(vi)(B), period when:
 - (A) Temperature of the exhaust vent stream from the condenser is more than 6 °C above the design average exhaust vent stream temperature established as a requirement of paragraph (b)(4)(iii)(E) of this section; or

- (B) Temperature of the coolant fluid exiting the condenser is more than 6 °C above the design average coolant fluid temperature at the condenser outlet established as a requirement of paragraph (b)(4)(iii)(E) of this section.
- (viii) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with § 261.1033(f)(2)(vii)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of paragraph (b)(4)(iii)(F) of this section.
- (ix) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with § 261.1033(f)(2)(vii)(B), period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of paragraph (b)(4)(iii)(F) of this section.
- (5) Explanation for each period recorded under paragraph (c)(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.
- (6) For a carbon adsorption system operated subject to requirements specified in § 261.1033(g) or (h)(2), date when existing carbon in the control device is replaced with fresh carbon.
- (7) For a carbon adsorption system operated subject to requirements specified in § 261.1033(h)(1), a log that records:
- (i) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.
 - (ii) Date when existing carbon in the control device is replaced with fresh carbon.
- (8) Date of each control device startup and shutdown.
- (9) A remanufacturer or other person that stores or treats the hazardous secondary material designating any components of a closed-vent system as unsafe to monitor pursuant to § 261.1033(o) of this subpart shall record in a log that is kept at the facility the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of § 261.1033(o) of this subpart, an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.
- (10) When each leak is detected as specified in § 261.1033(l) of this subpart, the following information shall be recorded:
- (i) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.
 - (ii) The date the leak was detected and the date of first attempt to repair the leak.
 - (iii) The date of successful repair of the leak.

(iv) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonreparable.

(v) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(A) The remanufacturer or other person that stores or treats the hazardous secondary material may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(B) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(d) Records of the monitoring, operating, and inspection information required by paragraphs (c)(3) through (10) of this section shall be maintained by the owner or operator for at least 3 years following the date of each occurrence, measurement, maintenance, corrective action, or record.

(e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the director will specify the appropriate recordkeeping requirements.

(f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in § 261.1032 including supporting documentation as required by § 261.1034(d)(2) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used, shall be recorded in a log that is kept at the facility.

§§ 261.1036-261.1049 [Reserved]

Subpart BB—Air Emission Standards for Equipment Leaks

§ 261.1050 Applicability.

(a) The regulations in this subpart apply to equipment that contains hazardous secondary materials excluded under the remanufacturing exclusion at § 261.4(a)(27), unless the equipment operations are subject to the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.

§ 261.1051 Definitions.

As used in this subpart, all terms shall have the meaning given them in § 261.1031, the Resource Conservation and Recovery Act, and 40 CFR parts 260-266.

§ 261.1052 Standards: Pumps in light liquid service.

(a) (1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in § 261.1063(b), except as provided in paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

- (b) (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- (2) If there are indications of liquids dripping from the pump seal, a leak is detected.
- (c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 261.1059.
- (2) A first attempt at repair (e.g., tightening the packing gland) shall be made no later than five calendar days after each leak is detected.
- (d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the following requirements are met:
 - (1) Each dual mechanical seal system must be:
 - (i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or
 - (ii) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of § 261.1060, or
 - (iii) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to the atmosphere.
 - (2) The barrier fluid system must not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.
 - (3) Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
 - (4) Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.
 - (5) (i) Each sensor as described in paragraph (d)(3) of this section must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.
 - (ii) The remanufacturer or other person that stores or treats the hazardous secondary material must determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
 - (6) (i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii) of this section, a leak is detected.
 - (ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 261.1059.
 - (iii) A first attempt at repair (e.g., relapping the seal) shall be made no later than five calendar days after each leak is detected.
- (e) Any pump that is designated, as described in § 261.1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump meets the following requirements:

- (1) Must have no externally actuated shaft penetrating the pump housing.
- (2) Must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 261.1063(c).
- (3) Must be tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times as requested by the director.
- (f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of § 261.1060, it is exempt from the requirements of paragraphs (a) through (e) of this section.

§ 261.1053 Standards: Compressors.

- (a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in paragraphs (h) and (i) of this section.
- (b) Each compressor seal system as required in paragraph (a) of this section shall be:
 - (1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure, or
 - (2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of § 261.1060, or
 - (3) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to atmosphere.
- (c) The barrier fluid must not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.
- (d) Each barrier fluid system as described in paragraphs (a) through (c) of this section shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
- (e)
 - (1) Each sensor as required in paragraph (d) of this section shall be checked daily or shall be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor must be checked daily.
 - (2) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- (f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under paragraph (e)(2) of this section, a leak is detected.
- (g)
 - (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 261.1059.
 - (2) A first attempt at repair (e.g., tightening the packing gland) shall be made no later than 5 calendar days after each leak is detected.
- (h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section if it is equipped with a closed-vent system capable of capturing and transporting

any leakage from the seal to a control device that complies with the requirements of § 261.1060, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in § 261.1064(g)(2), for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of paragraphs (a) through (h) of this section if the compressor:

(1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in § 261.1063(c).

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times as requested by the director.

§ 261.1054 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in § 261.1063(c).

(b) (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 261.1059.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in § 261.1063(c).

(c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in § 261.1060 is exempt from the requirements of paragraphs (a) and (b) of this section.

§ 261.1055 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall meet one of the following requirements:

(1) Return the purged process fluid directly to the process line;

(2) Collect and recycle the purged process fluid; or

(3) Be designed and operated to capture and transport all the purged process fluid to a material management unit that complies with the applicable requirements of §§ 261.1084 through 264.1086 of this subpart or a control device that complies with the requirements of § 261.1060 of this subpart.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

§ 261.1056 Standards: Open-ended valves or lines.

- (a) (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.
(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous secondary material stream flow through the open-ended valve or line.
- (b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous secondary material stream end is closed before the second valve is closed.
- (c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) of this section at all other times.

§ 261.1057 Standards: Valves in gas/vapor service or in light liquid service.

- (a) Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in § 261.1063(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section and §§ 261.1061 and 261.1062.
- (b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- (c) (1) Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.
(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months.
- (d) (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 261.1059.
(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (e) First attempts at repair include, but are not limited to, the following best practices where practicable:
 - (1) Tightening of bonnet bolts.
 - (2) Replacement of bonnet bolts.
 - (3) Tightening of packing gland nuts.
 - (4) Injection of lubricant into lubricated packing.
- (f) Any valve that is designated, as described in § 261.1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) of this section if the valve:
 - (1) Has no external actuating mechanism in contact with the hazardous secondary material stream.
 - (2) Is operated with emissions less than 500 ppm above background as determined by the method specified in § 261.1063(c).
 - (3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times as requested by the director.

- (g) Any valve that is designated, as described in § 261.1064(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:
- (1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section.
 - (2) The remanufacturer or other person that stores or treats the hazardous secondary material adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
- (h) Any valve that is designated, as described in § 261.1064(h)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:
- (1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.
 - (2) The hazardous secondary material management unit within which the valve is located was in operation before January 13, 2015.
 - (3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

§ 261.1058 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors.

- (a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within five days by the method specified in § 261.1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.
- (b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- (c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 261.1059.
- (2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (d) First attempts at repair include, but are not limited to, the best practices described under § 261.1057(e).
- (e) Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of paragraph (a) of this section and from the recordkeeping requirements of § 261.1064 of this subpart.

§ 261.1059 Standards: Delay of repair.

- (a) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous secondary material management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous secondary material management unit shutdown.
- (b) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the hazardous secondary material management unit and that does not continue to contain or contact hazardous secondary material with organic concentrations at least 10 percent by weight.
- (c) Delay of repair for valves will be allowed if:

- (1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.
 - (2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 261.1060.
- (d) Delay of repair for pumps will be allowed if:
 - (1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.
 - (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
- (e) Delay of repair beyond a hazardous secondary material management unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the hazardous secondary material management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous secondary material management unit shutdown will not be allowed unless the next hazardous secondary material management unit shutdown occurs sooner than 6 months after the first hazardous secondary material management unit shutdown.

§ 261.1060 Standards: Closed-vent systems and control devices.

- (a) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management units using closed-vent systems and control devices subject to this subpart shall comply with the provisions of § 261.1033 of this part.
- (b)
 - (1) The remanufacturer or other person that stores or treats the hazardous secondary material at an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this subpart on the effective date that the facility becomes subject to the provisions of this subpart must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this subpart for installation and startup.
 - (2) Any unit that begins operation after July 13, 2015 and is subject to the provisions of this subpart when operation begins, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.
 - (3) The remanufacturer or other person that stores or treats the hazardous secondary material at any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this subpart shall comply with all requirements of this subpart as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by this subpart cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific

calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this subpart. The remanufacturer or other person that stores or treats the hazardous secondary material shall keep a copy of the implementation schedule at the facility.

(4) Remanufacturers or other persons that store or treat the hazardous secondary materials at facilities and units that become newly subject to the requirements of this subpart after January 13, 2015, due to an action other than those described in paragraph (b)(3) of this section must comply with all applicable requirements immediately (i.e., must have control devices installed and operating on the date the facility or unit becomes subject to this subpart; the 30-month implementation schedule does not apply).

§ 261.1061 Alternative standards for valves in gas/vapor service or in light liquid service: percentage of valves allowed to leak.

(a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of § 261.1057 may elect to have all valves within a hazardous secondary material management unit comply with an alternative standard that allows no greater than 2 percent of the valves to leak.

(b) The following requirements shall be met if a remanufacturer or other person that stores or treats the hazardous secondary material decides to comply with the alternative standard of allowing 2 percent of valves to leak:

(1) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the director.

(2) If a valve leak is detected, it shall be repaired in accordance with § 261.1057(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves subject to the requirements in § 261.1057 within the hazardous secondary material management unit shall be monitored within 1 week by the methods specified in § 261.1063(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves subject to the requirements in § 261.1057 for which leaks are detected by the total number of valves subject to the requirements in § 261.1057 within the hazardous secondary material management unit.

§ 261.1062 Alternative standards for valves in gas/vapor service or in light liquid service: skip period leak detection and repair.

(a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of § 261.1057 may elect for all valves within a hazardous secondary material management unit to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

- (b) (1) A remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements for valves, as described in § 261.1057, except as described in paragraphs (b)(2) and (3) of this section.
- (2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip one of the quarterly leak detection periods (i.e., monitor for leaks once every six months) for the valves subject to the requirements in § 261.1057 of this subpart.
- (3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip three of the quarterly leak detection periods (i.e., monitor for leaks once every year) for the valves subject to the requirements in § 261.1057 of this subpart.
- (4) If the percentage of valves leaking is greater than two percent, the remanufacturer or other person that stores or treats the hazardous secondary material shall monitor monthly in compliance with the requirements in § 261.1057, but may again elect to use this section after meeting the requirements of § 261.1057(c)(1).

§ 261.1063 Test methods and procedures.

- (a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this subpart shall comply with the test methods and procedures requirements provided in this section.
- (b) Leak detection monitoring, as required in §§ 261.1052-261.1062, shall comply with the following requirements:
- (1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.
 - (2) The detection instrument shall meet the performance criteria of Reference Method 21.
 - (3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
 - (4) Calibration gases shall be:
 - (i) Zero air (less than 10 ppm of hydrocarbon in air).
 - (ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
 - (5) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.
- (c) When equipment is tested for compliance with no detectable emissions, as required in §§ 261.1052(e), 261.1053(i), 261.1054, and 261.1057(f), the test shall comply with the following requirements:
- (1) The requirements of paragraphs (b)(1) through (4) of this section shall apply.
 - (2) The background level shall be determined as set forth in Reference Method 21.
 - (3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

- (4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- (d) A remanufacturer or other person that stores or treats the hazardous secondary material must determine, for each piece of equipment, whether the equipment contains or contacts a hazardous secondary material with organic concentration that equals or exceeds 10 percent by weight using the following:
- (1) Methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85 (incorporated by reference under § 260.11);
 - (2) Method 9060A (incorporated by reference under 40 CFR 260.11) of "Test Methods for Evaluating Solid Waste," EPA Publication SW-846, for computing total organic concentration of the sample, or analyzed for its individual organic constituents; or
 - (3) Application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced. Documentation of a material determination by knowledge is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same material stream where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.
- (e) If a remanufacturer or other person that stores or treats the hazardous secondary material determines that a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in paragraph (d)(1) or (2) of this section.
- (f) When a remanufacturer or other person that stores or treats the hazardous secondary material and the director do not agree on whether a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the procedures in paragraph (d)(1) or (2) of this section can be used to resolve the dispute.
- (g) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous secondary material that is expected to be contained in or contact the equipment.
- (h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D-2879-86 (incorporated by reference under § 260.11).
- (i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction shall comply with the procedures of § 261.1034(c)(1) through (4).

§ 261.1064 Recordkeeping requirements.

- (a)
 - (1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.
 - (2) A remanufacturer or other person that stores or treats the hazardous secondary material in more than one hazardous secondary material management unit subject to the provisions of this subpart may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.
- (b) Remanufacturer's and other person's that store or treat the hazardous secondary material must record and keep the following information at the facility:
 - (1) For each piece of equipment to which subpart BB of part 261 applies:
 - (i) Equipment identification number and hazardous secondary material management unit identification.
 - (ii) Approximate locations within the facility (e.g., identify the hazardous secondary material management unit on a facility plot plan).
 - (iii) Type of equipment (e.g., a pump or pipeline valve).
 - (iv) Percent-by-weight total organics in the hazardous secondary material stream at the equipment.
 - (v) Hazardous secondary material state at the equipment (e.g., gas/vapor or liquid).
 - (vi) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").
 - (3) Where a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in § 261.1035(b)(3).
 - (4) Documentation of compliance with § 261.1060, including the detailed design documentation or performance test results specified in § 261.1035(b)(4).
- (c) When each leak is detected as specified in §§ 261.1052, 261.1053, 261.1057, and 261.1058, the following requirements apply:
 - (1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with § 261.1058(a), and the date the leak was detected, shall be attached to the leaking equipment.
 - (2) The identification on equipment, except on a valve, may be removed after it has been repaired.
 - (3) The identification on a valve may be removed after it has been monitored for two successive months as specified in § 261.1057(c) and no leak has been detected during those two months.
- (d) When each leak is detected as specified in §§ 261.1052, 261.1053, 261.1057, and 261.1058, the following information shall be recorded in an inspection log and shall be kept at the facility:
 - (1) The instrument and operator identification numbers and the equipment identification number.

- (2) The date evidence of a potential leak was found in accordance with § 261.1058(a).
 - (3) The date the leak was detected and the dates of each attempt to repair the leak.
 - (4) Repair methods applied in each attempt to repair the leak.
 - (5) "Above 10,000" if the maximum instrument reading measured by the methods specified in § 261.1063(b) after each repair attempt is equal to or greater than 10,000 ppm.
 - (6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - (7) Documentation supporting the delay of repair of a valve in compliance with § 261.1059(c).
 - (8) The signature of the remanufacturer or other person that stores or treats the hazardous secondary material (or designate) whose decision it was that repair could not be effected without a hazardous secondary material management unit shutdown.
 - (9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
 - (10) The date of successful repair of the leak.
- (e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of § 261.1060 shall be recorded and kept up-to-date at the facility as specified in § 261.1035(c). Design documentation is specified in § 261.1035(c)(1) and (2) and monitoring, operating, and inspection information in § 261.1035(c)(3) through (8).
- (f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the director will specify the appropriate recordkeeping requirements.
- (g) The following information pertaining to all equipment subject to the requirements in §§ 261.1052 through 261.1060 shall be recorded in a log that is kept at the facility:
- (1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this subpart.
 - (2)
 - (i) A list of identification numbers for equipment that the remanufacturer or other person that stores or treats the hazardous secondary material elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of §§ 261.1052(e), 261.1053(i), and 261.1057(f).
 - (ii) The designation of this equipment as subject to the requirements of §§ 261.1052(e), 261.1053(i), or 261.1057(f) shall be signed by the remanufacturer or other person that stores or treats the hazardous secondary material.
 - (3) A list of equipment identification numbers for pressure relief devices required to comply with § 261.1054(a).
 - (4)
 - (i) The dates of each compliance test required in §§ 261.1052(e), 261.1053(i), 261.1054, and 261.1057(f).
 - (ii) The background level measured during each compliance test.

- (iii) The maximum instrument reading measured at the equipment during each compliance test.
- (5) A list of identification numbers for equipment in vacuum service.
- (6) Identification, either by list or location (area or group) of equipment that contains or contacts hazardous secondary material with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year.
- (h) The following information pertaining to all valves subject to the requirements of § 261.1057(g) and (h) shall be recorded in a log that is kept at the facility:
 - (1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.
 - (2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.
- (i) The following information shall be recorded in a log that is kept at the facility for valves complying with § 261.1062:
 - (1) A schedule of monitoring.
 - (2) The percent of valves found leaking during each monitoring period.
- (j) The following information shall be recorded in a log that is kept at in the facility:
 - (1) Criteria required in §§ 261.1052(d)(5)(ii) and 261.1053(e)(2) and an explanation of the design criteria.
 - (2) Any changes to these criteria and the reasons for the changes.
- (k) The following information shall be recorded in a log that is kept at the facility for use in determining exemptions as provided in the applicability section of this subpart and other specific subparts:
 - (1) An analysis determining the design capacity of the hazardous secondary material management unit.
 - (2) A statement listing the hazardous secondary material influent to and effluent from each hazardous secondary material management unit subject to the requirements in §§ 261.1052 through 261.1060 and an analysis determining whether these hazardous secondary materials are heavy liquids.
 - (3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in §§ 261.1052 through 261.1060. The record shall include supporting documentation as required by § 261.1063(d)(3) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action (e.g., changing the process that produced the material) that could result in an increase in the total organic content of the material contained in or contacted by equipment determined not to be subject to the requirements in §§ 261.1052 through 261.1060, then a new determination is required.
- (l) Records of the equipment leak information required by paragraph (d) of this section and the operating information required by paragraph (e) of this section need be kept only three years.

(m) The remanufacturer or other person that stores or treats the hazardous secondary material at a facility with equipment that is subject to this subpart and to regulations at 40 CFR part 60, part 61, or part 63 may elect to determine compliance with this subpart either by documentation pursuant to § 261.1064 of this subpart, or by documentation of compliance with the regulations at 40 CFR part 60, part 61, or part 63 pursuant to the relevant provisions of the regulations at 40 CFR part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with or made readily available at the facility.

§§ 261.1065-261.1079 [Reserved]

Subpart CC—Air Emission Standards for Tanks and Containers

§ 261.1080 Applicability.

(a) The regulations in this subpart apply to tanks and containers that contain hazardous secondary materials excluded under the remanufacturing exclusion at § 261.4(a)(27), unless the tanks and containers are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulations codified under 40 CFR part 60, part 61, or part 63.

(b) [Reserved]

§ 261.1081 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given to them in the Resource Conservation and Recovery Act and parts 260 through 266 of this chapter.

Average volatile organic concentration or average VO concentration means the mass-weighted average volatile organic concentration of a hazardous secondary material as determined in accordance with the requirements of § 261.1084 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 secondary material 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.

Empty hazardous secondary material container means:

- (1) A container from which all hazardous secondary materials have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and no more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner;
- (2) A container that is less than or equal to 119 gallons in size and no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner; or
- (3) A container that is greater than 119 gallons in size and no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner.

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 secondary material 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 °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 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 secondary material 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.

Material determination means performing all applicable procedures in accordance with the requirements of § 261.1084 of this subpart to determine whether a hazardous secondary material meets standards specified in this subpart. Examples of a

material determination include performing the procedures in accordance with the requirements of § 261.1084 of this subpart to determine the average VO concentration of a hazardous secondary material at the point of material origination; the average VO concentration of a hazardous secondary material at the point of material treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous secondary material; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous secondary material and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous secondary material in a tank and comparing the results to the applicable standards.

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 materials, 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 § 261.1084(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 § 261.1084(d) of this subpart.

Point of material origination means as follows:

(1) When the remanufacturer or other person that stores or treats the hazardous secondary material is the generator of the hazardous secondary material, the point of material origination means the point where a material produced by a system, process, or material management unit is determined to be a hazardous secondary material excluded under § 261.4(a)(27).

Note to paragraph (1) of the definition of Point of material origination: 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 under authority of the Clean Air Act in 40 CFR parts 60, 61, and 63.

(2) When the remanufacturer or other person that stores or treats the hazardous secondary material is not the generator of the hazardous secondary material, point of material origination means the point where the remanufacturer or other person that stores or treats the hazardous secondary material accepts delivery or takes possession of the hazardous secondary material.

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 remanufacturer or other person that stores or treats the hazardous secondary material 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 secondary material 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 secondary material expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the material in accordance with the requirements of § 261.1084 of this subpart. For the purpose of determining the VO concentration of a hazardous secondary material, 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 degrees Celsius must be included.

§ 261.1082 Standards: General.

(a) This section applies to the management of hazardous secondary material in tanks and containers subject to this subpart.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each hazardous secondary material management unit in accordance with standards specified in §§ 261.1084 through 261.1087 of this subpart, as applicable to the hazardous secondary material management unit, except as provided for in paragraph (c) of this section.

(c) A tank or container is exempt from standards specified in §§ 261.1084 through 261.1087 of this subpart, as applicable, provided that the hazardous secondary material management unit is a tank or container for which all hazardous secondary material entering the unit has an average VO concentration at the point of material origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in § 261.1083(a) of this subpart. The remanufacturer or other person that stores or treats the hazardous secondary material shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous secondary material streams entering the unit.

§ 261.1083 Material determination procedures.

(a) Material determination procedure to determine average volatile organic (VO) concentration of a hazardous secondary material at the point of material origination.

(1) Determining average VO concentration at the point of material origination. A remanufacturer or other person that stores or treats the hazardous secondary material shall determine the average VO concentration at the point of material origination for each hazardous secondary material placed in a hazardous secondary material management unit exempted under the provisions of §261.1082(c) from using air emission controls in accordance with standards specified in §§ 261.1084 through 261.1087 of this subpart, as applicable to the hazardous secondary material management unit.

(i) An initial determination of the average VO concentration of the material stream shall be made before the first time any portion of the material in the hazardous secondary material stream is placed in a hazardous secondary material management unit exempted under the provisions of §261.1082(c) from using air emission controls, and thereafter an initial determination of the average VO concentration of the material stream shall be made for each averaging period that a hazardous secondary material is managed in the unit; and

(ii) Perform a new material determination whenever changes to the source generating the material stream are reasonably likely to cause the average VO concentration of the hazardous secondary material to increase to a level that is equal to or greater than the applicable VO concentration limits specified in § 261.1082 of this subpart.

(2) Determination of average VO concentration using direct measurement or knowledge. For a material determination that is required by paragraph (a)(1) of this section, the average VO concentration of a hazardous secondary material at the point of material origination shall be determined using either direct measurement as specified in paragraph (a)(3) of this section or by knowledge as specified in paragraph (a)(4) of this section.

(3) Direct measurement to determine average VO concentration of a hazardous secondary material at the point of material origination—

(i) Identification. The remanufacturer or other person that stores or treats the hazardous secondary material shall identify and record in a log that is kept at the facility the point of material origination for the hazardous secondary material.

(ii) Sampling. Samples of the hazardous secondary material stream shall be collected at the point of material origination in a manner such that volatilization of organics contained in the material and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VO concentration for the hazardous secondary material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the remanufacturer or other person that stores or treats the hazardous secondary material determines is appropriate for the hazardous secondary material stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected and analyzed for a hazardous secondary material determination. All of the samples for a given material determination shall be collected within a one-hour period. The average of the four or more sample results constitutes a material determination for the material stream. One or more material determinations may be required to represent the complete range of material compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous secondary material stream. Examples of such normal variations are seasonal variations in material quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous secondary material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in 40 CFR part 60, appendix A.

(D) Sufficient information, as specified in the "site sampling plan" required under paragraph (a)(3)(ii)(C) of this section, shall be prepared and recorded to document the material quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous secondary material represented by the samples.

(iii) Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR part 60, appendix A for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified and summed and the summed material concentration accounts for and reflects all organic compounds in the material with Henry's law constant values 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. At the discretion of the remanufacturer or other person that stores or treats the hazardous secondary material, the test data obtained may be adjusted by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than $0.1 Y/X$ at 25 degrees Celsius. To adjust these data, the measured concentration of each individual chemical constituent contained in the material is multiplied by the appropriate

constituent-specific adjustment factor (f_{m25D}). If the remanufacturer or other person that stores or treats the hazardous secondary material elects to adjust the test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 degrees Celsius contained in the material. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in paragraph (a)(3)(iii)(A) or (B) of this section and provided the requirement to reflect all organic compounds in the material with Henry's law constant values greater than or equal to 0.1 Y/X [which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/ m^3] at 25 degrees Celsius, is met.

(A) Any EPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods," 40 CFR part 63, appendix D.

(B) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR part 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

(iv) Calculations.

(A) The average VO concentration (\bar{C}) on a mass-weighted basis shall be calculated by using the results for all material determinations conducted in accordance with paragraphs (a)(3)(ii) and (iii) of this section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

Where:

\bar{C} = Average VO concentration of the hazardous secondary material at the point of material origination on a mass-weighted basis, ppmw.

i = Individual material determination "i" of the hazardous secondary material.

n = Total number of material determinations of the hazardous secondary material conducted for the averaging period (not to exceed 1 year).

Q_i = Mass quantity of hazardous secondary material stream represented by C_i , kg/hr.

Q_T = Total mass quantity of hazardous secondary material during the averaging period, kg/hr.

C_i = Measured VO concentration of material determination “i” as determined in accordance with the requirements of paragraph (a)(3)(iii) of this section (i.e. the average of the four or more samples specified in paragraph (a)(3)(ii)(B) of this section), ppmw.
(B) For the purpose of determining C_i , for individual material samples analyzed in accordance with paragraph (a)(3)(iii) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

- (1) If Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in 40 CFR part 60, appendix A.
 - (2) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the material that has a Henry's law constant values 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.
- (4) Use of knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material to determine average VO concentration of a hazardous secondary material at the point of material origination.
- (i) Documentation shall be prepared that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material of the hazardous secondary material stream's average VO concentration. Examples of information that may be used as the basis for knowledge include: Material balances for the source or process generating the hazardous secondary material stream; constituent-specific chemical test data for the hazardous secondary material stream from previous testing that are still applicable to the current material stream; previous test data for other locations managing the same type of material stream; or other knowledge based on information included in shipping papers or material certification notices.
 - (ii) If test data are used as the basis for knowledge, then the remanufacturer or other person that stores or treats the hazardous secondary material shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, a remanufacturer or other person that stores or treats the hazardous secondary material may use organic concentration test data for the hazardous secondary material stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A as the basis for knowledge of the material.

(iii) A remanufacturer or other person that stores or treats the hazardous secondary material using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous secondary material may adjust the test data to the corresponding average VO concentration value which would have been obtained had the material samples been analyzed using Method 25D in 40 CFR part 60, appendix A. To adjust these data, the measured concentration for each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}).

(iv) In the event that the director and the remanufacturer or other person that stores or treats the hazardous secondary material disagree on a determination of the average VO concentration for a hazardous secondary material stream using knowledge, then the results from a determination of average VO concentration using direct measurement as specified in paragraph (a)(3) of this section shall be used to establish compliance with the applicable requirements of this subpart. The director may perform or request that the remanufacturer or other person that stores or treats the hazardous secondary material perform this determination using direct measurement. The remanufacturer or other person that stores or treats the hazardous secondary material may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of paragraph (a)(3)(iii) of this section.

(b) [Reserved]

(c) Procedure to determine the maximum organic vapor pressure of a hazardous secondary material in a tank.

(1) A remanufacturer or other person that stores or treats the hazardous secondary material shall determine the maximum organic vapor pressure for each hazardous secondary material placed in a tank using Tank Level 1 controls in accordance with standards specified in § 261.1084(c) of this subpart.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material shall use either direct measurement as specified in paragraph (c)(3) of this section or knowledge of the waste as specified by paragraph (c)(4) of this section to determine the maximum organic vapor pressure which is representative of the hazardous secondary material composition stored or treated in the tank.

(3) Direct measurement to determine the maximum organic vapor pressure of a hazardous secondary material.

(i) Sampling. A sufficient number of samples shall be collected to be representative of the hazardous secondary material contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous secondary material are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is

maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures may be found in Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous secondary material:

(A) Method 25E in 40 CFR part 60 appendix A;

(B) Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks," (incorporated by reference—refer to § 260.11 of this chapter);

(C) Methods obtained from standard reference texts;

(D) ASTM Method 2879-92 (incorporated by reference—refer to § 260.11 of this chapter); and

(E) Any other method approved by the director.

(4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous secondary material. Documentation shall be prepared and recorded that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material that the maximum organic vapor pressure of the hazardous secondary material is less than the maximum vapor pressure limit listed in § 261.1084(b)(1)(i) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous secondary material is generated by a process for which at other locations it previously has been determined by direct measurement that the hazardous secondary material's waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

(d) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart:

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: The interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve.

(2) The test shall be performed when the unit contains a hazardous secondary material having an organic concentration representative of the range of concentrations for the hazardous secondary material expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic

constituents in the hazardous secondary material placed in the hazardous secondary management unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air), and

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 of 40 CFR part 60, appendix A. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison shall be as specified in paragraph (d)(9) of this section. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

§ 261.1084 Standards: tanks.

(a) The provisions of this section apply to the control of air pollutant emissions from tanks for which § 261.1082(b) of this subpart references the use of this section for such air emission control.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each tank subject to this section in accordance with the following requirements as applicable:

(1) For a tank that manages hazardous secondary material that meets all of the conditions specified in paragraphs (b)(1)(i) through (iii) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in paragraph (c) of this section or the Tank Level 2 controls specified in paragraph (d) of this section.

(i) The hazardous secondary material in the tank has a maximum organic vapor pressure which is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:

(A) For a tank design capacity equal to or greater than 151 m³, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

(B) For a tank design capacity equal to or greater than 75 m³ but less than 151 m³, the maximum organic vapor pressure limit for the tank is 27.6 kPa.

(C) For a tank design capacity less than 75 m³, the maximum organic vapor pressure limit for the tank is 76.6 kPa.

(ii) The hazardous secondary material in the tank is not heated by the remanufacturer or other person that stores or treats the hazardous secondary material to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous secondary material is determined for the purpose of complying with paragraph (b)(1)(i) of this section.

(2) For a tank that manages hazardous secondary material that does not meet all of the conditions specified in paragraphs (b)(1)(i) through (iii) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section. An example of tanks required to use Tank Level 2 controls is a tank for which the hazardous secondary material in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in paragraph (b)(1)(i) of this section.

(c) Remanufacturers or other persons that store or treats the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in paragraphs (c)(1) through (4) of this section:

(1) The remanufacturer or other person that stores or treats that hazardous secondary material shall determine the maximum organic vapor pressure for a hazardous secondary material to be managed in the tank using Tank Level 1 controls before the first time the hazardous secondary material is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in § 261.1083(c) of this subpart. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform a new determination whenever changes to the hazardous secondary material managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in paragraph (b)(1)(i) of this section, as applicable to the tank.

(2) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous secondary material in the tank. The fixed roof may be a separate cover

installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

(ii) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(iii) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(A) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(B) Connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever hazardous secondary material is managed in the tank, except as provided for in paragraphs (c)(2)(iii)(B)(1) and (2) of this section.

(1) During periods when it is necessary to provide access to the tank for performing the activities of paragraph (c)(2)(iii)(B)(2) of this section, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

(2) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.

(iv) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the hazardous secondary material or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(3) Whenever a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(i) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of tank.

(ii) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on the tank 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. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(iii) Opening of a safety device, as defined in § 261.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the air emission control equipment in accordance with the following requirements.

(i) The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to

this section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except under the special conditions provided for in paragraph (l) of this section.

(iii) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (k) of this section.

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in § 261.1089(b) of this subpart.

(d) Remanufacturers or other persons that store or treat the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in paragraph (e) of this section;

(2) A tank equipped with an external floating roof in accordance with the requirements specified in paragraph (f) of this section;

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in paragraph (g) of this section;

(4) A pressure tank designed and operated in accordance with the requirements specified in paragraph (h) of this section; or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in paragraph (i) of this section.

(e) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in paragraphs (e)(1) through (3) of this section.

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in § 261.1081; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

- (B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.
 - (C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.
 - (D) Each automatic bleeder vent and rim space vent shall be gasketed.
 - (E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
 - (F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (2) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with the following requirements:
- (i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.
 - (ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.
 - (iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed (i.e., no visible gaps). Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.
- (3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof in accordance with the procedures specified as follows:
- (i) The floating roof and its closure devices shall be visually inspected by the remanufacture or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: The internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous secondary material surface from the atmosphere; or the slotted membrane has more than 10 percent open area.
 - (ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof components as follows except as provided in paragraph (e)(3)(iii) of this section:

- (A) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
- (B) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 10 years.

(iii) As an alternative to performing the inspections specified in paragraph (e)(3)(ii) of this section for an internal floating roof equipped with two continuous seals mounted one above the other, the remanufacturer or other person that stores or treats the hazardous secondary material may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every five years.

(iv) Prior to each inspection required by paragraph (e)(3)(ii) or (iii) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director in advance of each inspection to provide the director with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director of the date and location of the inspection as follows:

(A) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in paragraph (e)(3)(iv)(B) of this section.

(B) When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the director at least seven calendar days before refilling the tank.

(v) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (k) of this section.

(vi) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in

accordance with the requirements specified in § 261.1089(b) of this subpart.

(4) Safety devices, as defined in § 261.1081, may be installed and operated as necessary on any tank complying with the requirements of paragraph (e) of this section.

(f) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in paragraphs (f)(1) through (3) of this section.

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in 40 CFR 261.1081. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters (cm²) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm). If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters (cm²) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters (cm).

(iii) The external floating roof shall meet the following specifications:

(A) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vent shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device must be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well must be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the external floating roof in accordance with the procedures specified as follows:

(i) The remanufacturer or other person that stores or treats the hazardous secondary material shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years.

(B) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

(C) If a tank ceases to hold hazardous secondary material for a period of 1 year or more, subsequent introduction of hazardous secondary material into the tank shall be considered an initial operation for the purposes of paragraphs (f)(3)(i)(A) and (B) of this section.

(D) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure:

(1) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(2) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

(3) For a seal gap measured under paragraph (f)(3) of this section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(4) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in paragraph (f)(1)(ii) of this section.

(E) In the event that the seal gap measurements do not conform to the specifications in paragraph (f)(1)(ii) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (k) of this section.

(F) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in § 261.1089(b) of this subpart.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: Holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to this section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except for the special conditions provided for in paragraph (l) of this section.

(C) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (k) of this section.

(D) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in § 261.1089(b) of this subpart.

(iii) Prior to each inspection required by paragraph (f)(3)(i) or (ii) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director in advance of each inspection to provide the director with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director of the date and location of the inspection as follows:

(A) Prior to each inspection to measure external floating roof seal gaps as required under paragraph (f)(3)(i) of this section, written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material

so that it is received by the director at least 30 calendar days before the date the measurements are scheduled to be performed.

(B) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in paragraph (f)(3)(iii)(C) of this section.

(C) When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the director as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the director at least seven calendar days before refilling the tank.

(4) Safety devices, as defined in § 261.1081, may be installed and operated as necessary on any tank complying with the requirements of paragraph (f) of this section.

(g) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in paragraphs (g)(1) through (3) of this section.

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of

the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 261.1087 of this subpart.

(2) Whenever a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of a tank.

(ii) Opening of a safety device, as defined in § 261.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(i) The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in § 261.1087 of this subpart.

(iii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to

this section. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except for the special conditions provided for in paragraph (l) of this section.

(iv) In the event that a defect is detected, the remanufacture or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (k) of this section.

(v) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in § 261.1089(b) of this subpart.

(h) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in § 261.1083(d) of this subpart.

(3) Whenever a hazardous secondary material is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under either or the following conditions as specified in paragraph (h)(3)(i) or (h)(3)(ii) of this section.

(i) At those times when opening of a safety device, as defined in § 261.1081 of this subpart, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of § 261.1087 of this subpart.

(i) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in paragraphs (i)(1) through (4) of this section.

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in § 261.1087 of this subpart.

(3) Safety devices, as defined in § 261.1081, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of paragraphs (i)(1) and (2) of this section.

(4) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system and control device as specified in § 261.1087 of this subpart.

(j) The remanufacturer or other person that stores or treats the hazardous secondary material shall transfer hazardous secondary material to a tank subject to this section in accordance with the following requirements:

(1) Transfer of hazardous secondary material, except as provided in paragraph (j)(2) of this section, to the tank from another tank subject to this section shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous secondary material to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR part 63, subpart RR—National Emission Standards for Individual Drain Systems.

(2) The requirements of paragraph (j)(1) of this section do not apply when transferring a hazardous secondary material to the tank under any of the following conditions:

(i) The hazardous secondary material meets the average VO concentration conditions specified in §261.1082(c) at the point of material origination.

(ii) The hazardous secondary material has been treated by an organic destruction or removal process to meet the requirements in §264.1082(c)(2).

(iii) The hazardous secondary material meets the requirements of §264.1082(c)(4).

(k) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair each defect detected during an inspection performed in accordance with the requirements of paragraph (c)(4), (e)(3), (f)(3), or (g)(3) of this section as follows:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (k)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if the remanufacturer or other person that stores or treats the hazardous secondary material determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous secondary material normally managed in the tank. In this case, the remanufacturer or other person that stores or treats the

hazardous secondary material shall repair the defect the next time the process or unit that is generating the hazardous secondary material managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this subpart, subsequent inspection and monitoring may be performed at intervals longer than 1 year under the following special conditions:

(1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the remanufacturer or other person that stores or treats the hazardous secondary material may designate a cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:

(i) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(ii) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of this subpart, as frequently as practicable during those times when a worker can safely access the cover.

(2) In the case when a tank is buried partially or entirely underground, a remanufacturer or other person that stores or treats the hazardous secondary material is required to inspect and monitor, as required by the applicable provisions of this section, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface.

§ 261.1085 [Reserved]

§ 261.1086 Standards: containers.

(a) Applicability. The provisions of this section apply to the control of air pollutant emissions from containers for which § 261.1082(b) of this subpart references the use of this section for such air emission control.

(b) General requirements.

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each container subject to this section in accordance with the following requirements, as applicable to the container.

(i) For a container having a design capacity greater than 0.1 m³ and less than or equal to 0.46 m³, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in paragraph (c) of this section.

(ii) For a container having a design capacity greater than 0.46 m³ that is not in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in paragraph (c) of this section.

(iii) For a container having a design capacity greater than 0.46 m³ that is in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in paragraph (d) of this section.

(2) [Reserved]

(c) Container Level 1 standards.

(1) A container using Container Level 1 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section.

(ii) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap).

(iii) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous secondary material in the container such that no hazardous secondary material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(2) A container used to meet the requirements of paragraph (c)(1)(ii) or (iii) of this section shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous secondary material to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of contact with the hazardous secondary material or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(3) Whenever a hazardous secondary material is in a container using Container Level 1 controls, the remanufacturer or other person that stores or treats the hazardous secondary material shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person that stores or treats the hazardous secondary material shall

promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the hazardous secondary material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(A) For the purpose of meeting the requirements of this section, an empty hazardous secondary material container may be open to the atmosphere at any time (i.e., covers and closure devices on such a container are not required to be secured in the closed position).

(B) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate

with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other persons that stores or treats the hazardous secondary material based on container 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. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in 40 CFR 261.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., is not an empty hazardous secondary material container) the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the subpart CC container standards).

(ii) In the case when a container used for managing hazardous secondary material remains at the facility for a period of 1 year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (c)(4)(iii) of this section.

(iii) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later

than 24 hours after detection and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(5) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m³ or greater, which do not meet applicable DOT regulations as specified in paragraph (f) of this section, are not managing hazardous secondary material in light material service.

(d) Container Level 2 standards.

(1) A container using Container Level 2 controls is one of the following:

- (i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section.
- (ii) A container that operates with no detectable organic emissions as defined in § 261.1081 and determined in accordance with the procedure specified in paragraph (g) of this section.
- (iii) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in paragraph (h) of this section.

(2) Transfer of hazardous secondary material in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the state department of health considers to meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(3) Whenever a hazardous secondary material is in a container using Container Level 2 controls, the remanufacturer or other person that stores or treats the hazardous secondary material shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

- (i) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(A) For the purpose of meeting the requirements of this section, an empty hazardous secondary material container may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

(B) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary materials container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to

the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on container 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. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in § 261.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacture or other person that stores or treats the hazardous secondary material using containers with Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., is not an empty hazardous secondary material container), the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the subpart CC container standards).

(ii) In the case when a container used for managing hazardous secondary material remains at the facility for a period of 1 year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (d)(4)(iii) of this section.

(iii) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(e) Container Level 3 standards.

(1) A container using Container Level 3 controls is one of the following:

(i) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of paragraph (e)(2)(ii) of this section.

(ii) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of paragraphs (e)(2)(i) and (ii) of this section.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall meet the following requirements, as applicable to the type of air emission control equipment selected by the remanufacturer or other person that stores or treats the hazardous secondary material:

(i) The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 261.1087 of this subpart.

(3) Safety devices, as defined in § 261.1081, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of paragraph (e)(1) of this section.

(4) Remanufacturers or other persons that store or treat the hazardous secondary material using Container Level 3 controls in accordance with the provisions of this subpart shall inspect and monitor the closed-vent systems and control devices as specified in § 261.1087 of this subpart.

(5) Remanufacturers or other persons that store or treat the hazardous secondary material that use Container Level 3 controls in accordance with the

provisions of this subpart shall prepare and maintain the records specified in § 261.1089(d) of this subpart.

(6) Transfer of hazardous secondary material in or out of a container using Container Level 3 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the state department of health considers to meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(f) For the purpose of compliance with paragraph (c)(1)(i) or (d)(1)(i) of this section, containers shall be used that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178 or part 179.

(2) Hazardous secondary material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B and 49 CFR parts 172, 173, and 180.

(3) For the purpose of complying with this subpart, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed.

(g) To determine compliance with the no detectable organic emissions requirement of paragraph (d)(1)(ii) of this section, the procedure specified in § 261.1083(d) of this subpart shall be used.

(1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous secondary materials expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

(h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR part 60, appendix A for the purpose of complying with paragraph (d)(1)(iii) of this section.

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A of this chapter.

(2) A pressure measurement device shall be used that has a precision of ± 2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

§ 261.1087 Standards: Closed-vent systems and control devices.

(a) This section applies to each closed-vent system and control device installed and operated by the remanufacturer or other person who stores or treats the hazardous secondary material to control air emissions in accordance with standards of this subpart.

(b) The closed-vent system shall meet the following requirements:

(1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous secondary material in the hazardous secondary material management unit to a control device that meets the requirements specified in paragraph (c) of this section.

(2) The closed-vent system shall be designed and operated in accordance with the requirements specified in § 261.1033(k) of this part.

(3) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in paragraph (b)(3)(i) of this section or a seal or locking device as specified in paragraph (b)(3)(ii) of this section. For the purpose of complying with this paragraph, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(i) If a flow indicator is used to comply with paragraph (b)(3) of this section, the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For this paragraph, a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

(ii) If a seal or locking device is used to comply with paragraph (b)(3) of this section, the device shall be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

- (4) The closed-vent system shall be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedure specified in § 261.1033(l).
- (c) The control device shall meet the following requirements:
- (1) The control device shall be one of the following devices:
- (i) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;
 - (ii) An enclosed combustion device designed and operated in accordance with the requirements of § 261.1033(c) of this part; or
 - (iii) A flare designed and operated in accordance with the requirements of § 261.1033(d) of this part.
- (2) The remanufacturer or other person that stores or treats the hazardous secondary material who elects to use a closed-vent system and control device to comply with the requirements of this section shall comply with the requirements specified in paragraphs (c)(2)(i) through (vi) of this section.
- (i) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of paragraph (c)(1)(i), (ii), or (iii) of this section, as applicable, shall not exceed 240 hours per year.
 - (ii) The specifications and requirements in paragraphs (c)(1)(i) through (iii) of this section for control devices do not apply during periods of planned routine maintenance.
 - (iii) The specifications and requirements in paragraphs (c)(1)(i) through (iii) of this section for control devices do not apply during a control device system malfunction.
 - (iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate compliance with the requirements of paragraph (c)(2)(i) of this section (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of paragraph (c)(1)(i), (ii), or (iii) of this section, as applicable, shall not exceed 240 hours per year) by recording the information specified in § 261.1089(e)(1)(v) of this subpart.
 - (v) The remanufacturer or other person that stores or treats the hazardous secondary material shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.
 - (vi) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally) except in cases when it is necessary to vent the gases, vapors, and/or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material using a carbon adsorption system to comply with paragraph (c)(1) of this section shall operate and maintain the control device in accordance with the following requirements:

- (i) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of § 261.1033(g) or (h) of this part.
- (ii) All carbon that is hazardous waste and that is removed from the control device shall be managed in accordance with the requirements of § 261.1033(n), regardless of the average volatile organic concentration of the carbon.

(4) A remanufacturer or other person that stores or treats the hazardous secondary material using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with paragraph (c)(1) of this section shall operate and maintain the control device in accordance with the requirements of § 261.1033(j) of this part.

(5) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a control device achieves the performance requirements of paragraph (c)(1) of this section as follows:

- (i) A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate using either a performance test as specified in paragraph (c)(5)(iii) of this section or a design analysis as specified in paragraph (c)(5)(iv) of this section the performance of each control device except for the following:

- (A) A flare;
- (B) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;
- (C) A boiler or process heater into which the vent stream is introduced with the primary fuel;

- (ii) A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate the performance of each flare in accordance with the requirements specified in § 261.1033(e).

- (iii) For a performance test conducted to meet the requirements of paragraph (c)(5)(i) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall use the test methods and procedures specified in § 261.1034(c)(1) through (4).

- (iv) For a design analysis conducted to meet the requirements of paragraph (c)(5)(i) of this section, the design analysis shall meet the requirements specified in § 261.1035(b)(4)(iii).

- (v) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a carbon adsorption system achieves the performance requirements of paragraph (c)(1) of this section based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(6) If the remanufacturer or other person that stores or treats the hazardous secondary material and the director do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the requirements of paragraph (c)(5)(iii) of this section. The director may choose to have an authorized representative observe the performance test.

(7) The closed-vent system and control device shall be inspected and monitored by the remanufacture or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in § 261.1033(f)(2) and (l). The readings from each monitoring device required by § 261.1033(f)(2) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements of this section.

§ 261.1088 Inspection and monitoring requirements.

(a) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor air emission control equipment used to comply with this subpart in accordance with the applicable requirements specified in §§ 261.1084 through 261.1087 of this subpart.

(b) The remanufacture or other person that stores or treats the hazardous secondary material shall develop and implement a written plan and schedule to perform the inspections and monitoring required by paragraph (a) of this section. The remanufacturer or other person that stores or treats the hazardous secondary material shall keep the plan and schedule at the facility.

§ 261.1089 Recordkeeping requirements.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to requirements of this subpart shall record and maintain the information specified in paragraphs (b) through (j) of this section, as applicable to the facility. Except for air emission control equipment design documentation and information required by paragraphs (i) and (j) of this section, records required by this section shall be maintained at the facility for a minimum of 3 years. Air emission control equipment design documentation shall be maintained at the facility until the air emission control equipment is replaced or otherwise no longer in service. Information required by paragraphs (i) and (j) of this section shall be maintained at the facility for as long as the hazardous secondary material management unit is not using air emission controls specified in §§ 261.1084 through 261.1087 of this subpart in accordance with the conditions specified in § 261.1080(a).

(b) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank with air emission controls in accordance with the requirements of § 261.1084 of this subpart shall prepare and maintain records for the tank that include the following information:

- (1) For each tank using air emission controls in accordance with the requirements of § 261.1084 of this subpart, the remanufacturer or other person that stores or treats the hazardous secondary material shall record:
- (i) A tank identification number (or other unique identification description as selected by the remanufacturer or other person that stores or treats the hazardous secondary material).
 - (ii) A record for each inspection required by § 261.1084 of this subpart that includes the following information:
 - (A) Date inspection was conducted.
 - (B) For each defect detected during the inspection: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the requirements of § 261.1084 of this subpart, the remanufacturer or other person that stores or treats the hazardous secondary material shall also record the reason for the delay and the date that completion of repair of the defect is expected.
- (2) In addition to the information required by paragraph (b)(1) of this section, the remanufacturer or other person that stores or treats the hazardous secondary material shall record the following information, as applicable to the tank:
- (i) The remanufacturer or other person that stores or treats the hazardous secondary material using a fixed roof to comply with the Tank Level 1 control requirements specified in § 261.1084(c) of this subpart shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous secondary material in the tank performed in accordance with the requirements of § 261.1084(c) of this subpart. The records shall include the date and time the samples were collected, the analysis method used, and the analysis results.
 - (ii) The remanufacturer or other person that stores or treats the hazardous secondary material using an internal floating roof to comply with the Tank Level 2 control requirements specified in § 261.1084(e) of this subpart shall prepare and maintain documentation describing the floating roof design.
 - (iii) Remanufacturer or other persons that store or treat the hazardous secondary material using an external floating roof to comply with the Tank Level 2 control requirements specified in § 261.1084(f) of this subpart shall prepare and maintain the following records:
 - (A) Documentation describing the floating roof design and the dimensions of the tank.
 - (B) Records for each seal gap inspection required by § 261.1084(f)(3) of this subpart describing the results of the seal gap measurements. The records shall include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in § 261.1084(f)(1) of this subpart, the records shall

include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

(iv) Each remanufacturer or other person that stores or treats the hazardous secondary material using an enclosure to comply with the Tank Level 2 control requirements specified in § 261.1084(i) of this subpart shall prepare and maintain the following records:

(A) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(B) Records required for the closed-vent system and control device in accordance with the requirements of paragraph (e) of this section.

(c) [Reserved]

(d) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 3 air emission controls in accordance with the requirements of § 261.1086 of this subpart shall prepare and maintain records that include the following information:

(1) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of paragraph (e) of this section.

(e) The remanufacturer or other person that stores or treats the hazardous secondary material using a closed-vent system and control device in accordance with the requirements of § 261.1087 of this subpart shall prepare and maintain records that include the following information:

(1) Documentation for the closed-vent system and control device that includes:

(i) Certification that is signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material stating that the control device is designed to operate at the performance level documented by a design analysis as specified in paragraph (e)(1)(ii) of this section or by performance tests as specified in paragraph (e)(1)(iii) of this section when the tank or container is or would be operating at capacity or the highest level reasonably expected to occur.

(ii) If a design analysis is used, then design documentation as specified in § 261.1035(b)(4). The documentation shall include information prepared by the remanufacturer or other person that stores or treats the hazardous secondary material or provided by the control device manufacturer or vendor that describes the control device design in accordance with

§ 261.1035(b)(4)(iii) and certification by the remanufacturer or other person that stores or treats the hazardous secondary material that the control equipment meets the applicable specifications.

(iii) If performance tests are used, then a performance test plan as specified in § 261.1035(b)(3) and all test results.

(iv) Information as required by §§ 261.1035(c)(1) and 261.1035(c)(2), as applicable.

(v) A remanufacturer or other person that stores or treats the hazardous secondary material shall record, on a semiannual basis, the information specified in paragraphs (e)(1)(v)(A) and (B) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of § 261.1087(c)(1)(i), (ii), or (iii) of this subpart, as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of § 261.1087(c)(1)(i), (ii), or (iii) of this subpart, as applicable, due to planned routine maintenance.

(vi) A remanufacturer or other person that stores or treats the hazardous secondary material shall record the information specified in paragraphs (e)(1)(vi)(A) through (C) of this section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of § 261.1087(c)(1)(i), (ii), or (iii) of this subpart, as applicable.

(A) The occurrence and duration of each malfunction of the control device system.

(B) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the hazardous secondary material management unit through the closed-vent system to the control device while the control device is not properly functioning.

(C) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

(vii) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with § 261.1087(c)(3)(ii) of this subpart.

(f) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank or container exempted under the hazardous secondary material organic concentration conditions specified in § 261.1082(c), shall prepare and maintain

at the facility records documenting the information used for each material determination (e.g., test results, measurements, calculations, and other documentation). If analysis results for material samples are used for the material determination, then the remanufacturer or other person that stores or treats the hazardous secondary material shall record the date, time, and location that each material sample is collected in accordance with applicable requirements of § 261.1083 of this subpart.

(2) [Reserved]

(g) A remanufacturer or other person that stores or treats the hazardous secondary material designating a cover as “unsafe to inspect and monitor” pursuant to § 261.1084(l) shall record and keep at facility the following information: The identification numbers for hazardous secondary material management units with covers that are designated as “unsafe to inspect and monitor,” the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

(h) The remanufacturer or other person that stores or treats the hazardous secondary material that is subject to this subpart and to the control device standards in 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, may elect to demonstrate compliance with the applicable sections of this subpart by documentation either pursuant to this subpart, or pursuant to the provisions of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR parts 60 or 61 duplicates the documentation required by this section.

§ 261.1090 [Reserved]

Appendix I to Part 261—Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70

Crushed or powdered material—ASTM Standard D346-75

Soil or rock-like material—ASTM Standard D420-69

Soil-like material—ASTM Standard D1452-65

Fly Ash-like material—ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

Containerized liquid waste—“COLIWASA.”

Liquid waste in pits, ponds, lagoons, and similar reservoirs—“Pond Sampler.”

This manual also contains additional information on application of these protocols.

Appendixes II-III to Part 261 [Reserved]

Appendix IV to Part 261 [Reserved for Radioactive Waste Test Methods]

Appendix V to Part 261 [Reserved for Infectious Waste Treatment Specifications]

Appendix VI to Part 261 [Reserved for Etiologic Agents]

[Appendix VII to Part 261—Basis for Listing Hazardous Waste](#)

Appendix VIII to Part 261—Hazardous Constituents