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**Chapter I —Environmental Protection Agency**  
**Subchapter I —Solid Wastes**

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## **PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**

**Authority:** 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y) and 6938.

**Source:** 45 FR 33119, May 19, 1980, unless otherwise noted.

### **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, 271, and 124 of this chapter and which are subject to the notification requirements of section 3010 of RCRA. 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 EPA 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 sections 3007, 3013, and 7003 of RCRA. 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 these sections if:
  - (i) In the case of sections 3007 and 3013, EPA has reason to believe that the material may be a solid waste within the meaning of section 1004(27) of RCRA and a hazardous waste within the meaning of section 1004(5) of RCRA; or
  - (ii) In the case of section 7003, 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 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.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983; 50 FR 663, Jan. 4, 1985; 51 FR 10174, Mar. 24, 1986; 51 FR 40636, Nov. 7, 1986; 62 FR 26018, May 12, 1997; 73 FR 64760, Oct. 30, 2008; 75 FR 13001, Mar. 18, 2010; 80 FR 1773, Jan. 13, 2015; 81 FR 85806, Nov. 28, 2016; 88 FR 54100, Aug. 9, 2023]

## § 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 listed in § 261.33 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	(*)	(*)	-	-
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 Administrator 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 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.

[50 FR 664, Jan. 4, 1985, as amended at 50 FR 33542, Aug. 20, 1985; 56 FR 7206, Feb. 21, 1991; 56 FR 32688, July 17, 1991; 56 FR 42512, Aug. 27, 1991; 57 FR 38564, Aug. 25, 1992; 59 FR 48042, Sept. 19, 1994; 62 FR 6651, Feb. 12, 1997; 62 FR 26019, May 12, 1997; 63 FR 28636, May 26, 1998; 64 FR 24513, May 11, 1999; 67 FR 11253, Mar. 13, 2002; 71 FR 40258, July 14, 2006; 73 FR 64760, Oct. 30, 2008; 75 FR 13001, Mar. 18, 2010; 80 FR 1774, Jan. 13, 2015]

### § 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 under §§ 260.20 and 260.22 of this chapter.
    - (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 under §§ 260.20 and 260.22, 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 Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). 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 Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). 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 Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). 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 Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR 270.2). 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 subtitle D units, 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



Constituent	Maximum for any single composite sample—TCLP (mg/l)
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 EPA region or authorized state 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 subtitle D units. 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 subtitle D unit receiving the waste changes. However, the generator or treater need only notify the EPA region or an authorized state on an annual basis if such changes occur. Such notification and certification should be sent to the EPA region or authorized state 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 subtitle D unit 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 under §§ 260.20 and 260.22 of this chapter.

(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 Regional Administrator, 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.

[57 FR 7632, Mar. 3, 1992; 57 FR 23063, June 1, 1992, as amended at 57 FR 37263, Aug. 18, 1992; 57 FR 41611, Sept. 10, 1992; 57 FR 49279, Oct. 30, 1992; 59 FR 38545, July 28, 1994; 60 FR 7848, Feb. 9, 1995; 63 FR 28637, May 26, 1998; 63 FR 42184, Aug. 6, 1998; 66 FR 27297, May 16, 2001; 66 FR 50333, Oct. 3, 2001; 70 FR 34561, June 14, 2005; 70 FR 57784, Oct. 4, 2005; 71 FR 40258, July 14, 2006]

## § 261.4 Exclusions.

[Link to an amendment published at 89 FR 60724, July 26, 2024.](#)

[Link to an amendment published at 89 FR 99731, Dec. 11, 2024.](#)

- (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 appropriate Regional Administrator or state Director for reinstatement. The Regional Administrator or state 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 Regional Administrator or State 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 Regional Administrator or State 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 Regional Administrator or State 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 Regional Administrator or State 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 Regional Administrator or State 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 Regional Administrator or State 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).
- (22) Used cathode ray tubes (CRTs)
- (i) Used, intact CRTs as defined in § 260.10 of this chapter are not solid wastes within the United States unless they are disposed, or unless they are speculatively accumulated as defined in § 261.1(c)(8) by CRT collectors or glass processors.
  - (ii) Used, intact CRTs as defined in § 260.10 of this chapter are not solid wastes when exported for recycling provided that they meet the requirements of § 261.40.
  - (iii) Used, broken CRTs as defined in § 260.10 of this chapter are not solid wastes provided that they meet the requirements of § 261.39.
  - (iv) Glass removed from CRTs is not a solid waste provided that it meets the requirements of § 261.39(c).
- (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 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 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 and have they notified the appropriate authorities that the financial assurance condition is satisfied per paragraph (a)(24)(vi)(F) of this section? 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, including the requirement in § 260.42(a)(5) to notify EPA 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 non-complier 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 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 § 261.4(a)(24)(v)(B) 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 40 CFR parts 260 through 272.
  - (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.
- (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 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 “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 EPA or the State Director, if the state is authorized for the program, 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.
- (ii) The following wastes generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in paragraph (b)(4)(i) of this section, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste:
  - (A) **Coal pile run-off.** For purposes of paragraph (b)(4) of this section, coal pile run-off means any precipitation that drains off coal piles.
  - (B) **Boiler cleaning solutions.** For purposes of paragraph (b)(4) of this section, boiler cleaning solutions means water solutions and chemical solutions used to clean the fire-side and water-side of the boiler.
  - (C) **Boiler blowdown.** For purposes of paragraph (b)(4) of this section, boiler blowdown means water purged from boilers used to generate steam.
  - (D) **Process water treatment and demineralizer regeneration wastes.** For purposes of paragraph (b)(4) of this section, process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.
  - (E) **Cooling tower blowdown.** For purposes of paragraph (b)(4) of this section, cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.
  - (F) **Air heater and precipitator washes.** For purposes of paragraph (b)(4) of this section, air heater and precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.
  - (G) **Effluents from floor and yard drains and sumps.** For purposes of paragraph (b)(4) of this section, effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.
  - (H) **Wastewater treatment sludges.** For purposes of paragraph (b)(4) of this section, wastewater treatment sludges refers to sludges generated from the treatment of wastewaters specified in paragraphs (b)(4)(ii)(A) through (F) of this section.
- (5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(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 shearing.
  - (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 shearing.
  - (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 shearing.
  - (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 shearing.
  - (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<sub>2</sub> 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.
- (11) Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) in § 261.24 of this part that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or for which contracts have been issued, on or before March 25, 1991. For groundwater returned through infiltration galleries from such operations at petroleum refineries, marketing terminals, and bulk plants, until [insert date six months after publication]. New operations involving injection wells (beginning after March 25, 1991) will qualify for this compliance date extension (until January 25, 1993) only if:
  - (i) Operations are performed pursuant to a written state agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is completed; and
  - (ii) A copy of the written agreement has been submitted to: Waste Identification Branch (5304), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
- (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]
- (17) Solid waste that would otherwise meet the definition of low-level mixed wastes (LLMW) pursuant to § 266.210 of this chapter that is generated at the Ortho-McNeil Pharmaceutical, Inc. (OMP Spring House) research and development facility in Spring House, Pennsylvania and treated on-site using a bench-scale high temperature catalytic oxidation unit is not a hazardous waste provided that:
- (i) The total volume of LLMW generated and treated is no greater than 50 liters/year,
  - (ii) OMP Spring House submits a written report to the EPA Region III office once every six months beginning six months after June 27, 2005, that must contain the following:
    - (A) Analysis demonstrating the destruction and removal efficiency of the treatment technology for all organic components of the wastestream,
    - (B) Analysis demonstrating the capture efficiencies of the treatment technology for all radioactive components of the wastestream and an estimate of the amount of radioactivity released during the reporting period,
    - (C) Analysis (including concentrations of constituents, including inorganic constituents, present and radioactivity) of the wastestream prior to and after treatment,
    - (D) Volume of the wastestream being treated per batch, as well as a total for the duration of the reporting period, and
    - (E) Final disposition of the radioactive residuals from the treatment of the wastestream.

(iii) OMP Spring House makes no significant changes to the design or operation of the high temperature catalytic oxidation unit or the wastestream.

(iv) This exclusion will remain in affect for 5 years from June 27, 2005.

(18) Solvent-contaminated wipes, 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 "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; 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.

(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, 271 and 124 of this chapter or to the notification requirements of section 3010 of RCRA 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 3010 of RCRA, 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 3010 of RCRA, nor are such samples included in the quantity determinations of 40 CFR 261.5 and 262.34(d) 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 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 Regional Administrator may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Regional Administrator 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 Regional Administrator in the Region where the sample is collected 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 Regional Administrator 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 3010 of RCRA 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 Regional Administrator, or State Director (if located in an authorized State), 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 Regional Administrator, or state Director (if located in an authorized state), 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 Regional Administrator, or State Director (if located in an authorized State), 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).

(h) ***Carbon dioxide stream injected for geologic sequestration.*** Carbon dioxide streams that are captured and transported for purposes of injection into an underground injection well subject to the requirements for Class VI Underground Injection Control wells, including the requirements in 40 CFR Parts 144 and 146 of the Underground Injection Control Program of the Safe Drinking Water Act, are not a hazardous waste, provided the following conditions are met:

(1) Transportation of the carbon dioxide stream must be in compliance with U.S. Department of Transportation requirements, including the pipeline safety laws (49 U.S.C. 60101 et seq.) and regulations (49 CFR Parts 190-199) of the U.S. Department of Transportation, and pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable.

(2) Injection of the carbon dioxide stream must be in compliance with the applicable requirements for Class VI Underground Injection Control wells, including the applicable requirements in 40 CFR Parts 144 and 146;

(3) No hazardous wastes shall be mixed with, or otherwise co-injected with, the carbon dioxide stream; and

(4)

(i) Any generator of a carbon dioxide stream, who claims that a carbon dioxide stream is excluded under this paragraph (h), must have an authorized representative (as defined in 40 CFR 260.10) sign a certification statement worded as follows:

I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under 40 CFR 261.4(h) has not been mixed with hazardous wastes, and I have transported the carbon dioxide stream in compliance with (or have contracted with a pipeline operator or transporter to transport the carbon dioxide stream in compliance with) Department of Transportation requirements, including the pipeline safety laws (49 U.S.C. 60101 et seq.) and regulations (49 CFR Parts 190-199) of the U.S. Department of Transportation, and the pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable, for injection into a well subject to the requirements for the Class VI Underground Injection Control Program of the Safe Drinking Water Act.

- (ii) Any Class VI Underground Injection Control well owner or operator, who claims that a carbon dioxide stream is excluded under paragraph (h) of this section, must have an authorized representative (as defined in 40 CFR 260.10) sign a certification statement worded as follows:

I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under 40 CFR 261.4(h) has not been mixed with, or otherwise co-injected with, hazardous waste at the Underground Injection Control (UIC) Class VI permitted facility, and that injection of the carbon dioxide stream is in compliance with the applicable requirements for UIC Class VI wells, including the applicable requirements in 40 CFR Parts 144 and 146.

- (iii) The signed certification statement must be kept on-site for no less than three years, and must be made available within 72 hours of a written request from the Administrator, Regional Administrator, or state Director (if located in an authorized state), or their designee. The signed certification statement must be renewed every year that the exclusion is claimed, by having an authorized representative (as defined in 40 CFR 260.10) annually prepare and sign a new copy of the certification statement within one year of the date of the previous statement. The signed certification statement must also be readily accessible on the facility's publicly-available Web site (if such Web site exists) as a public notification with the title of "Carbon Dioxide Stream Certification" at the time the exclusion is claimed.

(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 3010 of RCRA 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 CFR part 171 through 180 during transit;
  - (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 which 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).

[45 FR 33119, May 19, 1980]

**Editorial Note:** For FEDERAL REGISTER citations affecting § 261.4, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

## § 261.5 [Reserved]

## § 261.6 Requirements for recyclable materials.

Link to an amendment published at 89 FR 60725, July 26, 2024.

(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 Q 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).
  - (v) Ignitable spent refrigerants recycled for reuse (40 CFR part 266, subpart Q).
- (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 3010 of RCRA:

- (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 §§ 262.53, 262.56 (a)(1)-(4), (6), and (b), and 262.57, export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in subpart E 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 3010 of RCRA, 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, 267, 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 3010 of RCRA;
    - (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 RCRA permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of subparts AA and BB of part 264, 265 or 267 of this chapter.

[50 FR 49203, Nov. 29, 1985]

**Editorial Note:** For FEDERAL REGISTER citations affecting § 261.6, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

## § 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 3010 of RCRA.
  - (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 3010 of RCRA.
- (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 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).

[45 FR 78529, Nov. 25, 1980, as amended at 47 FR 36097, Aug. 18, 1982; 48 FR 14294, Apr. 1, 1983; 50 FR 1999, Jan. 14, 1985; 51 FR 40637, Nov. 7, 1986; 70 FR 10815, Mar. 4, 2005; 70 FR 53453, Sept. 8, 2005; 75 FR 13002, Mar. 18, 2010; 84 FR 5939, Feb. 22, 2019]

### § 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 3010 of RCRA.

[55 FR 11862, Mar. 29, 1990]

### § 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; and
- (e) Aerosol cans as described in § 273.6 of this chapter.

[60 FR 25541, May 11, 1995, as amended at 64 FR 36487, July 6, 1999; 70 FR 45520, Aug. 5, 2005; 84 FR 67217, Dec. 9, 2019]

## 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 Administrator 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 Administrator 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) It contains any of the toxic constituents listed in appendix VIII and, after considering the following factors, the Administrator 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.

(Wastes listed in accordance with these criteria will be designated Toxic wastes.)

- (b) The Administrator 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 1004(5) of the Act.

[45 FR 33119, May 19, 1980, as amended at 55 FR 18726, May 4, 1990; 57 FR 14, Jan. 2, 1992; 88 FR 54100, Aug. 9, 2023]

## 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 3010 of the Act 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 Administrator 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 Administrator, 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.]

[45 FR 33119, May 19, 1980, as amended at 51 FR 40636, Nov. 7, 1986; 55 FR 22684, June 1, 1990; 56 FR 3876, Jan. 31, 1991]

## § 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.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 70 FR 34561, June 14, 2005; 71 FR 40259, July 14, 2006; 85 FR 40608, July 7, 2020]

### § 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.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 58 FR 46049, Aug. 31, 1993; 70 FR 34561, June 14, 2005]

### § 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.

[45 FR 33119, May 19, 1980, as amended at 55 FR 22684, June 1, 1990; 75 FR 13002, Mar. 18, 2010]

## § 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.

**TABLE 1 —MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC**

EPA HW No. <sup>1</sup>	Contaminant	CAS No. <sup>2</sup>	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

<sup>1</sup> Hazardous waste number.

<sup>2</sup> Chemical abstracts service number.

<sup>3</sup> Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

<sup>4</sup> 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.

EPA HW No. <sup>1</sup>	Contaminant	CAS No. <sup>2</sup>	Regulatory Level (mg/L)
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	<sup>4</sup> 200.0
D024	m-Cresol	108-39-4	<sup>4</sup> 200.0
D025	p-Cresol	106-44-5	<sup>4</sup> 200.0
D026	Cresol		<sup>4</sup> 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	<sup>3</sup> 0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	<sup>3</sup> 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	<sup>3</sup> 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

<sup>1</sup> Hazardous waste number.

<sup>2</sup> Chemical abstracts service number.

<sup>3</sup> Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

<sup>4</sup> 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.

EPA HW No. <sup>1</sup>	Contaminant	CAS No. <sup>2</sup>	Regulatory Level (mg/L)
D043	Vinyl chloride	75-01-4	0.2

<sup>1</sup> Hazardous waste number.

<sup>2</sup> Chemical abstracts service number.

<sup>3</sup> Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

<sup>4</sup> 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.

[55 FR 11862, Mar. 29, 1990, as amended at 55 FR 22684, June 1, 1990; 55 FR 26987, June 29, 1990; 58 FR 46049, Aug. 31, 1993; 67 FR 11254, Mar. 13, 2002; 71 FR 40259, July 14, 2006]

## 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 under §§ 260.20 and 260.22.
- (b) The Administrator 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 Administrator 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 3010 of the Act and certain recordkeeping and reporting requirements under parts 262 through 265, 267, 268, and 270 of this chapter.
- (d) The following hazardous wastes listed in § 261.31 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.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 2000, Jan. 14, 1985; 51 FR 40636, Nov. 7, 1986; 55 FR 11863, Mar. 29, 1990; 75 FR 13002, Mar. 18, 2010; 88 FR 54100, Aug. 9, 2023]

## § 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 under §§ 260.20 and 260.22 and listed in appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I)*
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)

\*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R, T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R, T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations	(R, T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in § 258.40, § 264.301 or § 265.301. For the purposes of this listing, motor vehicle manufacturing is defined in paragraph (b)(4)(i) of this section and (b)(4)(ii) of this section describes the recordkeeping requirements for motor vehicle manufacturing facilities	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride	(H)

*\*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.*

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.31 or § 261.32.)	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these	(H)

*\*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.*



Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027	(T)
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F037	Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges generated in one or more additional units	(T)

\*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F038	<p>after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under § 261.4(a)(12)(i), if those residuals are to be disposed of</p> <p>Petroleum refinery secondary (emulsified) oil/water/solids separation sludge—Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing</p>	(T)
F039	<p>Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)</p>	(T)

*\*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.*

(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 units employ 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 the state regulatory authority.

[46 FR 4617, Jan. 16, 1981]

**Editorial Note:** For FEDERAL REGISTER citations affecting § 261.31, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

## § 261.32 Hazardous wastes from specific sources.

- (a) The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood preservation: K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	(T)
Inorganic pigments: K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic chemicals: K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methy ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
K083	Distillation bottoms from aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(C,T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.)	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K159	Organics from the treatment of thiocarbamate wastes	(T)
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R,T)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (i) they are disposed of in a subtitle C or non-hazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of subtitle C must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they must provide appropriate documentation (e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill, etc.) that the terms of the exclusion were met	(T)
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	(T)
K181	Nonwastewaters from the production of dyes and/or pigments	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	(including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of this section that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Subtitle D landfill unit subject to the design criteria in § 258.40, (ii) disposed in a Subtitle C landfill unit subject to either § 264.301 or § 265.301, (iii) disposed in other Subtitle D landfill units that meet the design criteria in § 258.40, § 264.301, or § 265.301, or (iv) treated in a combustion unit that is permitted under Subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under §§ 261.21-261.24 and 261.31-261.33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met	
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide)	(T)
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene	(T)



Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	in the production of chlordane	
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts	(C, T)
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	(C, T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink/red water from TNT operations	(R)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry	(T)
K169	Crude oil storage tank sediment from petroleum refining operations	(T)
K170	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations	(T)
K171	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media)	(I,T)
K172	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media)	(I,T)
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332)	(C,T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction	(T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting. ( <b>Note:</b> This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the <b>Federal Register</b> )	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	(T)
Veterinary pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K102	arsenic or organo-arsenic compounds Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink formulation: K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(T)
Coking: K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations)	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	(T)
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal	(T)
K147	Tar storage tank residues from coal tar refining	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms	(T)

(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.

[46 FR 4618, Jan. 16, 1981]

**Editorial Note:** For FEDERAL REGISTER citations affecting § 261.32, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

### § 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, EPA 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:

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone.
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H <sub>3</sub> AsO <sub>4</sub>
P012	1327-53-3	Arsenic oxide As <sub>2</sub> O <sub>3</sub>
P011	1303-28-2	Arsenic oxide As <sub>2</sub> O <sub>5</sub>
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-

<sup>1</sup> CAS Number given for parent compound only.



Hazardous waste No.	Chemical abstracts No.	Substance
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1).
P001	<sup>1</sup> 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN) <sub>2</sub>
P189	55285-14-8	Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester.
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H-pyrazol-3-yl ester.
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H- pyrazol-5-yl ester.
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester.
P127	1563-66-2	Carbofuran.
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan.
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate.
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P051	<sup>1</sup> 72-20-8	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan.
P047	<sup>1</sup> 534-52-1	4,6-Dinitro-o-cresol, & salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- [(methylamino)-carbonyl]oxime.
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester.
P066	16752-77-5	Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride.
P197	17702-57-7	Formparanate.
P065	628-86-4	Fulminic acid, mercury(2 + ) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan.
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate.
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate.
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb.
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methylactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb.
P128	315-8-4	Mexacarbate.
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN) <sub>2</sub>
P075	<sup>1</sup> 54-11-5	Nicotine, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies).
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO <sub>2</sub>
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramidate
P087	20816-12-0	Osmium oxide OsO <sub>4</sub> , (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl.
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	<sup>1</sup> 534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine.
P188	57-64-7	Physostigmine salicylate.
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	<sup>1</sup> 54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies).
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
P114	12039-52-0	Selenious acid, dithallium(1 + ) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	<sup>1</sup> 57-24-9	Strychnidin-10-one, & salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	<sup>1</sup> 57-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(1 + ) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl <sub>2</sub> O <sub>3</sub>
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> NH

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate.
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V <sub>2</sub> O <sub>5</sub>
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN) <sub>2</sub>
P122	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram.
P001	<sup>1</sup> 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P001	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P002	591-08-2	Acetamide, -(aminothioxomethyl)-
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P003	107-02-8	2-Propenal
P004	309-00-2	Aldrin
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P005	107-18-6	Allyl alcohol
P005	107-18-6	2-Propen-1-ol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P008	504-24-5	4-Aminopyridine
P008	504-24-5	4-Pyridinamine
P009	131-74-8	Ammonium picrate (R)

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	7778-39-4	Arsenic acid $H_3AsO_4$
P011	1303-28-2	Arsenic oxide $As_2O_5$
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic oxide $As_2O_3$
P012	1327-53-3	Arsenic trioxide
P013	542-62-1	Barium cyanide
P014	108-98-5	Benzenethiol
P014	108-98-5	Thiophenol
P015	7440-41-7	Beryllium powder
P016	542-88-1	Dichloromethyl ether
P016	542-88-1	Methane, oxybis[chloro-
P017	598-31-2	Bromoacetone
P017	598-31-2	2-Propanone, 1-bromo-
P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P020	88-85-7	Dinoseb
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P022	75-15-0	Carbon disulfide
P023	107-20-0	Acetaldehyde, chloro-
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	Benzenamine, 4-chloro-
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P027	542-76-7	3-Chloropropionitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P028	100-44-7	Benzene, (chloromethyl)-
P028	100-44-7	Benzyl chloride
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide $Cu(CN)$
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P031	460-19-5	Ethanedinitrile
P033	506-77-4	Cyanogen chloride

<sup>1</sup> CAS Number given for parent compound only.



Hazardous waste No.	Chemical abstracts No.	Substance
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	696-28-6	Arsonous dichloride, phenyl-
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P038	692-42-2	Arsine, diethyl-
P038	692-42-2	Diethylarsine
P039	298-04-4	Disulfoton
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P042	51-43-4	Epinephrine
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P044	60-51-5	Dimethoate
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methyl amino)-2-oxoethyl] ester
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
P045	39196-18-4	Thiofanox
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P047	<sup>1</sup> 534-52-1	4,6-Dinitro-o-cresol, & salts
P047	<sup>1</sup> 534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P048	51-28-5	2,4-Dinitrophenol
P048	51-28-5	Phenol, 2,4-dinitro-
P049	541-53-7	Dithiobiuret
P049	541-53-7	Thioimidodicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> NH
P050	115-29-7	Endosulfan
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin,

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P051	<sup>1</sup> 72-20-8	6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide 2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P054	151-56-4	Aziridine
P054	151-56-4	Ethyleneimine
P056	7782-41-4	Fluorine
P057	640-19-7	Acetamide, 2-fluoro-
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P058	62-74-8	Fluoroacetic acid, sodium salt
P059	76-44-8	Heptachlor
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P060	465-73-6	Isodrin
P062	757-58-4	Hexaethyl tetraphosphate
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P064	624-83-9	Methane, isocyanato-
P064	624-83-9	Methyl isocyanate
P065	628-86-4	Fulminic acid, mercury(2 + ) salt (R,T)
P065	628-86-4	Mercury fulminate (R,T)
P066	16752-77-5	Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester
P066	16752-77-5	Methomyl
P067	75-55-8	Aziridine, 2-methyl-
P067	75-55-8	1,2-Propylenimine
P068	60-34-4	Hydrazine, methyl-
P068	60-34-4	Methyl hydrazine
P069	75-86-5	2-Methylactonitrile
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P070	116-06-3	Aldicarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P071	298-00-0	Methyl parathion
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P072	86-88-4	alpha-Naphthylthiourea
P072	86-88-4	Thiourea, 1-naphthalenyl-
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN) <sub>2</sub>
P075	<sup>1</sup> 54-11-5	Nicotine, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies).
P075	<sup>1</sup> 54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies).
P076	10102-43-9	Nitric oxide
P076	10102-43-9	Nitrogen oxide NO
P077	100-01-6	Benzenamine, 4-nitro-
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P078	10102-44-0	Nitrogen oxide NO <sub>2</sub>
P081	55-63-0	Nitroglycerine (R)
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P082	62-75-9	Methanamine, -methyl-N-nitroso-
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P084	4549-40-0	Vinylamine, -methyl-N-nitroso-
P085	152-16-9	Diphosphoramidate, octamethyl-
P085	152-16-9	Octamethylpyrophosphoramidate
P087	20816-12-0	Osmium oxide OsO <sub>4</sub> , (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	Endothall
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P092	62-38-4	Mercury, (acetato-O)phenyl-
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P093	103-85-5	Thiourea, phenyl-
P094	298-02-2	Phorate
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P095	75-44-5	Carbonic dichloride
P095	75-44-5	Phosgene
P096	7803-51-2	Hydrogen phosphide
P096	7803-51-2	Phosphine
P097	52-85-7	Famphur
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P099	506-61-6	Potassium silver cyanide
P101	107-12-0	Ethyl cyanide
P101	107-12-0	Propanenitrile
P102	107-19-7	Propargyl alcohol
P102	107-19-7	2-Propyn-1-ol
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	<sup>1</sup> 157-24-9	Strychnidin-10-one, & salts
P108	<sup>1</sup> 157-24-9	Strychnine, & salts
P109	3689-24-5	Tetraethyldithiopyrophosphate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P110	78-00-2	Plumbane, tetraethyl-
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Methane, tetranitro-(R)
P112	509-14-8	Tetranitromethane (R)
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl <sub>2</sub> O <sub>3</sub>
P114	12039-52-0	Selenious acid, dithallium(1 + ) salt

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P114	12039-52-0	Tetraethyldithiopyrophosphate
P115	7446-18-6	Thiodiphosphoric acid, tetraethyl ester
P115	7446-18-6	Plumbane, tetraethyl-
P116	79-19-6	Tetraethyl lead
P116	79-19-6	Thiosemicarbazide
P118	75-70-7	Methanethiol, trichloro-
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Ammonium vanadate
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V <sub>2</sub> O <sub>5</sub>
P120	1314-62-1	Vanadium pentoxide
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN) <sub>2</sub>
P122	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10% (R,T)
P123	8001-35-2	Toxaphene
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P127	1563-66-2	Carbofuran
P128	315-8-4	Mexacarbate
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime.
P185	26419-73-8	Tirpate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)
P188	57-64-7	Physostigmine salicylate
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P189	55285-14-8	Carbosulfan
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P190	1129-41-5	Metolcarb
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester
P191	644-64-4	Dimetilan
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P192	119-38-0	Isolan

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
P194	23135-22-0	Ethanimidthioic acid, 2-(dimethylamino)-N-[[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester
P194	23135-22-0	Oxamyl
P196	15339-36-3	Manganese, bis(dimethylcarbomodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate
P197	17702-57-7	Formparanate
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino) carbonyl]oxy]phenyl]-
P198	23422-53-9	Formetanate hydrochloride
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)- carbonyl]oxy]phenyl]-monohydrochloride
P199	2032-65-7	Methiocarb
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Promecarb
P202	64-00-6	m-Cumenyl methylcarbamate
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P203	1646-88-4	Aldicarb sulfone
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino) carbonyl] oxime
P204	57-47-6	Physostigmine
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
P205	137-30-4	Zinc, bis(dimethylcarbomodithioato-S,S')-,
P205	137-30-4	Ziram

<sup>1</sup> CAS Number given for parent compound only.

- (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:

Hazardous waste No.	Chemical abstracts No.	Substance
U394	30558-43-1	A2213.
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	<sup>1</sup> 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2 + ) salt
U214	563-68-8	Acetic acid, thallium(1 + ) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-82-6	Bendiocarb phenol.
U271	17804-35-2	Benomyl.
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-

<sup>1</sup> CAS Number given for parent compound only.



Hazardous waste No.	Chemical abstracts No.	Substance
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[ <i>a</i> ]pentaphene
U248	<sup>1</sup> 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[ <i>a</i> ]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
		2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester.
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester.
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester.
U097	79-44-7	Carbamic chloride, dimethyl-
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U114	<sup>1</sup> 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U279	63-25-2	Carbaryl.
U372	10605-21-7	Carbendazim.
U367	1563-38-8	Carbofuran phenol.
U215	6533-73-9	Carbonic acid, dithallium(1 + ) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	<sup>1</sup> 94-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U395	5952-26-1	Diethylene glycol, dicarbamate.
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis-(l)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'- [thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (l)
U113	140-88-5	Ethyl acrylate (l)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (l)
U114	<sup>1</sup> 111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (l,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H <sub>2</sub> S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I, T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I, T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I, T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate.
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1 + ) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine

<sup>1</sup> CAS Number given for parent compound only.



Hazardous waste No.	Chemical abstracts No.	Substance
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U145	7446-27-7	Phosphoric acid, lead(2 + ) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham.
U411	114-26-1	Propoxur.
U387	52888-80-9	Prosulfocarb.
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS <sub>2</sub> (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl-
U409	23564-05-8	Thiophanate-methyl.
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate.
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine.
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10% or less
U001	75-07-0	Acetaldehyde (I)
U001	75-07-0	Ethanal (I)
U002	67-64-1	Acetone (I)
U002	67-64-1	2-Propanone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U004	98-86-2	Ethanone, 1-phenyl-
U005	53-96-3	Acetamide, -9H-fluoren-2-yl-
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U007	79-06-1	Acrylamide
U007	79-06-1	2-Propenamide
U008	79-10-7	Acrylic acid (I)
U008	79-10-7	2-Propenoic acid (I)
U009	107-13-1	Acrylonitrile
U009	107-13-1	2-Propenenitrile
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balph)]-
U010	50-07-7	Mitomycin C
U011	61-82-5	Amitrole
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U012	62-53-3	Aniline (I,T)
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Auramine
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U015	115-02-6	Azaserine
U015	115-02-6	L-Serine, diazoacetate (ester)
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U017	98-87-3	Benzene, (dichloromethyl)-
U018	56-55-3	Benz[a]anthracene
U019	71-43-2	Benzene (I,T)
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U021	92-87-5	Benzidine
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U022	50-32-8	Benzo[a]pyrene
U023	98-07-7	Benzene, (trichloromethyl)-
U023	98-07-7	Benzotrichloride (C,R,T)
U024	111-91-1	Dichloromethoxy ethane
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U025	111-44-4	Dichloroethyl ether
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U026	494-03-1	Chlornaphazin
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U027	108-60-1	Dichloroisopropyl ether

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U028	117-81-7	Diethylhexyl phthalate
U029	74-83-9	Methane, bromo-
U029	74-83-9	Methyl bromide
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U030	101-55-3	4-Bromophenyl phenyl ether
U031	71-36-3	1-Butanol (I)
U031	71-36-3	n-Butyl alcohol (I)
U032	13765-19-0	Calcium chromate
U032	13765-19-0	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt
U033	353-50-4	Carbonic difluoride
U033	353-50-4	Carbon oxyfluoride (R,T)
U034	75-87-6	Acetaldehyde, trichloro-
U034	75-87-6	Chloral
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U037	108-90-7	Benzene, chloro-
U037	108-90-7	Chlorobenzene
U038	510-15-6	Benzenecetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U041	106-89-8	Epichlorohydrin
U041	106-89-8	Oxirane, (chloromethyl)-
U042	110-75-8	2-Chloroethyl vinyl ether
U042	110-75-8	Ethene, (2-chloroethoxy)-
U043	75-01-4	Ethene, chloro-
U043	75-01-4	Vinyl chloride
U044	67-66-3	Chloroform
U044	67-66-3	Methane, trichloro-
U045	74-87-3	Methane, chloro- (I,T)
U045	74-87-3	Methyl chloride (I,T)
U046	107-30-2	Chloromethyl methyl ether

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U046	107-30-2	Methane, chloromethoxy-
U047	91-58-7	beta-Chloronaphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U048	95-57-8	o-Chlorophenol
U048	95-57-8	Phenol, 2-chloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U052	1319-77-3	Phenol, methyl-
U053	4170-30-3	2-Butenal
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U055	98-82-8	Cumene (I)
U056	110-82-7	Benzene, hexahydro-(I)
U056	110-82-7	Cyclohexane (I)
U057	108-94-1	Cyclohexanone (I)
U058	50-18-0	Cyclophosphamide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U059	20830-81-3	Daunomycin
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U060	72-54-8	DDD
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U061	50-29-3	DDT
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-di chloro-2-propenyl) ester
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Benzo[rsst]pentaphene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U067	106-93-4	Ethane, 1,2-dibromo-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U067	106-93-4	Ethylene dibromide
U068	74-95-3	Methane, dibromo-
U068	74-95-3	Methylene bromide
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	Benzene, 1,2-dichloro-
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	Benzene, 1,3-dichloro-
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	Benzene, 1,4-dichloro-
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	2-Butene, 1,4-dichloro-(I,T)
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U075	75-71-8	Methane, dichlorodifluoro-
U076	75-34-3	Ethane, 1,1-dichloro-
U076	75-34-3	Ethylidene dichloride
U077	107-06-2	Ethane, 1,2-dichloro-
U077	107-06-2	Ethylene dichloride
U078	75-35-4	1,1-Dichloroethylene
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	1,2-Dichloroethylene
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U080	75-09-2	Methane, dichloro-
U080	75-09-2	Methylene chloride
U081	120-83-2	2,4-Dichlorophenol
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	2,6-Dichlorophenol
U082	87-65-0	Phenol, 2,6-dichloro-
U083	78-87-5	Propane, 1,2-dichloro-
U083	78-87-5	Propylene dichloride
U084	542-75-6	1,3-Dichloropropene
U084	542-75-6	1-Propene, 1,3-dichloro-
U085	1464-53-5	2,2'-Bioxirane
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)

<sup>1</sup> CAS Number given for parent compound only.



Hazardous waste No.	Chemical abstracts No.	Substance
U086	1615-80-1	N,N'-Diethylhydrazine
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U090	94-58-6	Dihydrosafrole
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (l)
U092	124-40-3	Methanamine, -methyl-(l)
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U097	79-44-7	Carbamic chloride, dimethyl-
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	1,2-Dimethylhydrazine
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U101	105-67-9	2,4-Dimethylphenol
U101	105-67-9	Phenol, 2,4-dimethyl-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U103	77-78-1	Sulfuric acid, dimethyl ester
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Diethyleneoxide
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U110	142-84-7	Dipropylamine (I)
U110	142-84-7	1-Propanamine, N-propyl-(I)
U111	621-64-7	Di-n-propylnitrosamine
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U112	141-78-6	Acetic acid ethyl ester (I)
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U114	<sup>1</sup> 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U114	<sup>1</sup> 111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U115	75-21-8	Ethylene oxide (I,T)
U115	75-21-8	Oxirane (I,T)
U116	96-45-7	Ethylenethiourea
U116	96-45-7	2-Imidazolidinethione
U117	60-29-7	Ethane, 1,1'-oxybis-(I)
U117	60-29-7	Ethyl ether (I)
U118	97-63-2	Ethyl methacrylate
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U119	62-50-0	Ethyl methanesulfonate
U119	62-50-0	Methanesulfonic acid, ethyl ester
U120	206-44-0	Fluoranthene
U121	75-69-4	Methane, trichlorofluoro-
U121	75-69-4	Trichloromonofluoromethane
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U124	110-00-9	Furfuran (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U125	98-01-1	Furfural (I)
U126	765-34-4	Glycidylaldehyde

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U126	765-34-4	Oxiranecarboxyaldehyde
U127	118-74-1	Benzene, hexachloro-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U128	87-68-3	Hexachlorobutadiene
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U129	58-89-9	Lindane
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Ethane, hexachloro-
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U133	302-01-2	Hydrazine (R,T)
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H <sub>2</sub> S
U136	75-60-5	Arsinic acid, dimethyl-
U136	75-60-5	Cacodylic acid
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U138	74-88-4	Methane, iodo-
U138	74-88-4	Methyl iodide
U140	78-83-1	Isobutyl alcohol (I,T)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U143	303-34-4	Lasiocarpine
U144	301-04-2	Acetic acid, lead(2 + ) salt
U144	301-04-2	Lead acetate

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U145	7446-27-7	Lead phosphate
U145	7446-27-7	Phosphoric acid, lead(2 + ) salt (2:3)
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U146	1335-32-6	Lead subacetate
U147	108-31-6	2,5-Furandione
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U149	109-77-3	Malononitrile
U149	109-77-3	Propanedinitrile
U150	148-82-3	Melphalan
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U153	74-93-1	Methanethiol (I,T)
U153	74-93-1	Thiomethanol (I,T)
U154	67-56-1	Methanol (I)
U154	67-56-1	Methyl alcohol (I)
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U155	91-80-5	Methapyrilene
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U159	78-93-3	2-Butanone (I,T)
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U161	108-10-1	Methyl isobutyl ketone (I)
U161	108-10-1	4-Methyl-2-pentanone (I)
U161	108-10-1	Pentanol, 4-methyl-
U162	80-62-6	Methyl methacrylate (I,T)
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U163	70-25-7	Guanidine, -methyl-N'-nitro-N-nitroso-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U163	70-25-7	MNNG
U164	56-04-2	Methylthiouracil
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U165	91-20-3	Naphthalene
U166	130-15-4	1,4-Naphthalenedione
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	1-Naphthalenamine
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	2-Naphthalenamine
U168	91-59-8	beta-Naphthylamine
U169	98-95-3	Benzene, nitro-
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U170	100-02-7	Phenol, 4-nitro-
U171	79-46-9	2-Nitropropane (I,T)
U171	79-46-9	Propane, 2-nitro- (I,T)
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	Ethanamine, -ethyl-N-nitroso-
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	N-Nitroso-N-methylurea
U177	684-93-5	Urea, N-methyl-N-nitroso-
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U179	100-75-4	Piperidine, 1-nitroso-
U180	930-55-2	N-Nitrosopyrrolidine
U180	930-55-2	Pyrrolidine, 1-nitroso-
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U181	99-55-8	5-Nitro-o-toluidine
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U182	123-63-7	Paraldehyde
U183	608-93-5	Benzene, pentachloro-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Ethane, pentachloro-
U184	76-01-7	Pentachloroethane
U185	82-68-8	Benzene, pentachloronitro-
U185	82-68-8	Pentachloronitrobenzene (PCNB)
U186	504-60-9	1-Methylbutadiene (I)
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Acetamide, -(4-ethoxyphenyl)-
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U189	1314-80-3	Phosphorus sulfide (R)
U189	1314-80-3	Sulfur phosphide (R)
U190	85-44-9	1,3-Isobenzofurandione
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U191	109-06-8	Pyridine, 2-methyl-
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U192	23950-58-5	Pronamide
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U193	1120-71-4	1,3-Propane sultone
U194	107-10-8	1-Propanamine (I,T)
U194	107-10-8	n-Propylamine (I,T)
U196	110-86-1	Pyridine
U197	106-51-4	p-Benzoquinone
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U200	50-55-5	Reserpine
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta,16beta,17alpha,18beta,20alpha)-
U201	108-46-3	1,3-Benzenediol
U201	108-46-3	Resorcinol
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS <sub>2</sub> (R,T)

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)-carbonyl]amino]-
U206	18883-66-4	Streptozotocin
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Ethene, tetrachloro-
U210	127-18-4	Tetrachloroethylene
U211	56-23-5	Carbon tetrachloride
U211	56-23-5	Methane, tetrachloro-
U213	109-99-9	Furan, tetrahydro-(I)
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Acetic acid, thallium(1 + ) salt
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Carbonic acid, dithallium(1 + ) salt
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Nitric acid, thallium(1 + ) salt
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Ethanethioamide
U218	62-55-5	Thioacetamide
U219	62-56-6	Thiourea
U220	108-88-3	Benzene, methyl-
U220	108-88-3	Toluene
U221	25376-45-8	Benzenediamine, ar-methyl-
U221	25376-45-8	Toluenediamine
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U222	636-21-5	o-Toluidine hydrochloride
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U223	26471-62-5	Toluene diisocyanate (R,T)
U225	75-25-2	Bromoform
U225	75-25-2	Methane, tribromo-
U226	71-55-6	Ethane, 1,1,1-trichloro-

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
U226	71-55-6	Methyl chloroform
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	Ethane, 1,1,2-trichloro-
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Ethene, trichloro-
U228	79-01-6	Trichloroethylene
U234	99-35-4	Benzene, 1,3,5-trinitro-
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U236	72-57-1	Trypan blue
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U237	66-75-1	Uracil mustard
U238	51-79-6	Carbamic acid, ethyl ester
U238	51-79-6	Ethyl carbamate (urethane)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U239	1330-20-7	Xylene (I)
U240	<sup>1</sup> 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U240	<sup>1</sup> 94-75-7	2,4-D, salts & esters
U243	1888-71-7	Hexachloropropene
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U244	137-26-8	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl-
U244	137-26-8	Thiram
U246	506-68-3	Cyanogen bromide (CN)Br
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4- methoxy-
U247	72-43-5	Methoxychlor
U248	<sup>1</sup> 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U248	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10% or less
U271	17804-35-2	Benomyl
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U278	22781-23-3	Bendiocarb
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate

<sup>1</sup> CAS Number given for parent compound only.



Hazardous waste No.	Chemical abstracts No.	Substance
U279	63-25-2	Carbaryl
U279	63-25-2	1-Naphthalenol, methylcarbamate
U280	101-27-9	Barban
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	95-53-4	Benzenamine, 2-methyl-
U328	95-53-4	o-Toluidine
U353	106-49-0	Benzenamine, 4-methyl-
U353	106-49-0	p-Toluidine
U359	110-80-5	Ethanol, 2-ethoxy-
U359	110-80-5	Ethylene glycol monoethyl ether
U364	22961-82-6	Bendiocarb phenol
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U367	1563-38-8	Carbofuran phenol
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U372	10605-21-7	Carbendazim
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U373	122-42-9	Propham
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U387	52888-80-9	Prosulfocarb
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U389	2303-17-5	Triallate
U394	30558-43-1	A2213
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U395	5952-26-1	Diethylene glycol, dicarbamate
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester
U409	23564-05-8	Thiophanate-methyl
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U411	114-26-1	Propoxur
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
See F027	87-86-5	Pentachlorophenol

<sup>1</sup> CAS Number given for parent compound only.

Hazardous waste No.	Chemical abstracts No.	Substance
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
See F027	93-72-1	Silvex (2,4,5-TP)
See F027	93-76-5	2,4,5-T
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol

<sup>1</sup> CAS Number given for parent compound only.

[45 FR 78529, 78541, Nov. 25, 1980]

**Editorial Note:** For FEDERAL REGISTER citations affecting § 261.33, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

<sup>[1]</sup> CAS Number given for parent compound only.

## § 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.

[55 FR 50482, Dec. 6, 1990, as amended at 56 FR 30195, July 1, 1991; 70 FR 34561, June 14, 2005]

## Subpart E—Exclusions/Exemptions

**Source:** 71 FR 42948, July 28, 2006, unless otherwise noted.

### § 261.38 [Reserved]

### § 261.39 Conditional Exclusion for Used, Broken Cathode Ray Tubes (CRTs) and Processed CRT Glass Undergoing Recycling.

Link to an amendment published at 89 FR 60725, July 26, 2024.

Used, broken CRTs are not solid wastes if they meet the following conditions:

- (a) **Prior to processing:** These materials are not solid wastes if they are destined for recycling and if they meet the following requirements:
  - (1) **Storage.** The broken CRTs must be either:
    - (i) Stored in a building with a roof, floor, and walls, or
    - (ii) Placed in a container (*i.e.*, a package or a vehicle) that is constructed, filled, and closed to minimize releases to the environment of CRT glass (including fine solid materials).

- (2) **Labeling.** Each container in which the used, broken CRT is contained must be labeled or marked clearly with one of the following phrases: "Used cathode ray tube(s)-contains leaded glass " or "Leaded glass from televisions or computers." It must also be labeled: "Do not mix with other glass materials."
- (3) **Transportation.** The used, broken CRTs must be transported in a container meeting the requirements of paragraphs (a)(1)(ii) and (2) of this section.
- (4) **Speculative accumulation and use constituting disposal.** The used, broken CRTs are subject to the limitations on speculative accumulation as defined in paragraph (c)(8) of this section. If they are used in a manner constituting disposal, they must comply with the applicable requirements of part 266, subpart C instead of the requirements of this section.
- (5) **Exports.** In addition to the applicable conditions specified in paragraphs (a)(1)-(4) of this section, exporters of used, broken CRTs must comply with the following requirements:
  - (i) Notify EPA of an intended export before the CRTs are scheduled to leave the United States. A complete notification should be submitted 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 exporter, and include the following information:
    - (A) Name, mailing address, telephone number and EPA ID number (if applicable) of the exporter of the CRTs.
    - (B) The estimated frequency or rate at which the CRTs are to be exported and the period of time over which they are to be exported.
    - (C) The estimated total quantity of CRTs specified in kilograms.
    - (D) All points of entry to and departure from each foreign country through which the CRTs will pass.
    - (E) A description of the means by which each shipment of the CRTs will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.)).
    - (F) The name and address of the recycler or recyclers and the estimated quantity of used CRTs to be sent to each facility, as well as the names of any alternate recyclers.
    - (G) A description of the manner in which the CRTs will be recycled in the foreign country that will be receiving the CRTs.
    - (H) The name of any transit country through which the CRTs will be sent and a description of the approximate length of time the CRTs will remain in such country and the nature of their handling while there.
  - (ii) Notifications must be submitted electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.
  - (iii) Upon request by EPA, the exporter shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

- (iv) EPA will provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of paragraph (a)(5)(i) of this section.
- (v) The export of CRTs is prohibited unless all of the following occur:
  - (A) The receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the CRTs, EPA will forward an Acknowledgment of Consent to Export CRTs to the exporter. Where the receiving country objects to receipt of the CRTs or withdraws a prior consent, EPA will notify the exporter in writing. EPA will also notify the exporter of any responses from transit countries.
  - (B) On or after the AES filing compliance date, the exporter or a U.S. authorized agent must:
    - (1) 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).
    - (2) Include the following items in the EEI, along with the other information required under 15 CFR 30.6:
      - (i) EPA license code;
      - (ii) Commodity classification code per 15 CFR 30.6(a)(12);
      - (iii) EPA consent number;
      - (iv) Country of ultimate destination per 15 CFR 30.6(a)(5);
      - (v) Date of export per 15 CFR 30.6(a)(2);
      - (vi) 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
      - (vii) 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.
- (vi) When the conditions specified on the original notification change, the exporter must provide EPA with a written renotification of the change using the allowable methods listed in paragraph (a)(5)(ii) of this section, except for changes to the telephone number in paragraph (a)(5)(i)(A) of this section and decreases in the quantity indicated pursuant to paragraph (a)(5)(i)(C) of this section. The shipment cannot take place until consent of the receiving country to the changes has been obtained (except for changes to information about points of entry and departure and transit countries pursuant to paragraphs (a)(5)(i)(D) and (H) of this section) and the exporter of CRTs receives from EPA a copy of the Acknowledgment of Consent to Export CRTs reflecting the receiving country's consent to the changes.
- (vii) A copy of the Acknowledgment of Consent to Export CRTs must accompany the shipment of CRTs. The shipment must conform to the terms of the Acknowledgment.

- (viii) If a shipment of CRTs cannot be delivered for any reason to the recycler or the alternate recycler, the exporter of CRTs must renotify EPA of a change in the conditions of the original notification to allow shipment to a new recycler in accordance with paragraph (a)(5)(vi) of this section and obtain another Acknowledgment of Consent to Export CRTs.
- (ix) Exporters must keep copies of notifications and Acknowledgments of Consent to Export CRTs for a period of three years following receipt of the Acknowledgment. Exporters may satisfy this recordkeeping requirement by retaining electronically submitted notifications or electronically generated Acknowledgements in the CRT exporter's 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 CRT exporter may be held liable for the inability to produce a notification or Acknowledgement for inspection under this section if the CRT exporter 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 CRT exporter bears no responsibility.
- (x) CRT exporters must file with EPA no later than March 1 of each year, an annual report summarizing the quantities (in kilograms), frequency of shipment, and ultimate destination(s) (i.e., the facility or facilities where the recycling occurs) of all used CRTs exported during the previous calendar year. Such reports must also include the following:
  - (A) The name, EPA ID number (if applicable), and mailing and site address of the exporter;
  - (B) The calendar year covered by the report;
  - (C) A certification signed by the CRT exporter that 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 this 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."
- (xi) Prior to one year after the AES filing compliance date, annual reports must be sent to the following mailing address: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch (Mail Code 2255A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460. Hand-delivered annual reports on used CRTs exported during 2016 should be sent to: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch (Mail Code 2255A), Environmental Protection Agency, William Jefferson Clinton South Building, Room 6144, 1200 Pennsylvania Ave. NW, Washington, DC 20004. Subsequently, annual reports must be submitted to the office listed using the allowable methods specified in paragraph (a)(5)(ii) of this section. Exporters must keep copies of each annual report for a period of at least three years from the due date of the report. Exporters may satisfy this recordkeeping requirement by retaining electronically submitted annual reports in the CRT exporter's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, provided that a copy is readily available for viewing and production if requested by any EPA or authorized state inspector. No CRT exporter may be held liable for the inability to

produce an annual report for inspection under this section if the CRT exporter can demonstrate that the inability to produce the annual report is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system for which the CRT exporter bears no responsibility.

- (b) **Requirements for used CRT processing:** Used, broken CRTs undergoing CRT processing as defined in § 260.10 of this chapter are not solid wastes if they meet the following requirements:
  - (1) **Storage.** Used, broken CRTs undergoing processing are subject to the requirement of paragraph (a)(4) of this section.
  - (2) **Processing.**
    - (i) All activities specified in paragraphs (2) and (3) of the definition of “CRT processing” in § 260.10 of this chapter must be performed within a building with a roof, floor, and walls; and
    - (ii) No activities may be performed that use temperatures high enough to volatilize lead from CRTs.
- (c) **Processed CRT glass sent to CRT glass making or lead smelting:** Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in § 261.1(c)(8).
- (d) **Use constituting disposal:** Glass from used CRTs that is used in a manner constituting disposal must comply with the requirements of 40 CFR part 266, subpart C instead of the requirements of this section.

[45 FR 33119, May 19, 1980, as amended at 79 FR 36231, June 26, 2014; 81 FR 85714, Nov. 28, 2016; 82 FR 60900, Dec. 26, 2017; 83 FR 38263, Aug. 6, 2018]

## § 261.40 Conditional Exclusion for Used, Intact Cathode Ray Tubes (CRTs) Exported for Recycling.

Used, intact CRTs exported for recycling are not solid wastes if they meet the notice and consent conditions of § 261.39(a)(5), and if they are not speculatively accumulated as defined in § 261.1(c)(8).

## § 261.41 Notification and Recordkeeping for Used, Intact Cathode Ray Tubes (CRTs) Exported for Reuse.

- (a) CRT exporters who export used, intact CRTs for reuse must send a notification to EPA. This notification may cover export activities extending over a twelve (12) month or lesser period.
  - (1) The notification must be in writing, signed by the exporter, and include the following information:
    - (i) Name, mailing address, telephone number, and EPA ID number (if applicable) of the exporter of the used, intact CRTs;
    - (ii) The estimated frequency or rate at which the used, intact CRTs are to be exported for reuse and the period of time over which they are to be exported;
    - (iii) The estimated total quantity of used, intact CRTs specified in kilograms;
    - (iv) All points of entry to and departure from each transit country through which the used, intact CRTs will pass, a description of the approximate length of time the used, intact CRTs will remain in such country, and the nature of their handling while there;



- (v) A description of the means by which each shipment of the used, intact CRTs will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.));
- (vi) The name and address of the ultimate destination facility or facilities where the used, intact CRTs will be reused, refurbished, distributed, or sold for reuse and the estimated quantity of used, intact CRTs to be sent to each facility, as well as the name of any alternate destination facility or facilities;
- (vii) A description of the manner in which the used, intact CRTs will be reused (including reuse after refurbishment) in the foreign country that will be receiving the used, intact CRTs; and
- (viii) A certification signed by the CRT exporter that states:

"I certify under penalty of law that the CRTs described in this notice are intact and fully functioning or capable of being functional after refurbishment and that the used CRTs will be reused or refurbished and reused. 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."

- (2) Notifications submitted by mail should be sent to the following mailing address: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch (Mail Code 2255A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch (Mail Code 2255A), Environmental Protection Agency, William Jefferson Clinton South Building, Room 6144, 1200 Pennsylvania Ave. NW, Washington, DC 20004. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export CRTs."

- (b) CRT exporters of used, intact CRTs sent for reuse must keep copies of normal business records, such as contracts, demonstrating that each shipment of exported used, intact CRTs will be reused. This documentation must be retained for a period of at least three years from the date the CRTs were exported. If the documents are written in a language other than English, CRT exporters of used, intact CRTs sent for reuse must provide both the original, non-English version of the normal business records as well as a third-party translation of the normal business records into English within 30 days upon request by EPA.

[79 FR 36231, June 26, 2014, as amended at 83 FR 38263, Aug. 6, 2018]

## Subparts F-G [Reserved]

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

**Source:** 73 FR 64764, Oct. 30, 2008, unless otherwise noted.

### § 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 Regional Administrator 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.

[73 FR 64764, Oct. 30, 2008, as amended at 88 FR 54100, Aug. 9, 2023]

### § 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 Regional Administrator. 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator 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 Regional Administrator. 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 Regional Administrator will instruct the trustee to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Regional Administrator 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 paragraph (i) of this section that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator. 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 Regional Administrator. 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator 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 Regional Administrator, 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 Regional Administrator.

(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 Regional Administrator. 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 Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator 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 Regional Administrator. 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 Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator, 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 Regional Administrator.
- (8) Following a determination by the Regional Administrator that the hazardous secondary materials do not meet the conditions of the exclusion under § 261.4(a)(24), the Regional Administrator 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 Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from the

issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator 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 Regional Administrator 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 Regional Administrator.

- (10) The Regional Administrator 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 Regional Administrator 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 Regional Administrator. 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 Regional Administrator, to such party or parties as the Regional Administrator 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 Regional Administrator. 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 Regional Administrator will instruct the insurer to make reimbursements in such amounts as the Regional Administrator specifies in writing if the Regional Administrator determines that the expenditures are in accordance with the approved plan or otherwise justified. If the Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator 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 Regional Administrator. 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 Regional Administrator 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 Regional Administrator deems the facility abandoned; or
  - (ii) Conditional exclusion or interim status is lost, terminated, or revoked; or
  - (iii) Closure is ordered by the Regional Administrator 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 Regional Administrator, 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 Regional Administrator.
- (10) The Regional Administrator 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 Regional Administrator 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 Regional Administrator:
  - (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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator. 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 Regional Administrator, 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 Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator will approve, modify, or disapprove the plan within 90 days of its receipt. If the Regional Administrator 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 Regional Administrator will approve or modify this plan in writing within 60 days. If the Regional Administrator modifies the plan, this modified plan becomes the approved plan. The Regional Administrator 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 Regional Administrator, 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 Regional Administrator, 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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.

[73 FR 64764, Oct. 30, 2008, as amended at 88 FR 54101, Aug. 9, 2023]

**§§ 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 Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, 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 Regional Administrator 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 Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator. The request for a variance must be submitted in writing to the Regional Administrator. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Regional Administrator may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Regional Administrator to determine a level of financial responsibility other than that required by paragraph (a) or (b) of this section.
- (d) **Adjustments by the Regional Administrator.** If the Regional Administrator 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 Regional Administrator 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 Regional Administrator'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 Regional Administrator



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 Regional Administrator, within a reasonable time, any information which the Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator:
- (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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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) Each State in which a facility covered by the guarantee is located have submitted a written statement to EPA that a guarantee executed as described in this section and § 261.151(g)(2) is a legally valid and enforceable obligation in that State.
- (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 each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business; and if
  - (B) The Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to EPA that a guarantee executed as described in this section and § 261.151(g)(2) is a legally valid and enforceable obligation in that State.
- (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 Regional Administrator.
  - (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 Regional Administrator.
  - (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) Each State in which a facility covered by the surety bond is located have submitted a written statement to EPA that a surety bond executed as described in this section and § 261.151(k) is a legally valid and enforceable obligation in that State.

(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 Regional Administrator.
- (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).

[73 FR 64764, Oct. 30, 2008, as amended at 88 FR 54101, Aug. 9, 2023]

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

- (a) An owner or operator must notify the Regional Administrator 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.

**§ 261.149 Use of State-required mechanisms.**

- (a) For a reclamation or intermediate facility located in a State where EPA is administering the requirements of this subpart but where the State has regulations that include requirements for financial assurance of closure or liability coverage, an owner or operator may use State-required financial mechanisms to meet the requirements of § 261.143 or § 261.147 if the Regional Administrator determines that the State mechanisms are at least equivalent to the financial mechanisms specified in this subpart. The Regional Administrator will evaluate the equivalency of the mechanisms principally in terms of certainty of the

availability of: Funds for the required closure activities or liability coverage; and the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator evidence of the establishment of the mechanism together with a letter requesting that the State-required mechanism be considered acceptable for meeting the requirements of this subpart. The submission must include the following information: The facility's EPA Identification Number (if available), name, and address, and the amount of funds for closure or liability coverage assured by the mechanism. The Regional Administrator will notify the owner or operator of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 261.143 or § 261.147, as applicable.

- (b) If a State-required mechanism is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by increasing the funds available through the State-required mechanism or using additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

#### **§ 261.150 State assumption of responsibility.**

- (a) If a State either assumes legal responsibility for an owner's or operator's compliance with the closure or liability requirements of this part or assures that funds will be available from State sources to cover those requirements, the owner or operator will be in compliance with the requirements of § 261.143 or § 261.147 if the Regional Administrator determines that the State's assumption of responsibility is at least equivalent to the financial mechanisms specified in this subpart. The Regional Administrator will evaluate the equivalency of State guarantees principally in terms of: Certainty of the availability of funds for the required closure activities or liability coverage; and the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator a letter from the State describing the nature of the State's assumption of responsibility together with a letter from the owner or operator requesting that the State's assumption of responsibility be considered acceptable for meeting the requirements of this subpart. The letter from the State must include, or have attached to it, the following information: The facility's EPA Identification Number (if available), name, and address, and the amount of funds for closure or liability coverage that are guaranteed by the State. The Regional Administrator will notify the owner or operator of his determination regarding the acceptability of the State's guarantee in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 265.143 or § 265.147, as applicable.
- (b) If a State's assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by use of both the State's assurance and additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

#### **§ 261.151 Wording of the instruments.**

- (a)

- (1) A trust agreement for a trust fund, as specified in § 261.143(a) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of \_\_\_\_\_" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a facility regulated under parts 264, or 265, or satisfying the conditions of the exclusion under § 261.4(a)(24) shall provide assurance that funds will be available if needed for care of the facility under 40 CFR parts 264 or 265, subparts G, as applicable ,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number (if available), name, address, and the current cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA in the event that the hazardous secondary materials of the grantor no longer meet the conditions of the exclusion under § 261.4(a)(24). The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall

not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payments from the Fund. The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of the performance of activities required under subpart G of 40 CFR parts 264 or 265 for the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for expenditures for such activities in such amounts as the beneficiary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.



Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [insert name of State].

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 261.151(a)(1) as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

- (2) The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in § 261.143(a) of this chapter. State requirements may differ on the proper content of this acknowledgment.

State of \_\_\_\_\_

County of \_\_\_\_\_

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

- (b) A surety bond guaranteeing payment into a trust fund, as specified in § 261.143(b) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Financial Guarantee Bond

Date bond executed:

Effective date:

Principal: [legal name and business address of owner or operator]

Type of Organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: \_\_\_\_\_

Surety(ies): [name(s) and business address(es)]

EPA Identification Number, name, address and amount(s) for each facility guaranteed by this bond: \_\_\_\_\_

Total penal sum of bond: \$ \_\_\_\_\_

Surety's bond number: \_\_\_\_\_

Know All Persons By These Presents, That we, the Principal and Surety(ies) are firmly bound to the U.S. EPA in the event that the hazardous secondary materials at the reclamation or intermediate facility listed below no longer meet the conditions of the exclusion under 40 CFR 261.4(a)(24), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit or interim status in order to own or operate each facility identified above, or to meet conditions under 40 CFR sections 261.4(a)(24), and

Whereas said Principal is required to provide financial assurance as a condition of permit or interim status or as a condition of an exclusion under 40 CFR sections 261.4(a)(24) and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall satisfy all the conditions established for exclusion of hazardous secondary materials from coverage as solid waste under 40 CFR sections 261.4(a)(24),

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by an EPA Regional Administrator or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in subpart H of 40 CFR part 261, as applicable, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by an EPA Regional Administrator that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 261.151(b) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)]

\_\_\_\_\_  
[Name(s)]

\_\_\_\_\_  
[Title(s)]

[Corporate seal] \_\_\_\_\_

## Corporate Surety(ies)

[Name and address]

State of incorporation: \_\_\_\_\_

Liability limit:

\$ \_\_\_\_\_

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ \_\_\_\_\_

- (c) A letter of credit, as specified in § 261.143(c) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

### IRREVOCABLE STANDBY LETTER OF CREDIT

REGIONAL ADMINISTRATOR(S)

Region(s) \_\_\_\_\_

U.S. ENVIRONMENTAL PROTECTION AGENCY

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. \_\_\_\_\_ in your favor, in the event that the hazardous secondary materials at the covered reclamation or intermediary facility(ies) no longer meet the conditions of the exclusion under 40 CFR 261.4(a)(24), at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars \$\_\_\_\_\_, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No.\_\_\_\_, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Resource Conservation and Recovery Act of 1976 as amended."

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 261.151(c) as such regulations were constituted on the date shown immediately below.

[SIGNATURE(S) AND TITLE(S) OF OFFICIAL(S) OF ISSUING INSTITUTION] [DATE]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(d) A certificate of insurance, as specified in § 261.143(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATE OF INSURANCE

NAME AND ADDRESS OF INSURER (HEREIN CALLED THE "INSURER"):

\_\_\_\_\_

NAME AND ADDRESS OF INSURED (HEREIN CALLED THE "INSURED"):

\_\_\_\_\_

Facilities Covered: [List for each facility: The EPA Identification Number (if any issued), name, address, and the amount of insurance for all facilities covered, which must total the face amount shown below.

FACE AMOUNT:

\_\_\_\_\_

Policy Number: \_\_\_\_\_

EFFECTIVE DATE:

\_\_\_\_\_

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance so that in accordance with applicable regulations all hazardous secondary materials can be removed from the facility or any unit at the facility and the facility or any unit at the facility can be decontaminated at the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 261.143(d) as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the EPA Regional Administrator(s) of the U.S. Environmental Protection Agency, the Insurer agrees to furnish to the EPA Regional Administrator(s) a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 261.151(d) such regulations were constituted on the date shown immediately below.

[AUTHORIZED SIGNATURE FOR INSURER]

[NAME OF PERSON SIGNING]

[TITLE OF PERSON SIGNING]

Signature of witness or notary: \_\_\_\_\_

[DATE]

- (e) A letter from the chief financial officer, as specified in § 261.143(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located].

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in subpart H of 40 CFR part 261.

[Fill out the following nine paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, address, and current cost estimates.]



1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in subpart H of 40 CFR 261. The current cost estimates covered by the test are shown for each facility: \_\_\_\_\_.
2. This firm guarantees, through the guarantee specified in subpart H of 40 CFR part 261, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility: \_\_\_\_\_. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee\_\_\_\_\_, or (3) engaged in the following substantial business relationship with the owner or operator \_\_\_\_\_, and receiving the following value in consideration of this guarantee\_\_\_\_\_]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].
3. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 261, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR part 261. The current cost estimates covered by such a test are shown for each facility:\_\_\_\_\_.
4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR part 261 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:\_\_\_\_\_.
5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:\_\_\_\_\_.
6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: \_\_\_\_\_.
7. This firm guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: \_\_\_\_\_. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee \_\_\_\_; or (3) engaged in the following substantial business relationship with the owner or operator \_\_\_\_, and receiving the following value in consideration of this guarantee \_\_\_\_]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 264 or 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: \_\_\_\_.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: \_\_\_\_.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of paragraph (e)(1)(i) of § 261.143 of this chapter are used. Fill in Alternative II if the criteria of paragraph (e)(1)(ii) of § 261.143(e) of this chapter are used.]

#### ALTERNATIVE I

1. Sum of current cost estimates [total of all cost estimates shown in the nine paragraphs above] \$\_\_\_\_

\*2. Total liabilities [if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4] \$\_\_\_\_

\*3. Tangible net worth \$\_\_\_\_

\*4. Net worth \$\_\_\_\_ -

\*5. Current assets \$\_\_\_\_

\*6. Current liabilities \$\_\_\_\_

7. Net working capital [line 5 minus line 6] \$\_\_\_\_

\*8. The sum of net income plus depreciation, depletion, and amortization \$\_\_\_\_ -

\*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) \$\_\_\_\_ -

10. Is line 3 at least \$10 million? (Yes/No) \_\_\_\_

11. Is line 3 at least 6 times line 1? (Yes/No) \_\_\_\_ -

12. Is line 7 at least 6 times line 1? (Yes/No) \_\_\_\_\_ -

\*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No) \_\_\_\_\_

14. Is line 9 at least 6 times line 1? (Yes/No) \_\_\_\_\_ -

15. Is line 2 divided by line 4 less than 2.0? (Yes/No) \_\_\_\_\_ -

16. Is line 8 divided by line 2 greater than 0.1? (Yes/No) \_\_\_\_\_ -

17. Is line 5 divided by line 6 greater than 1.5? (Yes/No) \_\_\_\_\_ -

ALTERNATIVE II

1. Sum of current cost estimates [total of all cost estimates shown in the eight paragraphs above] \$\_\_\_\_\_ -

2. Current bond rating of most recent issuance of this firm and name of rating service \_\_\_\_\_ -

3. Date of issuance of bond \_\_\_\_\_ -

4. Date of maturity of bond \_\_\_\_\_ -

\*5. Tangible net worth [if any portion of the cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line] \$\_\_\_\_\_ -

\*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) \$\_\_\_\_\_ -

7. Is line 5 at least \$10 million? (Yes/No) \_\_\_\_\_

8. Is line 5 at least 6 times line 1? (Yes/No) \_\_\_\_\_

\*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No) \_\_\_\_\_

10. Is line 6 at least 6 times line 1? (Yes/No) \_\_\_\_\_ -

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 261.151(e) as such regulations were constituted on the date shown immediately below.

[Signature] \_\_\_\_\_

[Name] \_\_\_\_\_

[Title] \_\_\_\_\_

[Date] \_\_\_\_\_

- (f) A letter from the chief financial officer, as specified in Sec. 261.147(f) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

LETTER FROM CHIEF FINANCIAL OFFICER

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located].

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage under § 261.147[insert "and costs assured § 261.143(e)" if applicable] as specified in subpart H of 40 CFR part 261.

[Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, and address].

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in subpart H of 40 CFR part 261:\_\_\_\_\_

The firm identified above guarantees, through the guarantee specified in subpart H of 40 CFR part 261, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: \_\_\_\_\_. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee - \_\_\_\_; or (3) engaged in the following substantial business relationship with the owner or operator \_\_\_\_\_, and receiving the following value in consideration of this guarantee \_\_\_\_-]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265:\_\_\_\_\_

The firm identified above guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: \_\_\_\_\_. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee \_\_\_\_; or (3) engaged in the following substantial business relationship with the owner or operator \_\_\_\_\_, and receiving the following value in consideration of this guarantee \_\_\_\_]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[If you are using the financial test to demonstrate coverage of both liability and costs assured under § 261.143(e) or closure or post-closure care costs under 40 CFR 264.143, 264.145, 265.143 or 265.145, fill in the following nine paragraphs regarding facilities and associated cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA identification number (if any issued), name, address, and current cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in subpart H of 40 CFR 261. The current cost estimates covered by the test are shown for each facility:\_\_\_\_\_.
2. This firm guarantees, through the guarantee specified in subpart H of 40 CFR part 261, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility:\_\_\_\_\_. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee\_\_\_\_\_, or (3) engaged in the following substantial business relationship with the owner or operator \_\_\_\_\_, and receiving the following value in consideration of this guarantee\_\_\_\_\_]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].
3. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 261, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR part 261. The current cost estimates covered by such a test are shown for each facility:\_\_\_\_\_.
4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR part 261 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:\_\_\_\_\_.
5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:\_\_\_\_\_.
6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:  
\_\_\_\_\_.
7. This firm guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: \_\_\_\_\_. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee \_\_\_\_\_; or (3) engaged in the following substantial business relationship with the owner or operator \_\_\_\_\_, and receiving the following value in consideration of this guarantee \_\_\_\_\_].

[Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 264 or 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: \_\_\_\_\_.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: \_\_\_\_\_.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

## Part A. Liability Coverage for Accidental Occurrences

[Fill in Alternative I if the criteria of paragraph (f)(1)(i) of Sec. 261.147 are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of Sec. 261.147 are used.]

### Alternative I

1. Amount of annual aggregate liability coverage to be demonstrated \$\_\_\_\_\_.

\*2. Current assets \$\_\_\_\_\_.

\*3. Current liabilities \$\_\_\_\_\_.

4. Net working capital (line 2 minus line 3) \$\_\_\_\_\_.

\*5. Tangible net worth \$\_\_\_\_\_.

\*6. If less than 90% of assets are located in the U.S., give total U.S. assets \$\_\_\_\_\_.

7. Is line 5 at least \$10 million? (Yes/No) \_\_\_\_\_.

8. Is line 4 at least 6 times line 1? (Yes/No) \_\_\_\_\_.

9. Is line 5 at least 6 times line 1? (Yes/No) \_\_\_\_\_.

\*10. Are at least 90% of assets located in the U.S.? (Yes/No) \_\_\_\_\_. If not, complete line 11.

11. Is line 6 at least 6 times line 1? (Yes/No) \_\_\_\_\_.

## Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated \$\_\_\_\_\_.

2. Current bond rating of most recent issuance and name of rating service \_\_\_\_\_-\_\_\_\_\_.

3. Date of issuance of bond \_\_\_\_\_-.

4. Date of maturity of bond \_\_\_\_\_-.

\*5. Tangible net worth \$\_\_\_\_\_.

\*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) \$\_\_\_\_\_.

7. Is line 5 at least \$10 million? (Yes/No) \_\_\_\_\_.

8. Is line 5 at least 6 times line 1? \_\_\_\_\_.

9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) \_\_\_\_.

10. Is line 6 at least 6 times line 1? \_\_\_\_\_.

[Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and costs assured under § 261.143(e) or closure or post-closure care costs under 40 CFR 264.143, 264.145, 265.143 or 265.145.]

## Part B. Facility Care and Liability Coverage

[Fill in Alternative I if the criteria of paragraphs (e)(1)(i) of Sec. 261.143 and (f)(1)(i) of Sec. 261.147 are used. Fill in Alternative II if the criteria of paragraphs (e)(1)(ii) of Sec. 261.143 and (f)(1)(ii) of Sec. 261.147 are used.]

## Alternative I

1. Sum of current cost estimates (total of all cost estimates listed above) \$\_\_\_\_\_.

2. Amount of annual aggregate liability coverage to be demonstrated \$\_\_\_\_\_.

3. Sum of lines 1 and 2 \$\_\_\_\_\_.

\*4. Total liabilities (if any portion of your cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) \$\_\_\_\_\_.

\*5. Tangible net worth \$\_\_\_\_\_.

- \*6. Net worth \$\_\_\_\_\_ -
- \*7. Current assets \$\_\_\_\_\_
- \*8. Current liabilities \$\_\_\_\_\_
9. Net working capital (line 7 minus line 8) \$\_\_\_\_\_
- \*10. The sum of net income plus depreciation, depletion, and amortization \$\_\_\_\_\_ -
- \*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) \$\_\_\_\_\_
12. Is line 5 at least \$10 million? (Yes/No)
13. Is line 5 at least 6 times line 3? (Yes/No)
14. Is line 9 at least 6 times line 3? (Yes/No)
- \*15. Are at least 90% of assets located in the U.S.? (Yes/No) If not, complete line 16.
16. Is line 11 at least 6 times line 3? (Yes/No)
17. Is line 4 divided by line 6 less than 2.0? (Yes/No)
18. Is line 10 divided by line 4 greater than 0.1? (Yes/No)
19. Is line 7 divided by line 8 greater than 1.5? (Yes/No)

## Alternative II

1. Sum of current cost estimates (total of all cost estimates listed above) \$\_\_\_\_\_ -
2. Amount of annual aggregate liability coverage to be demonstrated \$\_\_\_\_\_ -
3. Sum of lines 1 and 2 \$\_\_\_\_\_
4. Current bond rating of most recent issuance and name of rating service \_\_\_\_\_ -
5. Date of issuance of bond \_\_\_\_\_ -
6. Date of maturity of bond \_\_\_\_\_ -
- \*7. Tangible net worth (if any portion of the cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line) \$\_\_\_\_\_ -
- \*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) \$\_\_\_\_\_ -



9. Is line 7 at least \$10 million? (Yes/No)

10. Is line 7 at least 6 times line 3? (Yes/No)

\*11. Are at least 90% of assets located in the U.S.? (Yes/No) If not complete line 12.

12. Is line 8 at least 6 times line 3? (Yes/No)

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 261.151(f) as such regulations were constituted on the date shown immediately below.

[Signature] \_\_\_\_\_

[Name] \_\_\_\_\_

[Title] \_\_\_\_\_

[Date] \_\_\_\_\_

(g)

- (1) A corporate guarantee, as specified in § 261.143(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Corporate Guarantee for Facility Care

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor. This guarantee is made on behalf of the [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in 40 CFR 264.141(h) and 265.141(h)"] to the United States Environmental Protection Agency (EPA).

## Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 261.143(e).
2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number (if any issued), name, and address.
3. "Closure plans" as used below refer to the plans maintained as required by subpart H of 40 CFR part 261 for the care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees that in the event of a determination by the Regional Administrator 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), 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 § 261.143(a) in the name of the owner or operator in the amount of the current cost estimate.
5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator] that he intends to provide alternate financial assurance as specified in subpart H of 40 CFR part 261, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.
6. The guarantor agrees to notify the EPA Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.
7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate financial assurance as specified in of 40 CFR parts 264, 265, or subpart H of 40 CFR part 261, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.
8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure plan, the extension or reduction of the time of performance, or any other modification or alteration of an obligation of the owner or operator pursuant to 40 CFR parts 264, 265, or Subpart H of 40 CFR part 261.
9. Guarantor agrees to remain bound under this guarantee for as long as [owner or operator] must comply with the applicable financial assurance requirements of 40 CFR parts 264 and 265 or the financial assurance condition of 40 CFR 261.4(a)(24)(vi)(F) for the above-listed facilities, except as provided in paragraph 10 of this agreement.
10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the EPA Regional Administrator(s) approve(s), alternate coverage complying with 40 CFR 261.143.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and by [the owner or operator].

11. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in 40 CFR parts 264, 265, or subpart H of 40 CFR 261, as applicable, and obtain written approval of such assurance from the EPA Regional Administrator(s) within 90 days after a notice of cancellation by the guarantor is received by an EPA Regional Administrator from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

12. Guarantor expressly waives notice of acceptance of this guarantee by the EPA or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the applicable requirements of 40 CFR parts 264, 265, or subpart H of 40 CFR 261.

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 261.151(g)(1) as such regulations were constituted on the date first above written.

Effective date: \_\_\_\_\_

[Name of guarantor] \_\_\_\_\_

[Authorized signature for guarantor] \_\_\_\_\_

[Name of person signing] \_\_\_\_\_

[Title of person signing] \_\_\_\_\_

Signature of witness or notary: \_\_\_\_\_

- (2) A guarantee, as specified in § 261.147(g), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

### Guarantee for Liability Coverage

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of \_\_\_\_" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is one of the following: "our subsidiary;" "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in 40 CFR [either 264.141(h) or 265.141(h)]", to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

## Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 261.147(g).
2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA identification number (if any issued), name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.] This corporate guarantee satisfies RCRA third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.
3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.
4. Such obligation does not apply to any of the following:
  - (a) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert owner or operator] would be obligated to pay in the absence of the contract or agreement.
  - (b) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.
  - (c) Bodily injury to:
    - (1) An employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator]; or
    - (2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert owner or operator]. This exclusion applies:
      - (A) Whether [insert owner or operator] may be liable as an employer or in any other capacity; and
      - (B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert owner or operator];

(2) Premises that are sold, given away or abandoned by [insert owner or operator] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert owner or operator];

(4) Personal property in the care, custody or control of [insert owner or operator];

(5) That particular part of real property on which [insert owner or operator] or any contractors or subcontractors working directly or indirectly on behalf of [insert owner or operator] are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator[s] for the Region[s] in which the facility[ies] is[are] located and to [owner or operator] that he intends to provide alternate liability coverage as specified in 40 CFR 261.147, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail of a voluntary or involuntary proceeding under title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in 40 CFR 261.147 in the name of [owner or operator], unless [owner or operator] has done so.

7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by 40 CFR 261.147, provided that such modification shall become effective only if a Regional Administrator does not disapprove the modification within 30 days of receipt of notification of the modification.

8. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of 40 CFR 261.147 for the above-listed facility(ies), except as provided in paragraph 9 of this agreement.

9. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the EPA Regional Administrator(s) approve(s), alternate liability coverage complying with 40 CFR 261.147.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]:

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and by [the owner or operator].

10. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

11. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

12. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

### Certification of Valid Claim

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of \$.

[Signatures]

Principal

(Notary) Date

[Signatures]

Claimant(s)

(Notary) Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

13. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in 40 CFR 261.151(g)(2) as such regulations were constituted on the date shown immediately below.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

- (h) A hazardous waste facility liability endorsement as required § 261.147 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Hazardous Secondary Material Reclamation/Intermediate Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 261.147. The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 261.147(f).



(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

Attached to and forming part of policy No. \_\_\_\_ issued by [name of Insurer], herein called the Insurer, of [address of Insurer] to [name of insured] of [address] this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_. The effective date of said policy is \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

I hereby certify that the wording of this endorsement is identical to the wording specified in 40 CFR 261.151(h) as such regulation was constituted on the date first above written, and that the Insurer 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.

[Signature of Authorized Representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

- (i) A certificate of liability insurance as required in § 261.147 must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Hazardous Secondary Material Reclamation/Intermediate Facility Certificate of Liability Insurance

1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR parts 264, 265, and the financial assurance condition of 40 CFR 261.4(a)(24)(vi)(F). The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and



which are insured for both]. The limits of liability are [insert the dollar amount of the “each occurrence” and “annual aggregate” limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number, issued on [date]. The effective date of said policy is [date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 261.147.

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 261.151(i) as such regulation was constituted on the date first above written, and that the Insurer 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.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(j) A letter of credit, as specified in § 261.147(h) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Irrevocable Standby Letter of Credit

Name and Address of Issuing Institution \_\_\_\_\_

Regional Administrator(s) \_\_\_\_\_

Region(s) \_\_\_\_\_

U.S. Environmental Protection Agency \_\_\_\_\_

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. \_\_\_\_\_ in the favor of [“any and all third-party liability claimants” or insert name of trustee of the standby trust fund], at the request and for the account of [owner or operator's name and address] for third-party liability awards or settlements up to [in words] U.S. dollars \$\_\_\_\_\_ per occurrence and the annual aggregate amount of [in words] U.S. dollars \$\_\_\_\_\_, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] U.S. dollars \$\_\_\_\_\_ per occurrence, and the annual aggregate amount of [in words] U.S. dollars \$\_\_\_\_\_, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. \_\_\_\_\_, and [insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

## Certificate of Valid Claim

The undersigned, as parties [insert principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operations of [principal's] facility should be paid in the amount of \$[ ]. We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal].

This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

- (1) Any property owned, rented, or occupied by [insert principal];
- (2) Premises that are sold, given away or abandoned by [insert principal] if the property damage arises out of any part of those premises;
- (3) Property loaned to [insert principal];
- (4) Personal property in the care, custody or control of [insert principal];
- (5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

[Signatures] \_\_\_\_\_

Grantor \_\_\_\_\_

[Signatures] \_\_\_\_\_

Claimant(s) \_\_\_\_\_

or (2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.]

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the USEPA Regional Administrator for Region [Region], and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

[Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 261.151(j) as such regulations were constituted on the date shown immediately below. [Signature(s) and title(s) of official(s) of issuing institution] [Date].

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

- (k) A surety bond, as specified in Sec. 261.147(i) of this chapter, must be worded as follows: except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Payment Bond

Surety Bond No. [Insert number]

Parties [Insert name and address of owner or operator], Principal, incorporated in [Insert State of incorporation] of [Insert city and State of principal place of business] and [Insert name and address of surety company(ies)], Surety Company(ies), of [Insert surety(ies) place of business].

EPA Identification Number (if any issued), name, and address for each facility guaranteed by this bond: \_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

NONSUDDEN

SUDDEN ACCIDENTAL

ACCIDENTAL

OCCURRENCES

OCCURRENCES

\_\_\_\_\_  
\_\_\_\_\_

Penal Sum Per Occurrence	[insert amount]	[insert amount]
Annual Aggregate	[insert amount]	[insert amount]

\_\_\_\_\_  
\_\_\_\_\_

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its(their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules and regulations of the U.S. Environmental Protection Agency (EPA), particularly 40 CFR parts 264, 265, and Subpart H of 40 CFR part 261 (if applicable).

(3) Rules and regulations of the governing State agency (if applicable) [insert citation].

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert Principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert Principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Principal]. This exclusion applies:

(A) Whether [insert Principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Principal];

(2) Premises that are sold, given away or abandoned by [insert Principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Principal];

(4) Personal property in the care, custody or control of [insert Principal];

(5) That particular part of real property on which [insert Principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert Principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

### Certification of Valid Claim

The undersigned, as parties [insert name of Principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of \$[ ].

[Signature]

Principal

[Notary] Date

[Signature(s)]

Claimant(s)

[Notary] Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert "primary" or "excess"] coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Regional Administrator forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the USEPA Regional Administrator for Region [Region ], provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Regional Administrator, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 261.151(k), as such regulations were constituted on the date this bond was executed.

## PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

## CORPORATE SURETY[IES]

[Name and address]

State of incorporation: \_\_\_\_\_

Liability Limit: \$ \_\_\_\_\_

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ \_\_\_\_\_

(l)

- (1) A trust agreement, as specified in § 261.147(j) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

#### TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of \_\_\_\_\_" or "a national bank"], the "trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of \_\_\_\_\_-[up to \$1 million] per occurrence and [up to \$2 million] annual aggregate for sudden



accidental occurrences and \_\_\_\_\_ [up to \$3 million] per occurrence and \_\_\_\_\_-[up to \$6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor]. This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments

or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility or group of facilities should be paid in the amount of \$[ ].

[Signatures]

Grantor

[Signatures]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the EPA Regional Administrator.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Regional Administrator will agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 261.151(l) as such regulations were constituted on the date first above written.

[SIGNATURE OF GRANTOR]

[TITLE]

Attest:

[TITLE]

[SEAL]

[SIGNATURE OF TRUSTEE]

Attest:

[TITLE]

[SEAL]

- (2) The following is an example of the certification of acknowledgement which must accompany the trust agreement for a trust fund as specified in § 261.147(j). State requirements may differ on the proper content of this acknowledgement.

State of

County of

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

(m)

- (1) A standby trust agreement, as specified in § 261.147(h) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

#### STANDBY TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of a State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of \_\_\_\_\_" or "a national bank"], the "trustee."

Whereas the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This Agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of \_\_\_\_\_-[up to \$1 million] per occurrence and \_\_\_\_\_-[up to \$2 million] annual aggregate for sudden accidental occurrences and \_\_\_\_\_-[up to \$3 million] per occurrence and \_\_\_\_\_-[up to \$6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned by [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:



CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility should be paid in the amount of \$[ ]

[Signature] \_\_\_\_\_

Grantor \_\_\_\_\_

[Signatures] \_\_\_\_\_

Claimant(s) \_\_\_\_\_

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of 40 CFR 261.151(k) and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the EPA Regional Administrator hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Regional Administrator will agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 261.151(m) as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

- (2) The following is an example of the certification of acknowledgement which must accompany the trust agreement for a standby trust fund as specified in section 261.147(h) of this chapter. State requirements may differ on the proper content of this acknowledgement.

State of \_\_\_\_\_

County of \_\_\_\_\_

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

[SIGNATURE OF NOTARY PUBLIC]

[73 FR 64764, Oct. 30, 2008, as amended at 88 FR 54101, Aug. 9, 2023]

## Subpart I—Use and Management of Containers

**Source:** 80 FR 1777, Jan. 13, 2015, unless otherwise noted.

### § 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**

**Source:** 80 FR 1777, Jan. 13, 2015, unless otherwise noted.

#### **§ 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 Regional Administrator 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 Regional Administrator:
  - (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 Regional Administrator 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 Regional Administrator 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 RCRA section 7003(a) 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, 271, 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

**Source:** 80 FR 1777, Jan. 13, 2015, unless otherwise noted.

#### § 261.400 Applicability.

The requirements of this subpart apply to (1) those areas of an entity managing hazardous secondary materials excluded under § 261.4(a)(23) and/or (24) where such materials are generated or accumulated on site, and (2) facilities regulated under the standards at 40 CFR part 266, subpart Q that receive ignitable spent refrigerant from off-site and that are not transfer facilities that store the refrigerants for less than ten (10) days.

- (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.
- (c) Facilities receiving refrigerant from off-site under 40 CFR part 266, subpart Q that are not transfer facilities that store the refrigerants for less than ten (10) days must comply with §§ 261.410 and 261.420.

[80 FR 1777, Jan. 13, 2015, as amended at 88 FR 54102, Aug. 9, 2023; 89 FR 82870, Oct. 11, 2024]

#### § 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 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.

[80 FR 1777, Jan. 13, 2015, as amended at 88 FR 54102, Aug. 9, 2023]

**§ 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 operating under a verified recycler variance under § 260.31(d) of this subchapter must immediately notify 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.

[80 FR 1777, Jan. 13, 2015, as amended at 88 FR 54103, Aug. 9, 2023]

## **§ 261.420 Contingency planning and emergency procedures for facilities generating or accumulating more than 6,000 kg of hazardous secondary material or receiving ignitable spent refrigerants**

A generator or an intermediate or reclamation facility that generates or accumulates more than 6,000 kg of hazardous secondary material, or a facility receiving refrigerant from off-site under 40 CFR part 266, subpart Q, that is not a transfer facility that stores the refrigerants for less than ten (10) days 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 operating under a verified recycler variance under § 260.31(d) of this subchapter may develop one contingency plan which meets all regulatory requirements. EPA 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 either the government official designated as the on-scene coordinator for that geographical area, or 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 Regional Administrator. 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.

[80 FR 1777, Jan. 13, 2015, as amended at 81 FR 85806, Nov. 28, 2016; 88 FR 54103, Aug. 9, 2023; 89 FR 82870, Oct. 11, 2024]

## Subparts N-Z [Reserved]

## Subpart AA—Air Emission Standards for Process Vents

**Source:** 80 FR 1777, Jan. 13, 2015, unless otherwise noted.

### § 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 Regional Administrator 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,  $1.74 \times 10^{-7}$  (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  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5$   $^{\circ}\text{C}$ , 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  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5$   $^{\circ}\text{C}$ , 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  $\pm 1$  percent of the temperature being monitored in  $^{\circ}\text{C}$  or  $\pm 0.5$   $^{\circ}\text{C}$ , 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  $\pm 1$  percent of the temperature being monitored in degrees Celsius ( °C) or  $\pm 0.5$  °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 Regional Administrator, 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 which implements the requirements of 40 CFR part 264, subpart X; 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 which implements the requirements of subpart O of this part; 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 which implements the requirements of 40 CFR part 266, subpart H; 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.

[80 FR 1777, Jan. 13, 2015, as amended at 88 FR 54103, Aug. 9, 2023]

## § 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/m<sup>3</sup> (@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/m<sup>3</sup> (@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 Regional Administrator'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 Regional Administrator 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:
  - (1) For facilities that comply with the provisions of § 261.1033(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be kept on-site at the facility by the effective date that the facility becomes subject to the provisions of this subpart.
  - (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 Regional Administrator 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 Regional Administrator 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

**Source:** 80 FR 1777, Jan. 13, 2015, unless otherwise noted.

#### § 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 Regional Administrator.
- (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 Regional Administrator.

**§ 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 Regional Administrator.

- (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 Regional Administrator.
  - (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 Regional Administrator 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").
  - (2) For facilities that comply with the provisions of § 261.1033(a)(2), an implementation schedule as specified in § 261.1033(a)(2).
  - (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 Regional Administrator 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 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

**Source:** 80 FR 1777, Jan. 13, 2015, unless otherwise noted.

#### § 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  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>) 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, 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  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>] 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  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>] 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 (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:

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<sub>i</sub> = Mass quantity of hazardous secondary material stream represented by C<sub>i</sub>, kg/hr.

Q<sub>T</sub> = Total mass quantity of hazardous secondary material during the averaging period, kg/hr.

C<sub>i</sub> = 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<sub>i</sub> 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<sup>-6</sup> atmospheres/gram-mole/m<sup>3</sup>] 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 Regional Administrator and the remanufacture 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 Regional Administrator 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 Regional Administrator.

(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.

[80 FR 1777, Jan. 13, 2015, as amended at 88 FR 54103, Aug. 9, 2023]

#### **§ 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 m<sup>3</sup>, 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 m<sup>3</sup> but less than 151 m<sup>3</sup>, the maximum organic vapor pressure limit for the tank is 27.6 kPa.
      - (C) For a tank design capacity less than 75 m<sup>3</sup>, 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 Regional Administrator in advance of each inspection to provide the Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 (cm<sup>2</sup>) 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 (cm<sup>2</sup>) 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 Regional Administrator in advance of each inspection to provide the Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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 Regional Administrator 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.

[80 FR 1777, Jan. 13, 2015, as amended at 88 FR 54103, Aug. 9, 2023]

## § 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 m<sup>3</sup> and less than or equal to 0.46 m<sup>3</sup>, 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 m<sup>3</sup> 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 m<sup>3</sup> 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 m<sup>3</sup> 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 EPA 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 remanufacturer 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 EPA 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  $\pm 2.5$  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 Regional Administrator 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 Regional Administrator 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 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.
- (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.

[80 FR 1777, Jan. 13, 2015, as amended at 88 FR 54104, Aug. 9, 2023]

## **§ 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.

[45 FR 33119, May 19, 1980, as amended at 70 FR 34562, June 14, 2005]

### **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

EPA hazardous waste No.	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo- <i>p</i> -dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo- <i>p</i> - dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta-, and hexachlorodibenzo- <i>p</i> -dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023	Tetra-, and pentachlorodibenzo- <i>p</i> -dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.

*N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.*

EPA hazardous waste No.	Hazardous constituents for which listed
F025	Chloromethane; Dichloromethane; Trichloromethane; Carbon tetrachloride; Chloroethylene; 1,1-Dichloroethane; 1,2-Dichloroethane; trans-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Pentachloroethane; Hexachloroethane; Allyl chloride (3-Chloropropene); Dichloropropane; Dichloropropene; 2-Chloro-1,3-butadiene; Hexachloro-1,3-butadiene; Hexachlorocyclopentadiene; Benzene; Chlorobenzene; Dichlorobenzene; 1,2,4-Trichlorobenzene; Tetrachlorobenzene; Pentachlorobenzene; Hexachlorobenzene; Toluene; Naphthalene.
F026	Tetra-, penta-, and hexachlorodibenzo- <i>p</i> -dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F027	Tetra-, penta-, and hexachlorodibenzo- <i>p</i> - dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F028	Tetra-, penta-, and hexachlorodibenzo- <i>p</i> - dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F032	Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo- <i>p</i> -dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.
F034	Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium.
F035	Arsenic, chromium, lead.
F037	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F038	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F039	All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under 40 CFR 268.43, Table CCW.
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.

*N.A. —Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.*

EPA hazardous waste No.	Hazardous constituents for which listed
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.
K027	Toluene diisocyanate, toluene-2, 4-diamine.
K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.

*N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.*

EPA hazardous waste No.	Hazardous constituents for which listed
K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.
K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, naphthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086	Lead, hexavalent chromium.
K087	Phenol, naphthalene.
K088	Cyanide (complexes).
K093	Phthalic anhydride, maleic anhydride.
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.

N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

EPA hazardous waste No.	Hazardous constituents for which listed
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.
K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K107	1,1-Dimethylhydrazine (UDMH).
K108	1,1-Dimethylhydrazine (UDMH).
K109	1,1-Dimethylhydrazine (UDMH).
K110	1,1-Dimethylhydrazine (UDMH).
K111	2,4-Dinitrotoluene.
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K114	2,4-Toluenediamine, o-toluidine, p-toluidine.
K115	2,4-Toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.
K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K131	Dimethyl sulfate, methyl bromide.
K132	Methyl bromide.
K136	Ethylene dibromide.
K141	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K142	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143	Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145	Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene,

*N.A. —Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.*

EPA hazardous waste No.	Hazardous constituents for which listed
	benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148	Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K149	Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150	Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151	Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156	Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157	Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158	Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159	Benzene, butylate, eptc, molinate, pebulate, vernolate.
K161	Antimony, arsenic, metam-sodium, ziram.
K169	Benzene.
K170	Benzo(a)pyrene, dibenz(a,h)anthracene, benzo (a) anthracene, benzo (b)fluoranthene, benzo(k)fluoranthene, 3-methylcholanthrene, 7, 12-dimethylbenz(a)anthracene.
K171	Benzene, arsenic.
K172	Benzene, arsenic.
K174	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD), 1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF), 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,6,7,8,9-HpCDF), HxCDDs (All Hexachlorodibenzo-p-dioxins), HxCDFs (All Hexachlorodibenzofurans), PeCDDs (All Pentachlorodibenzo-p-dioxins), OCDD (1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin, OCDF (1,2,3,4,6,7,8,9-Octachlorodibenzofuran), PeCDFs (All Pentachlorodibenzofurans), TCDDs (All tetrachlorodi-benzo-p-dioxins), TCDFs (All tetrachlorodibenzofurans).
K175	Mercury
K176	Arsenic, Lead.
K177	Antimony.
K178	Thallium.
K181	Aniline, o-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline,
	<i>N.A. —Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.</i>

EPA hazardous waste No.	Hazardous constituents for which listed
	1,2-phenylenediamine, 1,3-phenylenediamine.

*N.A. —Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.*

[46 FR 4619, Jan. 16, 1981]

**Editorial Note:** For FEDERAL REGISTER citations affecting appendix VII, part 261, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

## Appendix VIII to Part 261—Hazardous Constituents

Common name	Chemical abstracts name	Chemical abstracts No.	Haza was
A2213	Ethanimidothioic acid, 2- (dimethylamino) -N-hydroxy-2-oxo-, methyl ester	30558-43-1	
Acetonitrile	Same	75-05-8	
Acetophenone	Ethanone, 1-phenyl-	98-86-2	
2-Acetylaminefluorone	Acetamide, N-9H-fluoren-2-yl-	53-96-3	
Acetyl chloride	Same	75-36-5	
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	
Acrolein	2-Propenal	107-02-8	
Acrylamide	2-Propenamide	79-06-1	
Acrylonitrile	2-Propenenitrile	107-13-1	
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116-06-3	
Aldicarb sulfone	Propanal, 2-methyl-2- (methylsulfonyl) -, O-[(methylamino) carbonyl] oxime	1646-88-4	
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha, 8abeta)-	309-00-2	
Allyl alcohol	2-Propen-1-ol	107-18-6	
Allyl chloride	1-Propane, 3-chloro	107-05-1	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.



Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Aluminum phosphide	Same	20859-73-8	
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	
4-Aminopyridine	4-Pyridinamine	504-24-5	
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	
Aniline	Benzenamine	62-53-3	
o-Anisidine (2-methoxyaniline)	Benzenamine, 2-Methoxy-	90-04-0	
Antimony	Same	7440-36-0	
Antimony compounds, N.O.S. <sup>1</sup>			
Aramite	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	
Arsenic	Same	7440-38-2	
Arsenic compounds, N.O.S. <sup>1</sup>			
Arsenic acid	Arsenic acid H <sub>3</sub> AsO <sub>4</sub>	7778-39-4	
Arsenic pentoxide	Arsenic oxide As <sub>2</sub> O <sub>5</sub>	1303-28-2	
Arsenic trioxide	Arsenic oxide As <sub>2</sub> O <sub>3</sub>	1327-53-3	
Auramine	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl	492-80-8	
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	
Barban	Carbamic acid, (3-chlorophenyl) -, 4-chloro-2-butynyl ester	101-27-9	
Barium	Same	7440-39-3	
Barium compounds, N.O.S. <sup>1</sup>			
Barium cyanide	Same	542-62-1	
Bendiocarb	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	22781-23-3	
Bendiocarb phenol	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	22961-82-6	
Benomyl	Carbamic acid, [1- [(butylamino) carbonyl]- 1H-benzimidazol-2-yl] -, methyl ester	17804-35-2	
Benz[c]acridine	Same	225-51-4	
Benz[a]anthracene	Same	56-55-3	
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	
Benzene	Same	71-43-2	
Benzeneearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo(k)fluoranthene	Same	207-08-9	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Benzo[a]pyrene	Same	50-32-8	
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	
Beryllium powder	Same	7440-41-7	
Beryllium compounds, N.O.S. <sup>1</sup>			
Bis(pentamethylene)-thiuram tetrasulfide	Piperidine, 1,1'-(tetrathiodicarbonothioyl)-bis-	120-54-7	
Bromoacetone	2-Propanone, 1-bromo-	598-31-2	
Bromoform	Methane, tribromo-	75-25-2	
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Butylate	Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester	2008-41-5	
Cacodylic acid	Arsinic acid, dimethyl-	75-60-5	
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S. <sup>1</sup>			
Calcium chromate	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt	13765-19-0	
Calcium cyanide	Calcium cyanide Ca(CN) <sub>2</sub>	592-01-8	
Carbaryl	1-Naphthalenol, methylcarbamate	63-25-2	
Carbendazim	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10605-21-7	
Carbofuran	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate	1563-66-2	
Carbofuran phenol	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	1563-38-8	
Carbon disulfide	Same	75-15-0	
Carbon oxyfluoride	Carbonic difluoride	353-50-4	
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	
Carbosulfan	Carbamic acid, [(dibutylamino) thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	55285-14-8	
Chloral	Acetaldehyde, trichloro-	75-87-6	
Chlorambucil	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	305-03-3	
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57-74-9	
Chlordane (alpha and gamma isomers)			
Chlorinated benzenes, N.O.S. <sup>1</sup>			
Chlorinated ethane, N.O.S. <sup>1</sup>			

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Chlorinated fluorocarbons, N.O.S. <sup>1</sup>			
Chlorinated naphthalene, N.O.S. <sup>1</sup>			
Chlorinated phenol, N.O.S. <sup>1</sup>			
Chlornaphazin	Naphthalenamine, N,N'-bis(2-chloroethyl)-	494-03-1	
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	
Chloroalkyl ethers, N.O.S. <sup>1</sup>			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	
Chlorobenzene	Benzene, chloro-	108-90-7	
Chlorobenzilate	Benzenecetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510-15-6	
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	
Chloroform	Methane, trichloro-	67-66-3	
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	
beta-Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	
1-(o-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	5344-82-1	
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S. <sup>1</sup>			
Chrysene	Same	218-01-9	
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	
Copper dimethyldithiocarbamate	Copper, bis(dimethylcarbamo-dithioato-S,S')-,	137-29-1	
Creosote	Same		
p-Cresidine	2-Methoxy-5-methylbenzenamine	120-71-8	
Cresol (Cresylic acid)	Phenol, methyl-	1319-77-3	
Crotonaldehyde	2-Butenal	4170-30-3	
m-Cumenyl methylcarbamate	Phenol, 3-(methylethyl)-, methyl carbamate	64-00-6	

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Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Cyanogen	Ethanedinitrile	460-19-5	
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	
Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	
Cycasin	beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl	14901-08-7	
Cycloate	Carbamothioic acid, cyclohexylethyl-, S-ethyl ester	1134-23-2	
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide	50-18-0	
2,4-D	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7	
2,4-D, salts, esters			
Daunomycin	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	20830-81-3	
Dazomet	2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl	533-74-4	
DDD	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	72-54-8	
DDE	Benzene, 1,1'-(dichloroethenylidene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	50-29-3	
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	2303-16-4	
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	
7H-Dibenzo[c,g]carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def]chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	
Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	
Dichlorobenzene, N.O.S. <sup>1</sup>	Benzene, dichloro-	25321-22-6	
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	91-94-1	
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	
Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	

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Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Dichloroethylene, N.O.S. <sup>1</sup>	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	
1,2-Dichloroethylene	Ethene, 1,2-dichloro-, (E)-	156-60-5	
Dichloroethyl ether	Ethane, 1,1'-oxybis[2-chloro-	111-44-4	
Dichloroisopropyl ether	Propane, 2,2'-oxybis[2-chloro-	108-60-1	
Dichloromethoxy ethane	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	111-91-1	
Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	
2,4-Dichlorophenol	Phenol, 2,4-dichloro-	120-83-2	
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	
Dichloropropane, N.O.S. <sup>1</sup>	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S. <sup>1</sup>	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S. <sup>1</sup>	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	
Dieldrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta, 6aalpha,7beta,7aalpha)-	60-57-1	
1,2:3,4-Diepoxybutane	2,2'-Bioxirane	1464-53-5	
Diethylarsine	Arsine, diethyl-	692-42-2	
Diethylene glycol, dicarbamate	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1	
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1	
Diethylhexyl phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117-81-7	
N,N'-Diethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1	
O,O-Diethyl S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288-58-2	
Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2	
O,O-Diethyl O-pyrazinylphosphoro-thioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297-97-2	
Diethylstilbesterol	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-	56-53-1	
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	
Diisopropylfluorophosphate (DFP)	Phosphorofluoridic acid, bis(1-methylethyl) ester	55-91-4	
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	60-51-5	
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	

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Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	
2,4-Dimethylaniline (2,4-xylydine)	Benzenamine, 2,4-dimethyl-	95-68-1	
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6	
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	119-93-7	
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl-	57-14-7	
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl-	540-73-8	
alpha,alpha-Dimethylphenethylamine	Benzenethanamine, alpha,alpha-dimethyl-	122-09-8	
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	
Dimethyl phthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3	
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	
Dimetilan	Carbamic acid, dimethyl-, 1- [(dimethylamino) carbonyl]-5-methyl-1H-pyrazol-3-yl ester	644-64-4	
Dinitrobenzene, N.O.S. <sup>1</sup>	Benzene, dinitro-	25154-54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6-dinitro-	534-52-1	
4,6-Dinitro-o-cresol salts			
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-	121-14-2	
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-	606-20-2	
Dinoseb	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	88-85-7	
Di-n-octyl phthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0	
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl-	122-66-7	
Di-n-propylnitrosamine	1-Propanamine, N-nitroso-N-propyl-	621-64-7	
Disulfiram	Thioperoxydicarbonic diamide, tetraethyl	97-77-8	
Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	298-04-4	
Dithiobiuret	Thioimidodicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> NH	541-53-7	
Endosulfan	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a- hexahydro-, 3-oxide	115-29-7	
Endothall	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3	
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2abeta,3alpha,6alpha, 6abeta,7beta,7aalpha)-	72-20-8	
Endrin metabolites			

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Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-	51-43-4	
EPTC	Carbamothioic acid, dipropyl-, S-ethyl ester	759-94-4	
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	
Ethyl cyanide	Propanenitrile	107-12-0	
Ethyl Ziram	Zinc, bis(diethylcarbamodithioato-S,S')-	14324-55-1	
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylbis-	111-54-6	
Ethylenebisdithiocarbamic acid, salts and esters			
Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	
Ethyleneimine	Aziridine	151-56-4	
Ethylene oxide	Oxirane	75-21-8	
Ethylenethiourea	2-Imidazolidinethione	96-45-7	
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester	52-85-7	
Ferbam	Iron, tris(dimethylcarbamodithioato-S,S')-,	14484-64-1	
Fluoranthene	Same	206-44-0	
Fluorine	Same	7782-41-4	
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7	
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8	
Formaldehyde	Same	50-00-0	
Formetanate hydrochloride	Methanimidamide, N,N-dimethyl-N'-[3-[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride	23422-53-9	
Formic acid	Same	64-18-6	
Formparanate	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[(methylamino)carbonyl]oxy]phenyl]-	17702-57-7	
Glycidylaldehyde	Oxiranecarboxyaldehyde	765-34-4	
Halomethanes, N.O.S. <sup>1</sup>			
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76-44-8	
Heptachlor epoxide	2,5-Methano-2H-indeno[1,2-b]oxirene,	1024-57-3	

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Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Heptachlor epoxide (alpha, beta, and gamma isomers)	2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexa- hydro-, (1aalpha,1bbeta,2alpha,5alpha, 5abeta,6beta,6aalpha)-		
Heptachlorodibenzofurans			
Heptachlorodibenzo-p-dioxins			
Hexachlorobenzene	Benzene, hexachloro-	118-74-1	
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87-68-3	
Hexachlorocyclopentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77-47-4	
Hexachlorodibenzo-p-dioxins			
Hexachlorodibenzofurans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	
Hexachlorophene	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	70-30-4	
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-	1888-71-7	
Hexaethyl tetraphosphate	Tetraphosphoric acid, hexaethyl ester	757-58-4	
Hydrazine	Same	302-01-2	
Hydrogen cyanide	Hydrocyanic acid	74-90-8	
Hydrogen fluoride	Hydrofluoric acid	7664-39-3	
Hydrogen sulfide	Hydrogen sulfide H <sub>2</sub> S	7783-06-4	
Indeno[1,2,3-cd]pyrene	Same	193-39-5	
3-Iodo-2-propynyl n-butylcarbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta, 8beta,8abeta)-	465-73-6	
Isolan	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	119-38-0	
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	
Kepone	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-	143-50-0	
Lasiocarpine	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303-34-4	
Lead	Same	7439-92-1	
Lead compounds, N.O.S. <sup>1</sup>			

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.



Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Lead acetate	Acetic acid, lead(2 + ) salt	301-04-2	
Lead phosphate	Phosphoric acid, lead(2 + ) salt (2:3)	7446-27-7	
Lead subacetate	Lead, bis(acetato-O)tetrahydroxytri-	1335-32-6	
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	58-89-9	
Maleic anhydride	2,5-Furandione	108-31-6	
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1	
Malononitrile	Propanedinitrile	109-77-3	
Manganese dimethyldithiocarbamate	Manganese, bis(dimethylcarbamodithioato-S,S')-,	15339-36-3	
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]-	148-82-3	
Mercury	Same	7439-97-6	
Mercury compounds, N.O.S. <sup>1</sup>			
Mercury fulminate	Fulminic acid, mercury(2 + ) salt	628-86-4	
Metam Sodium	Carbamodithioic acid, methyl-, monosodium salt	137-42-8	
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	91-80-5	
Methiocarb	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	2032-65-7	
Methomyl	Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester	16752-77-5	
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	72-43-5	
Methyl bromide	Methane, bromo-	74-83-9	
Methyl chloride	Methane, chloro-	74-87-3	
Methyl chlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	
4,4'-Methylenebis(2-chloroaniline)	Benzenamine, 4,4'-methylenebis[2-chloro-	101-14-4	
Methylene bromide	Methane, dibromo-	74-95-3	
Methylene chloride	Methane, dichloro-	75-09-2	
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	
Methyl hydrazine	Hydrazine, methyl-	60-34-4	
Methyl iodide	Methane, iodo-	74-88-4	
Methyl isocyanate	Methane, isocyanato-	624-83-9	
2-Methylactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	

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Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	66-27-3	
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0	
Methylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56-04-2	
Metolcarb	Carbamic acid, methyl-, 3-methylphenyl ester	1129-41-5	
Mexacarbate	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	315-18-4	
Mitomycin C	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5- methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]-.	50-07-7	
MNNG	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	
Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	
Mustard gas	Ethane, 1,1'-thiobis[2-chloro-	505-60-2	
Naphthalene	Same	91-20-3	
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	
alpha-Naphthylamine	1-Naphthalenamine	134-32-7	
beta-Naphthylamine	2-Naphthalenamine	91-59-8	
alpha-Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-88-4	
Nickel	Same	7440-02-0	
Nickel compounds, N.O.S. <sup>1</sup>			
Nickel carbonyl	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-	13463-39-3	
Nickel cyanide	Nickel cyanide Ni(CN) <sub>2</sub>	557-19-7	
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	
Nicotine salts			
Nitric oxide	Nitrogen oxide NO	10102-43-9	
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	
Nitrobenzene	Benzene, nitro-	98-95-3	
Nitrogen dioxide	Nitrogen oxide NO <sub>2</sub>	10102-44-0	
Nitrogen mustard	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-	51-75-2	
Nitrogen mustard, hydrochloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide	126-85-2	
Nitrogen mustard, N-oxide, hydro- chloride salt			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	

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2-Nitropropane	Propane, 2-nitro-	79-46-9	
Nitrosamines, N.O.S. <sup>1</sup>		35576-91-1	
N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl-N-nitroso-	924-16-3	
N-Nitrosodiethanolamine	Ethanol, 2,2'-(nitrosoimino)bis-	1116-54-7	
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5	
N-Nitrosodimethylamine	Methanamine, N-methyl-N-nitroso-	62-75-9	
N-Nitroso-N-ethylurea	Urea, N-ethyl-N-nitroso-	759-73-9	
N-Nitrosomethylethylamine	Ethanamine, N-methyl-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	684-93-5	
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	
N-Nitrosomethylvinylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	
N-Nitrososornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	
Octachlorodibenzo-p-dioxin (OCDD)	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	
Octachlorodibenzofuran (OCDF)	1,2,3,4,6,7,8,9-Octachlorodibenofuran	39001-02-0	
Octamethylpyrophosphoramidate	Diphosphoramidate, octamethyl-	152-16-9	
Osmium tetroxide	Osmium oxide OsO <sub>4</sub> , (T-4)-	20816-12-0	
Oxamyl	Ethanimidothioc acid, 2-(dimethylamino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester	23135-22-0	
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56-38-2	
Pebulate	Carbamothioic acid, butylethyl-, S-propyl ester	1114-71-2	
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	
Phenol	Same	108-95-2	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
1,2-Phenylenediamine	1,2-Benzenediamine	95-54-5	
1,3-Phenylenediamine	1,3-Benzenediamine	108-45-2	
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	
Phenylthiourea	Thiourea, phenyl-	103-85-5	
Phosgene	Carbonic dichloride	75-44-5	
Phosphine	Same	7803-51-2	
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2	
Phthalic acid esters, N.O.S. <sup>1</sup>			
Phthalic anhydride	1,3-Isobenzofurandione	85-44-9	
Physostigmine	Pyrrolo[2,3-b]indol-5-01, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	57-47-6	
Physostigmine salicylate	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b]indol-5-yl methylcarbamate ester (1:1)	57-64-7	
2-Picoline	Pyridine, 2-methyl-	109-06-8	
Polychlorinated biphenyls, N.O.S. <sup>1</sup>			
Potassium cyanide	Potassium cyanide K(CN)	151-50-8	
Potassium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl, potassium salt	128-03-0	
Potassium n-hydroxymethyl-n-methyl-dithiocarbamate	Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	
Potassium n-methyldithiocarbamate	Carbamodithioic acid, methyl-monopotassium salt	137-41-7	
Potassium pentachlorophenate	Pentachlorophenol, potassium salt	7778736	
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium	506-61-6	
Promecarb	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	2631-37-0	
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	23950-58-5	
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120-71-4	
n-Propylamine	1-Propanamine	107-10-8	
Propargyl alcohol	2-Propyn-1-ol	107-19-7	
Propham	Carbamic acid, phenyl-, 1-methylethyl ester	122-42-9	
Propoxur	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	
Propylene dichloride	Propane, 1,2-dichloro-	78-87-5	
1,2-Propylenimine	Aziridine, 2-methyl-	75-55-8	
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo-	51-52-5	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Prosulfocarb	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9	
Pyridine	Same	110-86-1	
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-smethyl ester, (3beta,16beta,17alpha,18beta,20alpha)-	50-55-5	
Resorcinol	1,3-Benzenediol	108-46-3	
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S. <sup>1</sup>			
Selenium dioxide	Selenious acid	7783-00-8	
Selenium sulfide	Selenium sulfide SeS <sub>2</sub>	7488-56-4	
Selenium, tetrakis(dimethyl-dithiocarbamate)	Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid	144-34-3	
Selenourea	Same	630-10-4	
Silver	Same	7440-22-4	
Silver compounds, N.O.S. <sup>1</sup>			
Silver cyanide	Silver cyanide Ag(CN)	506-64-9	
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	See
Sodium cyanide	Sodium cyanide Na(CN)	143-33-9	
Sodium dibutylidithiocarbamate	Carbamodithioic acid, dibutyl, sodium salt	136-30-1	
Sodium diethyldithiocarbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	
Sodium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131522	
Streptozotocin	D-Glucose, 2-deoxy-2-[(methylnitrosoamino)carbonyl]amino]-	18883-66-4	
Strychnine	Strychnidin-10-one	57-24-9	
Strychnine salts			
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95-06-7	
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro-	95-94-3	
Tetrachlorodibenzo-p-dioxins			
Tetrachlorodibenzofurans			
Tetrachloroethane, N.O.S. <sup>1</sup>	Ethane, tetrachloro-, N.O.S.	25322-20-7	
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-	630-20-6	
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-	79-34-5	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	See
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58-90-2	
2,3,4,6-tetrachlorophenol, potassium salt	same	53535276	
2,3,4,6-tetrachlorophenol, sodium salt	same	25567559	
Tetraethyldithiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689-24-5	
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2	
Tetraethyl pyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3	
Tetramethylthiuram monosulfide	Bis(dimethylthiocarbamoyl) sulfide	97-74-5	
Tetranitromethane	Methane, tetranitro-	509-14-8	
Thallium	Same	7440-28-0	
Thallium compounds, N.O.S. <sup>1</sup>			
Thallic oxide	Thallium oxide $Tl_2O_3$	1314-32-5	
Thallium(I) acetate	Acetic acid, thallium(1 + ) salt	563-68-8	
Thallium(I) carbonate	Carbonic acid, dithallium(1 + ) salt	6533-73-9	
Thallium(I) chloride	Thallium chloride $TlCl$	7791-12-0	
Thallium(I) nitrate	Nitric acid, thallium(1 + ) salt	10102-45-1	
Thallium selenite	Selenious acid, dithallium(1 + ) salt	12039-52-0	
Thallium(I) sulfate	Sulfuric acid, dithallium(1 + ) salt	7446-18-6	
Thioacetamide	Ethanethioamide	62-55-5	
Thiodicarb	Ethanimidothioic acid, N,N'-[thiobis [(methylimino) carbonyloxy]] bis-, dimethyl ester	59669-26-0	
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime	39196-18-4	
Thiomethanol	Methanethiol	74-93-1	
Thiophanate-methyl	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)] bis-, dimethyl ester	23564-05-8	
Thiophenol	Benzenethiol	108-98-5	
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6	
Thiourea	Same	62-56-6	
Thiram	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$ , tetramethyl-	137-26-8	
Tirpate	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl] oxime	26419-73-8	
Toluene	Benzene, methyl-	108-88-3	
Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl-	496-72-0	
Toluene diisocyanate	Benzene, 1,3-diisocyanatomethyl-	26471-62-5	
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	
Toxaphene	Same	8001-35-2	
Triallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	2303-17-5	
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5	
Trichloroethylene	Ethene, trichloro-	79-01-6	
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	
Trichloromonofluoromethane	Methane, trichlorofluoro-	75-69-4	
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See
2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	See
Trichloropropane, N.O.S. <sup>1</sup>		25735-29-9	
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
Triethylamine	Ethanamine, N,N-diethyl-	121-44-8	
O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro-	99-35-4	
Tris(1-aziridinyl)phosphine sulfide	Aziridine, 1,1',1''-phosphinothioylidynetris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	
Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]-bis[5-amino-4-hydroxy-, tetrasodium salt.	72-57-1	
Uracil mustard	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66-75-1	
Vanadium pentoxide	Vanadium oxide V <sub>2</sub> O <sub>5</sub>	1314-62-1	
Vernolate	Carbamothioic acid, dipropyl-,S-propyl ester	1929-77-7	
Vinyl chloride	Ethene, chloro-	75-01-4	
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3%	81-81-2	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Common name	Chemical abstracts name	Chemical abstracts No.	Haza was
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3%	81-81-2	
Warfarin salts, when present at concentrations less than 0.3%			
Warfarin salts, when present at concentrations greater than 0.3%			
Zinc cyanide	Zinc cyanide Zn(CN) <sub>2</sub>	557-21-1	
Zinc phosphide	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10%	1314-84-7	
Zinc phosphide	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10% or less	1314-84-7	
Ziram	ZInc, bis(dimethylcarbamodithioato-S,S')-, (T-4)-	137-30-4	

<sup>1</sup> The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

[53 FR 13388, Apr. 22, 1988, as amended at 53 FR 43881, Oct. 31, 1988; 54 FR 50978, Dec. 11, 1989; 55 FR 50483, Dec. 6, 1990; 56 FR 7568, Feb. 25, 1991; 59 FR 468, Jan. 4, 1994; 59 FR 31551, June 20, 1994; 60 FR 7853, Feb. 9, 1995; 60 FR 19165, Apr. 17, 1995; 62 FR 32977, June 17, 1997; 63 FR 24625, May 4, 1998; 65 FR 14475, Mar. 17, 2000; 65 FR 67127, Nov. 8, 2000; 70 FR 9177, Feb. 24, 2005; 71 FR 40271, July 14, 2006; 75 FR 78926, Dec. 17, 2010]

Appendix IX to Part 261—Wastes Excluded Under §§ 260.20 and 260.22

TABLE 1—WASTES EXCLUDED FROM NO

Facility	Address	W
Aluminum Company of America	750 Norcold Ave., Sidney, Ohio 45365	Wastewater treatment plant (WWTP) sludges generated from the chemical conversion of aluminum scrap in electroplating operations (EPA Hazardous Waste No. F006) and stored in an on-site filter cake. This exclusion applies only if the waste filter cake remains in place or, if excavated, is managed to manage industrial solid waste. This exclusion was published on April 6, 1999. 1. The constituent concentrations measured in the TCLP extract may not exceed the following: Nickel—70; Vanadium—30; Zinc—1000; Fluoride—400; Acetone—400; Methylene Chloride—400. 2. (a) If, anytime after disposal of the delisted waste, Alcoa possesses or is otherwise aware of (including groundwater monitoring data) or any other data relevant to the delisted waste indicating that the waste is at a delisting level established in Condition (1), or is at a level in the ground water or soil that exceeds the delisting level established in Condition (1), the waste is not excluded from listing. (b) Based on the information described in paragraph (a) and any other information



Facility	Address	W
Alumnitec, Inc. (formerly Profile Extrusion Co., formerly United Technologies Automotive, Inc.)  American Metals Corporation	Jeffersonville, IN          Westlake, Ohio	<p>to whether the reported information requires Agency action to protect human health and the environment. appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator believes are necessary to protect human health and the environment, the Regional Administrator shall provide the facility with an opportunity to present information as to why the proposed action is not warranted within 10 days from the date of the Regional Administrator's notice to present such information.</p> <p>(d) Following the receipt of information from the facility described in paragraph (c), the Regional Administrator, in paragraph (a), the Regional Administrator will issue a final written determination on whether the reported information requires Agency action to protect human health and the environment. Any required action described in the Regional Administrator's determination shall be taken.</p> <p>Dewatered wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from the chemical conversion coating process.</p> <p>Wastewater treatment plant (WWTP) sludges from the chemical conversion coating process previously disposed in an on-site landfill. This is a one-time exclusion for 12,400 cubic yards of sludge.</p> <p>1. <i>Delisting Levels:</i></p> <p>(A) The constituent concentrations measured in the TCLP extract may not exceed the following levels: cadmium—1; chromium—5; cobalt—166; copper—67,300; lead—5; mercury—0.2; nickel—10; silver—5; vanadium—10; zinc—100.</p> <p>(B) The total constituent concentrations in any sample may not exceed the following levels: 100 mg/kg.</p> <p>(C) Concentrations of dioxin and furan congeners cannot exceed values which would result in a total dioxin and furan concentration of 100 ng/kg.</p> <p>2. <i>Verification Sampling</i>—USG shall collect six additional vertically composited samples from the sludge for TCLP for metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, silver, vanadium, and zinc. If the results of the sampling indicate that the levels in Condition (1)(a), USG must notify EPA. The corresponding sludge and sampling that all constituents of concern are below the levels set forth in condition (1)(a).</p> <p>3. <i>Reopener Language</i>—(a) If, anytime after disposal of the delisted waste, USG possesses or obtains groundwater monitoring data) or any other data relevant to the delisted waste indicating that the waste is at a level in the groundwater exceeding maximum groundwater concentrations established in Condition (1), or is at a level in the groundwater exceeding maximum groundwater concentrations established in Condition (1), USG must notify EPA in writing, to the Regional Administrator within 10 days of first possessing or obtaining the data.</p> <p>(b) Based on the information described in paragraph (a) and any other information available to the Regional Administrator, the Regional Administrator shall determine whether the reported information requires Agency action to protect human health and the environment. appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator believes are necessary to protect human health and the environment, the Regional Administrator shall provide USG with an opportunity to present information as to why the proposed action is not warranted within 10 days from the date of the Regional Administrator's notice to present the information.</p> <p>(d) If after 10 days USG presents no further information, the Regional Administrator shall determine whether the reported information requires Agency action to protect human health and the environment. Any required action described in the Regional Administrator's determination shall be taken. The Regional Administrator provides otherwise.</p> <p>4. <i>Notifications</i>—USG must provide a one-time written notification to any State Regional Administrator at least 60 days prior to the commencement of such activities. Failure to provide such notification shall result in revocation of the decision.</p>

Facility	Address	Waste
Ampex Recording Media Corporation	Opelika, Alabama	Solvent recovery residues in the powder or pellet form (EPA Hazardous Waste Nos. F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012, F013, F014, F015, F016, F017, F018, F019, F020, F021, F022, F023, F024, F025, F026, F027, F028, F029, F030, F031, F032, F033, F034, F035, F036, F037, F038, F039, F040, F041, F042, F043, F044, F045, F046, F047, F048, F049, F050, F051, F052, F053, F054, F055, F056, F057, F058, F059, F060, F061, F062, F063, F064, F065, F066, F067, F068, F069, F070, F071, F072, F073, F074, F075, F076, F077, F078, F079, F080, F081, F082, F083, F084, F085, F086, F087, F088, F089, F090, F091, F092, F093, F094, F095, F096, F097, F098, F099, F100, F101, F102, F103, F104, F105, F106, F107, F108, F109, F110, F111, F112, F113, F114, F115, F116, F117, F118, F119, F120, F121, F122, F123, F124, F125, F126, F127, F128, F129, F130, F131, F132, F133, F134, F135, F136, F137, F138, F139, F140, F141, F142, F143, F144, F145, F146, F147, F148, F149, F150, F151, F152, F153, F154, F155, F156, F157, F158, F159, F160, F161, F162, F163, F164, F165, F166, F167, F168, F169, F170, F171, F172, F173, F174, F175, F176, F177, F178, F179, F180, F181, F182, F183, F184, F185, F186, F187, F188, F189, F190, F191, F192, F193, F194, F195, F196, F197, F198, F199, F200, F201, F202, F203, F204, F205, F206, F207, F208, F209, F210, F211, F212, F213, F214, F215, F216, F217, F218, F219, F220, F221, F222, F223, F224, F225, F226, F227, F228, F229, F230, F231, F232, F233, F234, F235, F236, F237, F238, F239, F240, F241, F242, F243, F244, F245, F246, F247, F248, F249, F250, F251, F252, F253, F254, F255, F256, F257, F258, F259, F260, F261, F262, F263, F264, F265, F266, F267, F268, F269, F270, F271, F272, F273, F274, F275, F276, F277, F278, F279, F280, F281, F282, F283, F284, F285, F286, F287, F288, F289, F290, F291, F292, F293, F294, F295, F296, F297, F298, F299, F300, F301, F302, F303, F304, F305, F306, F307, F308, F309, F310, F311, F312, F313, F314, F315, F316, F317, F318, F319, F320, F321, F322, F323, F324, F325, F326, F327, F328, F329, F330, F331, F332, F333, F334, F335, F336, F337, F338, F339, F340, F341, F342, F343, F344, F345, F346, F347, F348, F349, F350, F351, F352, F353, F354, F355, F356, F357, F358, F359, F360, F361, F362, F363, F364, F365, F366, F367, F368, F369, F370, F371, F372, F373, F374, F375, F376, F377, F378, F379, F380, F381, F382, F383, F384, F385, F386, F387, F388, F389, F390, F391, F392, F393, F394, F395, F396, F397, F398, F399, F400, F401, F402, F403, F404, F405, F406, F407, F408, F409, F410, F411, F412, F413, F414, F415, F416, F417, F418, F419, F420, F421, F422, F423, F424, F425, F426, F427, F428, F429, F430, F431, F432, F433, F434, F435, F436, F437, F438, F439, F440, F441, F442, F443, F444, F445, F446, F447, F448, F449, F450, F451, F452, F453, F454, F455, F456, F457, F458, F459, F460, F461, F462, F463, F464, F465, F466, F467, F468, F469, F470, F471, F472, F473, F474, F475, F476, F477, F478, F479, F480, F481, F482, F483, F484, F485, F486, F487, F488, F489, F490, F491, F492, F493, F494, F495, F496, F497, F498, F499, F500, F501, F502, F503, F504, F505, F506, F507, F508, F509, F510, F511, F512, F513, F514, F515, F516, F517, F518, F519, F520, F521, F522, F523, F524, F525, F526, F527, F528, F529, F530, F531, F532, F533, F534, F535, F536, F537, F538, F539, F540, F541, F542, F543, F544, F545, F546, F547, F548, F549, F550, F551, F552, F553, F554, F555, F556, F557, F558, F559, F560, F561, F562, F563, F564, F565, F566, F567, F568, F569, F570, F571, F572, F573, F574, F575, F576, F577, F578, F579, F580, F581, F582, F583, F584, F585, F586, F587, F588, F589, F590, F591, F592, F593, F594, F595, F596, F597, F598, F599, F600, F601, F602, F603, F604, F605, F606, F607, F608, F609, F610, F611, F612, F613, F614, F615, F616, F617, F618, F619, F620, F621, F622, F623, F624, F625, F626, F627, F628, F629, F630, F631, F632, F633, F634, F635, F636, F637, F638, F639, F640, F641, F642, F643, F644, F645, F646, F647, F648, F649, F650, F651, F652, F653, F654, F655, F656, F657, F658, F659, F660, F661, F662, F663, F664, F665, F666, F667, F668, F669, F670, F671, F672, F673, F674, F675, F676, F677, F678, F679, F680, F681, F682, F683, F684, F685, F686, F687, F688, F689, F690, F691, F692, F693, F694, F695, F696, F697, F698, F699, F700, F701, F702, F703, F704, F705, F706, F707, F708, F709, F710, F711, F712, F713, F714, F715, F716, F717, F718, F719, F720, F721, F722, F723, F724, F725, F726, F727, F728, F729, F730, F731, F732, F733, F734, F735, F736, F737, F738, F739, F740, F741, F742, F743, F744, F745, F746, F747, F748, F749, F750, F751, F752, F753, F754, F755, F756, F757, F758, F759, F760, F761, F762, F763, F764, F765, F766, F767, F768, F769, F770, F771, F772, F773, F774, F775, F776, F777, F778, F779, F780, F781, F782, F783, F784, F785, F786, F787, F788, F789, F790, F791, F792, F793, F794, F795, F796, F797, F798, F799, F800, F801, F802, F

## 40 CFR 261.1090 (enhanced display)

## 40 CFR 261.1090 (enhanced display)

Facility	Address	W
Babcock & Wilcox Nuclear Operations Group, Inc., current owner, and BWX Technologies, Inc., predecessor in interest to the current owner, identified collectively hereafter as "B&W NOG"	Lynchburg, Virginia	<p>appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Regional Administrator determines that the reported information does re Regional Administrator believes are necessary to protect human health and the en providing AAI with an opportunity to present information as to why the proposed A the date of the Regional Administrator's notice to present the information.</p> <p>(D) If after 30 days AAI presents no further information, the Regional Administrator protect human health or the environment. Any required action described in the Reg Administrator provides otherwise.</p> <p>(E) Maximum Allowable Groundwater Concentrations (µg/L): arsenic—5; cadmium cresol—188; and formaldehyde—1,380.</p> <p>Wastewater treatment sludge from electroplating operations (Hazardous Waste N two on-site surface impoundments designated as Final Effluent Ponds (FEPs) 1 and 2011.</p> <p>(1) <i>Reopener language.</i></p> <p>(A) If B&amp;W NOG discovers that any condition or assumption related to the characte predicted through modeling is not as reported in the petition, then B&amp;W NOG must Administrator and the Virginia Department of Environmental Quality within 10 cale</p> <p>(B) Upon receiving information described in paragraph (a) of this section, regardle requires further action. Further action may include repealing the exclusion, modify environment</p> <p>(2) <i>Notification Requirements</i></p> <p>In the event that the delisted waste is transported off-site for disposal, B&amp;W NOG n which the delisted waste described above will be transported at least 60 calendar deemed to be a violation of this exclusion and may result in revocation of the deci</p> <p>Filter Cake (EPA Hazardous Waste Number F019) generated at a maximum rate of For the exclusion to be valid, BAE must implement a verification testing program th</p> <p>(1) Delisting Levels: All concentrations for those constituents must not exceed the Filter Cake Leachable Concentrations (mg/l): Acetone—3211; Arsenic—0.052; Bari Chromium—5.0; Copper—149; Cyanide—19; Furans—3.57; Hexavalent Chromium— (Silvex)—1.0; 2,4-D—6.65; Tin—9001; Tetrachlorodibenzo-p-dioxin—249; Tetrachlor</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Waste classification as non-hazardous can not begin until compliance with the events.</p> <p>(B) If constituent levels in any sample taken by BAE exceed any of the delisting lev</p> <p>(i) notify EPA in accordance with paragraph (6) and</p> <p>(ii) manage and dispose the filter cake as hazardous waste generated under Subti</p>
BAE Systems, Inc,	Sealy, TX	

Facility	Address	W
		<p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, BAE may perform quarterly analytical testing b</p> <p>(A) Quarterly Testing:</p> <p>(i) Collect two representative composite samples of the filter cake at quarterly inte</p> <p>after EPA grants the final approval. Sampling must be performed in accordance wi</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite</p> <p>disposed as hazardous waste in accordance with the applicable hazardous waste</p> <p>(iii) Within thirty (30) days after taking its first quarterly sample, BAE will report its</p> <p>filter cake do not exceed the levels set forth in paragraph (1) of this exclusion for t</p> <p>to all applicable solid waste regulations.</p> <p>(B) Annual Testing:</p> <p>(i) If BAE completes the quarterly testing specified in paragraph (3) above and no s</p> <p>may begin annual testing as follows: BAE must test two representative composite</p> <p>year.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample</p> <p>analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR</p> <p>Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 101</p> <p>(uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performa</p> <p>demonstrate that samples of the BAE filter cake are representative for all constitue</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annu</p> <p>(iv) The annual testing report should include the total amount of waste in cubic ya</p> <p>(4) Changes in Operating Conditions: If BAE significantly changes the process des</p> <p>the composition or type of waste generated (by illustration, but not limitation, char</p> <p>and it may no longer handle the wastes generated from the new process as non-ha</p> <p>approval to do so from EPA.</p> <p>BAE must submit a modification to the petition complete with full sampling and ar</p> <p>added to the waste stream.</p> <p>(5) Data Submittals:</p> <p>BAE must submit the information described below. If BAE fails to submit the requi</p> <p>EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as</p> <p>(A) Submit the data obtained through paragraph (3) to the Chief, Corrective Action</p> <p>Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas 75202, v</p> <p>electronic media.</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maint</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests</p> <p>(D) Send along with all data a signed copy of the following certification statement,</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fra</p> <p>Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928)</p> <p>complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot person</p> <p>responsibility for the persons who, acting under my direct instructions, made the v</p> <p>If any of this information is determined by EPA in its sole discretion to be false, ina</p>

Facility	Address	W
Bayer Material Science LLC	Baytown, TX	<p>that this exclusion of waste will be void as if it never had effect or to the extent dir</p> <p>company's RCRA and CERCLA obligations premised upon the company's reliance</p> <p>(6) Reopener</p> <p>(A) If, anytime after disposal of the delisted waste BAE possesses or is otherwise</p> <p>water monitoring data) or any other data relevant to the delisted waste indicating t</p> <p>delisting level allowed by the Division Director in granting the petition, then the fac</p> <p>being made aware of that data.</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting</p> <p>within 10 days of first possessing or being made aware of that data.</p> <p>(C) If BAE fails to submit the information described in paragraphs (5), (6)(A) or (6)</p> <p>preliminary determination as to whether the reported information requires EPA act</p> <p>revoking the exclusion, or other appropriate response necessary to protect human</p> <p>(D) If the Division Director determines that the reported information requires action</p> <p>believes are necessary to protect human health and the environment. The notice s</p> <p>opportunity to present information as to why the proposed EPA action is not neces</p> <p>such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)</p> <p>described in paragraphs (5), (6)(A) or (6)(B), the Division Director will issue a final v</p> <p>the environment. Any required action described in the Division Director's determin</p> <p>(7) Notification Requirements</p> <p>BAE Systems must do the following before transporting the delisted waste. Failure</p> <p>revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which</p> <p>before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a diff</p> <p>(C) Failure to provide this notification will result in a violation of the delisting varian</p> <p>Toluene Diisocyanate (TDI) Residue (EPA Hazardous Waste No. K027) generated a</p> <p>For the exclusion to be valid, Bayer must implement a verification testing program</p> <p>(1) Delisting Levels:</p> <p>All concentrations for those constituents must not exceed the maximum allowable</p> <p>TDI Residue Leachable Concentrations (mg/l): Arsenic—0.10, Barium—36.0; Chloro</p> <p>Dichlorophenoxyacetic acid—1.08; Diethyl phthalate—1000.0; Endrin—0.02; Lead—</p> <p>Zinc—197.0; 2,4-Toluenediamine—0.0459; Toluene Diisocyanate—0.039.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Bayer must manage the TDI residue in a manner to ensure that the residues ar</p> <p>TDI residue must be handled to ensure that contact with water is minimized.</p> <p>(B) Waste classification as non-hazardous cannot begin until compliance with the</p> <p>sampling events and the reports have been approved by EPA.</p> <p>(C) If constituent levels in any sample taken by Bayer exceed any of the delisting le</p> <p>(i) notify EPA in accordance with paragraph (6) and</p> <p>(ii) manage and dispose the TDI residue as hazardous waste generated under Sub</p>

Facility	Address	Waste
		<p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, Bayer must perform quarterly analytical testing.</p> <p>(A) Quarterly Testing:</p> <p>(i) Collect two representative composite samples of the TDI residue at quarterly intervals, the first sample to be collected within 30 days after EPA grants the final approval. Sampling should be performed in accordance with the applicable hazardous waste sampling regulations.</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite samples that are not analyzed for all constituents shall be disposed as hazardous waste in accordance with the applicable hazardous waste sampling regulations.</p> <p>(iii) Within thirty (30) days after taking its first quarterly sample, Bayer will report its results. The results shall show that the TDI residue do not exceed the levels set forth in paragraph (1) of this exclusion order. If the results show that the TDI residue exceed the levels, Bayer must comply with the applicable hazardous waste sampling regulations.</p> <p>(B) Annual Testing:</p> <p>(i) If Bayer completes the quarterly testing specified in paragraph (3) above and no other testing is required, Bayer can begin annual testing as follows: Bayer must test two representative composite samples of the TDI residue each calendar year.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample of the TDI residue. The analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR Part 261, Subpart C, Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 16</p>



Facility	Address	W
BBC Brown Boveri, Inc.	Sanford, FL	<p>company's RCRA and CERCLA obligations premised upon the company's reliance on the data.</p> <p>(6) Reopener:</p> <p>(A) If, anytime after disposal of the delisted waste Bayer possesses or is otherwise made aware of that data (including but not limited to groundwater monitoring data) or any other data relevant to the delisted waste indicating that the waste may be more hazardous than the delisting level allowed by EPA in granting the petition, then the facility must report the data to EPA.</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting level, then the facility must report the data to EPA.</p> <p>(C) If Bayer fails to submit the information described in paragraphs (5), (6)(A) or (6)(B), then EPA will determine whether the reported information requires action to protect human health, the environment, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If EPA determines that the reported information requires action, EPA will notify the facility of the determination and the proposed action. The notice shall include a statement of the proposed action and a statement of the reasons why the proposed EPA action is not necessary. The facility shall have 10 days from the date of the notice to submit information to EPA.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D), EPA will issue a final written determination of whether the waste is more hazardous than the delisting level. Any required action described in EPA's determination shall become effective immediately.</p> <p>(7) Notification Requirements</p> <p>Bayer must do the following before transporting the delisted waste. Failure to provide the following information may result in a violation of the delisting variance.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which the waste is being shipped, before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a different state.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance.</p>
Bekaert Corp	Dyersburg, TN	<p>Dewatered wastewater treatment plant (WWTP) sludge (EPA Hazardous Waste No. F006) generated by the facility and disposed in a Subtitle D landfill.</p> <p>For the exclusion to be valid, Bekaert must implement a verification testing program.</p> <p>(1) Delisting Levels: All leachable concentrations for those constituents must not exceed the following levels:</p> <p>(A) Inorganic Constituents TCLP (mg/l): Cadmium—0.672; Chromium—5.0; Nickel—10.0.</p> <p>(B) Organic Constituents TCLP (mg/l): Methyl ethyl ketone—200.0.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Bekaert must accumulate the hazardous waste dewatered WWTP sludge in accordance with 40 CFR 261.11(a), and continue to dispose of the dewatered WWTP sludge as hazardous waste.</p> <p>(B) Once the first quarterly sampling and analyses event described in paragraph (3) occurs, Bekaert must manage the waste in accordance with the delisting level which exceeds the delisting levels set in paragraph (1), Bekaert can manage the waste in accordance with the delisting level.</p> <p>(C) If constituent levels in any sample taken by Bekaert exceed any of the delisting levels set in paragraph (1), Bekaert must manage and dispose the dewatered WWTP sludge as hazardous waste.</p> <p>(D) Quarterly Verification Testing Requirements: Upon this exclusion becoming final, Bekaert must implement a quarterly verification testing program for the sludge.</p>

Facility	Address	W
		<p>(3) Quarterly Testing Requirements: Upon this exclusion becoming final, Bekaert m as follows:</p> <p>(A)(i) Collect four representative composite samples of the hazardous waste dewa The first composite sample may be taken at any time after EPA grants the final app</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any roll-offs fro must be disposed as hazardous waste in a Subtitle C landfill.</p> <p>(iii) Within forty-five (45) days after taking its first quarterly sample, Bekaert will rep of the dewatered WWTP sludge do not exceed the levels set forth in paragraph (1) according to all applicable solid waste regulations.</p> <p>(4) Annual Testing:</p> <p>(A) If Bekaert completes the quarterly testing specified in paragraph (3) above and Bekaert may begin annual testing as follows: Bekaert must test one representative least once per calendar year.</p> <p>(B) The sample for the annual testing shall be a representative composite sample</p> <p>(C) The sample for the annual testing taken for the second and subsequent annua</p> <p>(5) Changes in Operating Conditions: If Bekaert significantly changes the process affect the composition or type of waste generated as established under paragraph treatment process), it must notify the EPA in writing; it may no longer handle the w levels set in paragraph (1) and it has received written approval to do so from the E</p> <p>(6) Data Submittals: Bekaert must submit the information described below. If Beka site for the specified time, the EPA, at its discretion, will consider this sufficient bas</p> <p>(A) Submit the data obtained through paragraph (3) to the Chief, North Section, RC Region 4, 61 Forsyth Street, SW., Atlanta, Georgia, 30303, within the time specified.</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maint</p> <p>(C) Furnish these records and data when either the EPA or the State of Tennessee</p> <p>(D) Send along with all data a signed copy of the following certification statement, "Under civil and criminal penalty of law for the making or submission of false or fra Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928) complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot persona responsibility for the persons who, acting under my direct instructions, made the v determined by the EPA in its sole discretion to be false, inaccurate or incomplete, a waste will be void as if it never had effect or to the extent directed by the EPA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>(7) Reopener:</p> <p>(A) If, any time after disposal of the delisted waste Bekaert possesses or is otherw water monitoring data) or any other data relevant to the delisted waste indicating t delisting level allowed by the Regional Administrator or his delegate in granting the delegate within ten (10) days of first possessing or being made aware of that data</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting Administrator or his delegate within ten (10) days of first possessing or being ma</p> <p>(C) If Bekaert fails to submit the information described in paragraphs (5), (6)(A) or</p>

Facility	Address	W
Bethlehem Steel Corporation	Sparrows Point, Maryland	<p>delegate will make a preliminary determination as to whether the reported information include suspending, or revoking the exclusion, or other appropriate response necessary.</p> <p>(D) If the Regional Administrator or his delegate determines that the reported information in writing of the actions the Regional Administrator or his delegate believes are necessary of the proposed action and a statement providing the facility with an opportunity to have ten (10) days from the date of the Regional Administrator or his delegate's notification.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6), described in paragraphs (5), (6)(A) or (6)(B), the Regional Administrator or his delegate protect human health or the environment. Any required action described in the Regulations the Regional Administrator or his delegate provides otherwise.</p> <p>(8) Notification Requirements: Bekaert must do following before transporting the waste:</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which the waste will be shipped ten (10) days before beginning such activities.</p> <p>(B) Update the one-time written notification if Bekaert ships the delisted waste into the State.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variation.</p> <p>Stabilized filter cake (at a maximum annual rate of 1100 cubic yards) from the treatment and electroplating operations after [insert date of publication in <b>Federal Register</b>]. Bethlehem Steel Corporation's exclusion to be valid:</p> <p>(1) <i>Testing</i>: Sample collection and analyses (including quality control (QC) procedures) for parameters of concern, analyses requiring the use of SW-846 methods incorporate the following methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. For verification testing, BSC may replace the testing required in Condition (1)(A) with testing until and unless notified by EPA in writing that testing in Condition (1)(A) may be replaced.</p> <p>(A) <i>Initial Verification Testing</i>: During at least the first eight weeks of operation of the stabilized waste. Weekly composites must be composed of representative grab samples must be collected and analyzed, prior to the disposal of the stabilized filter cake, including a record of the ratios of lime kiln dust and fly ash used and quality control of the last composite of stabilized filter cake.</p> <p>(B) <i>Subsequent Verification Testing</i>: Following written notification by EPA, BSC may submit a composite representative of the stabilized filter cake generated each month. Monthly stabilized in a one-month period. The monthly samples must be analyzed prior to the disposal of the stabilized filter cake. BSC may analyze composite samples more frequently to demonstrate that smaller batches of stabilized filter cake are consistently below the delisting levels.</p> <p>(C) <i>Annual Verification Testing</i>: In order to confirm that the characteristics of the treated waste composite sample of stabilized filter cake for all TC constituents listed in 40 CFR 8.1.1, the stabilized filter cake generated over one week.</p> <p>(2) <i>Waste Holding and Handling</i>: BSC must store, as hazardous, all stabilized filter cake until completed and valid analyses demonstrate that the delisting levels set forth in Condition (3) of the stabilized filter cake generated are below all the levels set forth in Condition (3), then the stabilized filter cake may be managed in accordance with applicable solid waste regulations. If hazardous constituent levels in any weekly or monthly composite of stabilized filter cake generated during the time period corresponding to this sample are above the delisting levels, BSC must store the waste as hazardous until the levels are below the delisting levels. Subtitle C of RCRA.</p> <p>(3) <i>Delisting Levels</i>: All concentrations must be measured in the waste leachate by EPA.</p>

Facility	Address	W
Blanchard Refining Company LLC	Texas City, TX	<p>must be below the following levels (ppm): arsenic—4.8; barium—100; cadmium—0</p> <p>(4) <i>Changes in Operating Conditions</i>: After completing the initial verification test per stabilization reagents) developed under Condition (1), then BSC must notify EPA in generated from the changed process as non-hazardous under this exclusion, provi</p> <p>(5) <i>Data Submittals</i>: Two weeks prior to system start-up, BSC must notify in writing through Condition (1)(A) must be submitted to Waste and Chemicals Management the time period specified. The analytical data, including quality control information site for a minimum of five years. These data must be furnished upon request and within the specified time period or maintain the required records on site for the spe exclusion to the extent directed by EPA. All data must be accompanied by a signed submitted:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fra Code, which include, but may not be limited to, 18 U.S.C § 1001 and 42 U.S.C § 69 and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot persona responsibility for the persons who, acting under my direct instructions, made the v</p> <p>In the event that any of this information is determined by EPA in its sole discretion recognize and agree that this exclusion of waste will be void as if it never had effe contravention of the company's RCRA and CERCLA obligations premised upon the</p> <p>Residual solids (EPA Hazardous Waste Numbers F037) generated at a maximum r</p> <p>For the exclusion to be valid, Blanchard must implement a verification testing prog</p> <p>(1) All leachable concentrations for those constituents must not exceed the follow example SW-846, Method 1311, to measure constituents in the residual solids leac</p> <p>(A) Inorganic Constituents of Concern: Antimony—0.5985; Arsenic—0.424; Barium Vanadium—4.64, Zinc—197. Mercury—0.068.</p> <p>(B) Organic Constituents of Concern: Acetone—520.0; Anthracene—25.993; Benzen Phenanthrene—10.626; Phenol—173; Pyrene—4.446.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Blanchard must manage and dispose its residual solids as hazardous waste g Paragraph (3)(A) and (B), as appropriate, and valid analyses show that paragraph (</p> <p>(B) Levels of constituents measured in the samples of the residual solids that do n dispose the nonhazardous residual solids according to all applicable solid waste r</p> <p>(C) If constituent levels in a sample exceed any of the delisting levels set in Paragr exceeding the delisting levels, until it meets the levels in paragraph (1). Blanchard</p> <p>(3) Verification Testing Requirements:</p> <p>Blanchard must perform analytical testing by sampling and analyzing the Residual</p> <p>(i) Collect representative samples of the Residual solids for analysis of all constitu</p> <p>(ii) The samples for verification testing shall be a representative sample according requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance E</p>

Facility	Address	W
		<p>samples of the Blanchard residual solids are representative for all constituents listed in paragraph (1). Blanchard must perform sample collection and analyses, including quality control.</p> <p>(A) Initial Verification Testing:</p> <p>After EPA grants the final exclusion, Blanchard must do the following:</p> <p>(i) Collect four (4) representative composite samples of the residual solids at weekly intervals, any time after EPA grants the final approval. Sampling should be performed in accordance with paragraph (1).</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite samples found to be hazardous waste must be disposed as hazardous waste in accordance with the applicable hazardous waste management and handling requirements.</p> <p>(iii) Within thirty (30) days after successfully completing its initial verification testing, Blanchard must submit the results to EPA. If levels of constituents measured in the samples of the residual solids do not meet the delisting levels, Blanchard must dispose the non-hazardous residual solids according to all applicable solid waste management and handling requirements.</p> <p>(B) Subsequent Verification Testing:</p> <p>If Blanchard completes initial verification testing requirements, specified in paragraph (A), Blanchard may begin subsequent verification testing as follows:</p> <p>(i) Blanchard must test representative composite samples of the residual solids for all constituents listed in paragraph (1) at monthly intervals.</p> <p>(ii) The samples for the monthly testing shall be a representative composite sample of the residual solids.</p> <p>(iii) Within thirty (30) days after completing each monthly sampling, Blanchard will submit the results to EPA.</p> <p>(C) Annual Verification Testing:</p> <p>If levels of constituents measured in the samples of the residual solids do not exceed the delisting levels, Blanchard may begin annual testing as follows:</p> <p>(i) Blanchard must test representative composite samples of the residual solids for all constituents listed in paragraph (1) at annual intervals.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample of the residual solids.</p> <p>(iii) Within sixty (60) days after completing each annual sampling, Blanchard will submit the results to EPA.</p> <p>(D) Termination of Organic Testing:</p> <p>Blanchard must continue testing as required under Paragraph (3)(B) for organic constituents until a minimum of three (3) consecutive monthly samples below the delisting levels in paragraph (1) are obtained. Blanchard may terminate organic testing.</p> <p>(4) Changes in Operating Conditions:</p> <p>If Blanchard significantly changes the process described in its petition or starts any new process that generates residual solids as established under Paragraph (1) (by illustration, but not limitation, changes in process, equipment, or raw materials), Blanchard must submit a written statement explaining the changes. Blanchard may no longer handle the residual solids generated from the new process until it has submitted and EPA has approved the statement. Blanchard must also submit, as appropriate, documented that valid analyses show that paragraph (1) is still applicable.</p> <p>(5) Stabilization Operation:</p> <p>Blanchard may periodically elect to modify operating conditions to accommodate the event that Blanchard initiates the inclusion of stabilization during operation, the residual solids must remain nonhazardous until the residual solids meet the delisting levels set in Paragraph (1). Blanchard must ensure that stabilization reagents do not add additional constituents to the residual solid leachate. Blanchard must continue to meet the conditions and testing requirements under Paragraph (3), which were in place prior to the inclusion of stabilization.</p> <p>(6) Data Submittals:</p> <p>Blanchard must submit the information described below. If Blanchard fails to submit the information at the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion.</p>

Facility	Address	W
BMW Manufacturing Co., LLC	Greer, South Carolina	<p>(A) Submit the data obtained through paragraph 3 to the Section Chief, 6MM-RP, M Dallas, Texas 75202, within the time specified. All supporting data can be submitte</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maint</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests</p> <p>(D) Send along with all data a signed copy of the following certification statement, "Under civil and criminal penalty of law for the making or submission of false or fra Code, which include, but may not be limited to, <u>18 U.S.C. 1001</u> and <u>42 U.S.C. 6928</u> complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot person</p> <p>responsibility for the persons who, acting under my direct instructions, made the v</p> <p>If any of this information is determined by EPA in its sole discretion to be false, ina</p> <p>that this exclusion of waste will be void as if it never had effect or to the extent dir</p> <p>company's RCRA and CERCLA obligations premised upon the company's reliance</p> <p>(7) Reopener:</p> <p>(A) If, any time after disposal of the delisted waste Blanchard possesses or is othe</p> <p>or ground water monitoring data) or any other data relevant to the delisted waste i</p> <p>the delisting level allowed by the Division Director in granting the petition, then the</p> <p>or being made aware of that data.</p> <p>(B) If either the verification testing (and retest, if applicable) of the waste does not</p> <p>Division Director within 10 days of first possessing or being made aware of that da</p> <p>(C) If Blanchard fails to submit the information described in paragraphs (6), (7)(A)</p> <p>preliminary determination as to whether the reported information requires EPA acti</p> <p>revoking the exclusion, or other appropriate response necessary to protect human</p> <p>(D) If the Division Director determines that the reported information requires action</p> <p>believes are necessary to protect human health and the environment. The notice s</p> <p>opportunity to present information as to why the proposed EPA action is not neces</p> <p>information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (7)</p> <p>described in paragraphs (6), (7)(A) or (7)(B), the Division Director will issue a final v</p> <p>the environment. Any required action described in the Division Director's determin</p> <p>(8) Notification Requirements:</p> <p>Blanchard must do the following before transporting the delisted waste. Failure to</p> <p>of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which</p> <p>before beginning such activities.</p> <p>(B) For onsite disposal, a notice should be submitted to the State to notify the Stat</p> <p>(C) Update one-time written notification, if it ships the delisted waste into a differe</p> <p>(D) Failure to provide this notification will result in a violation of the delisting exclu</p> <p>Wastewater treatment sludge (EPA Hazardous Waste No. F019) that BMW Manufa</p> <p>located on Highway 101 South in Greer, South Carolina. This is a conditional exclu</p> <p>generated each year and disposed in a Subtitle D landfill after August 31, 2005. Wi</p> <p>reuse the sludge. BMW must demonstrate that the following conditions are met fo</p>

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Facility	Address	W
at the Old Carco LLC Sterling Heights Assembly Plant	Heights, Michigan	<p>maximum annual rate of 3,000 cubic yards per year. The sludges must be disposed of at a permitted facility authorized to accept the delisted wastewater treatment sludges in accordance with the following conditions:</p> <ol style="list-style-type: none"> <li>1. <i>Delisting Levels:</i> The concentrations in a leachate extract of the waste measured by EPA Method 8260 for benzene—0.057; hexachlorobenzene—0.0000724; naphthalene—0.00822; and pentachlorobenzene—0.0000724.</li> <li>2. <i>Quarterly Verification Testing:</i> To verify that the waste does not exceed the specified delisting levels, a representative sample of the waste on a quarterly basis. Sample collection and analysis must be performed using EPA SW-846 Method 1311 must be used for generation of the leachate extract used in the delisting process. EPA Method 1330A must be used for generation of the leaching extract if oil and grease are present in the waste. SW-846 Methods 1311, 1330A, and 9071B are incorporated by reference.</li> <li>3. <i>Changes in Operating Conditions:</i> Chrysler Group LLC or Old Carco LLC must not change the waste management process, the treatment process, or the chemicals used in the treatment process without first notifying the Regional Administrator. A process change as hazardous until it has demonstrated that the wastes continue to meet the delisting levels of 40 CFR 261 have been introduced and it has received written approval from EPA.</li> <li>4. <i>Data Submittals:</i> Chrysler Group LLC or Old Carco LLC must submit the data obtained from the quarterly verification testing to the Regional Administrator. The data and certification of proper disposal must be submitted at least quarterly. Old Carco LLC must compile, summarize and maintain on site for a minimum of five years. The data must make these records available for inspection. A signed copy of the certification of proper disposal must be submitted.</li> <li>5. <i>Reopener Language—</i>(a) If, anytime after disposal of the delisted waste Chrysler Group LLC or Old Carco LLC (not limited to leachate data or groundwater monitoring data) relevant to the delisting level, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentrations, Old Carco LLC must report such data, in writing, to the Regional Administrator within 10 days of discovery. <ol style="list-style-type: none"> <li>(b) Based on the information described in paragraph (a) and any other information available, the Regional Administrator will determine to whether the reported information requires Agency action to protect human health and the environment. If appropriate response necessary to protect human health and the environment.</li> <li>(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will, in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment, action and a statement providing Chrysler Group LLC or Old Carco LLC with an opportunity to comment on the action and suggest an alternative action. Chrysler Group LLC or Old Carco LLC shall have 30 days to respond.</li> <li>(d) If after 30 days Chrysler Group LLC or Old Carco LLC presents no further information or actions that are necessary to protect human health or the environment. Any required actions must be taken immediately, unless the Regional Administrator provides otherwise.</li> <li>(e) Maximum Allowable Groundwater Concentrations (µg/L): arsenic—4.87; nickel—0.071; and pentachlorophenol—0.071.</li> </ol> </li> </ol>
Cincinnati Metropolitan Sewer District	Cincinnati, OH	Sluiced bottom ash (approximately 25,000 cubic yards) contained in the South Laguna and F005.
Clay Equipment Corporation	Cedar Falls, Iowa	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) and sludges generated from operations and disposed of in an on-site surface impoundment. This is a onetime disposal.
Continental Can Co.	Olympia, WA	Dewatered wastewater treatment sludges (DPA Hazardous Waste No. F019) generated from the production of metal cans.
Cooper Crouse-Hinds	Amarillo, TX	Wastewater Treatment Sludge (Hazardous Waste No. F006) generated at a maximum rate of 100,000 cubic yards per year at a D Landfill.

Facility	Address	W
		<p>For the exclusion to be valid, Cooper Crouse-Hinds must implement a verification t</p> <p>(1) Delisting Levels: All concentrations for those constituents must not exceed the</p> <p>WWTP Sludge Leachable Concentrations (mg/l):</p> <p>(i) Inorganic Constituents:</p> <p>Arsenic-0.0759; Barium-100; Cadmium-0.819; Copper-216; Iron-1.24; Manganese-1</p> <p>(ii) Organic Constituents:</p> <p>Benzene-0.5.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Waste classification as non-hazardous can not begin until compliance with the</p> <p>sampling events.</p> <p>(B) If constituent levels in any sample taken by Cooper Crouse-Hinds exceed any o</p> <p>following:</p> <p>(i) Notify EPA in accordance with paragraph (6) and</p> <p>(ii) Manage and dispose WWTP sludge as hazardous waste generated under Subti</p> <p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, Cooper Crouse-Hinds may perform quarterly a</p> <p>(A) Quarterly Testing:</p> <p>(i) Collect two representative composite samples of the sludge at quarterly interva</p> <p>after EPA grants the final approval. Sampling must be performed in accordance wi</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite</p> <p>disposed as hazardous waste in accordance with the applicable hazardous waste</p> <p>(iii) Within thirty (30) days after taking its first quarterly sample, Cooper Crouse-Hi</p> <p>the samples of the sludge do not exceed the levels set forth in paragraph (1) of thi</p> <p>non-hazardous WWTP sludge according to all applicable solid waste regulations.</p> <p>(B) Annual Testing:</p> <p>(i) If Cooper Crouse-Hinds completes the quarterly testing specified in paragraph (</p> <p>paragraph (1), Cooper Crouse-Hinds may begin annual testing as follows: Cooper c</p> <p>constituents listed in paragraph (1) at least once per calendar year.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample</p> <p>analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR</p> <p>Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 101</p> <p>(uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performa</p> <p>demonstrate that samples of the WWTP sludge is representative for all constituent</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annu</p> <p>(iv) The annual testing report should include the total amount of delisted waste in</p> <p>(4) Changes in Operating Conditions: If Cooper Crouse-Hinds significantly changes</p> <p>may or could affect the composition or type of waste generated (by illustration, bu</p> <p>notify EPA in writing and it may no longer handle the wastes generated from the ne</p> <p>has received written approval to do so from EPA.</p> <p>Cooper Crouse-Hinds must submit a modification to the petition, complete with fu</p> <p>waste codes are added to the waste stream, if it wishes to dispose of the material</p>

Facility	Address	W
		<p>(5) Data Submittals:</p> <p>Cooper Crouse-Hinds must submit the information described below. If Cooper Crouse-Hinds maintains records on-site for the specified time, EPA, at its discretion, will consider this sufficient.</p> <p>(A) Submit the data obtained through paragraph (3) to the Chief, Corrective Action Division, Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas, 75202, or to the Chief, Corrective Action Division, EPA Region 6, 1445 Ross Ave., Dallas, Texas, 75202, by electronic media.</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maintain them for the specified time.</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests them.</p> <p>(D) Send along with all data a signed copy of the following certification statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent information, I certify that the information submitted is true and accurate to the best of my knowledge and belief, and that this exclusion of waste will be void as if it never had effect or to the extent directed by the Division Director. I understand that this exclusion of waste will be void as if it never had effect or to the extent directed by the Division Director if the company's RCRA and CERCLA obligations premised upon the company's reliance on this exclusion are determined to be false, incomplete, or otherwise in violation of the law.</p> <p>"As to the (those) identified section(s) of this document for which I cannot personally verify the information, I certify that the information is true and accurate to the best of my knowledge and belief, and that this exclusion of waste will be void as if it never had effect or to the extent directed by the Division Director. I understand that this exclusion of waste will be void as if it never had effect or to the extent directed by the Division Director if the company's RCRA and CERCLA obligations premised upon the company's reliance on this exclusion are determined to be false, incomplete, or otherwise in violation of the law.</p> <p>"If any of this information is determined by EPA in its sole discretion to be false, incomplete, or otherwise in violation of the law, I understand that this exclusion of waste will be void as if it never had effect or to the extent directed by the Division Director. I understand that this exclusion of waste will be void as if it never had effect or to the extent directed by the Division Director if the company's RCRA and CERCLA obligations premised upon the company's reliance on this exclusion are determined to be false, incomplete, or otherwise in violation of the law.</p> <p>(6) Re-opener:</p> <p>(A) If, anytime after disposal of the delisted waste Cooper Crouse-Hinds possesses or has access to (including but not limited to data or ground water monitoring data) or any other data relevant to the delisted waste, the data indicates that the waste is more hazardous than the delisting level allowed by the Division Director in granting the petition, the company must notify the Division Director of the data, and the company must not possess or be made aware of that data.</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting level, the company must notify the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(C) If Cooper Crouse-Hinds fails to submit the information described in paragraphs (5) and (6), the Division Director will make a preliminary determination as to whether the reported information requires action, including but not limited to suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information requires action, the company must submit the information necessary to protect human health and the environment. The notice shall provide the company an opportunity to present information as to why the proposed EPA action is not necessary, and the company must submit such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6), the Division Director will issue a final decision on the delisting of the waste. Any required action described in the Division Director's determination shall be taken.</p> <p>(7) Notification Requirements:</p> <p>Cooper Crouse-Hinds must do the following before transporting the delisted waste to a treatment, storage, and disposal unit, or before possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which the waste is being transported, before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a different state.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance.</p>
Covestro Industrial	Baytown, TX	Outfall 007 Treated Effluent (EPA hazardous Waste No. K027, K104, K111 and K112)

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Facility	Address	W
DaimlerChrysler Corporation	Jefferson North Assembly Plant, Detroit, Michigan	<p>on site for the specified time, EPA, at its discretion, will consider this sufficient basis for delisting. (i) Compile records of analysis obtained through paragraph (3) to the Section Supervisor, RCRA Corrective Action, 75270, Mail Code, (6LCR-RC) within the time specified. (ii) Compile records of analysis. (iii) Furnish these records and data when either EPA or the State of Texas request them. To attest to the truth and accuracy of the data submitted:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent information, I certify that the information submitted is true and accurate to the best of my knowledge and belief. Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928, shall apply. This certification is complete.</p> <p>Also, to the (those) identified section(s) of this document for which I cannot personally verify the information, I accept full responsibility for the persons who, acting under my direct instructions made the verification. If any of this information is determined by EPA in its sole discretion to be false, inaccurate, or incomplete, that this exclusion of waste will be void as it never had effect or to the extent directed by EPA. This exclusion of the company's RCRA and CERCLA obligations premised upon the company's reliance on the information is hereby rescinded.</p> <p>(3) Reopener: (i) If, any time after disposal of the delisted waste Covestro possesses or generates (air emissions data or groundwater monitoring data) or any other data relevant to the delisted waste, the facility shall report to the Division Director within 10 days of first possession if the data indicates a level higher than the delisting level allowed by the Division Director within 10 days of first possession. If the data does not meet the delisting requirements in paragraph (1) Covestro must report the data to the Division Director. (ii) If that data. (iii) if Covestro fails to submit the information described in paragraph (5) the Division Director will make a preliminary determination as to whether the reported information requires action by EPA, suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. If the reported information requires action by EPA, the Division Director will notify the facility and the environment. The notice shall include a statement of the proposed action and the reasons for the proposed EPA action is not necessary. The facility shall have 10 days from the date of the notice to submit information from the facility described in paragraph (6)(iv) or (if no information is submitted) (5)(6)(i) or (6)(ii), the Division Director will issue a final written determination describing the required action described in the Division Directors' determination shall become effective.</p> <p>Waste water treatment plant sludge, F019, that is generated by DaimlerChrysler Corporation, is excluded from listing at 40 cubic yards per year. The sludge must be disposed of in a lined landfill with leachate collection and treatment of wastewater treatment sludge in accordance with 40 CFR part 258. The exclusion is based on the following:</p> <ol style="list-style-type: none"> <li><b>1. Delisting Levels:</b> (A) The concentrations in a TCLP extract of the waste measured for the following metals: Cadmium—0.48; Chromium—4.95; Lead—5; Nickel—90.5; Selenium—1; Thallium—0.288. (B) The total concentrations measured in any sample may not exceed the delisting levels for nickel and either thallium or selenium.</li> <li><b>2. Quarterly Verification Testing:</b> To verify that the waste does not exceed the specified delisting levels on a quarterly basis.</li> <li><b>3. Changes in Operating Conditions:</b> DCC-JNAP must notify the EPA in writing if the treatment process, or the chemicals used in the treatment process significantly change. DCC-JNAP must demonstrate that the wastes continue to meet the delisting levels and that no new hazardous waste is received written approval from EPA.</li> <li><b>4. Data Submittals:</b> DCC-JNAP must submit the data obtained through verification testing to the Waste Management Branch (DW-8J), 77 W. Jackson Blvd., Chicago, IL 60604 and MDEQ, 1000 North Dearborn Street, Detroit, MI 48226.</li> </ol>

Facility	Address	W
Deer Park Refining Limited Partnership (DPRLP)	Deer Park, TX	<p>Michigan 48909. The quarterly verification data and certification of proper disposal facility must compile, summarize, and maintain on site for a minimum of five years available for inspection. All data must be accompanied by a signed copy of the cer</p> <p>5. <i>Reopener Language</i>—(a) If, anytime after disposal of the delisted waste, DCC-JN or groundwater monitoring data) relevant to the delisted waste indicating that any groundwater at a concentration higher than the maximum allowable groundwater Administrator within 10 days of first possessing or being made aware of that data</p> <p>(b) Based on the information described in paragraph (a) and any other information to whether the reported information requires Agency action to protect human health appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does re Regional Administrator believes are necessary to protect human health and the en providing DCC-JNAP with an opportunity to present information as to why the prop 30 days from the date of the Regional Administrator's notice to present the inform</p> <p>(d) If after 30 days the facility presents no further information, the Regional Admin to protect human health or the environment. Any required action described in the F Administrator provides otherwise.</p> <p>(e) <i>Maximum Allowable Groundwater Concentrations</i> (µg/L): Antimony—6; Arsenic— Tin—22,500; Zinc—11,300; acetone—3,750; p-Cresol—188; Formaldehyde—1,380; a</p> <p>Multi-source landfill leachate (EPA Hazardous Waste No. F039) generated at a ma 2005 and disposed in accordance with the TPDES permit.</p> <p>The delisting levels set do not relieve DPRLP of its duty to comply with the limits s program that meets the following paragraphs:</p> <p>(1) Delisting Levels: All total concentrations for those constituents must not excee measure constituents in the multi-source landfill leachate.</p> <p>Multi-source landfill leachate (i) Inorganic Constituents Antimony-0.0204; Arsenic- Thallium-0.005; Vanadium-0.838</p> <p>(ii) Organic Constituents Acetone-1.46; Acetophenone-1.58; Benzene-0.0222; p-Cre Fluorene-1.87; Napthalene-1.05; Phenol-9.46; Phenanthrene-1.36; Pyridine-0.0146; (total)-97.60</p> <p>(2) Waste Management:</p> <p>(A) DPRLP must manage as hazardous all multi-source landfill leachate generated appropriate, and valid analyses show that paragraph (1) is satisfied.</p> <p>(B) Levels of constituents measured in the samples of the multi-source landfill lea manage and dispose of the non-hazardous multi-source landfill leachate according</p> <p>(C) If constituent levels in a sample exceed any of the delisting levels set in paragr constituent exceeds the delisting level. If this sample confirms the exceedance, DP waste again meets the levels in paragraph (1).</p> <p>(D) If the facility has not treated the waste, DPRLP must manage and dispose of th exceedance</p> <p>(E) Upon completion of the Verification Testing described in paragraph 3(A) and (E</p>

Facility	Address	W
		<p>requirements of paragraph (1), DPRLP may proceed to manage its multi-source land- exceedance of the delisting levels in paragraph (1), DPRLP must manage the multi- show levels below the delisting levels in Table I.</p> <p>(3) Verification Testing Requirements: DPRLP must perform sample collection and method-defined parameters of concern, analyses requiring the use of SW-846 met applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. Criteria in which the Data Quality Objectives demonstrate that representative samp paragraph (1).</p> <p>(A) Initial Verification Testing: After EPA grants the final exclusion, DPRLP must do (i) Within 60 days of this exclusions becoming final, collect four samples, before d (ii) The samples are to be analyzed and compared against the delisting levels in pa (iii) Within sixty (60) days after this exclusion becomes final, DPRLP will report init quality control information for the first thirty (30) days of operation after this exclu leachate that do not exceed the levels set forth in paragraph (1) are also non-haza become effective, DPRLP can manage and dispose of the multi-source landfill leac</p> <p>(B) Subsequent Verification Testing: Following written notification by EPA, DPRLP operating conditions, and analyze one representative sample of the multi-source la sample must represent the waste generated during the quarter. After the first year multi-source landfill leachate. The results are to be compared to the delisting level</p> <p>(C) Termination of Testing: (i) After the first year of quarterly testing, if the delisting levels in paragraph (1) are DPRLP in writing, the company may end quarterly testing. (ii) Following cancellation of the quarterly testing, DPRLP must continue to test a r</p> <p>(4) Changes in Operating Conditions: If DPRLP significantly changes the process o significantly affect the composition or type of waste generated as established und of the treatment process), it must notify EPA in writing; it may no longer handle the levels set in paragraph (1) and it has received written approval to do so from EPA.</p> <p>(5) Data Submittals: DPRLP must submit the information described below. If DPRL site for the specified time, EPA, at its discretion, will consider this sufficient basis t</p> <p>(A) Submit the data obtained through paragraph 3 to the Section Supervisor, RCRA Dallas, Texas 75270, Mail Code, (6LCR-RC) within the time specified.</p> <p>(B) Compile records of operating conditions and analytical data from paragraph (3)</p> <p>(C) Furnish these records and data when EPA or the state of Texas request them f</p> <p>(D) Send along with all data a signed copy of the following certification statement, Under civil and criminal penalty of law for the making or submission of false or fra Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928) complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot persona responsibility for the persons who, acting under my direct instructions, made the v If any of this information is determined by EPA in its sole discretion to be false, ina that this exclusion of waste will be void as if it never had effect or to the extent dir</p>

Facility	Address	W
Dover Corp., Norris Div.	Tulsa, OK	<p>company's RCRA and CERCLA obligations premised upon the company's reliance on the data.</p> <p>(6) Reopener:</p> <p>(A) If, anytime after disposal of the delisted waste, DPRLP possesses or is otherwise made aware of (e.g., through groundwater monitoring data) or any other data relevant to the delisted waste indicating that the delisting level allowed by the Division Director in granting the petition, then the DPRLP must notify the Division Director or being made aware of that data.</p> <p>(B) If the annual testing of the waste does not meet the delisting requirements in paragraph (6), the DPRLP must notify the Division Director possessing or being made aware of that data.</p> <p>(C) If DPRLP fails to submit the information described in paragraphs (5), (6)(A) or (6)(B), the Division Director may, at its discretion, make a preliminary determination as to whether the reported information requires EPA action, including but not limited to, revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information does require a preliminary determination, the Division Director shall issue a notice of preliminary determination. The notice shall include a preliminary determination of whether the reported information requires EPA action, including but not limited to, revoking the exclusion, or other appropriate response necessary to protect human health and the environment. The notice shall also present information as to why the proposed action by EPA is not necessary. The facility shall submit the information requested in the notice.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6), the Division Director shall issue a final written determination describing the actions that are necessary to protect human health and the environment. The final determination shall become effective immediately, unless the Division Director provides for a different effective date.</p> <p>(7) Notification Requirements: DPRLP must do the following before transporting the waste to a new location:</p> <p>(A) Provide a one-time written notification to any state regulatory agency to which the waste is being shipped, advising the agency of the beginning of such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a different state.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting exclusion.</p> <p>Dewatered wastewater treatment sludge (EPA Hazardous Waste No. F006) generated by the facility.</p>
DuraTherm, Incorporated	San Leon, Texas	<p>Desorber solids, (at a maximum generation of 20,000 cubic yards per calendar year) and that is disposed of in subtitle D landfills after April 1, 2002. For the exclusion to be valid, DuraTherm must implement a testing program that meets the following requirements:</p> <p>(1) <i>Delisting Levels:</i> All leachable concentrations for those constituents must not exceed the following levels:</p> <p>Desorber solids (i) Inorganic Constituents Arsenic—1.35; Antimony—0.162; Barium—1.0; Silver—5.0; Vanadium—5.4; Zinc—270.</p> <p>(ii) Organic Constituents Anthracene—0.28; Benzene—0.135; Benzo(a) anthracene—0.057; Carbon Disulfide—3.8; Chlorobenzene—0.057; Chrysene—0.059; o,m,p Cresols—54; Ethylbenzene—0.057; Fluoranthene—0.068; Fluorene—0.059; Naphthalene—0.059; Toluene—0.08; Xylene—0.032</p> <p>(2) <i>Waste Holding and Handling:</i> (A) DuraTherm must store the desorber solids as generated, until they have completed verification testing described in Paragraph (3) of this section.</p> <p>(B) In order to isolate wastes that have been processed in the unit prior to one of the following waste codes: K049, K050, or K051 wastes as hazardous. Subsequent batches of these wastes will be considered hazardous if they contain no additional constituents (other than those of the delisted waste streams) from the facility.</p>



Facility	Address	W
		<p>(C) Levels of constituents measured in the samples of the desorber solids that do dispose the nonhazardous desorber solids according to all applicable solid waste</p> <p>(D) If constituent levels in a sample exceed any of the delisting levels set in Paragraph representative sample until it meets the levels in paragraph (1). DuraTherm must r</p> <p>(E) If the facility has not treated the waste, DuraTherm must manage and dispose</p> <p>(3) <i>Verification Testing Requirements:</i> DuraTherm must perform sample collection the method-defined parameters of concern, analyses requiring the use of SW-846 applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. used during the initial verification testing, DuraTherm may replace the testing requ to test as specified in Paragraph (3)(A) until and unless notified by EPA in writing t</p> <p>(A) <i>Initial Verification Testing:</i> After EPA grants the final exclusion, DuraTherm mus</p> <p>(i) Collect and analyze composites of the desorber solids.</p> <p>(ii) Make two composites of representative grab samples collected.</p> <p>(iii) Analyze the waste, before disposal, for all of the constituents listed in Paragraph</p> <p>(iv) Sixty (60) days after this exclusion becomes final, report the operational and a</p> <p>(v) Submit the test plan for conducting the multiple pH leaching procedure to EPA</p> <p>(vi) Conduct a multiple pH leaching procedure on 10 samples collected during the</p> <p>(vii) The ten samples should include both non-stabilized and stabilized residual so</p> <p>DuraTherm should provide multiple pH data on the first sample of stabilized waste</p> <p>(vii) Perform the toxicity characteristic leaching procedure using three different pH days of completion. Simulate an acidic landfill environment, basic landfill environn</p> <p>(B) <i>Subsequent Verification Testing:</i> Following written notification by EPA, DuraTherm monitor operating conditions, and analyze representative samples each quarter of generated in one quarter. DuraTherm must run the multiple pH procedure on these</p> <p>(C) <i>Termination of Organic Testing:</i> (i) DuraTherm must continue testing as required results submitted under Paragraph (3)(B) show a minimum of two consecutive sa stop quarterly organic testing. After EPA notifies DuraTherm in writing, the compar</p> <p>(ii) Following cancellation of the quarterly testing, DuraTherm must continue to tes twelve months after final exclusion).</p> <p>(4) <i>Changes in Operating Conditions:</i> If DuraTherm significantly changes the proces affect the composition or type of waste generated as established under Paragraph treatment process), they must notify EPA in writing; they may no longer handle the levels set in Paragraph (1) and they have received written approval to do so from E</p> <p>(5) <i>Data Submittals:</i> DuraTherm must submit the information described below. If D records on-site for the specified time, EPA, at its discretion, will consider this suffic</p> <p>(A) Submit the data obtained through Paragraph 3 to Mr. William Gallagher, Chief, I</p> <p>O) within the time specified.</p> <p>(B) Compile records of operating conditions and analytical data from Paragraph (3</p> <p>(C) Furnish these records and data when EPA or the State of Texas request them f</p> <p>(D) Send along with all data a signed copy of the following certification statement,</p> <p>Under civil and criminal penalty of law for the making or submission of false or fra</p>

Facility	Address	W
Eastman Chemical Company	Longview, Texas	<p>Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928) complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally assume responsibility for the persons who, acting under my direct instructions, made the v</p> <p>If any of this information is determined by EPA in its sole discretion to be false, inat that this exclusion of waste will be void as if it never had effect or to the extent dir company's RCRA and CERCLA obligations premised upon the company's reliance</p> <p>(6) <i>Reopener Language:</i> (A) If, anytime after disposal of the delisted waste, DuraTh to leachate data or groundwater monitoring data) or any other data relevant to the level higher than the delisting level allowed by the Regional Administrator or his de Administrator or his delegate within 10 days of first possessing or being made aw</p> <p>(B) If the annual testing of the waste does not meet the delisting requirements in F delegate within 10 days of first possessing or being made aware of that data.</p> <p>(C) If DuraTherm fails to submit the information described in paragraphs (5),(6)(A) his delegate will make a preliminary determination as to whether the reported info include suspending, or revoking the exclusion, or other appropriate response neces</p> <p>(D) If the Regional Administrator or his delegate determines that the reported infor facility in writing of the actions the Regional Administrator or his delegate believes statement of the proposed action and a statement providing the facility with an op facility shall have 10 days from the date of the Regional Administrator or his deleg</p> <p>(E) Following the receipt of information from the facility described in paragraph (6) described in paragraphs (5), (6)(A) or (6)(B), the Regional Administrator or his dele protect human health or the environment. Any required action described in the Reg the Regional Administrator or his delegate provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> DuraTherm must do following before transporting th petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which before beginning such activities.</p> <p>(B) Update the one-time written notification if they ship the delisted waste into a di</p> <p>Wastewater treatment sludge, (at a maximum generation of 82,100 cubic yards per generated at Eastman when disposed of in a Subtitle D landfill.</p> <p>Eastman must implement a testing program that meets the following conditions f</p> <p>(1) <i>Delisting Levels:</i> All concentrations for the following constituents must not exce measured in the waste leachate by the method specified in 40 CFR 261.24. Waster</p> <p>(i) Inorganic Constituents: Antimony-0.0515; Barium-7.30; Cobalt-2.25; Chromium-</p> <p>(ii) Organic Constituents: Acenaphthene-1.25; Acetone—7.13; bis(2-ethylhexylphth Chloride—0.486; naphthalene-0.0321.</p> <p>(2) <i>Waste Holding and Handling:</i> If the concentrations of the sludge exceed the leve and meet the requirements of that September 25, 1996 delisting exclusion to be n it's non-hazardous (as sludge). If the waste water treatment sludge is not manage requirements. If the levels of constituents measured in the samples of the waste v nonhazardous and may be managed and disposed of in accordance with all applic</p>

Facility	Address	W
		<p>the FBI incinerator prior to disposal.</p> <p>(3) <i>Verification Testing Requirements:</i> Eastman must perform sample collection and analysis for the method-defined parameters of concern, analyses requiring the use of SW-846 methods, as applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0031, 0045, 0051, 0053, 0063, 0071, 0086, 0101, 0121, 0131, 0141, 0143, 0151, 0153, 0155, 0156, 0157, 0158, 0163, 0169, 0171, 0173, 0175, 0177, 0183, 0185, 0186, 0187, 0188, 0189, 0191, 0193, 0195, 0197, 0199, 0201, 0203, 0205, 0207, 0209, 0211, 0213, 0215, 0217, 0219, 0221, 0223, 0225, 0227, 0229, 0231, 0233, 0235, 0237, 0239, 0241, 0243, 0245, 0247, 0249, 0251, 0253, 0255, 0257, 0259, 0261, 0263, 0265, 0267, 0269, 0271, 0273, 0275, 0277, 0279, 0281, 0283, 0285, 0287, 0289, 0291, 0293, 0295, 0297, 0299, 0301, 0303, 0305, 0307, 0309, 0311, 0313, 0315, 0317, 0319, 0321, 0323, 0325, 0327, 0329, 0331, 0333, 0335, 0337, 0339, 0341, 0343, 0345, 0347, 0349, 0351, 0353, 0355, 0357, 0359, 0361, 0363, 0365, 0367, 0369, 0371, 0373, 0375, 0377, 0379, 0381, 0383, 0385, 0387, 0389, 0391, 0393, 0395, 0397, 0399, 0401, 0403, 0405, 0407, 0409, 0411, 0413, 0415, 0417, 0419, 0421, 0423, 0425, 0427, 0429, 0431, 0433, 0435, 0437, 0439, 0441, 0443, 0445, 0447, 0449, 0451, 0453, 0455, 0457, 0459, 0461, 0463, 0465, 0467, 0469, 0471, 0473, 0475, 0477, 0479, 0481, 0483, 0485, 0487, 0489, 0491, 0493, 0495, 0497, 0499, 0501, 0503, 0505, 0507, 0509, 0511, 0513, 0515, 0517, 0519, 0521, 0523, 0525, 0527, 0529, 0531, 0533, 0535, 0537, 0539, 0541, 0543, 0545, 0547, 0549, 0551, 0553, 0555, 0557, 0559, 0561, 0563, 0565, 0567, 0569, 0571, 0573, 0575, 0577, 0579, 0581, 0583, 0585, 0587, 0589, 0591, 0593, 0595, 0597, 0599, 0601, 0603, 0605, 0607, 0609, 0611, 0613, 0615, 0617, 0619, 0621, 0623, 0625, 0627, 0629, 0631, 0633, 0635, 0637, 0639, 0641, 0643, 0645, 0647, 0649, 0651, 0653, 0655, 0657, 0659, 0661, 0663, 0665, 0667, 0669, 0671, 0673, 0675, 0677, 0679, 0681, 0683, 0685, 0687, 0689, 0691, 0693, 0695, 0697, 0699, 0701, 0703, 0705, 0707, 0709, 0711, 0713, 0715, 0717, 0719, 0721, 0723, 0725, 0727, 0729, 0731, 0733, 0735, 0737, 0739, 0741, 0743, 0745, 0747, 0749, 0751, 0753, 0755, 0757, 0759, 0761, 0763, 0765, 0767, 0769, 0771, 0773, 0775, 0777, 0779, 0781, 0783, 0785, 0787, 0789, 0791, 0793, 0795, 0797, 0799, 0801, 0803, 0805, 0807, 0809, 0811, 0813, 0815, 0817, 0819, 0821, 0823, 0825, 0827, 0829, 0831, 0833, 0835, 0837, 0839, 0841, 0843, 0845, 0847, 0849, 0851, 0853, 0855, 0857, 0859, 0861, 0863, 0865, 0867, 0869, 0871, 0873, 0875, 0877, 0879, 0881, 0883, 0885, 0887, 0889, 0891, 0893, 0895, 0897, 0899, 0901, 0903, 0905, 0907, 0909, 0911, 0913, 0915, 0917, 0919, 0921, 0923, 0925, 0927, 0929, 0931, 0933, 0935, 0937, 0939, 0941, 0943, 0945, 0947, 0949, 0951, 0953, 0955, 0957, 0959, 0961, 0963, 0965, 0967, 0969, 0971, 0973, 0975, 0977, 0979, 0981, 0983, 0985, 0987, 0989, 0991, 0993, 0995, 0997, 0999, 1001, 1003, 1005, 1007, 1009, 1011, 1013, 1015, 1017, 1019, 1021, 1023, 1025, 1027, 1029, 1031, 1033, 1035, 1037, 1039, 1041, 1043, 1045, 1047, 1049, 1051, 1053, 1055, 1057, 1059, 1061, 1063, 1065, 1067, 1069, 1071, 1073, 1075, 1077, 1079, 1081, 1083, 1085, 1087, 1089, 1091, 1093, 1095, 1097, 1099, 1101, 1103, 1105, 1107, 1109, 1111, 1113, 1115, 1117, 1119, 1121, 1123, 1125, 1127, 1129, 1131, 1133, 1135, 1137, 1139, 1141, 1143, 1145, 1147, 1149, 1151, 1153, 1155, 1157, 1159, 1161, 1163, 1165, 1167, 1169, 1171, 1173, 1175, 1177, 1179, 1181, 1183, 1185, 1187, 1189, 1191, 1193, 1195, 1197, 1199, 1201, 1203, 1205, 1207, 1209, 1211, 1213, 1215, 1217, 1219, 1221, 1223, 1225, 1227, 1229, 1231, 1233, 1235, 1237, 1239, 1241, 1243, 1245, 1247, 1249, 1251, 1253, 1255, 1257, 1259, 1261, 1263, 1265, 1267, 1269, 1271, 1273, 1275, 1277, 1279, 1281, 1283, 1285, 1287, 1289, 1291, 1293, 1295, 1297, 1299, 1301, 1303, 1305, 1307, 1309, 1311, 1313, 1315, 1317, 1319, 1321, 1323, 1325, 1327, 1329, 1331, 1333, 1335, 1337, 1339, 1341, 1343, 1345, 1347, 1349, 1351, 1353, 1355, 1357, 1359, 1361, 1363, 1365, 1367, 1369, 1371, 1373, 1375, 1377, 1379, 1381, 1383, 1385, 1387, 1389, 1391, 1393, 1395, 1397, 1399, 1401, 1403, 1405, 1407, 1409, 1411, 1413, 1415, 1417, 1419, 1421, 1423, 1425, 1427, 1429, 1431, 1433, 1435, 1437, 1439, 1441, 1443, 1445,</p>

Facility	Address	W
Eastman Chemical Company-Texas Operations	Longview, TX	<p>(D) If the Regional Administrator or his delegate determines that the reported information is false or misleading, the Regional Administrator or his delegate believes that the facility is in violation of the actions the Regional Administrator or his delegate believes are necessary to protect human health or the environment, the Regional Administrator or his delegate shall issue a written statement of the proposed action and a statement providing the facility with an opportunity to be heard. The facility shall have 10 days from the date of the Regional Administrator or his delegate's decision to file a petition for review. The facility shall have 10 days from the date of the Regional Administrator or his delegate's decision to file a petition for review.</p> <p>(E) Following the receipt of information from the facility described in Condition (6)(B), the Regional Administrator or his delegate shall determine whether the facility is in violation of the actions the Regional Administrator or his delegate believes are necessary to protect human health or the environment. Any required action described in the Regional Administrator or his delegate provides otherwise.</p> <p>(7) <i>Notification Requirements.</i> Eastman must do following before transporting the waste out of the facility and a possible revocation of the exclusion.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which the waste is being shipped before beginning such activities.</p> <p>(B) Update the one-time written notification if they ship the delisted waste into a different facility.</p> <p>RKI bottom ash (EPA Hazardous Waste Numbers F001, F002, F003, F005, F039, K009, K010, K011, K012, K013, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K039, K040, K041, K042, K043, K044, K045, K046, K047, K048, K049, K050, K051, K052, K053, K054, K055, K056, K057, K058, K059, K060, K061, K062, K063, K064, K065, K066, K067, K068, K069, K070, K071, K072, K073, K074, 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Facility	Address	W
		<p>(i) Notify EPA in accordance with paragraph (6) and</p> <p>(ii) Manage and dispose the RKI bottom ash, RKI fly ash, and RKI scrubber water b</p> <p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, Eastman must perform analytical testing by s</p> <p>follows:</p> <p>(A) Initial Verification Testing:</p> <p>(i) Collect four representative composite samples of each of the RKI bottom ash, F</p> <p>exclusion. The first round of composite samples of each waste stream may be tak</p> <p>with the sampling plan approved by EPA in support of the exclusion.</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite</p> <p>bottom ash, RKI fly ash, and RKI scrubber water blowdown must continue to be dis</p> <p>until such time that four consecutive quarterly samples indicate compliance with c</p> <p>(iii) Within sixty (60) days after taking its last quarterly sample, Eastman will repor</p> <p>bottom ash, RKI fly ash, and RKI scrubber water blowdown do not exceed the level</p> <p>and dispose the non-hazardous RKI bottom ash, RKI fly ash, and RKI scrubber wat</p> <p>(B) Annual Testing:</p> <p>(i) If Eastman completes the quarterly testing specified in paragraph (3) above and</p> <p>Eastman must begin annual testing as follows: Eastman must test a representativ</p> <p>constituents listed in paragraph (1) at least once per calendar year. If any measure</p> <p>collect an additional representative composite sample within 10 days of being ma</p> <p>delisting levels in the original annual sample.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample</p> <p>analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR</p> <p>Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 101</p> <p>(uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performa</p> <p>demonstrate that samples of the Eastman RKI bottom ash, RKI fly ash, and RKI scr</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annu</p> <p>(iv) The annual testing report shall include the total amount of delisted waste in cu</p> <p>(4) Changes in Operating Conditions: If Eastman significantly changes the process</p> <p>affect the composition or type of waste generated (by illustration, but not limitatio</p> <p>writing and it may no longer handle the wastes generated from the new process as</p> <p>written approval to do so from EPA.</p> <p>Eastman must submit a modification to the petition complete with full sampling and</p> <p>are added to the waste stream.</p> <p>(5) Data Submittals:</p> <p>Eastman must submit the information described below. If Eastman fails to submit</p> <p>specified time, EPA, at its discretion, will consider this sufficient basis to reopen th</p> <p>(A) Submit the data obtained through paragraph 3 to the Chief, Corrective Action a</p> <p>Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas 75202, within the time</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maint</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests</p> <p>(D) Send along with all data a signed copy of the following certification statement,</p>

Facility	Address	W
Eli Lilly and Company	Clinton, Indiana	<p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent information, I certify that the information provided in this document is true and complete. Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928(a)(1) shall be complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally assume responsibility for the persons who, acting under my direct instructions, made the verification, I certify that the information provided is true and complete.</p> <p>If any of this information is determined by EPA in its sole discretion to be false, inaccurate, or incomplete, that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA. This exclusion of waste will be void as if it never had effect or to the extent directed by EPA. This company's RCRA and CERCLA obligations premised upon the company's reliance on this exclusion of waste will be void as if it never had effect or to the extent directed by EPA.</p> <p>(6) Reopener.</p> <p>(A) If, anytime after disposal of the delisted waste Eastman possesses or is otherwise responsible for (including but not limited to monitoring data or any other data relevant to the delisted waste indicating that the waste is not at the delisting level allowed by the Division Director in granting the petition, then the facility shall be made aware of that data.</p> <p>(B) If either the annual testing (and retest, if applicable) of the waste does not meet the delisting level, the Division Director within 10 days of first possessing or being made aware of that data shall issue a notice of revocation.</p> <p>(C) If Eastman fails to submit the information described in paragraphs (5), (6)(A) or (6)(B), the Division Director shall issue a preliminary determination as to whether the reported information requires EPA action to protect human health and the environment, including revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information requires action to protect human health and the environment, the notice shall provide an opportunity to present information as to why the proposed EPA action is not necessary.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(B), the Division Director will issue a final determination as to whether the waste is eligible for delisting. Any required action described in the Division Director's determination shall be taken.</p> <p>(7) <i>Notification Requirements:</i> Eastman must do the following before transporting the waste to a Subtitle D landfill for disposal and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which the waste is being shipped before beginning such activities.</p> <p>(B) For onsite disposal a notice should be submitted to the State to notify the State of the delisting.</p> <p>(C) Update one-time written notification, if it ships the delisted waste into a different state.</p> <p>(D) Failure to provide this notification will result in a violation of the delisting variance.</p> <p>Incinerator scrubber liquids, entering and contained in their onsite surface impoundment. The waste is not a hazardous waste (Hazardous Waste Nos. F002, F003, and F005) contained in their onsite surface impoundment and settled solids generated in the surface impoundment and disposed of in the reclamation area.</p> <p>Wastewater treatment sludges, U019 (benzene) and U220 (toluene), generated at 1,000 gallons per year. The sludge must be disposed of in a Subtitle D landfill which is licensed for the disposal of sludge. The exclusion becomes effective as of July 13, 2022.</p> <p>1. <i>Delisting Levels:</i></p> <p>The constituent concentrations in a representative sample of the waste must not exceed the following levels:</p> <p>Nickel-402,000; Benzene-276,000; Formic Acid-145,000. TCLP Concentrations (mg/kg): Nickel-402,000; Benzene-276,000; Formic Acid-145,000; Benzaldehyde-6.08; Benzene-0.166; Benzoic Acid-5,000; Formic Acid-174; Benzyl Alcohol-1,000.</p>
Emerald Kalama Chemical, LLC	Kalama, Washington	<p>Wastewater treatment sludges, U019 (benzene) and U220 (toluene), generated at 1,000 gallons per year. The sludge must be disposed of in a Subtitle D landfill which is licensed for the disposal of sludge. The exclusion becomes effective as of July 13, 2022.</p> <p>1. <i>Delisting Levels:</i></p> <p>The constituent concentrations in a representative sample of the waste must not exceed the following levels:</p> <p>Nickel-402,000; Benzene-276,000; Formic Acid-145,000. TCLP Concentrations (mg/kg): Nickel-402,000; Benzene-276,000; Formic Acid-145,000; Benzaldehyde-6.08; Benzene-0.166; Benzoic Acid-5,000; Formic Acid-174; Benzyl Alcohol-1,000.</p>

Facility	Address	W
		<p>of the waste, the exclusion is based on a demonstration of being within a cobalt b</p> <p>effective date of this exclusion, and for each annual period. The running total shall</p> <p><math>V_i</math> = the volume of each batch in cubic yards (<math>\text{yd}^3</math>)</p> <p><math>C_i</math> = the concentration of cobalt in a TCLP extract of each batch as per Condition 3</p> <p><math>n</math> = number of batches generated per year</p> <p>The Petitioner may conduct analysis for cobalt in an extract of the IWBS biosolids</p> <p>to Toxicity Characteristic Leaching Procedure (TCLP Cobalt), Revision 1.0, 11/24/2</p> <p>each batch on a weight basis, converting to volume using a documented density o</p> <p>2000 <math>\text{yds}^3</math>-mg/L each batch will be considered in compliance with the exclusion lin</p> <p>than 1.99 mg/l in a TCLP extract of the waste cannot be managed under this exclu</p> <p>effective date of this exclusion, the Petitioner shall also document the density of IW</p> <p>purposes of verifying the 0.67 tons/cubic yard density. In addition, the Petitioner s</p> <p>biosolids for cobalt from an independent laboratory accredited by the Washington</p> <p><b>2. Reporting.</b> Within 60 days of each anniversary of the effective date of this exclus</p> <p>report to the EPA documenting all data gathered regarding extraction and analysis</p> <p>IWBS density measurement (first year report only) and the independent laboratory</p> <p>certification language appearing at 40 CFR 270.1(d)(1). After review of the density</p> <p>other numerical density than 0.67 tons/cubic yard for purposes of subsequent imp</p> <p>first annual report, the Petitioner may request relief from the spilt aliquot analysis</p> <p>Petitioner will be relieved of the spilt aliquot analysis requirement in Condition 1.</p> <p><b>3. Verification Testing:</b> To verify that the waste does not exceed the delisting conce</p> <p>representative waste sample of every group of 14 roll-off boxes of wastewater trea</p> <p>sampling is expected to occur on a weekend or a Federal holiday, the Petitioner ma</p> <p>subsequent batches resuming the original schedule of sampling the 10th roll-off b</p> <p>group of 14 according to the verification sampling results of the previous group of</p> <p>boxes. The EPA notes that the Washington State Department of Ecology does not</p> <p>benzaldehyde, or formic acid in samples of solid material. The EPA will accept labo</p> <p>otherwise holds accreditations for all other analytes. For cobalt, sampling must oc</p> <p>conducted using methods with appropriate detection concentrations and element</p> <p>anniversary of the effective date of this delisting, or such later date as the EPA ma</p> <p>Petitioner may request that the EPA approve changes to the sampling frequency u</p> <p>revised sampling frequency will ensure that all wastes subject to this exclusion wi</p> <p>conduct all verification sampling according to a written sampling plan and associa</p> <p>analytical data are suitable for their intended use. The Petitioner's annual submiss</p> <p>Condition 1 have been disposed of in a Subtitle D landfill which is licensed, permitt</p> <p><b>4. Changes in Operating Conditions:</b> The Petitioner must notify the EPA in writing if</p> <p>process, the treatment process, or the chemicals used in the treatment process. T</p> <p>demonstrated that the wastes continue to meet the delisting concentrations in Co</p> <p>have been introduced into the manufacturing process or waste treatment process,</p> <p>non-hazardous.</p> <p><b>5. Data Submittals:</b> The Petitioner must submit the data obtained through verificati</p> <p>Redevelopment Division, U.S. EPA Region 10, 1200 6th Avenue, Suite 155, M/S 15-</p> <p>certification of proper disposal must be submitted within 60 days after each anniv</p> <p>in writing. The Petitioner must compile, summarize, and maintain on-site for a min</p>

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Emerald Kalama Chemical, LLC and Fire Mountain Farms, Inc	Lewis County, Washington	<p>relevant to those data. The Petitioner must make these records available for inspection under 40 CFR 260.22(i)(12). If the Petitioner fails to submit the required data within the specified time, the Agency, at its discretion, consider such failure a sufficient basis to reopen the exclusion as described in Condition 6. <i>Reopener Language:</i> (A) If, any time after disposal of the delisted waste, the Petitioner determines that any constituent is at a higher concentration than the specified delisting concentration, the Petitioner shall notify the Redevelopment Division, EPA Region 10 at the address above, or his or her equivalent, of the determination. (B) Based on the information described in Condition 4 or 6(A) and any other information, the Petitioner shall report information requires Agency action to protect human health or the environment. The Petitioner shall respond necessary to protect human health and the environment. (C) If the EPA determines that the reported information does require Agency action to protect human health and the environment. The notice shall include a statement of the proposed Agency action, as to why the proposed Agency action is not necessary or to suggest an alternative action. (D) If after 30 days the Petitioner presents no further information or after a review of the information, the Agency actions that are necessary to protect human health or the environment. And the Petitioner shall, unless the EPA provides otherwise.</p> <p>Mixtures of hazardous wastewater treatment sludges, U019 (benzene) and U220 (benzene) and Fire Mountain Farms, Inc (Petitioners) pursuant to closure plans approved by the EPA. The Petitioners have 10,400 cubic yards at the Burnt Ridge facility, 10,400 cubic yards at the Newaukum Prairie facility, and 10,400 cubic yards at the Big Hanaford facility in Lewis County, Washington. The effective date of this exclusion, subject to the conditions below. Wastes managed by the Petitioners, or otherwise authorized by a state to accept the delisted mixed material. The exclusion is subject to the following conditions:</p> <p>1. <i>Delisting Levels:</i> The constituent concentrations in a representative sample of the waste are provided for Burnt Ridge, Newaukum Prairie and Big Hanaford, respectively. Total organic carbon (TOC) waste extract): Barium—1,090, 498, 1,030; Cobalt—6.28, 2.92, 5.92; Copper—716, 316, 316; Benzene—2.35, 1.08, 2.21; Benzoic Acid—70,400, 32,400, 66,300; Formic Acid—1,100, 2,430, 4,970; Toluene—460, 211, 433.</p> <p>2. <i>Verification Testing:</i> To verify that the waste does not exceed the delisting concentrations, the Petitioners shall use SW-846 Method 1311 (TCLP extraction) from three representative composite samples of treatment solids wastes from each FMF facility prior to the start of closure activities. The Petitioners shall report concentrations of concern in Condition 1. If results from analysis of any composite sample indicate concentrations of concern, the Petitioners to conduct additional verification sampling to better define the volume of waste. The Petitioners must conduct all verification sampling according to a written sampling protocol that ensures analytical data are suitable for their intended use. Sampling data must be submitted to the EPA no later than such later date as the EPA may agree to in writing. Any waste volume for which results indicate concentrations of concern in Condition 1 must continue to be managed as hazardous. The Petitioners must also ensure that all waste in Condition 1 have been disposed of in a Subtitle D landfill which is licensed, permitted, or otherwise approved by the EPA. The sludge, and the quantity of waste disposed from each facility. This submission must be included in the closure plan.</p> <p>3. <i>Data Submittals:</i> The Petitioners must submit the data obtained through verification testing to the Redevelopment Division, U.S. EPA Region 10, 1200 6th Avenue Suite 155, M/S 15-H, Seattle, WA 98101, by mail, physical electronic media (e.g., USB flash drive), or an electronic file transfer within five years, records of analytical data and waste disposal required by this rule. The Petitioners must submit a signed copy of the certification statement in 40 CFR 260.22(i)(12). If the Petitioner</p>



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		<p>the specified time, the EPA may, at its discretion, consider such failure a sufficient</p> <p>4. Reopener Language: (A) If, any time after disposal of the delisted waste, the Pet data or groundwater monitoring data from the final land disposal facility, relevant t concentration, then the Petitioners must report such data, in writing, to the Directo equivalent, within 10 days of first possessing or being made aware of those data.</p> <p>(B) Based on the information described in Condition 4(A) and any other informatio reported information requires Agency action to protect human health or the enviro response necessary to protect human health and the environment.</p> <p>(C) If the EPA determines that the reported information does require Agency action human health and the environment. The notice shall include a statement of the pro information as to why the proposed Agency action is not necessary or to suggest present the information.</p> <p>(D) If after 30 days the Petitioners present no further information or after a review Agency actions that are necessary to protect human health or the environment. An unless the EPA provides otherwise.</p>
Envirite of Illinois (formerly Envirite Corporation)	Harvey, Illinois	See waste description under Envirite of Pennsylvania.
Envirite of Ohio (formerly Envirite Corporation)	Canton, Ohio	See waste description under Envirite of Pennsylvania.
Envirite of Pennsylvania (formerly Envirite Corporation)	York, Pennsylvania	<p>Dewatered wastewater sludges (EPA Hazardous Waste No .F006) generated from generated from electroplating operations; plating bath residues from the bottom o cyanides are used in the process; spent stripping and cleaning bath solutions (EPA in the process; spent cyanide solutions from salt bath pot cleaning (EPA Hazardou treatment sludges (EPA Hazardous Waste No. F012) generated from metal heat tr Waste No. F019) generated from the chemical conversion coating of aluminum af levels of regulatory concern, the facility must implement a contingency testing pro exclusions to be valid:</p> <p>(1) Each batch of treatment residue must be representatively sampled and tested and nickel. If the extract concentrations for chromium, lead, arsenic, and silver exc mercury exceeds 0.0126 ppm; or nickel levels exceed 2.205 ppm; the waste must l the permitting standards of 40 CFR Part 270.</p> <p>(2) Each batch of treatment residue must be tested for leachable cyanide. If the le ppm, the waste must be re-treated or managed and disposed as a hazardous wast</p> <p>(3) Each batch of waste must be tested for the total content of specific organic tox 0.001 ppm, methylene chloride exceeds 8.18 ppm, methyl ethyl ketone exceeds 32 tetrachloroethylene exceeds 0.188 ppm, or trichloroethylene exceeds 0.592 ppm, t and the permitting standards of 40 CFR Part 270.</p> <p>(4) A grab sample must be collected from each batch to form one monthly compo as well as the remaining organics on the priority pollutant list. (See 47 FR 52309, M</p> <p>(5) The data from conditions 1-4 must be kept on file at the facility for inspection p mail semi-annually. The Agency will review this information and if needed will prop</p>

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EPA's Mobile Incineration System	Denney Farm Site; McDowell, MO	<p>above, are not required until six months from the date of promulgation. The Agency's treatment systems at these facilities applies only to the wastewater and solids treatment systems and not apply to the proposed process additions described in the petition as recovery incineration.</p> <p>Process wastewater, rotary kiln ash, CHEAF media, and other solids (except spent incinerator ash) generated during the field demonstration of EPA's Mobile Incinerator at the Denney Farm Site must be functioning properly; (2) a grab sample is taken from each tank of wastewater generated during the demonstration and 0.68 ppm for chromium; and (3) a grab sample is taken from each drum of solid waste. Leachate values of daily composites do not exceed 0.044 ppm in ash or CHEAF media.</p> <p>Secondary Impoundment Basin Solids (SIB) (EPA Hazardous Waste Numbers F031, F032, F033, F034, F035, F036, F037, F038, F039, F040, F041, F042, F043, F044, F045, F046, F047, F048, F049, F050, F051, F052, F053, F054, F055, F056, F057, F058, F059, F060, F061, F062, F063, F064, F065, F066, F067, F068, F069, F070, F071, F072, F073, F074, F075, F076, F077, F078, F079, F080, F081, F082, F083, F084, F085, F086, F087, F088, F089, F090, F091, F092, F093, F094, F095, F096, F097, F098, F099, F100, F101, F102, F103, F104, F105, F106, F107, F108, F109, F110, F111, F112, F113, F114, F115, F116, F117, F118, F119, F120, F121, F122, F123, F124, F125, F126, F127, F128, F129, F130, F131, F132, F133, F134, F135, F136, F137, F138, F139, F140, F141, F142, F143, F144, F145, F146, F147, F148, F149, F150, F151, F152, F153, F154, F155, F156, F157, F158, F159, F160, F161, F162, F163, F164, F165, F166, F167, F168, F169, F170, 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F1430, F1431, F1432, F1433, F1434, F1435, F1436, F1437, F1438, F1439, F1440, F1441, F1442, F1443, F1444, F1445, F1446, F1447, F1448, F1449, F1450, F1451, F1452, F1453, F1454, F1455, F1456, F1457, F1458, F1459, F1460, F1461, F1462, F1463, F1464, F1465, F1466, F1467, F1468, F1469, F1470, F1471, F1472, F1473, F1474, F1475, F1476, F1477, F1478, F1479, F1480, F1481, F1482, F1483, F1484, F1485, F1486, F1487, F1488, F1489, F1490, F1491, F1492, F1493, F1494, F1495, F1496, F1497, F1498, F1499, F1500, F1501, F1502, F1503, F1504, F1505, F1506, F1507, F1508, F1509, F1510, F1511, F1512, F1513, F1514, F1515, F1516, F1517, F1518, F1519, F1520, F1521, F1522, F1523, F1524, F1525, F1526, F1527, F1528, F1529, F1530, F1531, F1532, F1533, F1534, F1535, F1536, F1537, F1538, F1539, F1540, F1541, F1542, F1543, F1544, F1545, F1546, F1547, F1548, F1549, F1550, F1551, F1552, F1553, F1554, F1555, F1556, F1557, F1558, F1559, F1560, F1561, F1562, F1563, F1564, F1565, F1566, F1567, F1568, F1569, F1570, F1571, F1572, F1573, F1574, F1575, F1576, F1577, F1578, F1579, F1580, F1581, F1582, F1583, F1584, F1585, F1586, F1587, F1588, F1589, F1590, F1591, F1592, F1593, F1594, F1595, F1596, F1597, F1598, F1599, F1600, F1601, F1602, F1603, F1604, F1605, F1606, F1607, F1608, F1609, F1610, F1611, F1612, F1613, F1614, F1615, F1616, F1617, F1618, F1619, F1620, F1621, F1622, F1623, F1624, F1625, F1626, F1627, F1628, F1629, F1630, F1631, F1632, F1633, F1634, F1635, F1636, F1637, F1638, F1639, F1640, F1641, F1642, F1643, F1644, F1645, F1646, F1647, F1648, F1649, F1650, F1651, F1652, F1653, F1654, F1655, F1656, F1657, F1658, F1659, F1660, F1661, F1662, F1663, F1664, F1665, F1666, F1667, F1668, F1669, F1670, F1671, F1672, F1673, F1674, F1675, F1676, F1677, F1678, F1679, F1680, F1681, F1682, F1683, F1684, F1685, F1686, F1687, F1688, F1689, F1690, F1691, F1692, F1693, F1694, F1695, F1696, F1697, F1698, F1699, F1700, F1701, F1702, F1703, F1704, F1705, F1706, F1707, F1708, F1709, F1710, F1711, F1712, F1713, F1714, F1715, F1716, F1717, F1718, F1719, F1720, F1721, F1722, F1723, F1724, F1725, F1726, F1727, F1728, F1729, F1730, F1731, F1732, F1733, F1734, F1735, F1736, F1737, F1738, F1739, F1740, F1741, F1742, F1743, F1744, F1745, F1746, F1747, F1748, F1749, F1750, F1751, F1752, F1753, F1754, F1755, F1756, F1757, F1758, F1759, F1760, F1761, F1762, F1763, F1764, F1765, F1766, F1767, F1768, F1769, F1770, F1771, F1772, F1773, F1774, F1775, F1776, F1777, F1778, F1779, F1780, F1781, F1782, F1783, F1784, F1785, F1786, F1787, F1788, F1789, F1790, F1791, F1792, F1793, F1794, F1795, F1796, F1797, F1798, F1799, F1800, F1801, F1802, F1803, F1804, F1805, F1806, F1807, F1808, F1809, F1810, F1811, F1812, F1813, F1814, F1815, F1816, F1817, F1818, F1819, F1820, F1821, F1822, F1823, F1824, F1825, F1826, F1827, F1828, F1829, F1830, F1831, F1832, F1833, F1834, F1835, F1836, F1837, F1838, F1839, F1840, F1841, F1842, F1843, F1844, F1845, F1846, F1847, F1848, F1849, F1850, F1851, F1852, F1853, F1854, F1855, F1856, F1857, F1858, F1859, F1860, F1861, F1862, F1863, F1864, F1865, F1866, F1867, F1868, F1869, F1870, F1871, F1872, F1873, F1874, F1875, F1876, F1877, F1878, F1879, F1880, F1881, F1882, F1883, F1884, F1885, F1886, F1887, F1888, F1889, F1890, F1891, F1892, F1893, F1894, F1895, F1896, F1897, F1898, F1899, F1900, F1901, F1902, F1903, F1904, F1905, F1906, F1907, F1908, F1909, F1910, F1911, F1912, F1913, F1914, F1915, F1916, F1917, F1918, F1919, F1920, F1921, F1922, F1923, F1924, F1925, F1926, F1927, F1928, F1929, F1930, F1931, F1932, F1933, F1934, F1935, F1936, F1937, F1938, F1939, F1940, F1941, F1942, F1943, F1944, F1945, F1946, F1947, F1948, F1949, F1950, F1951, F1952, F1953, F1954, F1955, F1956, F1957, F1958, F1959, F1960, F1961, F1962, F1963, F1964, F1965, F1966, F1967, F1968, F1969, F1970, F1971, F1972, F1973, F1974, F1975, F1976, F1977, F1978, F1979, F1980, F1981, F1982, F1983, F1984, F1985, F1986, F1987, F1988, F1989, F1990, F1991, F1992, F1993, F1994, F1995, F1996, F1997, F1998, F1999, F2000, F2001, F2002, F2003, F2004, F2005, F2006, F2007, F2008, F2009, F2010, F2011, F2012, F2013, F2014, F2015, F2016, F2017, F2018, F2019, F2020, F2021, F2022, F2023, F2024, F2025, F2026, F2027, F2028, F2029, F2030, F2031, F2032, F2033, F2034, F2035, F2036, F2037, F2038, F2039, F2040, F2041, F2042, F2043, F2044, F2045, F2046, F2047, F2048, F2049, F2050, F2051, F2052, F2053, F2054, F2055, F2056, F2057, F2058, F2059, F2060, F2061, F2062, F2063, F2064, F2065, F2066, F2067, F2068, F2069, F2070, F2071, F2072, F2073, F2074, F2075, F2076, F2077, F2078, F2079, F2080, F2081, F2082, F2083, F2084, F2085, F2086, F2087, F2088, F2089, F2090, F2091, F2092, F2093, F2094, F2095, F2096, F2097, F2098, F2099, F2100, F2101, F2102, F2103, F2104, F2105, F2106, F2107, F2108, F2109, F2110, F2111, F2112, F2113, F2114, F2115, F2116, F2117, F2118, F2119, F2120, F2121, F2122, F2123, F2124, F2125, F2126, F2127, F2128, F2129, F2130, F2131, F2132, F2133, F2134, F2135, F2136, F2137, F2138, F2139, F2140, F2141, F2142, F2143, F2144, F2145, F2146, F2147, F2148, F2149, F2150, F2151, F2152, F2153, F2154, F2155, F2156, F2157, F2158, F2159, F2160, F2161, F2162, F2163, F2164, F2165, F2166, F2167, F2168, F2169, F2170, F2171, F2172, F2173, F2174, F2175, F2176, F2177, F2178, F2179, F2180, F2181, F2182, F2183, F2184, F2185, F2186, F2187, F2188, F218</p>

Facility	Address	W
Landfarm		<p>notice that ExxonMobil will initiate closure of the North Landfarm.</p> <p>For the exclusion to be valid, ExxonMobil must implement a verification testing program.</p> <p>(1) Delisting Levels: All concentrations for those constituents must not exceed the following levels in the North Landfarm underflow water. Leachable Concentrations (mg/l): Arsenic—0.07; Barium—12200; Benzo(k)fluoranthene—0.0297; Benzo(a)pyrene—0.0297; Cadmium—0.119; Carbon tetrachloride—4.53; Chrysene—4.53; Cobalt—0.738; Copper—51.4; o-Cresol—200; m-Cresol—200; p-Cresol—200; Fluoride—25.2; Hexachlorobenzene—0.0285; Hexachloroethane—0.287; Lead—4.9; Nickel—100; Nitrobenzene—0.164; Pentachlorophenol—0.0109; Pyridine—0.328; Selenium—1.04; Silver—100; 2,4,6-Trichlorophenol—0.184; Vinyl Chloride—0.00386; Zinc—168.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Waste classification as non-hazardous cannot begin until compliance with the following conditions in consecutive sampling events.</p> <p>(B) If constituent levels in any annual sample and retest sample taken by ExxonMobil from the North Landfarm underflow water, ExxonMobil must do the following:</p> <p>(i) Notify EPA in accordance with paragraph (6) and</p> <p>(ii) Manage and dispose the North Landfarm underflow water as hazardous waste.</p> <p>(3) Testing Requirements:</p> <p>Upon notification that it will initiate closure of the North Landfarm, ExxonMobil must follow the following:</p> <p>(A) Initial Verification Testing:</p> <p>(i) Collect one representative sample of the North Landfarm underflow water for analysis within 60 days of the intention to initiate closure activities for the North Landfarm. Sampling must be done in a way that ensures exclusion.</p> <p>(ii) If the data from the initial verification testing program demonstrate that the North Landfarm underflow indicator parameters included in paragraph (1), collect two representative samples of the North Landfarm underflow water. Analyze the samples for all constituents listed in paragraph (1). Any representative sample of the North Landfarm underflow water must continue to be disposed as hazardous waste in a way that ensures exclusion. If consecutive representative samples indicate compliance with delisting levels listed in paragraph (1), the North Landfarm underflow water may be managed as non-hazardous waste.</p> <p>(iii) Within sixty (60) days after taking its last representative sample, ExxonMobil must ensure that the North Landfarm underflow water do not exceed the levels set forth in paragraph (1) for the listed hazardous North Landfarm underflow water according to all applicable solid waste management and handling requirements.</p> <p>(B) Annual Testing:</p> <p>(i) If ExxonMobil completes the testing specified in paragraph (3) above and no sampling event indicates that the North Landfarm underflow water is not excluded, ExxonMobil must begin annual testing as follows: ExxonMobil must test a representative sample of the North Landfarm underflow water at least once per calendar year. If any measured constituent concentration exceeds the delisting level in paragraph (1) at least once per calendar year, ExxonMobil must collect an additional representative sample within 10 days of being made aware of the exceedance and analyze it. If the additional sample demonstrates that the original annual sample was not representative, ExxonMobil must demonstrate that samples of the ExxonMobil North Landfarm underflow water are not excluded.</p>

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Facility	Address	W
Ford Motor Company, Kansas City Assembly Plant	Claycomo, Missouri	<p>1. <i>Delisting Levels:</i> (A) The concentrations in a TCLP extract of the waste measure barium—100; cadmium—0.5; chromium—5; lead—5; nickel—90; selenium—1; thallium—0.5; and pentachlorophenol—0.009. (B) The total concentration measured in any sample may not exceed the following: 2,4-dinitrotoluene—0.13; formaldehyde—343; and naphthalene—.728;</p> <p>2. <i>Quarterly Verification Testing:</i> To verify that the waste does not exceed the specified levels on a quarterly basis.</p> <p>3. <i>Changes in Operating Conditions:</i> Dearborn Truck Assembly Plant must notify the EPA in writing if the management of the waste or the chemicals used in the treatment process change significantly. The change as hazardous until it has demonstrated that the wastes continue to meet the criteria for exclusion. It must have been introduced and it has received written approval from EPA.</p> <p>4. <i>Data Submittals:</i> Dearborn Truck Assembly Plant [RedIn Off] must submit the data to the Regional Administrator, EPA Region 5, Waste Management Branch (DW-8J), 77 W. Jackson Blvd., Chicago, Illinois 60604, Box 30241, Lansing, Michigan 48909. The quarterly verification data and certification of compliance with this exclusion. Dearborn Truck Assembly Plant must compile, summarize and maintain records of the data. Dearborn Truck Assembly Plant must make these records available for inspection. 260.22(i)(12).</p> <p>5. <i>Reopener Language—</i>(a) If, anytime after disposal of the delisted waste, Dearborn Truck Assembly Plant (limited to leachate data or groundwater monitoring data) relevant to the delisted waste is found to be at a level, or is in the groundwater at a concentration higher than the maximum allowable concentration, Dearborn Truck Assembly Plant must submit such data, in writing, to the Regional Administrator within 10 days of first possession of the data.</p> <p>(b) Based on the information described in paragraph (a) and any other information available to the Regional Administrator, the Regional Administrator shall determine to whether the reported information requires Agency action to protect human health and the environment. If appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does require action, the Regional Administrator shall prepare a written statement of the actions the Regional Administrator believes are necessary to protect human health and the environment, and a statement providing Dearborn Truck Assembly Plant with an opportunity to present a written statement of its own alternative action. Dearborn Truck Assembly Plant shall have 30 days from the date of the Regional Administrator's determination to submit an alternative action.</p> <p>(d) If after 30 days the Dearborn Truck Assembly Plant presents no further information or actions that are necessary to protect human health or the environment. Any requirement for action shall be imposed immediately, unless the Regional Administrator provides otherwise.</p> <p>(e) Maximum Allowable Groundwater Concentrations (µg/L): antimony—6; arsenic—10; barium—1,000; benzene—1,000; bismuth—100; cadmium—100; chromium—100; cobalt—100; copper—100; lead—100; manganese—100; mercury—100; nickel—100; silver—100; thallium—2; tin—20,000; zinc—11,000; p-Cresol—200; Di-n-octyl phthalate—1.3; Formaldehyde—343; and naphthalene—.728.</p> <p>Wastewater treatment sludge, F019, that is generated at the Ford Motor Company Assembly Plant, Kansas City, Missouri, in a quantity of 10,000 pounds per year. The sludge must be disposed of in a lined landfill with leachate collection, which must be designed and installed in accordance with 40 CFR part 258. The exclusion becomes effective as of the date of the Regional Administrator's determination.</p> <p>1. <i>Delisting Levels:</i> (a) The concentrations in a TCLP extract of the waste measure mercury—0.155; nickel—90; thallium—0.282; zinc—898; cyanides—11.5; ethyl benzene—100; formaldehyde—343; and naphthalene—.728;</p> <p>(b) The total concentrations measured in any sample may not exceed the following: 2,4-dinitrotoluene—100000; and formaldehyde—6880.</p> <p>2. <i>Quarterly Verification Testing:</i> To verify that the waste does not exceed the specified levels on a quarterly basis.</p> <p>3. <i>Changes in Operating Conditions:</i> Ford must notify the EPA in writing if the management of the waste or the chemicals used in the treatment process at KCAP significantly change. Ford must</p>

Facility	Address	W
Ford Motor Company, Michigan Truck Plant and Wayne Integrated Stamping and Assembly Plant.	Wayne, Michigan	<p>demonstrated that the waste continues to meet the delisting levels and that no new waste has been received written approval from EPA for the changes.</p> <p>4. Data Submittals: Ford must submit the data obtained through verification testing to the Regional Administrator, Division, 901 N. 5th, Kansas City, Kansas 66101. The quarterly verification data and certification of proper disposal must be submitted by the effective date of this exclusion. Ford must compile, summarize, and maintain at the facility for a minimum of five years and make these records available for inspection. All data must be accompanied by a signed copy of the certification.</p> <p>5. Reopener Language—(a) If, anytime after disposal of the delisted waste, Ford possesses or has access to (or groundwater monitoring data) relevant to the delisted waste at KCAP indicating that any groundwater at a concentration higher than the maximum allowable groundwater concentration has been detected, the Regional Administrator within 10 days of first possessing or being made aware of that data must submit the information to the Regional Administrator.</p> <p>(b) Based on the information described in paragraph (a) and any other information available to the Regional Administrator, the Regional Administrator must determine to whether the reported information requires Agency action to protect human health and the environment, and if so, the appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator believes are necessary to protect human health and the environment, the Regional Administrator must provide Ford with an opportunity to present information as to why the proposed exclusion should be continued, and the date of the Regional Administrator's notice to present the information.</p> <p>(d) If after 30 days Ford presents no further information, the Regional Administrator must determine whether to protect human health or the environment. Any required action described in the Regulations shall be taken by the Regional Administrator provides otherwise.</p> <p>Waste water treatment plant sludge, F019, that is generated by Ford Motor Company at the Wayne Integrated Stamping and Assembly Plant and the Michigan Truck Plant, Wayne, Michigan, is excluded from the definition of hazardous waste under 40 CFR part 258. The exclusion becomes effective as of July 30, 2003.</p> <p>1. Delisting Levels: (A) The TCLP concentrations measured in any sample may not exceed the following levels (mg/kg): Chromium—4.95; Lead—5; Nickel—90.5; Selenium—1; Thallium—0.282; Tin—721; Zinc—1,000. (B) The concentrations of mercury, lead, and thallium and for nickel and cadmium shall not exceed 1.0.</p> <p>2. Quarterly Verification Testing: To verify that the waste does not exceed the specification for non-hazardous waste, the facility must conduct quarterly verification testing.</p> <p>3. Changes in Operating Conditions: The facility must notify the EPA in writing if the facility's operating conditions, the treatment process, or the chemicals used in the treatment process significantly change. The facility must demonstrate that the wastes continue to meet the delisting levels and that no new waste has been received written approval from EPA.</p> <p>4. Data Submittals: The facility must submit the data obtained through verification testing to the Regional Administrator, Management Branch (DW-8J), 77 W. Jackson Blvd., Chicago, IL 60604 and MDEQ, Michigan 48909. The quarterly verification data and certification of proper disposal must be submitted by the effective date of this exclusion. The facility must compile, summarize, and maintain on site for a minimum of five years and make these records available for inspection. All data must be accompanied by a signed copy of the certification.</p> <p>5. Reopener Language—(a) If, anytime after disposal of the delisted waste, the facility possesses or has access to (or groundwater monitoring data) relevant to the delisted waste indicating that any groundwater at a concentration higher than the maximum allowable groundwater concentration has been detected, the Regional Administrator within 10 days of first possessing or being made aware of that data must submit the information to the Regional Administrator.</p>

## 40 CFR 261.1090 (enhanced display)



Facility	Address	W
		<p>if the constituent exceeds the delisting level. If this sample confirms the exceedance, GM-Arlington must demonstrate that the waste again meets the levels in paragraph (1). GM-Arlington becomes aware of any exceedance.</p> <p>(D) Upon completion of the Verification Testing described in paragraph 3(A) and (B) and the requirements of paragraph (1), GM-Arlington may proceed to manage its WWTP sludge at the Delisting Levels in paragraph (1), GM-Arlington must manage the WWTP sludge at the Delisting Levels in paragraph (1).</p> <p>(3) <i>Verification Testing Requirements:</i> GM-Arlington must perform sample collection and analysis of those found in SW-846 or other reliable sources (with the exception of analyses retested and used without substitution) for all constituents listed in paragraph (1). If EPA judges the testing, GM-Arlington may replace the testing required in paragraph (3)(A) with the testing required in paragraph (3)(A) until and unless notified by EPA in writing that testing in paragraph (3)(A) is no longer required.</p> <p>(A) <i>Initial Verification Testing:</i> After EPA grants the final exclusion, GM-Arlington must:</p> <ul style="list-style-type: none"> <li>(i) Within 30 days of this exclusion becoming final, collect two (2) samples, before the exclusion becomes final.</li> <li>(ii) The samples are to be analyzed and compared against the Delisting Levels in paragraph (1).</li> <li>(iii) Within 60 days of the exclusion becoming final, GM-Arlington must report to EPA the control information for the first thirty (30) days of operation after this exclusion becomes final. If levels of constituents measured in these samples of the WWTP sludge do not exceed the Delisting Levels in paragraph (1), GM-Arlington may manage the sludge according to all applicable solid waste regulations.</li> </ul> <p>(B) <i>Subsequent Verification Testing:</i> Following written notification by EPA, GM-Arlington must continue to monitor operating conditions, and analyze two representative samples of the waste generated during the quarter. The samples must represent the waste generated during the quarter. After the first year of analytical sampling, verification sampling can be performed at the Delisting Levels in paragraph (1).</p> <p>(C) <i>Termination of Testing:</i></p> <ul style="list-style-type: none"> <li>(i) After the first year of quarterly testing, if the delisting levels in paragraph (1) are not exceeded, GM-Arlington may request EPA to terminate the testing.</li> <li>(ii) Following cancellation of the quarterly testing by EPA letter, GM-Arlington must submit the Results must be provided to EPA within 30 days of the testing.</li> </ul> <p>(4) <i>Changes in Operating Conditions:</i> If GM-Arlington significantly changes the process (which may significantly affect the composition or type of waste generated as established under paragraph (1) of the treatment process), it must notify EPA in writing; it may no longer handle the waste at the Delisting Levels set in paragraph (1) and it has received written approval to do so from EPA.</p> <p>(5) <i>Data Submittals:</i> GM-Arlington must submit the information described below. If GM-Arlington maintains records on-site for the specified time, EPA, at its discretion, will consider this sufficient.</p> <ul style="list-style-type: none"> <li>(A) Submit the data obtained through paragraph (3) to the Section Chief, Region 6, EPA, 75202-2733, Mail Code, (6PD-C) within the time specified.</li> <li>(B) Compile records of operating conditions and analytical data from paragraph (3) and submit them to EPA.</li> <li>(C) Furnish these records and data when EPA or the State of Texas requests them.</li> <li>(D) Send along with all data a signed copy of the following certification statement, "Under civil and criminal penalty of law for the making or submission of false or fraudulent information, I certify that the data submitted are true and accurate to the best of my knowledge and belief, and are complete. Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928(a)(1) are complete.</li> </ul>

Facility	Address	W
General Motors Corporation	Lake Orion, Michigan	<p>As to the (those) identified section(s) of this document for which I cannot personally assume responsibility for the persons who, acting under my direct instructions, made the v</p> <p>If any of this information is determined by EPA in its sole discretion to be false, ina</p> <p>that this exclusion of waste will be void as if it never had effect or to the extent dir</p> <p>company's RCRA and CERCLA obligations premised upon the company's reliance</p> <p>(6) <i>Re-opener</i>;</p> <p>(A) If, anytime after disposal of the delisted waste, GM-Arlington possesses or is o</p> <p>groundwater monitoring data) or any other data relevant to the delisted waste indi</p> <p>the delisting level allowed by EPA in granting the petition, then the facility must rep</p> <p>data.</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting</p> <p>days of first possessing or being made aware of that data.</p> <p>(C) If GM-Arlington fails to submit the information described in paragraphs (5), (6)</p> <p>determination as to whether the reported information requires action to protect hu</p> <p>exclusion, or other appropriate response necessary to protect human health and th</p> <p>(D) If EPA determines that the reported information requires action, EPA will notify</p> <p>environment. The notice shall include a statement of the proposed action and a st</p> <p>proposed EPA action is not necessary. The facility shall have 10 days from the dat</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)</p> <p>described in paragraphs (5), (6)(A) or (6)(B), EPA will issue a final written determin</p> <p>Any required action described in EPA's determination shall become effective imme</p> <p>(7) <i>Notification Requirements</i>: GM-Arlington must do the following before transport</p> <p>petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which</p> <p>before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a diff</p> <p>(C) Failure to provide this notification will result in a violation of the delisting varian</p> <p>Wastewater treatment plant (WWTP) sludge from the chemical conversion coating</p> <p>annual rate of 1,500 tons per year (or 1,500 cubic yards per year), after October 24</p> <p>1. <i>Verification Testing</i>: GM must implement an annual testing program to demonst</p> <p>concentrations measured in the TCLP (or OWEP, where appropriate) extract of the</p> <p>levels (mg/l) which are back-calculated from the delisting health-based levels and</p> <p>1,2-Dichloroethane—0.45; Ethylbenzene—63; 4-Methylphenol—16.2; Naphthalene—</p> <p>following levels (mg/l) which are the toxicity characteristic levels: Barium—100.0; a</p> <p>2. <i>Changes in Operating Conditions</i>: If GM significantly changes the manufacturing</p> <p>handle the WWTP filter press sludge generated from the new process under this e</p> <p>1 and that no new hazardous constituents listed in appendix VIII of Part 261 have</p> <p>3. <i>Data Submittals</i>: The data obtained through annual verification testing or paragr</p> <p>within 60 days of sampling. Records of operating conditions and analytical data m</p> <p>made available for inspection. All data must be accompanied by a signed copy of</p> <p>Waste water treatment plant sludge, F019, that is generated at General Motors Cor</p> <p>The sludge must be disposed of in a Subtitle D landfill which is licensed, permitted</p>
General Motors Corporation	Lordstown, Ohio	<p>Waste water treatment plant sludge, F019, that is generated at General Motors Cor</p> <p>The sludge must be disposed of in a Subtitle D landfill which is licensed, permitted</p>

Facility	Address	W
Assembly Plant		<p>exclusion becomes effective as of October 12, 2004.</p> <p>1. Delisting Levels: (A) The constituent concentrations measured in the TCLP extract are: lead—5; mercury—0.15; nickel—90; selenium—1; silver—5; thallium—0.28; tin—720; total constituent concentration measured in any sample of the waste may not exceed 1,000. Maximum allowable groundwater concentrations (µg/L) are as follows: antimony—100; thallium—2; tin—22,500; zinc—11,300; fluoride—4,000; p-cresol—188; formaldehyde—100. 2. Quarterly Verification Testing: To verify that the waste does not exceed the specified levels, the facility must conduct quarterly verification testing using the methods with appropriate detection levels and elements of quality control. 3. Changes in Operating Conditions: The facility must notify the EPA in writing if the process, or the chemicals used in the treatment process significantly change. GM must certify that the wastes continue to meet the delisting levels and that no new hazardous constituents are added without approval from EPA. 4. Data Submittals: The facility must submit the data obtained through verification testing to the Regional Administrator, RCRA Delisting Program (DW-8J), 77 W. Jackson Blvd., Chicago, IL 60604, upon the anniversary of the effective date of this exclusion. The facility must compile and analytical data. The facility must make these records available for inspection. 260.22(i)(12). 5. Reopener Language: (A) If, anytime after disposal of the delisted waste, GM possesses groundwater monitoring data) relevant to the delisted waste indicating that any constituent in groundwater at a concentration higher than the maximum allowable groundwater concentration, the Regional Administrator within 10 days of first possessing or being made aware of that data from any source, the Regional Administrator will make a preliminary determination of whether the waste is a hazardous waste. Further action may include suspending, or revoking the exclusion, or if the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator believes are necessary to protect human health and the environment, the Regional Administrator shall provide an opportunity to present information as to why the proposed Agency action is not warranted. (B) If after 30 days GM does not present the information, the Regional Administrator's notice to present the information. (D) If after 30 days GM does not present the information, the determination describing the Agency actions that are necessary to protect human health and the environment shall become effective immediately, unless the Regional Administrator determines otherwise. The residue generated from the use of the Chemfix ® treatment process on sludge from the three on-site surface impoundments on November 14, 1986. To assure that stabilization/solidification is achieved, the following conditions shall be met: (1) Mixing ratios shall be monitored continuously to assure consistent treatment. (2) One grab sample of the treated waste shall be taken each hour as it is pumped into the bermed cells. Samples from the individual trailer units will be composited and the EP toxicity test shall be conducted. If the EP extract is greater than 100 ppm or if nickel exceeds 2.17 ppm, in the EP extract, the waste will be removed and treated as a hazardous waste. (3) The treated waste shall be pumped into bermed cells which are constructed to prevent leachate from escaping. Failure to satisfy any of these conditions would render the exclusion void. This is a condition of the exclusion. The residue generated from the use of the Chemfix ® treatment process on the sludge currently contained in the three on-site surface impoundments on November 14, 1986. To assure that stabilization/solidification is achieved, the following conditions shall be met: Waste water treatment plant sludge, F019, that is generated by General Motors Corporation, Flint, Michigan. The sludge must be disposed of in a lined landfill with leachate collection, which is in accordance with 40 CFR part 258. The exclusion becomes effective as of July 3, 2004.</p>
General Motors Corp., Fisher Body Division	Elyria, OH	
General Motors Corporation, Flint Truck.	Flint, Michigan	

Facility	Address	W
General Motors Corporation, Hamtramck.	Detroit, Michigan	<p>Plant and Wayne Integrated Stamping Plant—Wayne, Michigan also apply.</p> <p>Delisting Levels: (A) The TCLP concentrations measured in any sample may not exceed the following levels (mg/kg): Chromium—3.71; Lead—5; Nickel—67.8; Selenium—1; Thallium—0.211; Tin—540; Zinc—500. For mercury, the concentration measured in any sample may not exceed the following levels (mg/kg): Mercury—6.34; and Formaldehyde—0.1. For arsenic, lead, and thallium and for nickel and cadmium shall not exceed 1.0.</p> <p>Waste water treatment plant sludge, F019, that is generated by General Motors Corporation, Hamtramck, Michigan, shall be excluded from the definition of hazardous waste if it is disposed of in a lined landfill with leachate collection, collection, and treatment in accordance with 40 CFR part 258. The exclusion becomes effective as of the date of the Regional Administrator's notice to present the information.</p> <p>Truck Plant and Wayne Integrated Stamping Plant—Wayne, Michigan also apply. A paragraph (5)(e).</p> <p>Delisting Levels: (A) The TCLP concentrations measured in any sample may not exceed the following levels (mg/kg): Chromium—3.71; Lead—5; Nickel—67.8; Selenium—1; Thallium—0.211; Tin—540; Zinc—500. For mercury, the concentration measured in any sample may not exceed the following levels (mg/kg): Mercury—6.34; and Formaldehyde—0.1. For arsenic, lead, and thallium and for nickel and cadmium shall not exceed 1.0.</p>
General Motors Corporation, Janesville Truck Assembly Plant	Janesville, Wisconsin	<p>Wastewater treatment sludge, F019, that is generated at the General Motors Corporation, Janesville, Wisconsin, shall be excluded from the definition of hazardous waste if it is disposed of in a lined landfill with leachate collection, collection, and treatment in accordance with 40 CFR part 258. The exclusion becomes effective as of the date of the Regional Administrator's notice to present the information.</p> <p>1. Delisting Levels: (A) The concentrations in a TCLP extract of the waste measured in any sample may not exceed the following levels (mg/kg): chromium—3.7; lead—5; nickel—68; selenium—1; thallium—0.21; tin—540; zinc—500. For mercury, the concentration measured in any sample may not exceed the following levels (mg/kg): chromium—5,300; mercury—6.34; and formaldehyde—0.1. For arsenic, lead, and thallium and for nickel and cadmium shall not exceed 1.0.</p> <p>2. Quarterly Verification Testing: To verify that the waste does not exceed the specified delisting levels, GM must conduct quarterly verification testing on a quarterly basis.</p> <p>3. Changes in Operating Conditions: GM must notify the EPA in writing if the manufacturing process or the chemicals used in the treatment process at JTAP significantly change. GM must demonstrate that the waste continues to meet the delisting levels and that no new hazardous waste is generated. GM must receive written approval from EPA.</p> <p>4. Data Submittals: GM must submit the data obtained through verification testing to the Regional Administrator, Environmental Protection Branch (DW-8J), 77 W. Jackson Blvd., Chicago, IL 60604. The quarterly verification testing must be completed by the effective date of this exclusion. GM must compile, summarize, and maintain at JTAP all data and make these records available for inspection. All data must be accompanied by a signed statement from GM.</p> <p>5. Reopener Language—(a) If, anytime after disposal of the delisted waste, GM possesses or obtains (including groundwater monitoring data) relevant to the delisted waste at JTAP indicating that the concentration of a constituent in the groundwater at a concentration higher than the maximum allowable groundwater concentration, GM must notify the Regional Administrator within 10 days of first possessing or being made aware of that data.</p> <p>(b) Based on the information described in paragraph (a) and any other information, the Regional Administrator shall determine whether the reported information requires Agency action to protect human health and the environment, and if so, the appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator believes are necessary to protect human health and the environment, the Regional Administrator shall provide GM with an opportunity to present information as to why the proposed exclusion should be maintained, and the date of the Regional Administrator's notice to present the information.</p> <p>(d) If after 30 days GM presents no further information, the Regional Administrator shall determine whether the reported information requires Agency action to protect human health and the environment, and if so, the appropriate response necessary to protect human health and the environment.</p>

Facility	Address	W
General Motors Corporation. Lansing Car Assembly—Body Plant	Lansing, Michigan	<p>protect human health or the environment. Any required action described in the Reg Administrator provides otherwise.</p> <p>(e) Maximum Allowable Groundwater Concentrations (mg/L); antimony—0.006; and tin—23; zinc—11; p-Cresol—0.190; and formaldehyde—0.950.</p> <p>Wastewater treatment plant (WWTP) sludge from the chemical conversion coating annual rate of 1,250 cubic yards per year and disposed of in a Subtitle D landfill, af</p> <p>1. Delisting Levels:</p> <p>(A) The constituent concentrations measured in the TCLP extract may not exceed Cadmium—0.48; Chromium (total)—5; Cobalt—201.6; Copper—124.8; Lead—1.44; M Zinc—960; Cyanide—19.2; Fluoride—384; Acetone—336; m,p—Cresol—19.2; 1,1—Di 1,1,1—Trichloroethane—19.2; Xylene—960.</p> <p>(B) The total concentration of formaldehyde in the waste may not exceed 2100 mg</p> <p>(C) Analysis for determining reactivity from sulfide must be added to verification te</p> <p>2. Verification Testing: GM must implement an annual testing program to demons appropriate) of the waste do not exceed the delisting levels established in Condition</p> <p>3. Changes in Operating Conditions: If GM significantly changes the manufacturing must notify the EPA of the changes in writing. GM must handle wastes generated delisting levels set forth in Condition (1), that no new hazardous constituents liste EPA.</p> <p>4. Data Submittals: GM must submit the data obtained through annual verification (DW-8J), Chicago, IL 60604, within 60 days of sampling. GM must compile, summa analytical data. GM must make these records available for inspection. All data mu</p> <p>5. Reopener Language—(a) If, anytime after disposal of the delisted waste, GM pos leachate data or groundwater monitoring data) or any other data relevant to the de higher than the delisting level established in Condition (1), or is at a level in the gro Regional Administrator in writing within 10 days and must report the data within 4</p> <p>(b) Based on the information described in paragraph (a) and any other information to whether the reported information requires Agency action to protect human heal appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does re Regional Administrator believes are necessary to protect human health and the en providing GM with an opportunity to present information as to why the proposed A the date of the Regional Administrator's notice to present the information.</p> <p>(d) If after 10 days GM presents no further information, the Regional Administrator protect human health or the environment. Any required action described in the Reg Administrator provides otherwise.</p> <p>Waste water treatment plant sludge, F019, that is generated by General Motors Co year. The sludge must be disposed of in a lined landfill with leachate collection, wh sludge in accordance with 40 CFR part 258. The exclusion becomes effective as o Truck Plant and Wayne Integrated Stamping Plant—Wayne, Michigan also apply.</p> <p>Delisting Levels: (A) The TCLP concentrations measured in any sample may not ex</p>
General Motors Corporation, Pontiac East.	Pontiac, Michigan	<p>Waste water treatment plant sludge, F019, that is generated by General Motors Co year. The sludge must be disposed of in a lined landfill with leachate collection, wh sludge in accordance with 40 CFR part 258. The exclusion becomes effective as o Truck Plant and Wayne Integrated Stamping Plant—Wayne, Michigan also apply.</p> <p>Delisting Levels: (A) The TCLP concentrations measured in any sample may not ex</p>

Facility	Address	W
Geological Reclamation Operations and Waste Systems, Inc	Morrisville, Pennsylvania	<p>Chromium—3.71; Lead—5; Nickel—67.8; Selenium—1; Thallium—0.211; Tin—540; Z</p> <p>sample may not exceed the following levels (mg/kg): Mercury—6.34; and Formalde</p> <p>and thallium and for nickel and cadmium shall not exceed 1.0.</p> <p>Wastewater treatment sludge filter cake from the treatment of EPA Hazardous Wa</p> <p>and disposed of in a Subtitle D landfill. The exclusion covers the filter cake resultin</p> <p>hazardous leachate derived from only non-hazardous waste sources. The exclusio</p> <p>during the removal of heavy solids from the landfill leachate. To ensure that hazar</p> <p>implement a testing program for the petitioned waste. This testing program must</p> <p>(1) <i>Testing:</i> Sample collection and analyses, including quality control (QC) procedu</p> <p>parameters of concern, analyses requiring the use of SW-846 methods incorporate</p> <p>methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050</p> <p>9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>(A) <i>Sample Collection:</i> Each batch of waste generated over a four-week period mus</p> <p>week period, each container must be divided into four quadrants and a single, full-</p> <p>must be composited under laboratory conditions to produce one representative co</p> <p>(B) <i>Sample Analysis:</i> Each four-week composite sample must be analyzed for all o</p> <p>must be submitted to The Waste and Chemicals Management Division, U.S. EPA R</p> <p>Environmental Protection, Bureau of Land Recycling and Waste Management, Rac</p> <p>the annual verification testing must be compiled and submitted to EPA and the Pe</p> <p>calendar year. All data must be accompanied by a signed copy of the statement se</p> <p>of operating conditions and analytical data must be compiled, summarized, and m</p> <p>employee or representative of EPA or the Pennsylvania Department of Environmen</p> <p>(2) <i>Waste Holding:</i> The dewatered filter cake must be stored as hazardous until the</p> <p>the delisting levels set forth in Condition (3), the filter cake waste corresponding to</p> <p>regulations. If the four-week composite sample exceeds any of the delisting levels</p> <p>the four-week composite sample must be retreated until it meets these levels (ana</p> <p>Filter cake which is generated but for which analyses are not complete or valid mu</p> <p>demonstrate that the waste meets the delisting levels.</p> <p>(3) <i>Delisting Levels:</i> If the concentrations in the four-week composite sample of the</p> <p>maximum allowable concentrations (mg/l or mg/kg) also listed below, the four-we</p> <p>managed and disposed of in accordance with Subtitle C of RCRA. GROWS has the</p> <p>concentrations for the organic constituents by either performing the analysis on a</p> <p>comparing the results to the corresponding maximum allowable concentration lev</p>

(A) Inorganics	Maximum Allowable
	Leachate Conc. (mg/l)
Constituent:	
Arsenic	3.00e-01
Barium	2.34e + 01
Cadmium	1.80e-01

Chromium	5.00e + 00
Lead	5.00e + 00
Mercury	7.70e-02
Nickel	9.05e + 00
Selenium	6.97e-01
Silver	1.23e + 00
Cyanide	4.33e + 00
Cyanide extractions must be conducted using distilled water in place of the leaching media specified in the TCLP procedure	

(B) Organics	Maximum allowable leachate conc. (mg/l)	Maximum allowable total conc. (mg/kg)
Constituent:		
Acetone	2.28e + 01	4.56e + 02
Acetonitrile	3.92e + 00	7.84e + 01
Acetophenone	2.28e + 01	4.56e + 02
Acrolein	1.53e + 03	3.06e + 04
Acrylonitrile	7.80e-03	1.56e-01
Aldrin	5.81e-06	1.16e-04
Aniline	7.39e-01	1.48e + 01
Anthracene	8.00e + 00	1.60e + 02
Benz(a)anthracene	1.93e-04	3.86e-03
Benzene	1.45e-01	2.90e + 00
Benzo(a)pyrene	1.18e-05	2.36e-04
Benzo(b)fluoranthene	1.07e-04	2.14e-03
Benzo(k)fluoranthene	1.49e-03	2.98e-02
Bis(2-chloroethyl)ether	3.19e-02	6.38e-01
Bis(2-ethylhexyl)phthalate	8.96e-02	1.79e + 00
Bromodichloromethane	6.80e-02	1.36e + 00
Bromoform (Tribromomethane)	5.33e-01	1.07e + 01
Butyl-4,6-dinitrophenol, 2-sec- (Dinoseb)	2.28e-01	4.56e + 00
Butylbenzylphthalate	9.29e + 00	1.86e + 02
Carbon disulfide	2.28e + 01	4.56e + 02
Carbon tetrachloride	4.50e-02	9.00e-01
Chlordane	5.11e-04	1.02e-02
Chloro-3-methylphenol 4-	2.97e + 02	5.94e + 03
Chloroaniline, p-	9.14e-01	1.83e + 01

Chlorobenzene	6.08e + 00	1.22e + 02
Chlorobenzilate	4.85e-02	9.70e-01
Chlorodibromomethane	5.02e-02	1.00e + 00
Chloroform	7.79e-02	1.56e + 00
Chlorophenol, 2-	1.14e + 00	2.28e + 01
Chrysene	2.04e-02	4.08e-01
Cresol	1.14e + 00	2.28e + 01
DDD	5.83e-04	1.17e-02
DDE	1.37e-04	2.74e-03
DDT	2.57e-04	5.14e-03
Dibenz(a,h)anthracene	5.59e-06	1.12e-04
Dibromo-3-chloropropane, 1,2-	3.51e-03	7.02e-02
Dichlorobenzene 1,3-	9.35e + 00	1.87e + 02
Dichlorobenzene, 1,2-	1.25e + 01	2.50e + 02
Dichlorobenzene, 1,4-	1.39e-01	2.78e + 00
Dichlorobenzidine, 3,3'-	9.36e-03	1.87e-01
Dichlorodifluoromethane	4.57e + 01	9.14e + 02
Dichloroethane, 1,1-	1.20e + 00	2.40e + 01
Dichloroethane, 1,2-	2.57e-03	5.14e-02
Dichloroethylene, 1,1-	7.02e-03	1.40e-01
Dichloroethylene, trans-1,2-	4.57e + 00	9.14e + 01
Dichlorophenol, 2,4-	6.85e-01	1.37e + 01
Dichlorophenoxyacetic acid, 2,4-(2,4-D)	2.28e + 00	4.56e + 01
Dichloropropane, 1,2-	1.14e-01	2.28e + 00
Dichloropropene, 1,3-	2.34e-02	4.68e-01
Dieldrin	6.23e + 01	1.25e + 03
Diethyl phthalate	2.21e + 02	4.42e + 03
Dimethoate	6.01e + 01	1.20e + 03
Dimethyl phthalate	1.20e + 02	2.40e + 03
Dimethylbenz(a)anthracene, 7,12-	1.55e-06	3.10e-05
Dimethylphenol, 2,4-	4.57e + 00	9.14e + 01
Di-n-butyl phthalate	5.29e + 00	1.06e + 02
Dinitrobenzene, 1,3-	2.28e-02	4.56e-01
Dinitromethylphenol, 4,6-,2-	2.16e-02	4.32e-01
Dinitrophenol, 2,4-	4.57e-01	9.14e + 00
Dinitrotoluene, 2,6-	6.54e-03	1.31e-01
Di-n-octyl phthalate	1.12e-02	2.24e-01
Dioxane, 1,4-	3.83e-01	7.66e + 00
Diphenylamine	3.76e + 00	7.52e + 01



Disulfoton	3.80e + 02	7.60e + 03
Endosulfan	1.37e + 00	2.74e + 01
Endrin	2.00e-02	4.00e-01
Ethylbenzene	1.66e + 01	3.32e + 02
Ethylene Dibromide	4.13e-03	8.26e-02
Fluoranthene	5.16e-01	1.03e + 01
Fluorene	1.78e + 00	3.56e + 01
Heptachlor	8.00e-03	1.60e-01
Heptachlor epoxide	8.00e-03	1.60e-01
Hexachloro-1,3-butadiene	9.61e-03	1.92e-01
Hexachlorobenzene	9.67e-05	1.93e-03
Hexachlorocyclohexane, gamma-(Lindane)	4.00e-01	8.00e + 00
Hexachlorocyclopentadiene	1.66e + 04	3.32e + 05
Hexachloroethane	1.76e-01	3.52e + 00
Hexachlorophene	3.13e-04	6.26e-03
Indeno(1,2,3-cd) pyrene	6.04e-05	1.21e-03
Isobutyl alcohol	6.85e + 01	1.37e + 03
Isophorone	4.44e + 00	8.88e + 01
Methacrylonitrile	2.28e-02	4.56e-01
Methoxychlor	1.00e + 01	2.00e + 02
Methyl bromide (Bromomethane)	1.28e + 02	2.56e + 03
Methyl chloride (Chloromethane)	1.80e-01	3.60e + 00
Methyl ethyl ketone	1.37e + 02	2.74e + 03
Methyl isobutyl ketone	1.83e + 01	3.66e + 02
Methyl methacrylate	1.03e + 03	2.06e + 04
Methyl parathion	1.27e + 02	2.54e + 03
Methylene chloride	2.88e-01	5.76e + 00
Naphthalene	1.50e + 00	3.00e + 01
Nitrobenzene	1.14e-01	2.28e + 00
Nitrosodiethylamine	2.81e-05	5.62e-04
Nitrosodimethylamine	8.26e-05	1.65e-03
Nitrosodi-n-butylamine	7.80e-04	1.56e-02
N-Nitrosodi-n-propylamine	6.02e-04	1.20e-02
N-Nitrosodiphenylamine	8.60e-01	1.72e + 01
N-Nitrosopyrrolidine	2.01e-03	4.02e-02
Pentachlorobenzene	1.15e-02	2.30e-01
Pentachloronitrobenzene (PCNB)	5.00e-03	1.00e-01

Pentachlorophenol	4.10e-03	8.20e-02
Phenanthrene	2.09e-01	4.18e + 00
Phenol	1.37e + 02	2.74e + 03
Polychlorinated biphenyls	3.00e-05	6.00e-04
Pronamide	1.71e + 01	3.42e + 02
Pyrene	3.96e-01	7.92e + 00
Pyridine	2.28e-01	4.56e + 00
Styrene	6.08e + 00	1.22e + 02
Tetrachlorobenzene, 1,2,4,5-	9.43e-03	1.89e-01
Tetrachloroethane, 1,1,2,2-	4.39e-01	8.78e + 00
Tetrachloroethylene	8.55e-02	1.71e + 00
Tetrachlorophenol, 2,3,4,6-	1.81e + 00	3.62e + 01
Tetraethyl dithiopyrophosphate (Sulfotep)	3.01e + 05	6.02e + 06
Toluene	4.57e + 01	9.14e + 02
Toxaphene	5.00e-01	1.00e + 01
Trichlorobenzene, 1,2,4-	7.24e-01	1.45e + 01
Trichloroethane, 1,1,1-	7.60e + 00	1.52e + 02
Trichloroethane, 1,1,2-	7.80e-02	1.56e + 00
Trichloroethylene	3.04e-01	6.08e + 00
Trichlorofluoromethane	6.85e + 01	1.37e + 03
Trichlorophenol, 2,4,5-	9.16e + 00	1.83e + 02
Trichlorophenol, 2,4,6-	2.76e-01	5.52e + 00
Trichlorophenoxyacetic acid, 2,4,5-(245-T)	2.28e + 00	4.56e + 01
Trichlorophenoxypropionic acid, 2,4,5-(Silvex)	1.00e + 00	2.00e + 01
Trichloropropane, 1,2,3-	7.69e-04	1.54e-02
Trinitrobenzene, sym-	6.49e + 00	1.30e + 02
Vinyl chloride	2.34e-03	4.68e-02
Xylenes (total)	3.20e + 02	6.40e + 03

Facility	Address	Waste description
		(4) <i>Changes in Operating Conditions:</i> If GROWS significantly changes the treatment process or the chemicals used in the treatment process, GROWS may not manage the treatment sludge filter cake generated from the new process under this exclusion until it has

Facility	Address	Waste description
GLOBALFOUNDRIES U.S. 2 LLC (formerly, "IBM Corporation")	Essex Junction, VT	<p>met the following conditions: (a) GROWS must demonstrate that the waste meets the delisting levels set forth in Paragraph 3; (b) it must demonstrate that no new hazardous constituents listed in Appendix VIII of Part 261 have been introduced into the manufacturing or treatment process: and (c) it must obtain prior written approval from EPA and the Pennsylvania Department of Environmental Protection to manage the waste under this exclusion.</p> <p>(5) <i>Reopener:</i></p> <p>(a) If GROWS discovers that a condition at the facility or an assumption related to the disposal of the excluded waste that was modeled or predicted in the petition does not occur as modeled or predicted, then GROWS must report any information relevant to that condition, in writing, to the Regional Administrator or his delegate and to the Pennsylvania Department of Environmental Protection within 10 days of discovering that condition.</p> <p>(b) Upon receiving information described in paragraph (a) of this section, regardless of its source, the Regional Administrator or his delegate and the Pennsylvania Department of Environmental Protection will determine whether the reported condition requires further action. Further action may include repealing the exclusion, modifying the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>Wastewater Treatment Sludge (Hazardous Waste No. F006) generated at a maximum annual rate of 3,150 cubic yards per calendar year and disposed of in a Subtitle D Landfill which is licensed, permitted, or otherwise authorized by a state to accept the delisted wastewater treatment sludge. GLOBALFOUNDRIES U.S. 2 LLC must implement a testing program that meets the following conditions for the exclusion to be valid: 1. Delisting Levels: (A) All leachable concentrations for the following constituents must not exceed the following levels (mg/L for TCLP): Arsenic—5.0; Barium—100.0; Cadmium—1.0; Chromium—5.0; Lead—5.0; Mercury 0.2; and, Nickel—32.4.</p> <p>2. <i>Waste Handling and Holding:</i> (A) GLOBALFOUNDRIES U.S. 2 LLC must manage as hazardous all WWTP sludge generated until it has completed initial verification testing described in paragraph (3)(A) and valid analyses show that paragraph (1) is satisfied and written approval is</p>

Facility	Address	Waste description
		<p>received by EPA. (B) Levels of constituents measured in the samples of the WWTP sludge that do not exceed the levels set forth in paragraph (1) for two consecutive quarterly sampling events are non-hazardous. After approval is received from EPA, GLOBALFOUNDRIES U.S. 2 LLC can manage and dispose of the non-hazardous WWTP sludge according to all applicable solid waste regulations. (C) Notwithstanding having received the initial approval from EPA, if constituent levels in a later sample exceed any of the Delisting Levels set in paragraph (1), from that point forward, GLOBALFOUNDRIES U.S. 2 LLC must treat all the waste covered by this exclusion as hazardous until it is demonstrated that the waste again meets the levels in paragraph (1). GLOBALFOUNDRIES U.S. 2 LLC must manage and dispose of the waste generated under Subtitle C of RCRA from the time that it becomes aware of any exceedance.</p> <p>3. <i>Verification Testing Requirements:</i> GLOBALFOUNDRIES U.S. 2 LLC must perform sample collection and analyses in accordance with the approved Quality Assurance Project Plan dated January 27, 2011. All samples shall be representative composite samples according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that samples of the GLOBALFOUNDRIES U.S. 2 LLC sludge are representative for all constituents listed in paragraph (1). To verify that the waste does not exceed the specified delisting concentrations, for one year after the final exclusion is granted GLOBALFOUNDRIES U.S. 2 LLC must perform quarterly analytical testing by sampling and analyzing the WWTP sludge as follows: (A) Quarterly Testing: (i) Collect two representative composite samples of the WWTP sludge at quarterly intervals after EPA grants the final exclusion. The first composite samples must be</p>

Facility	Address	Waste description
		<p>taken within 30 days after EPA grants the final approval. The second set of samples must be taken at least 30 days after the first set. (ii) Analyze the samples for all constituents listed in paragraph (1). Any waste regarding which a composite sample is taken that exceeds the delisting levels listed in paragraph (1) for the sludge must be disposed as hazardous waste in accordance with the applicable hazardous waste requirements from the time that GLOBALFOUNDRIES U.S. 2 LLC becomes aware of any exceedance. (iii) Within thirty (30) days after taking each quarterly sample, GLOBALFOUNDRIES U.S. 2 LLC will report its analytical test data to EPA. If levels of constituents measured in the samples of the sludge do not exceed the levels set forth in paragraph (1) of this exclusion for two consecutive quarters, and EPA concurs with those findings, GLOBALFOUNDRIES U.S. 2 LLC can manage and dispose the non-hazardous sludge according to all applicable solid waste regulations. (B) Annual Testing: (i) If GLOBALFOUNDRIES U.S. 2 LLC completes the quarterly testing specified in paragraph (3) above and no sample contains a constituent at a level which exceeds the limits set forth in paragraph (1), GLOBALFOUNDRIES U.S. 2 LLC may begin annual testing as follows: GLOBALFOUNDRIES U.S. 2 LLC must test two representative composite samples of the wastewater treatment sludge (following the same protocols as specified for quarterly sampling, above) for all constituents listed in paragraph (1) at least once per calendar year. (ii) The samples for the annual testing taken for the second and subsequent annual testing events shall be taken within the same calendar month as the first annual sample taken. (iii) GLOBALFOUNDRIES U.S. 2 LLC shall submit an annual testing report to EPA with all of its annual test results, within thirty (30) days after taking the two annual samples. (iv) GLOBALFOUNDRIES U.S. 2 LLC shall submit to EPA in January of each year the total amount of waste in cubic yards disposed during the previous calendar year.</p> <p><i>4. Changes in Operating Conditions:</i> If GLOBALFOUNDRIES U.S. 2 LLC significantly changes the manufacturing or treatment process described in the petition, or the chemicals used in the manufacturing or treatment process, it must notify the EPA in writing and may no longer handle the wastes generated from the new process as non-hazardous unless and until the</p>

Facility	Address	Waste description
		<p>wastes are shown to meet the delisting levels set in paragraph (1), GLOBALFOUNDRIES U.S. 2 LLC demonstrates that no new hazardous constituents listed in appendix VIII of part 261 have been introduced, and GLOBALFOUNDRIES U.S. 2 LLC has received written approval from EPA to manage the wastes from the new process under this exclusion. While the EPA may provide written approval of certain changes, if there are changes that the EPA determines are highly significant, the EPA may instead require GLOBALFOUNDRIES U.S. 2 LLC to file a new delisting petition.</p> <p><i>5. Data Submittals and Recordkeeping:</i> GLOBALFOUNDRIES U.S. 2 LLC must submit the information described below. If GLOBALFOUNDRIES U.S. 2 LLC fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). GLOBALFOUNDRIES U.S. 2 LLC must:</p> <p>(A) Submit the data obtained through paragraph (3) to the Chief, RCRA Waste Management &amp; UST Section, U.S. EPA Region 1, (OSRR07-1), 5 Post Office Square, Suite 100, Boston, MA 02109-3912, within the time specified. All supporting data can be submitted on CD-ROM or some comparable electronic media; (B) Compile, summarize, and maintain on site for a minimum of five years and make available for inspection records of operating conditions, including monthly and annual volumes of WWTP sludge generated, analytical data, including quality control information and, copies of the notification(s) required in paragraph (7); (C) Submit with all data a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p><i>6. Reopener Language—</i>(A) If, anytime, after disposal of the delisted waste, GLOBALFOUNDRIES U.S. 2 LLC possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other relevant data to the delisted waste indicating that any constituent is at a concentration in the leachate higher than the specified delisting concentration, then GLOBALFOUNDRIES U.S. 2 LLC must report such data, in writing, to the Regional Administrator and to the Vermont Agency of Natural Resources Secretary within 10 days of</p>

Facility	Address	Waste description
		<p>first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify GLOBALFOUNDRIES U.S. 2 LLC in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing GLOBALFOUNDRIES U.S. 2 LLC with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. GLOBALFOUNDRIES U.S. 2 LLC shall have 30 days from the date of the Regional Administrator's notice to present the information. (D) If after 30 days GLOBALFOUNDRIES U.S. 2 LLC presents no further information or after a review of any submitted information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.</p> <p><i>7. Notification Requirements:</i> GLOBALFOUNDRIES U.S. 2 LLC must do the following before transporting the delisted waste: (A) Provide a one-time written notification to any state Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities; (B) Update the one-time written notification if it ships the delisted waste to a different disposal facility. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p>
Goodyear Tire and Rubber Co	Randleman, NC	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from

Facility	Address	Waste description
Gould, Inc.	McConnelsville, OH	electroplating operations. Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
Hanover Wire Cloth Division	Hanover, Pennsylvania	Dewatered filter cake (EPA Hazardous Waste No. F006) generated from electroplating operations after August 15, 1986.
Hoechst Celanese Corporation	Bucks, Alabama	Distillation bottoms generated (at a maximum annual rate of 31,500 cubic yards) from the production of sodium hydrosulfite (EPA Hazardous Waste No. F003). This exclusion was published on July 17, 1990. This exclusion does not include the waste contained in Hoechst Celanese's on-site surface impoundment.
Hoechst Celanese Corporation	Leeds, South Carolina	Distillation bottoms generated (at a maximum annual rate of 38,500 cubic yards) from the production of sodium hydrosulfite (EPA Hazardous Waste No. F003). This exclusion was published on July 17, 1990.
Holston Army Ammunition Plant	Kingsport, Tennessee	Dewatered wastewater treatment sludges (EPA Hazardous Waste Nos. F003, F005, and K044) generated from the manufacturing and processing of explosives and containing spent non-halogenated solvents after November 14, 1986.
Imperial Clevite	Salem, IN	Solid resin cakes containing EPA Hazardous Waste No. F002 generated after August 27, 1985, from solvent recovery operations.
Indiana Steel & Wire Corporation (formerly General Cable Co.)	Muncie, IN	Dewatered wastewater treatment sludges (EPA Hazardous Waste Nos. F006 and K062) generated from electroplating operations and steel finishing operations after October 24, 1986. This exclusion does not apply to sludges in any on-site impoundments as of this date.
International Minerals and Chemical Corporation	Terre Haute, Indiana	Spent non-halogenated solvents and still bottoms (EPA Hazardous Waste No. F003) generated from the recovery of n-butyl alcohol after August 15, 1986.
John Deere Des Moines Works of Deere & Company	Ankeny, IA	Wastewater Treatment Sludge Filter Cake (WWTS Filter Cake) (Hazardous Waste No. F006/F019) generated from combined onsite wastewater treatment at the Ankeny, IA, facility wastewater treatment plant at a maximum annual rate of 600 tons per calendar year and disposed of in a Subtitle D Landfill which is licensed, permitted, or otherwise authorized by a state to accept the delisted WWTS Filter Cake.  John Deere must implement a testing program that meets the following conditions for the exclusion to be



Facility	Address	Waste description
		<p>valid:</p> <p>1. Delisting Levels: (A) The WWTS Filter Cake shall not exhibit any of the "Characteristics of Hazardous Waste" in 40 CFR part 261, subpart C. (B) All TCLP leachable concentrations (40 CFR 261.24(a)) for the following constituents must not exceed the following levels (mg/L for TCLP): Nickel—32.4. (C) Reserved. (D) All total concentrations for the following constituents must not exceed the following levels (mg/kg): Cadmium—25.5; Chromium (total)—51,000; Chromium (hexavalent)—41; Copper—2877; Nickel—3030; Zinc—10,170; Cyanide—9, Oil and Grease—64,500.</p> <p>2. Waste Handling and Holding: (A) John Deere must manage as hazardous all WWTS Filter Cake generated until it has completed initial verification testing described in paragraph (3)(A) and valid analyses show that paragraph (1) is satisfied and written approval is received from EPA. (B) Levels of constituents measured in the samples of the WWTS Filter Cake that do not (1) exceed the levels set forth in paragraph (1) for two consecutive quarterly sampling events are non-hazardous. After approval is received from EPA, John Deere can manage and dispose of the non-hazardous WWTS Filter Cake according to all applicable solid waste regulations. (C) Notwithstanding having received the initial approval from EPA, if constituent levels in a later sample exceed any of the Delisting Levels set in paragraph (1), from that point forward, John Deere must treat all the waste covered by this exclusion as hazardous until it is demonstrated that the waste again meets the levels in paragraph (1). John Deere must manage and dispose of the waste generated under Subtitle C of RCRA from the time that it becomes aware of any exceedance.</p> <p>3. Verification Testing Requirements: John Deere must perform sample collection and analyses in accordance with the Quality Assurance Project Plan submitted with the "John Deere Des Moines, Iowa, Sampling and Analysis Plan for Delisting of F006 and F019 Filter Cake, June 2012." All samples shall be representative composite samples according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846</p>

Facility	Address	Waste description
		<p>methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1313, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that samples of the John Deere sludge are representative for all constituents listed in paragraph (1). To verify that the waste does not exceed the specified delisting concentrations, for one year after the final exclusion is granted, John Deere must perform quarterly analytical testing by sampling and analyzing the WWTP sludge as follows: (A) Quarterly Testing: (i) Collect two representative composite samples of the WWTS Filter Cake at quarterly intervals after EPA grants the final exclusion. The first composite samples must be taken within 30 days after EPA grants the final approval. The second set of samples must be taken at least 30 days after the first set. (ii) Analyze the samples for all constituents listed in paragraph (1). Any waste regarding which a composite sample is taken that exceeds the delisting levels listed in paragraph (1) for the sludge must be disposed as hazardous waste in accordance with the applicable hazardous waste requirements from the time that John Deere becomes aware of any exceedance. (iii) Within thirty (30) days after taking each quarterly sample, John Deere will report its analytical test data to EPA. If levels of constituents measured in the samples of the sludge do not exceed the levels set forth in paragraph (1) of this exclusion for two consecutive quarters, and EPA concurs with those findings, John Deere can manage and dispose the non-hazardous sludge according to all applicable solid waste regulations. (B) Annual Testing: (i) If John Deere completes the quarterly testing specified in paragraph (3) above and no sample contains a constituent at a level which exceeds the limits set forth in paragraph (1), John Deere may begin annual testing as follows: John Deere must test two representative composite samples of the WWTS Filter Cake (following the same protocols as specified for quarterly sampling, above) for all constituents listed in paragraph (1) at least once per calendar year. (ii) The samples for the annual testing taken for the second and subsequent annual testing</p>

Facility	Address	Waste description
		<p>events shall be taken within the same calendar month as the first annual sample taken. (iii) John Deere shall submit an annual testing report to EPA with its annual test results, within thirty (30) days after taking each annual sample. The annual testing report also shall include the total amount of waste in tons disposed during the calendar year.</p> <p>4. Changes in Operating Conditions: If John Deere significantly changes the manufacturing or treatment process described in the petition, or the chemicals used in the manufacturing or treatment process, it must notify the EPA in writing and may no longer handle the WWTS Filter Cake generated from the new process as non-hazardous unless and until the WWTS Filter Cake is shown to meet the delisting levels set in paragraph(1), John Deere demonstrates that no new hazardous constituents listed in appendix VIII of part 261 have been introduced, and John Deere has received written approval from EPA to manage the wastes from the new process under this exclusion. While the EPA may provide written approval of certain changes, if there are changes that the EPA determines are highly significant, the EPA may instead require John Deere to file a new delisting petition.</p> <p>5. Data Submittals and Recordkeeping: John Deere must submit the information described below. If John Deere fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). John Deere must: (A) Submit the data obtained through paragraph (3) to the Chief, Waste Remediation and Permits Branch, U.S. EPA Region 7, 11201 Renner Boulevard, Lenexa KS 66219, within the time specified. All supporting data can be submitted on CD-ROM or some comparable electronic media; (B) Compile, summarize, and maintain on site for a minimum of five years and make available for inspection records of operating conditions, including monthly and annual volumes of WWTS Filter Cake generated, analytical data, including quality control information and, copies of the notification(s) required in paragraph (7); (C) Submit with all data a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>6. Reopener: (A) If, any time after disposal of the delisted</p>

Facility	Address	Waste description
		<p>waste, John Deere possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other relevant data to the delisted waste indicating that any constituent is at a concentration in the leachate higher than the specified delisting concentration, then John Deere must report such data, in writing, to the Chief, Waste Remediation and Permits Branch, U.S. EPA Region 7, 11201 Renner Boulevard, Lenexa KS 66219 within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, the Regional Administrator, EPA Region 7, will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify John Deere in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing John Deere with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. John Deere shall have 30 days from the date of the Regional Administrator's notice to present the information. (D) If after 30 days John Deere presents no further information or after a review of any submitted information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.</p> <p>7. Notification Requirements: John Deere must do the following before transporting the delisted waste: (A) Provide a one-time written notification to any state Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities (B)</p>

Facility	Address	Waste description
		Update the one-time written notification if it ships the delisted waste into a different disposal facility. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.
Kawneer Company, Incorporated	Springdale, Arkansas	Wastewater treatment filter press sludge (EPA Hazardous Waste No. F019) generated (at a maximum annual rate of 26 cubic yards) from the chemical conversion coating of aluminum. This exclusion was published on November 13, 1990.
Kay-Fries, Inc.	Stoney Point, NY	Biological aeration lagoon sludge and filter press sludge generated after September 21, 1984, which contain EPA Hazardous Waste Nos. F003 and F005 as well as that disposed of in a holding lagoon as of September 21, 1984.
Keymark Corp.	Fonda, NY	Wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from chemical conversion coating of aluminum after November 27, 1985.
Keymark Corp.	Fonda, NY	Wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum and contained in an on-site impoundment on August 12, 1987. This is a one-time exclusion.
Lawrence Berkeley National Laboratory	Berkeley, California	<p>Treated ignitable and spent halogenated and non-halogenated solvent mixed waste (D001, F002, F003, and F005), and bubbler water on silica gel generated during treatment at the National Tritium Labeling Facility (NTLF) of the Lawrence Berkeley National Laboratory (LBNL). This is a one-time exclusion for 200 U.S. gallons of treatment residues that will be disposed of in a Nuclear Regulatory Commission (NRC) licensed or Department of Energy (DOE) approved low-level radioactive waste disposal facility, after August 7, 2003.</p> <p>(1) Waste Management: The treated waste residue and bubbler water on silica gel must be managed in accordance with DOE or NRC requirements prior to and during disposal.</p> <p>(2) Reopener Language: (A) If, anytime after disposal of the delisted waste, LBNL possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the delisted waste indicating that any organic constituent from the waste is detected in the leachate or the groundwater, then LBNL must report such data, in</p>

Facility	Address	Waste description
		<p>writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data.</p> <p>(B) Based on the information described in paragraph (2)(A) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify LBNL in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing LBNL with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. LBNL shall have 30 days from the date of the Regional Administrator's notice to present the information. (D) If after 30 days LBNL presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.</p> <p>(3) Notification Requirements: LBNL must do the following before transporting the delisted waste off-site:</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which they will transport the delisted waste described above for disposal, 60 days before beginning such activities. (B) Update the one-time written notification if LBNL ships the delisted waste to a different disposal facility. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the exclusion.</p>
Lederle Laboratories	Pearl River, NY	Spent non-halogenated solvents and still bottoms (EPA Hazardous Waste Nos. F003 and F005) generated from the recovery of the following solvents: Xylene, acetone,

Facility	Address	Waste description
Lincoln Plating Company	Lincoln, NE	ethyl acetate, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, methanol, toluene, and pyridine after August 2, 1988. Exclusion applies to primary and secondary filter press sludges and compost soils generated from these sludges.
Lockheed Martin Aeronautics Company	Fort Worth, TX	<p>Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after November 17, 1986.</p> <p>Sludge (EPA Hazardous Waste Number F019) generated at a maximum rate of 90 cubic yards per calendar year after October 9, 2008.</p> <p>For the exclusion to be valid, Lockheed Martin Aeronautics Company must implement a verification testing program that meets the following Paragraphs:</p> <p>(1) Delisting Levels: All concentrations for those constituents must not exceed the maximum allowable concentrations in mg/l specified in this paragraph.</p> <p>Sludge Leachable Concentrations (mg/l):  Antimony—8.45; Arsenic—0.657; Barium—100.0;  Cadmium—1.00; Chromium—5.0; Chromium,  Hexavalent—5.0; Cobalt—1040; Copper—1810;  Cyanide—240; Lead—5.0; Mercury—0.20; Nickel—1040;  Selenium—1.0; Silver—5.0; Vanadium—51.5; Zinc—15800;  Acetone—40600; Acetonitrile—766; Carbon  Disulfide—4400; Ethylbenzene—846; Methyl Ethyl  Ketone—200.0; Methyl Isobutyl Ketone—3610; Methylene  Chloride—6.16; Toluene—1180; Xylenes—745.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Waste classification as non-hazardous can not begin until compliance with the limits set in paragraph (1) for sludge has occurred for two consecutive quarterly sampling events.</p> <p>(B) If constituent levels in any sample taken by Lockheed Martin Aeronautics Company exceed any of the delisting levels set in paragraph (1) for the sludge, Lockheed Martin Aeronautics Company must do the following:</p> <p>(i) notify EPA in accordance with paragraph (6) and</p> <p>(ii) manage and dispose the sludge as hazardous waste generated under Subtitle C of RCRA.</p> <p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, Lockheed Martin Aeronautics Company may perform quarterly analytical testing by sampling and analyzing the sludge as follows:</p>

Facility	Address	Waste description
		<p>(A) Quarterly Testing:</p> <p>(i) Collect two representative composite samples of the sludge at quarterly intervals after EPA grants the final exclusion. The first composite samples may be taken at any time after EPA grants the final approval. Sampling should be performed in accordance with the sampling plan approved by EPA in support of the exclusion.</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite sample taken that exceeds the delisting levels listed in paragraph (1) for the sludge must be disposed as hazardous waste in accordance with the applicable hazardous waste requirements.</p> <p>(iii) Within thirty (30) days after taking each quarterly sample, Lockheed Martin Aeronautics Company will report its quarterly analytical test data to EPA. If levels of constituents measured in the samples of the sludge do not exceed the levels set forth in paragraph (1) of this exclusion for two consecutive quarters or sampling events, Lockheed Martin Aeronautics Company can manage and dispose the non-hazardous sludge according to all applicable solid waste regulations.</p> <p>(B) Annual Testing:</p> <p>(i) If Lockheed Martin Aeronautics Company completes the quarterly testing specified in paragraph (3) above and no sample contains a constituent at a level which exceeds the limits set forth in paragraph (1), Lockheed Martin Aeronautics Company may begin annual testing as follows: Lockheed Martin Aeronautics Company must test two representative composite samples of the sludge for all constituents listed in paragraph (1) at least once per calendar year.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality</p>



Facility	Address	Waste description
		<p>Objectives are to demonstrate that samples of the Lockheed Martin Aeronautics Company sludge are representative for all constituents listed in paragraph (1).</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annual testing events shall be taken within the same calendar month as the first annual sample taken.</p> <p>(iv) The annual testing report should include the total amount of waste in cubic yards disposed during the calendar year.</p> <p>(4) Changes in Operating Conditions: If Lockheed Martin Aeronautics Company significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could affect the composition or type of waste generated (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing and it may no longer handle the wastes generated from the new process as non-hazardous until the wastes meet the delisting levels set in paragraph (1) and it has received written approval to do so from EPA. Lockheed Martin Aeronautics Company must submit a modification to the petition complete with full sampling and analysis for circumstances where the waste volume changes and/or additional waste codes are added to the waste stream.</p> <p>(5) Data Submittals:</p> <p>Lockheed Martin Aeronautics Company must submit the information described below. If Lockheed Martin Aeronautics Company fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). Lockheed Martin Aeronautics Company must:</p> <p>(A) Submit the data obtained through paragraph (3) to the Chief, Corrective Action and Waste Minimization Section, Multimedia Planning and Permitting Division, U.S. Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas, 75202, within the time specified. All supporting data can be submitted on CD-ROM or some comparable electronic media.</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maintained on-site for a minimum</p>

Facility	Address	Waste description
		<p>of five years.</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>(6) Reopener:</p> <p>(A) If, anytime after disposal of the delisted waste Lockheed Martin Aeronautics Company possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting requirements in paragraph 1, Lockheed Martin Aeronautics Company must report the data, in writing, to the Division Director within 10 days of</p>

Facility	Address	Waste description
		<p>first possessing or being made aware of that data.</p> <p>(C) If Lockheed Martin Aeronautics Company fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health and/or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information requires action by EPA, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from the date of the Division Director's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Division Director will issue a final written determination describing EPA actions that are necessary to protect human health and/or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> Lockheed Martin Aeronautics Company must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update one-time written notification, if it ships the delisted waste into a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a</p>

Facility	Address	Waste description
Loxcreen Company, Inc.	Hayti, MO	violation of the delisting variance and a possible revocation of the decision. Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after July 16, 1986.
MAHLE, Inc.	Morristown, Tennessee	Wastewater treatment sludge filter cake (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum (generated at a maximum annual rate of 33 cubic yards), after August 21, 1992. In order to confirm that the characteristics of the waste do not change significantly, the facility must, on an annual basis sample and test for the constituents listed in 40 CFR 261.24 using the method specified therein. The annual analytical results (including quality control information) must be compiled, certified according to 40 CFR 260.22(i)(12), maintained on-site for a minimum of five years, and made available for inspection upon request by representatives of EPA or the State of Tennessee. Failure to maintain the required records on-site will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA.
Marquette Electronics Incorporated	Milwaukee, Wisconsin	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations. This exclusion was published on April 20, 1989.
Martin Marietta Aerospace	Ocala, Florida	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after January 23, 1987.
Mason Chamberlain, Incorporated	Bay St. Louis, Mississippi	Wastewater treatment sludge filter cake (EPA Hazardous Waste No. F019) generated (at a maximum annual rate of 1,262 cubic yards) from the chemical conversion coating of aluminum. This exclusion was published on October 27, 1989.
Maytag Company	Newton, IA	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum November 17, 1986.
McDonnell Douglas Corporation	Tulsa, Oklahoma	Stabilized wastewater treatment sludges from surface impoundments previously closed as a landfill (at a maximum generation of 85,000 cubic yards on a one-time basis). EPA Hazardous Waste No. F019, F002, F003, and F005 generated at U.S. Air Force Plant No. 3, Tulsa,

Facility	Address	Waste description
		<p>Oklahoma and is disposed of in Subtitle D landfills after February 26, 1999.</p> <p>McDonnell Douglas must implement a testing program that meets the following conditions for the exclusion to be valid:</p> <p>(1) <i>Delisting Levels</i>: All leachable concentrations for the constituents in Conditions (1)(A) and (1)(B) in the approximately 5,000 cubic yards of combined stabilization materials and excavated sludges from the bottom portion of the northwest lagoon of the surface impoundments which are closed as a landfill must not exceed the following levels (ppm) after the stabilization process is completed in accordance with Condition (3). Constituents must be measured in the waste leachate by the method specified in 40 CFR 261.24. Cyanide extractions must be conducted using distilled water in the place of the leaching media per 40 CFR 261.24. Constituents in Condition (1)(C) must be measured as the total concentrations in the waste(ppm).</p> <p>(A) Inorganic Constituents (leachate) Antimony-0.336; Cadmium-0.280; Chromium (total)-5.0; Lead-0.84; Cyanide-11.2;</p> <p>(B) Organic Constituents (leachate) Benzene-0.28; trans-1,2-Dichloroethene-5.6; Tetrachloroethylene-0.280; Trichloroethylene-0.280</p> <p>(C) Organic Constituents (total analysis). Benzene-10.; Ethylbenzene-10.; Toluene-30.; Xylenes-30.; trans-1,2-Dichloroethene-30.; Tetrachloroethylene-6.0; Trichloroethylene-6.0.</p> <p>McDonnell Douglas Corporation shall control volatile emissions from the stabilization process by collection of the volatile chemicals as they are emitted from the waste but before release to the ambient air. and the facility shall use dust control measures. These two controls must be adequate to protect human health and the environment.</p> <p>The approximately 80,000 cubic yards of previously stabilized waste in the upper northwest lagoon, entire northeast lagoon, and entire south lagoon of the surface impoundments which were closed as a landfill requires no verification testing.</p> <p>(2) <i>Waste Holding and Handling</i>: McDonnell Douglas must store as hazardous all stabilized waste from the bottom portion of the northwest lagoon area of the closed</p>

Facility	Address	Waste description
		<p>landfill as generated until verification testing as specified in Condition (3), is completed and valid analyses demonstrate that Condition (1) is satisfied. If the levels of constituents measured in the samples of the stabilized waste do not exceed the levels set forth in Condition (1), then the waste is nonhazardous and may be managed and disposed of in a Subtitle D landfill in accordance with all applicable solid waste regulations. If constituent levels in a sample exceed any of the delisting levels set in Condition (1), the waste generated during the time period corresponding to this sample must be restabilized until delisting levels are met or managed and disposed of in accordance with Subtitle C of RCRA.</p> <p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. McDonnell Douglas must stabilize the previously unstabilized waste from the bottom portion of the northwest lagoon of the surface impoundment (which was closed as a landfill) using fly ash, kiln dust or similar accepted materials in batches of 500 cubic yards or less. McDonnell Douglas must analyze one composite sample from each batch of 500 cubic yards or less. A minimum of four grab samples must be taken from each waste pile (or other designated holding area) of stabilized waste generated from each batch run. Each composited batch sample must be analyzed, prior to disposal of the waste in the batch represented by that sample, for constituents listed in Condition (1). There are no verification testing requirements for the stabilized wastes in the upper portions of the northwest lagoon, the entire northeast lagoon, and the entire south lagoon of the surface impoundments which were closed as a landfill.</p> <p>(4) <i>Changes in Operating Conditions:</i> If McDonnell Douglas significantly changes the stabilization process</p>

Facility	Address	Waste description
		<p>established under Condition (3) (e.g., use of new stabilization agents), McDonnell Douglas must notify the Agency in writing. After written approval by EPA, McDonnell Douglas may handle the wastes generated as non-hazardous, if the wastes meet the delisting levels set in Condition (1).</p> <p>(5) <i>Data Submittals</i>: Records of operating conditions and analytical data from Condition (3) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA, or the State of Oklahoma, or both, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. § 1001 and 42 U.S.C. § 6928), I certify that .....</p> <p>the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>(6) <i>Reopener Language</i></p> <p>(a) If McDonnell Douglas discovers that a condition at the facility or an assumption related to the disposal of</p>

Facility	Address	Waste description
		<p>the excluded waste that was modeled or predicted in the petition does not occur as modeled or predicted, then McDonnell Douglas must report any information relevant to that condition, in writing, to the Regional Administrator or his delegate within 10 days of discovering that condition.</p> <p>(b) Upon receiving information described in paragraph (a) from any source, the Regional Administrator or his delegate will determine whether the reported condition requires further action. Further action may include revoking the exclusion, modifying the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(7) <i>Notification Requirements:</i> McDonnell Douglas must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported for disposal at least 60 days prior to the commencement of such activity. The one-time written notification must be updated if the delisted waste is shipped to a different disposal facility. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.</p>
Merck & Company, Incorporated	Elkton, Virginia	One-time exclusion for fly ash (EPA Hazardous Waste No. F002) from the incineration of wastewater treatment sludge generated from pharmaceutical production processes and stored in an on-site fly ash lagoon. This exclusion was published on May 12, 1989.
Metropolitan Sewer District of Greater Cincinnati	Cincinnati, OH	Sluiced bottom ash sludge (approximately 25,000 cubic yards), contained in the North Lagoon, on September 21, 1984, which contains EPA Hazardous Wastes Nos. F001, F002, F003, F004, and F005.
Michelin Tire Corp.	Sandy Springs, South Carolina	Dewatered wastewater treatment sludge (EPA Hazardous Wastes No. F006) generated from electroplating operations after November 14, 1986.
Monroe Auto Equipment	Paragould, AR	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after vacuum filtration after November 27, 1985. This exclusion does not apply to the sludge contained in the on-site impoundment.
Nissan North America, Inc.	Smyrna, Tennessee	Wastewater treatment sludge (EPA Hazardous Waste No. F019) that Nissan North American, Inc. (Nissan) generates by treating wastewater from automobile assembly plant located on 983 Nissan Drive in Smyrna,



Facility	Address	Waste description
		<p>Tennessee. This is a conditional exclusion for up to 3,500 cubic yards of waste (hereinafter referred to as "Nissan Sludge") that will be generated each year and disposed in a Subtitle D landfill after February 27, 2006. Nissan must continue to demonstrate that the following conditions are met for the exclusion to be valid.</p> <p>(1) <i>Delisting Levels:</i> All leachable concentrations for these metals, cyanide, and organic constituents must not exceed the following levels (ppm): Barium-100.0; Cadmium-0.422; Chromium-5.0; Cyanide-7.73, Lead-5.0; and Nickel-60.7; Bis-(2-ethylhexyl) phthalate-0.601; Di-n-octyl phthalate-0.0752; and 4-Methylphenol-7.66. These concentrations must be measured in the waste leachate obtained by the method specified in 40 CFR 261.24, except that for cyanide, deionized water must be the leaching medium. Cyanide concentrations in waste or leachate must be measured by the method specified in 40 CFR 268.40, Note 7.</p> <p>(2) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A, (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that representative samples of the Nissan Sludge meet the delisting levels in Condition (1). Nissan must perform an annual testing program to demonstrate that constituent concentrations measured in the TCLP extract do not exceed the delisting levels established in Condition (1).</p> <p>(3) <i>Waste Holding and Handling:</i> Nissan must hold sludge containers utilized for verification sampling until composite sample results are obtained. If the levels of constituents measured in Nissan's annual testing program do not exceed the levels set forth in Condition (1), then the Nissan Sludge is non-hazardous and must be managed in accordance with all applicable solid</p>

Facility	Address	Waste description
		<p>waste regulations. If constituent levels in a composite sample exceed any of the delisting levels set forth in Condition (1), the batch of Nissan Sludge generated during the time period corresponding to this sample must be managed and disposed of in accordance with Subtitle C of RCRA.</p> <p>(4) <i>Changes in Operating Conditions:</i> Nissan must notify EPA in writing when significant changes in the manufacturing or wastewater treatment processes are implemented. EPA will determine whether these changes will result in additional constituents of concern. If so, EPA will notify Nissan in writing that the Nissan Sludge must be managed as hazardous waste F019 until Nissan has demonstrated that the wastes meet the delisting levels set forth in Condition (1) and any levels established by EPA for the additional constituents of concern, and Nissan has received written approval from EPA. If EPA determines that the changes do not result in additional constituents of concern, EPA will notify Nissan, in writing, that Nissan must verify that the Nissan Sludge continues to meet Condition (1) delisting levels.</p> <p>(5) <i>Data Submittals:</i> Data obtained in accordance with Condition (2) must be submitted to Narindar M. Kumar, Chief, RCRA Enforcement and Compliance Branch, Mail Code: 4WD-RCRA, U.S. EPA, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, SW., Atlanta, Georgia 30303. The submission is due no later than 60 days after taking each annual verification samples in accordance with delisting Conditions (1) through (7). Records of analytical data from Condition (2) must be compiled, summarized, and maintained by Nissan for a minimum of three years, and must be furnished upon request by EPA or the State of Tennessee, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>(6) <i>Reopener Language:</i> (A) If, at any time after disposal of the delisted waste, Nissan possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data)</p>

Facility	Address	Waste description
		<p>or any other data relevant to the delisted waste indicating that any constituent identified in the delisting verification testing is at a level higher than the delisting level allowed by EPA in granting the petition, Nissan must report the data, in writing, to EPA and Tennessee within 10 days of first possessing or being made aware of that data. (B) If the testing of the waste, as required by Condition (2), does not meet the delisting requirements of Condition (1), Nissan must report the data, in writing, to EPA and Tennessee within 10 days of first possessing or being made aware of that data. (C) Based on the information described in paragraphs (6)(A) or (6)(B) and any other information received from any source, EPA will make a preliminary determination as to whether the reported information requires that EPA take action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (D) If EPA determines that the reported information does require Agency action, EPA will notify the facility in writing of the action believed necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing Nissan with an opportunity to present information as to why the proposed action is not necessary. Nissan shall have 10 days from the date of EPA's notice to present such information. (E) Following the receipt of information from Nissan, as described in paragraph (6)(D), or if no such information is received within 10 days, EPA will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment, given the information received in accordance with paragraphs (6)(A) or (6)(B). Any required action described in EPA's determination shall become effective immediately, unless EPA provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> Nissan must provide a one-time written notification to any State Regulatory Agency in a State to which or through which the delisted waste described above will be transported, at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting conditions and a possible revocation of the decision to delist.</p>

Facility	Address	Waste description
North American Philips Consumer Electronics Corporation	Greenville, Tennessee	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations. This exclusion was published on April 20, 1989.
Occidental Chemical	Ingleside, Texas	<p>Limestone Sludge, (at a maximum generation 1,114 cubic yards per calendar year) Rockbox Residue, (at a maximum generation of 1,000 cubic yards per calendar year) generated by Occidental Chemical using the wastewater treatment process to treat the Rockbox Residue and the Limestone Sludge (EPA Hazardous Waste No. F025, F001, F003, and F005) generated at Occidental Chemical.</p> <p>Occidental Chemical must implement a testing program that meets the following conditions for the exclusion to be valid:</p> <p>(1) <i>Delisting Levels</i>: All concentrations for the following constituents must not exceed the following levels (ppm). The Rockbox Residue and the Limestone Sludge, must be measured in the waste leachate by the method specified in 40 CFR Part 261.24.</p> <p>(A) Rockbox Residue</p> <p>(i) Inorganic Constituents: Barium-100; Chromium-5; Copper-130; Lead-1.5; Selenium-1; Tin-2100; Vanadium-30; Zinc-1,000</p> <p>(ii) Organic Constituents: Acetone-400; Bromodichloromethane-0.14; Bromoform-1.0; Chlorodibromomethane-0.1; Chloroform-1.0; Dichloromethane-1.0; Ethylbenzene-7,000; 2,3,7,8-TCDD Equivalent-0.00000006</p> <p>(B) Limestone Sludge</p> <p>(i) Inorganic Constituents: Antimony-0.6; Arsenic-5; Barium-100; Beryllium-0.4; Chromium-5; Cobalt-210; Copper-130; Lead-1.5; Nickel-70; Selenium-5; Silver-5; Vanadium-30; Zinc-1,000</p> <p>(ii) Organic Constituents Acetone-400; Bromoform-1.0; Chlorodibromomethane-0.1; Dichloromethane-1.0; Diethyl phthalate-3,000, Ethylbenzene-7,000; 1,1,1-Trichloroethane-20; Toluene-700; Trichlorofluoromethane-1,000, Xylene-10,000, 2,3,7,8-TCDD Equivalent-0.00000006;</p> <p>(2) <i>Waste Holding and Handling</i>: Occidental Chemical must store in accordance with its RCRA permit, or continue to dispose of as hazardous waste all Rockbox</p>

Facility	Address	Waste description
		<p>Residue and the Limestone Sludge generated until the verification testing described in Condition (3)(B), as appropriate, is completed and valid analyses demonstrate that condition (3) is satisfied. If the levels of constituents measured in the samples of the Rockbox Residue and the Limestone Sludge do not exceed the levels set forth in Condition (1), then the waste is nonhazardous and may be managed and disposed of in accordance with all applicable solid waste regulations. If constituent levels in a sample exceed any of the delisting levels waste generated during the time period corresponding to this sample must be managed and disposed of in accordance with Subtitle C of RCRA.</p> <p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, any analyses requiring use of SW-846 methods incorporated by reference in 40 CFR 260.11 must use those methods without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing, Occidental Chemical may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). Occidental Chemical must continue to test as specified in Condition (3)(A) until and unless notified by EPA in writing that testing in Condition (3)(A) may be replaced by Condition (3)(B).</p> <p>(A) <i>Initial Verification Testing:</i> (i) During the first 40 operating days of the Incinerator Offgas Treatment System after the final exclusion is granted, Occidental Chemical must collect and analyze composites of the Limestone Sludge. Daily composites must be representative grab samples collected every 6 hours during each unit operating cycle. The two wastes must be analyzed, prior to disposal, for all of the constituents listed in Paragraph 1. The waste must also be analyzed for pH. Occidental Chemical must report the operational and analytical test data, including quality control</p>

Facility	Address	Waste description
		<p>information, obtained during this initial period no later than 90 days after the generation of the two wastes.</p> <p>(ii) When the Rockbox unit is decommissioned for cleanout, after the final exclusion is granted, Occidental Chemical must collect and analyze composites of the Rockbox Residue. Two composites must be composed of representative grab samples collected from the Rockbox unit. The waste must be analyzed, prior to disposal, for all of the constituents listed in Paragraph 1. The waste must be analyzed for pH. No later than 90 days after the Rockbox is decommissioned for cleanout the first two times after this exclusion becomes final, Occidental Chemical must report the operational and analytical test data, including quality control information.</p> <p>(B) <i>Subsequent Verification Testing:</i> Following written notification by EPA, Occidental Chemical may substitute the testing conditions in (3)(B) for (3)(A)(i). Occidental Chemical must continue to monitor operating conditions, analyze samples representative of each quarter of operation during the first year of waste generation. The samples must represent the waste generated over one quarter. (This provision does not apply to the Rockbox Residue.)</p> <p>(C) <i>Termination of Organic Testing for the Limestone Sludge:</i> Occidental Chemical must continue testing as required under Condition (3)(B) for organic constituents specified under Condition (3)(B) for organic constituents specified in Condition (1)(A)(ii) and (1)(B)(ii) until the analyses submitted under Condition (3)(B) show a minimum of two consecutive quarterly samples below the delisting levels in Condition (1)(A)(ii) and (1)(B)(ii), Occidental Chemical may then request that quarterly organic testing be terminated. After EPA notifies Occidental Chemical in writing it may terminate quarterly organic testing. Following termination of the quarterly testing, Occidental Chemical must continue to test a representative composite sample for all constituents listed in Condition (1) on an annual basis (no later than twelve months after exclusion).</p> <p>(4) <i>Changes in Operating Conditions:</i> If Occidental Chemical significantly changes the process which generate(s) the waste(s) and which may or could affect the composition or type waste(s) generated as established under Condition (1) (by illustration, but not</p>

Facility	Address	Waste description
		<p>limitation, change in equipment or operating conditions of the treatment process), Occidental Chemical must notify the EPA in writing and may no longer handle the wastes generated from the new process or no longer discharges as nonhazardous until the wastes meet the delisting levels set Condition (1) and it has received written approval to do so from EPA.</p> <p>(5) <i>Data Submittals</i>: The data obtained through Condition 3 must be submitted to Mr. William Gallagher, Chief, Region 6 Delisting Program, U.S. EPA, 1445 Ross Avenue, Dallas, Texas 75202-2733, Mail Code, (6PD-O) within the time period specified. Records of operating conditions and analytical data from Condition (1) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA, or the State of Texas, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. § 1001 and 42 U.S.C. § 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's</p>

Facility	Address	Waste description
Owosso Graphic Arts Inc.	Owosso, Michigan	<p>RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>(6) <i>Reopener</i>: (a) If Occidental Chemical discovers that a condition at the facility or an assumption related to the disposal of the excluded waste that was modeled or predicted in the petition does not occur as modeled or predicted, then Occidental Chemical must report any information relevant to that condition, in writing, to the Director of the Multimedia Planning and Permitting Division or his delegate within 10 days of discovering that condition. (b) Upon receiving information described in paragraph (a) from any source, the Director or his delegate will determine whether the reported condition requires further action. Further action may include revoking the exclusion, modifying the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(7) <i>Notification Requirements</i>: Occidental Chemical must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported for disposal at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>Wastewater treatment sludges, F006, generated at Owosso Graphic Arts, Inc. (OGAI) facility in Owosso, Michigan, at a maximum annual rate of 244 cubic yards per year. The sludge must be disposed of in a Subtitle D landfill licensed, permitted, or otherwise authorized by a state to accept the delisted wastewater treatment sludge. The exclusion becomes effective as of January 27, 2011.</p> <p>1. <i>Delisting Levels</i>: (A) The constituent concentrations measured in a leachate extract may not exceed the following concentrations (mg/L): antimony—3.15; arsenic—0.25; cadmium—1; chromium—5; lead—5; and zinc—6,000. (B) Maximum allowable groundwater concentrations (mg/L) are as follows: antimony—0.006; arsenic—0.0005; cadmium—0.005; chromium—0.1; lead—0.015; and zinc—11.3.</p> <p>2. <i>Annual Verification Testing</i>: To verify that the waste does not exceed the specified delisting concentrations, OGAI must collect and analyze one waste sample on an</p>



Facility	Address	Waste description
		<p>annual basis using methods with appropriate detection concentrations and elements of quality control. SW-846 Method 1311 must be used for generation of the leachate extract used in the testing of the delisting levels if oil and grease comprise less than 1 percent of the waste. SW-846 Method 1330A must be used for generation of the leaching extract if oil and grease comprise 1 percent or more of the waste. SW-846 Method 9071B must be used for determination of oil and grease. SW-846 Methods 1311, 1330A, and 9071B are incorporated by reference in 40 CFR 260.11. A total analysis of the waste (accounting for any filterable liquids and the dilution factor inherent in the TCLP method) may be used to estimate the TCLP concentration as provided for in section 1.2 of Method 1311.</p> <p>3. <i>Changes in Operating Conditions:</i> OGAI must notify the EPA in writing if the manufacturing process, the chemicals used in the manufacturing process, the treatment process, or the chemicals used in the treatment process significantly change. OGAI must handle wastes generated after the process change as hazardous until it has: demonstrated that the wastes continue to meet the delisting concentrations in section 1; demonstrated that no new hazardous constituents listed in appendix VIII of part 261 have been introduced; and it has received written approval from EPA.</p> <p>4. <i>Data Submittals:</i> OGAI must submit the data obtained through verification testing or as required by other conditions of this rule to U.S. EPA Region 5, RCRA Delisting Program (LR-8J), 77 West Jackson Boulevard, Chicago, IL 60604. The annual verification data and certification of proper disposal must be submitted upon the anniversary of the effective date of this exclusion. OGAI must compile, summarize, and maintain on site for a minimum of five years records of operating conditions and analytical data. OGAI must make these records available for inspection. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>5. <i>Reopener Language—</i>(A) If, anytime after disposal of the delisted waste, OGAI possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the</p>

Facility	Address	Waste description
		<p>delisted waste indicating that any constituent is at a concentration in the leachate higher than the specified delisting concentration, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration in paragraph (1), then OGAI must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify OGAI in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing OGAI with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. OGAI shall have 30 days from the date of the Regional Administrator's notice to present the information. (D) If after 30 days OGAI presents no further information or after a review of any submitted information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.</p>
Oxychem	Ingleside, TX	<p>Wastewater Treatment Biosludge (EPA Hazardous Waste Number K019, K020, F025, F001, F003, and F005) generated at a maximum rate of 7,500 cubic yards per calendar year after August 23, 2010.</p> <p>For the exclusion to be valid, OxyChem must implement a verification testing program that meets the following Paragraphs:</p> <p>(1)(A) Delisting Levels: All concentrations for those constituents must not exceed the maximum allowable</p>

Facility	Address	Waste description
		<p>concentrations in mg/l specified in this paragraph.</p> <p>Wastewater treatment biosludge Leachable Concentrations (mg/l): Antimony—0.111; Acetone—533; Arsenic—0.178; Barium—36.9; Bis(2-ethylhexyl)phthalate—6.15; Chromium—2.32; Copper—26.5; Ethylbenzene—11.1; Methylene Chloride—0.0809; Naphthalene—0.0355; Nickel—13.8; Phenanthrene—2.72; Toluene—15.5; Trichloroethane—11900; Trichloroethylene—0.0794; Vanadium—1.00; Zinc—202.</p> <p>(B) Total Concentration Limits in mg/Kg: Tetrachlorodibenzo-p-dioxin (TCDD) 2,3,7,8 Equivalent—5.23 E-04</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Waste classification as non-hazardous can not begin until compliance with the limits set in paragraph (1) for wastewater treatment biosludge has occurred for four consecutive weekly sampling events.</p> <p>(B) If constituent levels in any annual sample and retest sample taken by OxyChem exceed any of the delisting levels set in paragraph (1) for the wastewater treatment biosludge, OxyChem must do the following:</p> <p>(i) Notify EPA in accordance with paragraph (6) and</p> <p>(ii) Manage and dispose the wastewater treatment biosludge as hazardous waste generated under Subtitle C of RCRA.</p> <p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, OxyChem must perform analytical testing by sampling and analyzing the wastewater treatment biosludge as follows:</p> <p>(A) Initial Verification Testing:</p> <p>(i) Collect four representative composite samples of the wastewater treatment biosludge at weekly intervals after EPA grants the final exclusion. The first composite sample may be taken at any time after EPA grants the final approval. Sampling must be performed in accordance with the sampling plan approved by EPA in support of the exclusion.</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite sample taken that exceeds the delisting levels listed in paragraph (1) indicates that the wastewater treatment biosludge must continue to be disposed as hazardous waste in accordance with the</p>

Facility	Address	Waste description
		<p>applicable hazardous waste requirements until such time that four consecutive weekly samples indicate compliance with delisting levels listed in paragraph (1).</p> <p>(iii) Within sixty (60) days after taking its last weekly sample, OxyChem will report its analytical test data to EPA. If levels of constituents measured in the samples of the wastewater treatment biosludge do not exceed the levels set forth in paragraph (1) of this exclusion for four consecutive weeks, OxyChem can manage and dispose the non-hazardous wastewater treatment biosludge according to all applicable solid waste regulations.</p> <p>(B) Annual Testing:</p> <p>(i) If OxyChem completes the weekly testing specified in paragraph (3) above and no sample contains a constituent at a level which exceeds the limits set forth in paragraph (1), OxyChem must begin annual testing as follows: OxyChem must test a representative composite sample of the wastewater treatment biosludge for all constituents listed in paragraph (1) at least once per calendar year. If any measured constituent concentration exceeds the delisting levels set forth in paragraph (1), OxyChem must collect an additional representative composite sample within 10 days of being made aware of the exceedence and test it expeditiously for the constituent(s) which exceeded delisting levels in the original annual sample.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that samples of the OxyChem wastewater treatment biosludge are representative for all constituents listed in paragraph (1).</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annual testing events shall be</p>

Facility	Address	Waste description
		<p>taken within the same calendar month as the first annual sample taken.</p> <p>(iv) The annual testing report should include the total amount of delisted waste in cubic yards disposed during the calendar year.</p> <p>(4) Changes in Operating Conditions: If OxyChem significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could affect the composition or type of waste generated (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing and it may no longer handle the wastes generated from the new process as non-hazardous until the wastes meet the delisting levels set in paragraph (1) and it has received written approval to do so from EPA.</p> <p>OxyChem must submit a modification to the petition complete with full sampling and analysis for circumstances where the waste volume changes and/or additional waste codes are added to the waste stream.</p> <p>(5) Data Submittals: OxyChem must submit the information described below. If OxyChem fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). OxyChem must:</p> <p>(A) Submit the data obtained through paragraph 3 to the Chief, Corrective Action and Waste Minimization Section, Multimedia Planning and Permitting Division, U.S. Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas 75202, within the time specified. All supporting data can be submitted on CD-ROM or comparable electronic media.</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:</p> <p>"Under civil and criminal penalty of law for the making or</p>

Facility	Address	Waste description
		<p>submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>(6) Reopener</p> <p>(A) If, anytime after disposal of the delisted waste OxyChem possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(B) If either the annual testing (and retest, if applicable) of the waste does not meet the delisting requirements in paragraph 1, OxyChem must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(C) If OxyChem fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health and/or the environment. Further</p>

Facility	Address	Waste description
Phillips 66 Company, Billings Refinery (formerly ConocoPhillips Billings Refinery)	Billings, Montana	<p>action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information requires action by EPA, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from receipt of the Division Director's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Division Director will issue a final written determination describing EPA actions that are necessary to protect human health and/or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p><i>(7) Notification Requirements:</i></p> <p>OxyChem must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update one-time written notification, if it ships the delisted waste into a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p> <p>Residual solids from centrifuge and/or filter press processing of storm water tank sludge (F037) generated at a maximum annual rate of 200 cubic yards per year must be disposed in a lined Subtitle D landfill, licensed, permitted or otherwise authorized by a state to accept the delisted processed storm water tank sludge. The exclusion became effective March 1, 2012.</p>

Facility	Address	Waste description
		<p>For the exclusion to be valid, Phillips 66 must implement a verification testing program that meets the following Paragraphs:</p> <p>1. <i>Delisting levels:</i> The constituent concentrations in a leachate extract of the waste measured in any sample must not exceed the following concentrations (mg/L TCLP): Acenaphthene-37.9; Antimony-.97; Anthracene-50; Arsenic-.301; Barium-100; Benz(a)anthracene-.25; Benzene-.5; Benzo(a)pyrene-1.1; Benzo(b)fluoranthene-8.7; Benzo(k) fluoranthene-50; Bis(2-ethylhexyl)phthalate -50; 2-Butanone -50; Cadmium-1.0; Carbon disulfide-36; Chromium- 5.0; Chrysene-25.0; Cobalt-.763; Cyanide(total)-41.2; Dibenz(a,h)anthracene-1.16; Di-n-octyl phthalate-50; 1,4-Dioxane -36.5; Ethylbenzene-12; Fluoranthene -8.78; Fluorene-17.5; Indeno(1,2,3-cd)pyrene-27.3; Lead-5.0; Mercury-.2; m&amp;p -Cresol-10.3; Naphthalene-1.17; Nickel-48.2; o-Cresol-50; Phenanthrene-50; Phenol-50; Pyrene-15.9; Selenium -1.0; Silver-5.0; Tetrachloroethene-0.7; Toluene-26; Trichloroethene -.403; Vanadium-12.3; Xylenes (total)-22; Zinc-500.</p> <p>2. <i>Verification Testing:</i> To verify that the waste does not exceed the specified delisting levels, Phillips 66 must collect and analyze two composite samples of the residual solids from the processed sludge to account for potential variability in each tank. Composite samples must be collected each time cleanout occurs and residuals are generated. Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. If oil and grease comprise less than 1 percent of the waste, SW-846 Method 1311 must be used for generation of the leachate extract used in the testing for constituents of concern listed above. SW-846 Method 1330A must be used for generation of the leaching extract if oil and grease comprise 1 percent or more of the waste. SW-846 Method 9071B must be used for determination of oil and grease. SW-846 Methods 1311, 1330A, and 9071B are incorporated by reference in 40 CFR 260.11. As applicable, the SW-846 methods might include Methods 1311, 3010, 3510, 6010, 6020, 7470, 7471, 8260, 8270, 9014, 9034, 9213, and 9215. If leachate concentrations measured in samples do not exceed the levels set forth in paragraph 1, Phillips 66 can dispose of the processed sludge in a lined</p>



Facility	Address	Waste description
		<p>Subtitle D landfill which is permitted, licensed, or registered by the state of Montana or other state which is subject to Federal RCRA delisting.</p> <p>If constituent levels in any sample and any retest sample for any constituent exceed the delisting levels set in paragraph (1) Phillips 66 must do the following:</p> <p>(A) Notify the EPA in accordance with paragraph (5) and;</p> <p>(B) Manage and dispose of the process residual solids as F037 hazardous waste generated under Subtitle C of RCRA.</p> <p>3. <i>Changes in Operating Conditions:</i> Phillips 66 must notify the EPA in writing if the manufacturing process, the chemicals used in the manufacturing process, the treatment process, or the chemicals used in the treatment process significantly change. Phillips 66 must handle wastes generated after the process change as hazardous until it has: demonstrated that the wastes continue to meet the delisting concentrations in paragraph (1); demonstrated that no new hazardous constituents listed in appendix VIII of part 261 have been introduced; and it has received written approval from the EPA.</p> <p>4. <i>Data Submittal:</i> Whenever tank cleanout is conducted Phillips 66 must verify that the residual solids from the processed storm water tank sludge meet the delisting levels in 40 CFR 261 Appendix IX Table 1, as amended by this notice. Phillips 66 must submit the verification data to U.S. EPA Region 8, 1595 Wynkoop Street, RCRA Delisting Program, Mail code 8P-HW, Denver, CO 80202. Phillips 66 must compile, summarize and maintain onsite records of tank cleanout and process operating conditions and analytical data for a period of five years.</p> <p>5. <i>Reopener Language:</i> (A) If, anytime after final approval of this exclusion, Phillips 66 possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the EPA in granting the petition, then the facility must report the data, in writing to the EPA at the address above, within 10 days of first possessing or being made aware of that data.</p> <p>(B) If Phillips 66 fails to submit the information described</p>

Facility	Address	Waste description
		<p>in paragraph (A) or if any other information is received from any source, the EPA will make a preliminary determination as to whether the reported information requires EPA action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the EPA determines that the reported information requires the EPA action, the EPA will notify the facility in writing of the actions the agency believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed the EPA action is not necessary. The facility shall have 30 days from the date of the notice to present such information.</p> <p>(D) If after 30 days Phillips 66 presents no further information or after a review of any submitted information, the EPA will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the EPAs determination shall become effective immediately, unless the EPA provides otherwise.</p> <p>(E) Notification Requirements: Phillips 66 must do the following before transporting the delisted waste: Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(1) Provide a one-time written notification to any State Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(2) Update the onetime written notification, if it ships the delisted waste to a different disposal facility.</p> <p>(3) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p>
Philway Products, Incorporated	Ashland, Ohio	Filter press sludge generated (at a maximum annual rate of 96 cubic yards) during the treatment of electroplating wastewaters using lime (EPA Hazardous Waste No. F006). This exclusion was published on October 26, 1990.
Plastene Supply	Portageville,	Dewatered wastewater treatment sludges (EPA

Facility	Address	Waste description
Company	Missouri	Hazardous Waste No. F006) generated from electroplating operations after August 15, 1986.
POP Fasteners	Shelton, Connecticut	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations (at a maximum annual rate of 1,000 cubic yards) after September 19, 1994. In order to confirm that the characteristics of the waste do not change significantly, the facility must, on an annual basis, analyze a representative composite sample for the constituents listed in § 261.24 using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to § 260.22(i)(12), maintained on site for a minimum of five years, and made available for inspection upon request by any employee or representative of EPA or the State of Connecticut. Failure to maintain the required records on site will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA.
Professional Plating, Incorporated	Brillion, Wisconsin	<p>Wastewater treatment sludges, F019, which are generated at the Professional Plating, Incorporated (PPI) Brillion facility at a maximum annual rate of 140 cubic yards per year. The sludge must be disposed of in a Subtitle D landfill which is licensed, permitted, or otherwise authorized by a State to accept the delisted wastewater treatment sludge. The exclusion becomes effective as of March 1, 2010.</p> <p>1. <i>Delisting Levels</i>: The constituent concentrations measured in a leachate extract may not exceed the following levels (mg/L): chromium—5, cobalt—10.4; manganese—815; and nickel—638.</p> <p>2. <i>Annual Verification Testing</i>: To verify that the waste does not exceed the specified delisting levels, PPI must collect and analyze, annually, one waste sample for the constituents in Section 1. using methods with appropriate detection levels and elements of quality control. SW-846 Method 1311 must be used for generation of the leachate extract used in the testing of the delisting levels if oil and grease comprise less than 1% of the waste. SW-846 Method 1330A must be used for generation of the leaching extract if oil and grease comprise 1% or more of the waste. SW-846 Method 9071B must be used for determination of oil and grease. SW-846 Methods 1311, 1330A, and 9071B are</p>

Facility	Address	Waste description
		<p>incorporated by reference in 40 CFR 260.11.</p> <p>3. <i>Changes in Operating Conditions:</i> PPI must notify the EPA in writing if the manufacturing process, the chemicals used in the manufacturing process, the treatment process, or the chemicals used in the treatment process significantly change. PPI must handle wastes generated after the process change as hazardous until it has demonstrated that the wastes continue to meet the maximum allowable concentrations in Section 1. and that no new hazardous constituents listed in appendix VIII of part 261 have been introduced and it has received written approval from EPA.</p> <p>4. <i>Reopener Language—</i>(a) If, anytime after disposal of the delisted waste, PPI possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the delisted waste indicating that any constituent is at a concentration in the waste or waste leachate higher than the maximum allowable concentrations in Section 1. above or is in the groundwater at a concentration higher than the maximum allowable groundwater concentrations in Paragraph (e), then PPI must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data.</p> <p>(b) Based on the information described in paragraph (a) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify the facility in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing PPI with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. PPI shall have 30 days from the date of the Regional Administrator's notice to present the</p>

Facility	Address	Waste description
		information. (d) If after 30 days PPI presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise. (e) Maximum allowable groundwater concentrations (mg/L) are as follows: chromium—0.1; cobalt—0.0113; manganese—0.9; and nickel—0.75.
Reynolds Metals Company	Sheffield, AL	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after August 15, 1986.
Reynolds Metals Company	Sheffield, AL	Wastewater treatment filter press sludge (EPA Hazardous Waste No. F019) generated (at a maximum annual rate of 3,840 cubic yards) from the chemical conversion coating of aluminum. This exclusion was published on July 17, 1990.
Rhodia	Houston,Texas	Filter-cake Sludge, (at a maximum generation of 1,200 cubic yards per calendar year) generated by Rhodia using the SARU and AWT treatment process to treat the filter-cake sludge (EPA Hazardous Waste Nos. D001-D43, F001-F012, F019, F024, F025, F032, F034, F037-F039) generated at Rhodia. Rhodia must implement a testing program that meets the following conditions for the exclusion to be valid: (1) <i>Delisting Levels</i> : All concentrations for the following constituents must not exceed the following levels (mg/l). For the filter-cake constituents must be measured in the waste leachate by the method specified in 40 CFR 261.24. (A) Filter-cake Sludge (i) Inorganic Constituents: Antimony-1.15; Arsenic-1.40; Barium-21.00; Beryllium-1.22; Cadmium-0.11; Cobalt-189.00; Copper-90.00; Chromium-0.60; Lead-0.75; Mercury-0.025; Nickel-9.00; Selenium-4.50; Silver-0.14; Thallium-0.20; Vanadium-1.60; Zinc-4.30 (ii) Organic Constituents: Chlorobenzene-Non Detect; Carbon Tetrachloride-Non Detect; Acetone-360; Chloroform-0.9

Facility	Address	Waste description
		<p>(2) <i>Waste Holding and Handling</i>: Rhodia must store in accordance with its RCRA permit, or continue to dispose of as hazardous waste all Filter-cake Sludge until the verification testing described in Condition (3)(A), as appropriate, is completed and valid analyses demonstrate that condition (3) is satisfied. If the levels of constituents measured in the samples of the Filter-cake Sludge do not exceed the levels set forth in Condition (1), then the waste is nonhazardous and may be managed and disposed of in accordance with all applicable solid waste regulations.</p> <p>(3) <i>Verification Testing Requirements</i>: Rhodia must perform sample collection and analyses, including quality control procedures, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the process to be effective under the operating conditions used during the initial verification testing, Rhodia may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). Rhodia must continue to test as specified in Condition (3)(A) until and unless notified by EPA in writing that testing in Condition (3)(A) may be replaced by Condition (3)(B).</p> <p>(A) <i>Initial Verification Testing</i>: At quarterly intervals for one year after the final exclusion is granted, Rhodia must collect and analyze composites of the filter-cake sludge. From Paragraph 1 TCLP must be run on all waste and any constituents for which total concentrations have been identified. Rhodia must conduct a multiple pH leaching procedure on samples collected during the quarterly intervals. Rhodia must perform the TCLP procedure using distilled water and three different pH extraction fluids to simulate disposal under three conditions. Simulate an acidic landfill environment, basic landfill environment and a landfill environment similar to the pH of the waste. Rhodia must report the operational and analytical test data, including quality control</p>

Facility	Address	Waste description
		<p>information, obtained during this initial period no later than 90 days after the generation of the waste.</p> <p>(B) <i>Subsequent Verification Testing</i>: Following termination of the quarterly testing, Rhodia must continue to test a representative composite sample for all constituents listed in Condition (1) on an annual basis (no later than twelve months after the final exclusion).</p> <p>(4) <i>Changes in Operating Conditions</i>: If Rhodia significantly changes the process which generate(s) the waste(s) and which may or could affect the composition or type waste(s) generated as established under Condition (1) (by illustration, but not limitation, change in equipment or operating conditions of the treatment process), or its NPDES permit is changed, revoked or not reissued, Rhodia must notify the EPA in writing and may no longer handle the waste generated from the new process or no longer discharge as nonhazardous until the waste meet the delisting levels set in Condition (1) and it has received written approval to do so from EPA.</p> <p>(5) <i>Data Submittals</i>: Rhodia must submit the information described below. If Rhodia fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in Paragraph 6. Rhodia must:</p> <p>(A) Submit the data obtained through Paragraph 3 to Mr. William Gallagher, Chief, Region 6 Delisting Program, EPA, 1445 Ross Avenue, Dallas, Texas 75202-2733, Mail Code, (6PD-O) within the time specified.</p> <p>(B) Compile records of operating conditions and analytical data from Paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Furnish these records and data when EPA or the State of Texas request them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:</p> <p>(i) Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p>

Facility	Address	Waste description
		<p>(ii) As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>(iii) If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>(6) <i>Reopener Language</i></p> <p>(A) If, anytime after disposal of the delisted waste, Rhodia possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Regional Administrator or his delegate in granting the petition, then the facility must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(B) If the annual testing of the waste does not meet the delisting requirements in Paragraph 1, Rhodia must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(C) If Rhodia fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, the Regional Administrator or his delegate will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Regional Administrator or his delegate determines that the reported information does require</p>



Facility	Address	Waste description
		<p>Agency action, the Regional Administrator or his delegate will notify the facility in writing of the actions the Regional Administrator or his delegate believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed Agency action is not necessary. The facility shall have 10 days from the date of the Regional Administrator or his delegate's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Regional Administrator or his delegate will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator or his delegate's determination shall become effective immediately, unless the Regional Administrator or his delegate provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> Rhodia must do following before transporting the delisted waste: Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which they will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification if they ship the delisted waste into a different disposal facility.</p>
Sandvik Special Metals	Kennewick, Washington	<p>Wastewater treatment sludges, F006, generated at Sandvik Special Metals (Sandvik) facility in Kennewick, Washington at a maximum annual rate of 1,500 cubic yards per calendar year. The sludge must be disposed of in a landfill which is licensed, permitted, or otherwise authorized by a state to manage municipal solid waste subject to 40 CFR part 258, or non-municipal, non-hazardous industrial waste subject to 40 CFR 257.5 through 257.30. The exclusion becomes effective as of December 14, 2018.</p> <p>1. <i>Delisting Levels:</i> (A) The constituent concentrations in a representative sample of the waste must not exceed</p>

Facility	Address	Waste description
		<p>the following levels: Total concentrations (mg/kg): Arsenic-9,840; Cadmium-37,100; Chromium-77,500; Cobalt-103,000. TCLP Concentrations (mg/l in the waste extract): Arsenic-0.042; Barium-100; Cadmium-0.451; Chromium-5.00; Cobalt-1.06; Copper-120; Fluoride-194; Lead-2.95; Nickel-66.4; Silver-5.00; Vanadium-16.9; Zinc-992. (B) Sandvik must also demonstrate that the waste does not exhibit any hazardous waste characteristic in 40 CFR 261, Subpart C based on a representative sample of the waste.</p> <p><i>2. Annual Verification Testing and Disposal:</i> To verify that the waste does not exceed the delisting concentrations specified in Sections 1.A and 1.B, Sandvik must collect and analyze one representative waste sample with coolant on an annual basis no later than each anniversary of the effective date of this delisting using methods with appropriate detection concentrations and elements of quality control. If both titanium and zirconium products have been in production and contributed to candidate wastes within the three-month period prior to each anniversary of the effective date of this delisting, samples of waste from both manufacturing processes must be collected for that verification period. Otherwise, sampling only of that material in production within the specified three-month period is required. Sampling and analytical data must be provided to the EPA, with a copy to the Washington State Department of Ecology, no later 60 days following each anniversary of the effective date of this delisting, or such later date as the EPA may agree to in writing. Sandvik must conduct all verification sampling and analysis according to a written sampling and analysis plan and associated quality assurance project plan that ensures analytical data are suitable for their intended use, which must be made available to the EPA upon request. Sandvik's annual submission must also include a certification that all wastes satisfying the delisting concentrations in Conditions 1.A and 1.B have been disposed of in a landfill which is licensed, permitted, or otherwise authorized by a state to manage municipal solid waste subject to 40 CFR part 258, or non-municipal, non-hazardous industrial waste subject to 40 CFR 257.5 through 257.30.</p> <p><i>3. Changes in Operating Conditions:</i> Sandvik must notify the EPA in writing if it significantly changes the</p>

Facility	Address	Waste description
		<p>manufacturing process, the chemicals used in the manufacturing process, the treatment process, or the chemicals used in the treatment process. Sandvik must handle wastes generated after the process change as hazardous waste until it has demonstrated that the wastes continue to meet the delisting concentrations in sections 1.A and B, demonstrated that no new hazardous constituents listed in 40 CFR Part 261 Appendix VIII have been introduced into the manufacturing process or waste treatment process, and it has received written approval from the EPA that it may continue to manage the waste as non-hazardous waste.</p> <p>4. <i>Data Submittals</i>: Sandvik must submit the data obtained through verification testing or as required by other conditions of this rule to the Director, Office of Air and Waste, U.S. EPA Region 10, 1200 6th Avenue Suite 155, OAW-150, Seattle, Washington, 98070 or his or her equivalent. The annual verification data and certification of proper disposal must be submitted within 60 days after each anniversary of the effective date of this delisting exclusion, or such later date as the EPA may agree to in writing. Sandvik must compile, summarize, and maintain on-site for a minimum of five years, records of analytical data required by this rule, and operating conditions relevant to those data. Sandvik must make these records available for inspection. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12). If Sandvik fails to submit the required data within the specified time or maintain the required records on-site for the specified time, the EPA may, at its discretion, consider such failure a sufficient basis to reopen the exclusion as described in paragraph 5.</p> <p>5. <i>Reopener Language</i>—(A) If, any time after disposal of the delisted waste, Sandvik possesses or is otherwise made aware of any data relevant to the delisted waste indicating that any constituent is at a higher concentration than the specified delisting concentration or exhibits any of the characteristics of hazardous waste in 40 CFR part 261 Subpart C, then Sandvik must report such data, in writing, to the Director, Office of Air and Waste, EPA, Region 10, or his or her equivalent, within 10 days of first possessing or being made aware of that data, whichever is earlier.</p>

Facility	Address	Waste description
		<p>(B) Based on the information described in paragraph (A) and any other information received from any source, the EPA will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the EPA determines that the reported information requires it to act, the EPA will notify Sandvik in writing of the actions it believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing Sandvik with an opportunity to present information as to why the proposed EPA action is not necessary or to suggest an alternative action. Sandvik shall have 30 days from the date of the EPA's notice to present the information.</p> <p>(D) If after 30 days Sandvik presents no further information or after a review of any submitted information, the EPA will issue a final written determination describing the EPA actions that are necessary to protect human health or the environment. Any required action described in the EPA's determination shall become effective immediately unless the EPA provides otherwise.</p>
Saturn Corporation	Spring Hill, Tennessee	<p>Dewatered wastewater treatment plant (WWTP) sludge (EPA Hazardous Waste No. F019) generated at a maximum rate of 3,000 cubic yards per calendar year. The sludge must be disposed in a lined, Subtitle D landfill with leachate collection that is licensed, permitted, or otherwise authorized to accept the delisted WWTP sludge in accordance with 40 CFR part 258. The exclusion becomes effective on December 23, 2005.</p> <p>For the exclusion to be valid, Saturn must implement a verification testing program that meets the following conditions:</p> <p>1. Delisting Levels: The constituent concentrations in an extract of the waste must not exceed the following maximum allowable concentrations in mg/l: antimony—0.494; arsenic—0.224; total chromium—3.71; lead—5.0; nickel—68; thallium—0.211; and zinc—673. Sample collection and analyses, including quality control procedures, must be performed using appropriate</p>

Facility	Address	Waste description
		<p>methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A, (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that representative samples of Saturn's sludge meet the delisting levels in this condition.</p> <p>2. Waste Holding and Handling:</p> <p>(a) Saturn must accumulate the hazardous waste dewatered WWTP sludge in accordance with the applicable regulations of §§ 262.15, 262.16, and 262.17 of this subchapter, and continue to dispose of the dewatered WWTP sludge as hazardous waste until the results of the first quarterly verification testing are available.</p> <p>(b) After the first quarterly verification sampling event described in Condition (3) has been completed and the laboratory data demonstrates that no constituent is present in the sample at a level which exceeds the delisting levels set in Condition (1), Saturn can manage and dispose of the dewatered WWTP sludge as nonhazardous according to all applicable solid waste regulations.</p> <p>(c) If constituent levels in any sample taken by Saturn exceed any of the delisting levels set in Condition (1), Saturn must do the following:</p> <p>(i) Notify EPA in accordance with Condition (7) and</p> <p>(ii) Manage and dispose the dewatered WWTP sludge as hazardous waste generated under Subtitle C of RCRA.</p> <p>3. Quarterly Testing Requirements: Upon this exclusion becoming final, Saturn may perform quarterly analytical testing by sampling and analyzing the dewatered WWTP sludge as follows:</p> <p>(i) Collect one representative composite sample (consisting of four grab samples) of the hazardous waste dewatered WWTP sludge at any time after EPA grants the final delisting. In addition, collect the second, third, and fourth quarterly samples at approximately</p>

Facility	Address	Waste description
		<p>ninety (90)-day intervals after EPA grants the final exclusion.</p> <p>(ii) Analyze the samples for all constituents listed in Condition (1). Any roll-offs from which the composite sample is taken exceeding the delisting levels listed in Condition (1) must be disposed as hazardous waste in a Subtitle C landfill.</p> <p>(iii) Within forty-five (45) days after taking its first quarterly sample, Saturn will report its first quarterly analytical test data to EPA and will include the certification statement required in condition (6). If levels of constituents measured in the sample of the dewatered WWTP sludge do not exceed the levels set forth in Condition (1) of this exclusion, Saturn can manage and dispose the nonhazardous dewatered WWTP sludge according to all applicable solid waste regulations.</p> <p>4. Annual Verification Testing:</p> <p>(i) If Saturn completes the quarterly testing specified in Condition (3) above, and no sample contains a constituent with a level which exceeds the limits set forth in Condition (1), Saturn may begin annual verification testing on an annual basis. Saturn must collect and analyze one sample of the WWTP sludge on an annual basis as follows: Saturn must test one representative composite sample of the dewatered WWTP sludge for all constituents listed in Condition (1) at least once per calendar year.</p> <p>(ii) The sample collected for annual verification testing shall be a representative composite sample consisting of four grab samples that will be collected in accordance with the appropriate methods described in Condition (1).</p> <p>(iii) The sample for the annual testing for the second and subsequent annual testing events shall be collected within the same calendar month as the first annual verification sample. Saturn will report the results of the annual verification testing to EPA on an annual basis and will include the certification statement required by Condition (6).</p> <p>5. Changes in Operating Conditions: Saturn must notify EPA in writing when significant changes in the manufacturing or wastewater treatment processes are implemented. EPA will determine whether these changes will result in additional constituents of concern. If so, EPA will notify Saturn in writing that Saturn's sludge must be</p>

Facility	Address	Waste description
		<p>managed as hazardous waste F019 until Saturn has demonstrated that the wastes meet the delisting levels set forth in Condition (1) and any levels established by EPA for the additional constituents of concern, and Saturn has received written approval from EPA. If EPA determines that the changes do not result in additional constituents of concern, EPA will notify Saturn, in writing, that Saturn must verify that Saturn's sludge continues to meet Condition (1) delisting levels.</p> <p>6. Data Submittals: Saturn must submit data obtained through verification testing at Saturn or as required by other conditions of this rule to: Chief, North Section, RCRA Enforcement and Compliance Branch, Waste Management Division, U.S. Environmental Protection Agency Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, Georgia 30303. If Saturn fails to submit the required data within the specified time or maintain the required records on-site for the specified time, the EPA, at its discretion, will consider this sufficient basis to re-open the exclusion as described in Condition (7). Saturn must:</p> <p>(A) Submit the data obtained through Condition (3) within the time specified. The quarterly verification data must be submitted to EPA in accordance with Condition (3). The annual verification data and certification statement of proper disposal must be submitted to EPA annually upon the anniversary of the effective date of this exclusion. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>(B) Compile, Summarize, and Maintain Records: Saturn must compile, summarize, and maintain at Saturn records of operating conditions and analytical data records of analytical data from Condition (3), summarized, and maintained on-site for a minimum of five years. Saturn must furnish these records and data when either the EPA or the State of Tennessee requests them for inspection.</p> <p>(C) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that,</p>

Facility	Address	Waste description
		<p>based on my inquiry of those individuals immediately responsible for getting the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for sending false information, including the possibility of fine and imprisonment."</p> <p>7. Reopener.</p> <p>(A) If, at any time after disposal of the delisted waste, Saturn possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the delisted WWTP sludge at Saturn indicating that any constituent is at a level in the leachate higher than the specified delisting level or TCLP regulatory level, then Saturn must report the data, in writing, to the Regional Administrator within ten (10) days of first possessing or being made aware of that data.</p> <p>(B) Based upon the information described in Paragraph (A) and any other information received from any source, the EPA Regional Administrator will make a preliminary determination as to whether the reported information requires EPA action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Regional Administrator determines that the reported information does require EPA action, the Regional Administrator will notify Saturn in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notification shall include a statement of the proposed action and a statement providing Saturn with an opportunity to present information as to why the proposed EPA action is not necessary. Saturn shall have ten (10) days from the date of the Regional Administrator's notice to present the information.</p> <p>(D) Following the receipt of information from Saturn, or if Saturn presents no further information after 10 days, the Regional Administrator will issue a final written determination describing the EPA actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides</p>



Facility	Address	Waste description
Savannah River Site (SRS)	Aiken, South Carolina	<p>otherwise.</p> <p>8. Notification Requirements: Before transporting the delisted waste, Saturn must provide a one-time written notification to any State Regulatory Agency to which or through which it will transport the delisted WWTP sludge for disposal. The notification will be updated if Saturn transports the delisted WWTP sludge to a different disposal facility. Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p> <p>Vitrified waste (EPA Hazardous Waste Nos. F006 and F028) that the United States Department of Energy Savannah River Operations Office (DOE-SR) generated by treating the following waste streams from the M-Area of the Savannah River Site (SRS) in Aiken, South Carolina, as designated in the SRS Site Treatment Plan: W-004, Plating Line Sludge from Supernate Treatment; W-995, Mark 15 Filter Cake; W-029, Sludge Treatability Samples (glass and cementitious); W-031, Uranium/Chromium Solution; W-037, High Nickel Plating Line Sludge; W-038, Plating Line Sump Material; W-039, Nickel Plating Line Solution; W-048, Soils from Spill Remediation and Sampling Programs; W-054, Uranium/Lead Solution; W-082, Soils from Chemicals, Metals, and Pesticides Pits Excavation; and Dilute Effluent Treatment Facility (DETF) Filtercake (no Site Treatment Plan code). This is a one-time exclusion for 538 cubic yards of waste (hereinafter referred to as "DOE-SR Vitrified Waste") that was generated from 1996 through 1999 and 0.12 cubic yard of cementitious treatability samples (hereinafter referred to as "CTS") generated from 1988 through 1991 (EPA Hazardous Waste No. F006). The one-time exclusion for these wastes is contingent on their being disposed in a low-level radioactive waste landfill, in accordance with the Atomic Energy Act, after [insert date of final rule.] DOE-SR has demonstrated that concentrations of toxic constituents in the DOE-SR Vitrified Waste and CTS do not exceed the following levels:</p> <p>(1) <i>TCLP Concentrations</i>: All leachable concentrations for these metals did not exceed the Land Disposal Restrictions (LDR) Universal Treatment Standards (UTS): (mg/l TCLP): Arsenic—5.0; Barium—21; Beryllium—1.22; Cadmium—0.11; Chromium—0.60; Lead—0.75; Nickel—11; and Silver—0.14. In addition, none of the</p>

Facility	Address	Waste description
		<p>metals in the DOE-SR Vitrified Waste exceeded the allowable delisting levels of the EPA, Region 6 Delisting Risk Assessment Software (DRAS): (mg/l TCLP): Arsenic—0.0649; Barium—100.0; Beryllium—0.40; Cadmium—1.0; Chromium—5.0; Lead—5.0; Nickel—10.0; and Silver—5.0. These metal concentrations were measured in the waste leachate obtained by the method specified in 40 CFR 261.24.</p> <p><i>Total Concentrations in Unextracted Waste:</i> The total concentrations in the DOE-SR Vitrified Waste, not the waste leachate, did not exceed the following levels (mg/kg): Arsenic—10; Barium—200; Beryllium—10; Cadmium—10; Chromium—500; Lead—200; Nickel—10,000; Silver—20; Acetonitrile—1.0, which is below the LDR UTS of 38 mg/kg; and Fluoride—1.0</p> <p>(2) <i>Data Records:</i> Records of analytical data for the petitioned waste must be maintained by DOE-SR for a minimum of three years, and must be furnished upon request by EPA or the State of South Carolina, and made available for inspection. Failure to maintain the required records for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be maintained with a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>(3) <i>Reopener Language:</i> (A) If, at any time after disposal of the delisted waste, DOE-SR possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent is identified at a level higher than the delisting level allowed by EPA in granting the petition, DOE-SR must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (3)(A) and any other information received from any source, EPA will make a preliminary determination as to whether the reported information requires that EPA take action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If EPA determines that the reported information does require Agency action, EPA will notify the facility in</p>

Facility	Address	Waste description
		<p>writing of the action believed necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing DOE-SR with an opportunity to present information as to why the proposed action is not necessary. DOE-SR shall have 10 days from the date of EPA's notice to present such information.(E) Following the receipt of information from DOE-SR, as described in paragraph (3)(D), or if no such information is received within 10 days, EPA will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment, given the information received in accordance with paragraphs (3)(A) or (3)(B). Any required action described in EPA's determination shall become effective immediately, unless EPA provides otherwise.</p> <p>(4) <i>Notification Requirements:</i> DOE-SR must provide a one-time written notification to any State Regulatory Agency in a State to which or through which the delisted waste described above will be transported, at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting conditions and a possible revocation of the decision to delist.</p>
Siegel-Robert, Inc.	St. Louis, MO	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
Shell Oil Company	Deer Park, TX	<p>North Pond Sludge (EPA Hazardous Waste No. F037) generated one time at a volume of 15,000 cubic yards August 23, 2005 and disposed in a Subtitle D landfill. This is a one time exclusion and applies to 15,000 cubic yards of North Pond Sludge.</p> <p>(1) Reopener:</p> <p>(A) If, anytime after disposal of the delisted waste, Shell possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p>

Facility	Address	Waste description
		<p>(B) If Shell fails to submit the information described in paragraph (A) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Division Director determines that the reported information does require EPA action, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from the date of the Division Director's notice to present such information.</p> <p>(D) Following the receipt of information from the facility described in paragraph (C) or if no information is presented under paragraph (C), the Division Director will issue a final written determination describing the actions that are necessary to protect human health or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p>(2) Notification Requirements: Shell must do the following before transporting the delisted waste: Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state regulatory agency to which or through which they will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification, if they ship the delisted waste to a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p>
Southeastern Public Service Authority	Suffolk, Virginia	Combustion ash generated from the burning of spent solvent methyl ethyl ketone (Hazardous Waste Number

Facility	Address	Waste description
(SPSA) and Onyx Environmental Service (Onyx)		<p>F005) and disposed in a Subtitle D landfill. This is a one-time exclusion for 1410 cubic yards of ash and is effective after September 11, 2003.</p> <p>(1) <i>Reopener Language</i> (a) If SPSA and/or Onyx discovers that any condition or assumption related to the characterization of the excluded waste which was used in the evaluation of the petition or that was predicted through modeling is not as reported in the petition, then SPSA and/or Onyx must report any information relevant to that condition or assumption, in writing, to the Regional Administrator and the Virginia Department of Environmental Quality within 10 calendar days of discovering that information.</p> <p>(b) Upon receiving information described in paragraph (a) of this section, regardless of its source, the Regional Administrator will determine whether the reported condition requires further action. Further action may include repealing the exclusion, modifying the exclusion, or other appropriate action deemed necessary to protect human health or the environment.</p> <p>(2) <i>Notification Requirements</i> In the event that the delisted waste is transported off-site for disposal, SPSA/ Onyx must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported at least sixty (60) calendar days prior to the commencement of such activities. Failure to provide such notification will be deemed to be a violation of this exclusion and may result in revocation of the decision and other enforcement action.</p>
Square D Company	Oxford, Ohio	Dewatered filter press sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after August 15, 1986.
Syntex Agribusiness	Springfield, MO	<p>Kiln ash, cyclone ash, separator sludge, and filtered wastewater (except spent activated carbon) (EPA Hazardous Waste No. F020 generated during the treatment of wastewater treatment sludge by the EPA's Mobile Incineration System at the Denney Farm Site in McDowell, Missouri after June 2, 1988, so long as:</p> <p>(1) The incinerator is monitored continuously and is in compliance with operating permit conditions. Should the incinerator fail to comply with the permit conditions relevant to the mechanical operation of the incinerator, Syntex must test the residues generated during the run</p>

Facility	Address	Waste description
		<p>when the failure occurred according to the requirements of Conditions (2) through (6), regardless of whether or not the demonstration in Condition (7) has been made.</p> <p>(2) Four grab samples of wastewater must be composited from the volume of filtered wastewater collected after each eight hour run and, prior to disposal the composite samples must be analyzed for the EP toxic metals, nickel, and cyanide. If arsenic, chromium, lead, and silver EP leachate test results exceed 0.61 ppm; barium levels exceed 12 ppm; cadmium and selenium levels exceed 0.12 ppm; mercury levels exceed 0.02 ppm; nickel levels exceed 6.1 ppm; or cyanide levels exceed 2.4 ppm, the wastewater must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. Analyses must be performed using appropriate methods. As applicable to the method- defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>(3) One grab sample must be taken from each drum of kiln and cyclone ash generated during each eight-hour run; all grabs collected during a given eight-hour run must then be composited to form one composite sample. A composite sample of four grab samples of the separator sludge must be collected at the end of each eight-hour run. Prior to the disposal of the residues from each eight-hour run, an EP leachate test must be performed on these composite samples and the leachate analyzed for the EP toxic metals, nickel, and cyanide (using a distilled water extraction for the cyanide extraction) to demonstrate that the following maximum allowable treatment residue concentrations listed below are not exceeded. Analyses must be performed using appropriate methods. As applicable to the method- defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods</p>

Facility	Address	Waste description
		<p>0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Any residues which exceed any of the levels listed below must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations.</p> <p>Maximum Allowable Solids Treatment Residue EP Leachate Concentrations (mg/L)</p> <p>Arsenic—1.6, Barium—32, Cadmium—0.32, Chromium—1.6, Lead—1.6, Mercury—0.065, Nickel—16, Selenium—0.32, Silver—1.6, Cyanide—6.5.</p> <p>(4) If Syntex stabilizes any of the kiln and cyclone ash or separator sludge, a Portland cement-type stabilization process must be used and Syntex must collect a composite sample of four grab samples from each batch of stabilized waste. An MEP leachate test must be performed on these composite samples and the leachate analyzed for the EP toxic metals, nickel, and cyanide (using a distilled water extraction for the cyanide leachate analysis) to demonstrate that the maximum allowable treatment residue concentrations listed in condition (3) are not exceeded during any run of the MEP extraction. Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Any residues which exceed any of the levels listed in Condition (3) must be retreated to achieve these levels or must be disposed in accordance with all applicable hazardous waste regulations. (If the residues are stabilized, the analyses required in this condition supercede the analyses required in Condition (3).)</p> <p>(5) Syntex must generate, prior to disposal of residues, verification data from each eight hour run from each treatment residue (i.e., kiln and cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the</p>

Facility	Address	Waste description
		<p>maximum allowable treatment residue concentrations listed below are not exceeded. Samples must be collected as specified in Conditions (2) and (3). Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Any solid or liquid residues which exceed any of the levels listed below must be retreated to achieve these levels or must be disposed in accordance with Subtitle C of RCRA.</p> <p>Maximum Allowable Wastewater Concentrations (ppm): Benz(a)anthracene—<math>1 \times 10^{-4}</math>, Benzo(a)pyrene—<math>4 \times 10^{-5}</math>, Benzo(b)fluoranthene—<math>2 \times 10^{-4}</math>, Chloroform—0.07, Chrysene—0.002, Dibenz(a,h)anthracene—<math>9 \times 10^{-6}</math>, 1,2-Dichloroethane—0.06, Dichloromethane—0.06, Indeno(1,2,3-cd)pyrene—0.002, Polychlorinated biphenyls—<math>1 \times 10^{-4}</math>, 1,2,4,5-Tetrachlorobenzene—0.13, 2,3,4,6-Tetrachlorophenol—12, Toluene—120, Trichloroethylene—0.04, 2,4,5-Trichlorophenol—49, 2,4,6-Trichlorophenol—0.02, Maximum Allowable Solid Treatment Residue.</p> <p>Concentrations (ppm); Benz(a)anthracene—1.1, Benzo(a)pyrene—0.43, benzo(b)fluoranthene—1.8, Chloroform—5.4, Chrysene—170, Dibenz(a,h)anthracene—0.083, Dichloromethane—2.4, 1,2-Dichloroethane—4.1, Indeno(1,2,3-cd)pyrene—330, Polychlorinated biphenyls—0.31, 1,2,4,5-Tetrachlorobenzene—720, Trichloroethylene—6.6, 2,4,6-Trichlorophenol—3.9.</p> <p>(6) Syntex must generate, prior to disposal of residues, verification data from each eight-hour run for each treatment residue (i.e., kiln and cyclone ash, separator sludge, and filtered wastewater) to demonstrate that the residues do not contain tetra-, penta-, or hexachlorodibenzo-p-dioxins or furans at levels of regulatory concern. Samples must be collected as specified in Conditions (2) and (3). The TCDD equivalent levels for wastewaters must be less than 2 ppq and less</p>



Facility	Address	Waste description
SR of Tennessee	Ripley, TN	<p>than 5 ppt for the solid treatment residues. Any residues with detected dioxins or furans in excess of these levels must be retreated or must be disposed as acutely hazardous. For this analysis, Syntex must use appropriate methods. For tetra- and pentachlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 15 ppt for solids and 120 ppq for wastewaters. For hexachlorinated homologs, the maximum practical quantitation limit must not exceed 37 ppt for solids and 300 ppq for wastewaters.</p> <p>(7)(A) The test data from Conditions (1), (2), (3), (4), (5) and (6) must be kept on file by Syntex for inspection purposes and must be compiled, summarized, and submitted to the Section Chief, Variances Section, PSPD/OSW (WH-563), US EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460 by certified mail on a monthly basis and when the treatment of the lagoon sludge is concluded. All data submitted will be placed in the RCRA docket.</p> <p>(B) The testing requirements for Conditions (2), (3), (4), (5), and (6) will continue until Syntex provides the Section Chief, Variances Section, with the results of four consecutive batch analyses for the petitioned wastes, none of which exceed the maximum allowable treatment residue concentrations listed in these conditions and the Section Chief, Variances Section, notifies Syntex that the conditions have been lifted.</p> <p>(8) Syntex must provide a signed copy of the following certification statement when submitting data in response to the conditions listed above: "Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations, I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete."</p> <p>Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from the copper, nickel, and chromium electroplating of plastic parts after November 17, 1986.</p>

Facility	Address	Waste description
Tenneco Automotive	Paragould, AR	<p>Stabilized sludge from electroplating operations, excavated from the Finch Road Landfill and currently stored in containment cells by Tenneco (EPA Hazardous Waste Nos. F006). This is a one-time exclusion for 1,800 cubic yards of stabilized sludge when it is disposed of in a Subtitle D landfill. This exclusion was published on August 9, 2001.</p> <p>(1) <i>Reopener Language:</i></p> <p>(A) If, anytime after disposal of the delisted waste, Tenneco possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Regional Administrator or his delegate in granting the petition, then the facility must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(B) If Tenneco fails to submit the information described in (2)(A) or if any other information is received from any source, the Regional Administrator or his delegate will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Regional Administrator or his delegate determines the reported information does require Agency action, the Regional Administrator or his delegate will notify the facility in writing of the actions the Regional Administrator or his delegate believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed Agency action is not necessary. The facility shall have 10 days from the date of the Regional Administrator or his delegate's notice to present such information.</p> <p>(D) Following the receipt of information from the facility described in (1)(C) or (if no information is presented</p>

Facility	Address	Waste description
Tennessee Electroplating	Ripley, Tennessee	<p>under (1)(C)) the initial receipt of information described in (1)(A), the Regional Administrator or his delegate will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator or his delegate's determination shall become effective immediately, unless the Regional Administrator or his delegate provides otherwise.</p> <p>(2) <i>Notification Requirements:</i></p> <p>Tenneco must do following before transporting the delisted waste off-site: Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the exclusion.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which they will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification if Tenneco ships the delisted waste to a different disposal facility.</p> <p>Dewatered wastewater treatment sludges (EPA Hazardous Waste Nos. F006) generated from electroplating operations after November 17, 1986. To ensure chromium levels do not exceed the regulatory standards there must be continuous batch testing of the filter press sludge for chromium for 45 days after the exclusion is granted. Each batch of treatment residue must be representatively sampled and tested using the EP toxicity test for chromium. This data must be kept on file at the facility for inspection purposes. If the extract levels exceed 0.922 ppm of chromium the waste must be managed and disposed of as hazardous. If these conditions are not met, the exclusion does not apply. This exclusion does not apply to sludges in any on-site impoundments as of this date.</p>
Tennessee Electroplating	Ripley, TN	<p>Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in an on-site surface impoundment (maximum volume of 6,300 cubic yards). This is a one-time exclusion. This exclusion was published on April 8, 1991.</p>
Texas Eastman	Longview, Texas	<p>Incinerator ash (at a maximum generation of 7,000 cubic yards per calendar year) generated from the incineration of sludge from the wastewater treatment plant (EPA Hazardous Waste No. D001, D003, D018, D019, D021, D022, D027, D028, D029, D030, D032, D033, D034, D035,</p>

Facility	Address	Waste description
		<p>D036, D038, D039, D040, F001, F002, F003, F005, and that is disposed of in Subtitle D landfills after September 25, 1996. Texas Eastman must implement a testing program that meets the following conditions for the petition to be valid:</p> <p>1. <i>Delisting Levels:</i> All leachable concentrations for those metals must not exceed the following levels (mg/l). Metal concentrations must be measured in the waste leachate by the method specified in 40 CFR § 261.24.</p> <p>(A) Inorganic Constituents</p> <p>Antimony—0.27; Arsenic—2.25; Barium—90.0; Beryllium—0.0009; Cadmium—0.225; Chromium—4.5; Cobalt—94.5; Copper—58.5; Lead—0.675; Mercury—0.045; Nickel—4.5; Selenium—1.0; Silver—5.0; Thallium—0.135; Tin—945.0; Vanadium—13.5; Zinc—450.0</p> <p>(B) Organic Constituents</p> <p>Acenaphthene—90.0; Acetone—180.0; Benzene—0.135; Benzo(a)anthracene—0.00347; Benzo(a)pyrene—0.00045; Benzo(b)fluoranthene—0.00320; Bis(2 ethylhexyl) phthalate—0.27; Butylbenzyl phthalate—315.0; Chloroform—0.45; Chlorobenzene—31.5; Carbon Disulfide—180.0; Chrysene—0.1215; 1,2-Dichlorobenzene—135.0; 1,4-Dichlorobenzene—0.18; Di-n-butyl phthalate—180.0; Di-n-octyl phthalate—35.0; 1,4 Dioxane—0.36; Ethyl Acetate—1350.0; Ethyl Ether—315.0; Ethylbenzene—180.0; Fluoranthene—45.0; 1-Butanol—180.0; Methyl Ethyl Ketone—200.0; Methylene Chloride—0.45; Methyl Isobutyl Ketone—90.0; Naphthalene—45.0; Pyrene—45.0; Toluene—315.0; Xylenes—3150.0</p> <p>2. <i>Waste Holding and Handling:</i> Texas Eastman must store in accordance with its RCRA permit, or continue to dispose of as hazardous all FBI ash generated until the Initial and Subsequent Verification Testing described in Paragraph 4 and 5 below is completed and valid analyses demonstrate that all Verification Testing Conditions are satisfied. After completion of Initial and Subsequent Verification Testing, if the levels of constituents measured in the samples of the FBI ash do not exceed the levels set forth in Paragraph 1 above, and written notification is given by EPA, then the waste is non-hazardous and may be managed and disposed of in</p>

Facility	Address	Waste description
		<p>accordance with all applicable solid waste regulations.</p> <p>3. <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing described in Condition (4) Texas Eastman may replace the testing required in Condition (4) with the testing required in Condition (5) below. Texas Eastman must, however, continue to test as specified in Condition (4) until notified by EPA in writing that testing in Condition (4) may be replaced by the testing described in Condition (5).</p> <p>4. <i>Initial Verification Testing:</i> During the first 40 operating days of the FBI incinerator after the final exclusion is granted, Texas Eastman must collect and analyze daily composites of the FBI ash. Daily composites must be composed of representative grab samples collected every 6 hours during each 24-hour FBI operating cycle. The FBI ash must be analyzed, prior to disposal of the ash, for all constituents listed in Paragraph 1. Texas Eastman must report the operational and analytical test data, including quality control information, obtained during this initial period no later than 90 days after receipt of the validated analytical results.</p> <p>5. <i>Subsequent Verification Testing:</i> Following the completion of the Initial Verification Testing, Texas Eastman may request to monitor operating conditions and analyze samples representative of each quarter of operation during the first year of ash generation. The samples must represent the untreated ash generated over one quarter. Following written notification from EPA, Texas Eastman may begin the quarterly testing described in this Paragraph.</p> <p>6. <i>Termination of Organic Testing:</i> Texas Eastman must continue testing as required under Paragraph 5 for</p>

Facility	Address	Waste description
		<p>organic constituents specified in Paragraph 1 until the analyses submitted under Paragraph 5 show a minimum of two consecutive quarterly samples below the delisting levels in Paragraph 1. Texas Eastman may then request that quarterly organic testing be terminated. After EPA notifies Texas Eastman in writing it may terminate quarterly organic testing.</p> <p>7. <i>Annual Testing:</i> Following termination of quarterly testing under either Paragraphs 5 or 6, Texas Eastman must continue to test a representative composite sample for all constituents listed in Paragraph 1 (including organics) on an annual basis (no later than twelve months after the date that the final exclusion is effective).</p> <p>8. <i>Changes in Operating Conditions:</i> If Texas Eastman significantly changes the incineration process described in its petition or implements any new manufacturing or production process(es) which generate(s) the ash and which may or could affect the composition or type of waste generated established under Paragraph 3 (by illustration {but not limitation}, use of stabilization reagents or operating conditions of the fluidized bed incinerator), Texas Eastman must notify the EPA in writing and may no longer handle the wastes generated from the new process as non-hazardous until the wastes meet the delisting levels set in Paragraph 1 and it has received written approval to do so from EPA.</p> <p>9. <i>Data Submittals:</i> The data obtained through Paragraph 3 must be submitted to Mr. William Gallagher, Chief, Region 6 Delisting Program, U.S. EPA, 1445 Ross Avenue, Dallas, Texas 75202-2733, Mail Code, (6PD-O) within the time period specified. Records of operating conditions and analytical data from Paragraph 3 must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA, or the State of Texas, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p>

Facility	Address	Waste description
Tokusen, USA Inc	Conway, AR	<p>Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 USC 1001 and 42 USC 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>10. <i>Notification Requirements:</i> Texas Eastman must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported for disposal at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>Wastewater Treatment Sludge (EPA Hazardous Waste No. F006) generated at a maximum annual rate of 2,000 cubic yards per calendar year after August 23, 2010 will be disposed in Subtitle D landfill.</p> <p>For the exclusion to be valid, Tokusen must implement a verification testing program that meets the following paragraphs:</p> <p>(1) <i>Delisting Levels:</i> All leachable concentrations for those constituents must not exceed the following levels (mg/l for TCLP).</p> <p>(A) Inorganic Constituents; Antimony-0.4; Arsenic-1.59; Barium-100; Chromium-5.0; Cobalt-0.8; Copper-91.3; Lead-2.32; Nickel-50.5; Selenium-1.0; Zinc-748.</p> <p>(B) Organic Constituents: Acetone-1950.</p>

Facility	Address	Waste description
		<p>(2) <i>Waste Management:</i></p> <p>(A) Tokusen must manage as hazardous all WWTP sludge generated, until it has completed initial verification testing described in paragraph (3)(A) and (B), as appropriate, and valid analyses show that paragraph (1) is satisfied and approval is received by EPA.</p> <p>(B) Levels of constituents measured in the samples of the WWTP sludge that do not exceed the levels set forth in paragraph (1) are non-hazardous. Tokusen can manage and dispose of the non-hazardous WWTP sludge according to all applicable solid waste regulations.</p> <p>(C) If constituent levels in a sample exceed any of the Delisting Levels set in paragraph (1), Tokusen can collect one additional sample and perform expedited analyses to verify if the constituent exceeds the delisting level. If this sample confirms the exceedance, Tokusen must, from that point forward, treat all the waste covered by this exclusion as hazardous until it is demonstrated that the waste again meets the levels in paragraph (1). Tokusen must manage and dispose of the waste generated under Subtitle C of RCRA when it becomes aware of any exceedance.</p> <p>(D) Upon completion of the verification testing described in paragraph 3(A) and (B) as appropriate and the transmittal of the results to EPA, and if the testing results meet the requirements of paragraph (1), Tokusen may proceed to manage its WWTP sludge as non-hazardous waste. If subsequent verification testing indicates an exceedance of the Delisting Levels in paragraph (1), Tokusen must manage the WWTP sludge as a hazardous waste after it has received approval from EPA as described in paragraph (2)(C).</p> <p>(3) <i>Verification Testing Requirements:</i></p> <p>Tokusen must perform sample collection and analyses, including quality control procedures, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 8260B, 1311/8260B, 8270C, 6010B, 7470, 9034A, ASTM-D-4982B, ASTM-D-5049, E413.2. Methods must meet Performance Based Measurement System Criteria in which The Data</p>



Facility	Address	Waste description
		<p>Quality Objectives are to demonstrate that representative samples of sludge meet the delisting levels in paragraph (1). If EPA judges the process to be effective under the operating conditions used during the initial verification testing, Tokusen may replace the testing required in paragraph (3)(A) with the testing required in paragraph (3)(B). Tokusen must continue to test as specified in paragraph (3)(A) until and unless notified by EPA in writing that testing in paragraph (3)(A) may be replaced by paragraph (3)(B).</p> <p>(A) <i>Initial Verification Testing:</i> After EPA grants the final exclusion, Tokusen must do the following:</p> <p>(i) The first sampling event for eight (8) samples will be performed within thirty (30) days of operation after this exclusion becomes final.</p> <p>(ii) The samples are to be analyzed and compared against the Delisting Levels in paragraph (1).</p> <p>(iii) Within sixty (60) days after this exclusion becomes final, Tokusen will report initial verification analytical test data for the WWTP sludge, including analytical quality control information.</p> <p>Tokusen must request in writing that EPA allows Tokusen to substitute the Testing conditions in (3)(B) for (3)(A).</p> <p>(B) <i>Subsequent Verification Testing:</i></p> <p>Following written notification by EPA, Tokusen may substitute the testing conditions in (3)(B) for (3)(A). Tokusen must continue to monitor operating conditions, and analyze two representative samples of the wastewater treatment sludge for each quarter of operation during the first year of waste generation. If levels of constituents measured in the samples of the WWTP sludge do not exceed the levels set forth in paragraph (1) in two consecutive quarters, Tokusen can manage and dispose of the WWTP sludge according to all applicable solid waste regulations.</p> <p>After the first year of sampling events, one (1) verification sampling test can be performed on two (2) annual samples of the waste treatment sludge.</p> <p>The results are to be compared to the Delisting Levels in paragraph (1).</p> <p>(C) <i>Termination of Testing:</i></p> <p>(i) After the first year of quarterly testings, if the Delisting Levels in paragraph (1) are met, Tokusen may then</p>

Facility	Address	Waste description
		<p>request that EPA does not require a quarterly testing.</p> <p>(ii) Following termination of the quarterly testing, Tokusen must conduct one (1) sampling event on two (2) representative samples for all constituents listed in paragraph (1) annually.</p> <p>(4) <i>Changes in Operating Conditions:</i></p> <p>If Tokusen significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could significantly affect the composition or type of waste generated as established under paragraph (1) (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing; it may no longer handle the wastes generated from the new process as non-hazardous until the wastes meet the delisting levels set in paragraph (1) and it has received written approval to do so from EPA.</p> <p>(5) <i>Data Submittals:</i></p> <p>Tokusen must submit the information described below. If Tokusen fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to re-open the exclusion as described in paragraph (6). Tokusen must:</p> <p>(A) Submit the data obtained through paragraph (3) to the Section Chief, Corrective Action and Waste Minimization Section, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202-2733, Mail Code, (6PD-C) within the time specified.</p> <p>(B) Compile records of operating conditions and analytical data from paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Furnish these records and data when EPA or the state of Arkansas requests them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:</p> <p>Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this</p>

Facility	Address	Waste description
		<p>document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I can not personally verify its (their) truth and accuracy I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>(6) <i>Re-Opener:</i></p> <p>(A) If, any time after disposal of the delisted waste, Tokusen possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(B) If the annual testing of the waste does not meet the delisting requirements in paragraph (1), Tokusen must report the data in writing to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(C) If Tokusen fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health and/or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information does require action, EPA's Division Director</p>

Facility	Address	Waste description
		<p>will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed action by EPA is not necessary. The facility shall have 10 days from the date of the Division Director's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if) no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Division Director will issue a final written determination describing EPA's actions that are necessary to protect human health and/or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p><i>(7) Notification Requirements:</i></p> <p>Tokusen must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update one-time written notification, if it ships the delisted waste into a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p>
Tokusen U.S.A., Inc. Scottsburg <JFS America>(formerly American Steel Cord)	Scottsburg, Indiana	<p>Wastewater treatment sludges from electroplating operations (EPA Hazardous Waste No. F006) generated at a maximum annual rate of 3,000 cubic yards per year, after January 26, 1999, and disposed of in a Subtitle D landfill.</p> <p>1. Verification Testing: Tokusen U.S.A., Inc. Scottsburg JFS America (Tokusen) must implement an annual testing program to demonstrate, based on the analysis of a minimum of four representative samples, that the constituent concentrations measured in the TCLP extract</p>

Facility	Address	Waste description
		<p>of the waste are within specific levels. The constituent concentrations must not exceed the following levels (mg/l) which are back-calculated from the delisting health-based levels and a DAF of 68: arsenic-3.4; barium-100; cadmium-0.34; chromium-5; copper-88.4; lead-1.02; mercury-0.136; nickel-6.8; selenium-1; silver-5; zinc-680; cyanide-13.6; acetone-272; benzylbutylphthalate-476; chloroform-0.68; 1,4-dichlorobenzene-0.272; cis-1,2-dichloroethene-27.2; methylene chloride-0.34; naphthalene-68; styrene-6.8; tetrachloroethene-0.34; toluene-68; and xylene-680.</p> <p>Tokusen must measure and record the pH of the waste using SW 846 method 9045 and must record all pH measurements performed in accordance with the TCLP.</p> <p>2. Changes in Operating Conditions: If Tokusen significantly changes the manufacturing or treatment process or the chemicals used in the manufacturing or treatment process, Tokusen may handle the wastewater sludges generated from the new process under this exclusion only after the facility has demonstrated that the waste meets the levels set forth in paragraph 1 and that no new hazardous constituents listed in appendix VIII of Part 261 have been introduced.</p> <p>3. Data Submittals: The data obtained through annual verification testing or compliance with paragraph 2 must be submitted to U.S. EPA Region 5, 77 W. Jackson Blvd., Chicago, IL 60604-3590, within 60 days of sampling. Records of operating conditions and analytical data must be compiled, summarized, and maintained on site for a minimum of five years and must be made available for inspection. All data must be accompanied by a signed copy of the certification statement in <u>§ 260.22(i)(12) of this chapter.</u></p> <p>4. (a) If, anytime after disposal of the delisted waste, Tokusen possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified in Condition (1) is at a level in the leachate higher than the delisting level established in Condition (1), or is at a level in the ground water or soil higher than the health based level, then Tokusen must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware</p>

Facility	Address	Waste description
Trigen/Cinergy-USFOS of Lansing LLC at General Motors Corporation, Lansing Grand River.	Lansing, Michigan	<p>of that data.</p> <p>(b) Based on the information described in paragraph 4. (a) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify the facility in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. The facility shall have 10 days from the date of the Regional Administrator's notice to present such information.</p> <p>(d) Following the receipt of information from the facility described in paragraph 4. (c) or if no information is presented under paragraph 4. (c) the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.</p> <p>Waste water treatment plant sludge, F019, that is generated at General Motors Corporation's Lansing Grand River (GM-Grand River) facility by Trigen/Cinergy-USFOS of Lansing LLC exclusively from wastewaters from GM-Grand River, Lansing, Michigan at a maximum annual rate of 2,000 cubic yards per year. The sludge must be disposed of in a lined landfill with leachate collection, which is licensed, permitted, or otherwise authorized to accept the delisted wastewater treatment sludge in accordance with 40 CFR Part 258. The exclusion becomes effective as of July 30, 2003. The conditions in paragraphs (2) through (5) for Ford Motor Company—Michigan Truck Plant and Wayne Integrated Stamping Plant—Wayne, Michigan also apply.</p>

Facility	Address	Waste description
Tyco Printed Circuit Group, Melbourne Division	Melbourne, Florida	<p>Delisting Levels: (A) The TCLP concentrations measured in any sample may not exceed the following levels (mg/L): Antimony—0.659; Arsenic—0.3; Cadmium—0.48; Chromium—4.95; Lead—5; Nickel—90.5; Selenium—1; Thallium—0.282; Tin—721; Zinc—898; p-Cresol—11.4; and Formaldehyde—84.2. (B) The total concentrations measured in any sample may not exceed the following levels (mg/kg): Mercury—8.92; and Formaldehyde—689. (C) The sum of the ratios of the TCLP concentrations to the delisting levels for nickel and thallium and for nickel and cadmium shall not exceed 1.0.</p> <p>Wastewater treatment sludge (EPA Hazardous Waste No. F006) that Tyco Printed Circuit Group, Melbourne Division (Tyco) generates by treating wastewater from its circuit board manufacturing plant located on John Rodes Blvd. in Melbourne, Florida. This is a conditional exclusion for up to 590 cubic yards of waste (hereinafter referred to as “Tyco Sludge”) that will be generated each year and disposed in a Subtitle D landfill or shipped to a smelter for metal recovery after May 14, 2001. Tyco must demonstrate that the following conditions are met for the exclusion to be valid. (Please see Condition (8) for certification and recordkeeping requirements that must be met in order for the exclusion to be valid for waste that is sent to a smelter for metal recovery.)</p> <p>(1) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CDJR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that representative samples of the Tyco Sludge meet the delisting levels in Condition (3).</p> <p>(A) <i>Initial Verification Testing:</i> Tyco must collect and analyze a representative sample of every batch, for eight sequential batches of Tyco sludge generated in its</p>

Facility	Address	Waste description
		<p>wastewater treatment system after May 14, 2001. A batch is the Tyco Sludge generated during one day of wastewater treatment. Tyco must analyze for the constituents listed in Condition (3). A minimum of four composite samples must be collected as representative of each batch. Tyco must report analytical test data, including quality control information, no later than 60 days after generating the first batch of Tyco Sludge to be disposed in accordance with the delisting Conditions (1) through (7).</p> <p>(B) <i>Subsequent Verification Testing:</i> If the initial verification testing in Condition (1)(A) is successful, i.e., delisting levels of condition (3) are met for all of the eight initial batches, Tyco must test a minimum of 5% of the Tyco Sludge generated each year. Tyco must collect and analyze at least one composite sample representative of that 5%. The composite must be made up of representative samples collected from each batch included in the 5%. Tyco may, at its discretion, analyze composite samples gathered more frequently to demonstrate that smaller batches of waste are non-hazardous.</p> <p>(2) <i>Waste Holding and Handling:</i> Tyco must store as hazardous all Tyco Sludge generated until verification testing as specified in Condition (1)(A) or (1)(B), as appropriate, is completed and valid analyses demonstrate that Condition (3) is satisfied. If the levels of constituents measured in the samples of Tyco Sludge do not exceed the levels set forth in Condition (3), then the Tyco Sludge is non-hazardous and must be managed in accordance with all applicable solid waste regulations. If constituent levels in a sample exceed any of the delisting levels set forth in Condition (3), the batch of Tyco Sludge generated during the time period corresponding to this sample must be retreated until it meets the delisting levels set forth in Condition (3), or managed and disposed of in accordance with Subtitle C of RCRA.</p> <p>(3) <i>Delisting Levels:</i> All leachable concentrations for these metals and cyanide must not exceed the following levels (ppm): Barium—100; Cadmium—0.5; Chromium—5.0; Cyanide—20, Lead—1.5; and Nickel—73. These metal and cyanide concentrations must be measured in the waste leachate obtained by the method</p>



Facility	Address	Waste description
		<p>specified in 40 CFR 261.24, except that for cyanide, deionized water must be the leaching medium. The total concentration of cyanide (total, not amenable) in the waste, not the waste leachate, must not exceed 200 mg/kg. Cyanide concentrations in waste or leachate must be measured by the method specified in 40 CFR 268.40, Note 7. The total concentrations of metals in the waste, not the waste leachate, must not exceed the following levels (ppm): Barium—2,000; Cadmium—500; Chromium—1,000; Lead—2,000; and Nickel—20,000.</p> <p>(4) <i>Changes in Operating Conditions:</i> Tyco must notify EPA in writing when significant changes in the manufacturing or wastewater treatment processes are necessary (e.g., use of new chemicals not specified in the petition). EPA will determine whether these changes will result in additional constituents of concern. If so, EPA will notify Tyco in writing that the Tyco sludge must be managed as hazardous waste F006, pending receipt and evaluation of a new delisting petition. If EPA determines that the changes do not result in additional constituents of concern, EPA will notify Tyco, in writing, that Tyco must repeat Condition (1)(A) to verify that the Tyco Sludge continues to meet Condition (3) delisting levels.</p> <p>(5) <i>Data Submittals:</i> Data obtained in accordance with Condition (1)(A) must be submitted to Jewell Grubbs, Chief, RCRA Enforcement and Compliance Branch, Mail Code: 4WD-RCRA, U.S. EPA, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, Atlanta, Georgia 30303. This notification is due no later than 60 days after generating the first batch of Tyco Sludge to be disposed in accordance with delisting Conditions (1) through (7). Records of analytical data from Condition (1) must be compiled, summarized, and maintained by Tyco for a minimum of three years, and must be furnished upon request by EPA or the State of Florida, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>Under civil and criminal penalty of law for the making or</p>

Facility	Address	Waste description
		<p>submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's void exclusion.</p> <p>(6) <i>Reopener Language:</i> (A) If, anytime after disposal or shipment to a smelter of the delisted waste, Tyco possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified in the delisting verification testing is at a level higher than the delisting level allowed by EPA in granting the petition, Tyco must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data. (B) If the testing of the waste, as required by Condition (1)(B), does not meet the delisting requirements of Condition (3), Tyco must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data. (C) Based on the information described in paragraphs (6)(A) or (6)(B) and any other information received from any source, EPA will make a preliminary determination as to whether the reported information requires that EPA take action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (D) If EPA</p>

Facility	Address	Waste description
		<p>determines that the reported information does require Agency action, EPA will notify the facility in writing of the action believed necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing Tyco with an opportunity to present information as to why the proposed action is not necessary. Tyco shall have 10 days from the date of EPA's notice to present such information. (E) Following the receipt of information from Tyco, as described in paragraph (6)(D) or if no such information is received within 10 days, EPA will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment, given the information received in accordance with paragraphs (6)(A) or (6)(B). Any required action described in EPA's determination shall become effective immediately.</p> <p>(7) <i>Notification Requirements:</i> Tyco must provide a one-time written notification to any State Regulatory Agency in a State to which or through which the delisted waste described above will be transported, at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting conditions and a possible revocation of the decision to delist.</p> <p>(8) <i>Recordkeeping and Certification Requirements for Waste to be Smelted for Metal Recovery:</i> Tyco must maintain in its facility files, and make available for inspection by EPA and the Florida Department of Environmental Protection (FDEP), records that include the name, address, telephone number, and contact person of each smelting facility used by Tyco for its delisted waste, quantities of waste shipped, analytical data for demonstrating that the delisting levels of Condition (3) are met, and a certification that the smelter(s) is(are) subject to regulatory controls on discharges to air, water, and land. The certification statement must be signed by a responsible official and contain the following language: Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the smelter(s) used for Tyco's</p>

Facility	Address	Waste description
		delisted waste is(are) subject to regulatory controls on discharges to air, water, and land. As the company official having supervisory responsibility for plant operations, I certify that to the best of my knowledge this information is true, accurate and complete. In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's void exclusion.
Universal Oil Products	Decatur, Alabama	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in two on-site lagoons on August 15, 1986. This is a one-time exclusion.
U.S. EPA Combustion Research Facility	Jefferson, Arkansas	One-time exclusion for scrubber water (EPA Hazardous Waste No. F020) generated in 1985 from the incineration of Vertac still bottoms. This exclusion was published on June 28, 1989.
U.S. Nameplate Company, Inc.	Mount Vernon, Iowa	Retreated wastewater treatment sludges (EPA Hazardous Waste No. F006) previously generated from electroplating operations and currently contained in an on-site surface impoundment after September 28, 1988. This is a one-time exclusion for the retreated wastes only. This exclusion does not relieve the waste unit from regulatory compliance under Subtitle C.
The Valero Refining Company—Tennessee, LLC	Memphis, TN	Storm Water Basin sediment (EPA Hazardous Waste No. F037) generated one-time at a volume of 2,700 cubic yards March 10, 2010 and disposed in Subtitle D landfill. This is a one-time exclusion and applies to 2,700 cubic yards of Storm Water Basin sediment.  (1) Reopener. (A) If, anytime after disposal of the delisted waste, Valero possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.

Facility	Address	Waste description
		<p>(B) If Valero fails to submit the information described in paragraph (A) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Division Director determines that the reported information does require EPA action, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from the date of the Division Director's notice to present such information.</p> <p>(D) Following the receipt of information from the facility described in paragraph (C) or if no information is presented under paragraph initial receipt of information described in paragraphs (A) or (B), the Division Director will issue a final written determination describing EPA actions that are necessary to protect human health or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p>(2) Notification Requirements: Valero must do the following before transporting the delisted waste: Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which they will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification, if they ship the delisted waste to a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p>
VAW of America	St. Augustine,	Wastewater treatment sludge filter cake (EPA Hazardous

Facility	Address	Waste description
Incorporated	Florida	Waste No. F019) generated from the chemical conversion coating of aluminum. This exclusion was published on February 1, 1989.
Vermont American, Corp.	Newark, OH	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
Waterloo Industries	Pocahontas, AR	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after dewatering and held on-site on July 17, 1986 and any such sludge generated (after dewatering) after July 17, 1986.
William L. Bonnell Co.	Newnan, Georgia	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after November 14, 1986. This exclusion does not include sludges contained in Bonnell's on-site surface impoundments.
Windsor Plastics, Inc	Evansville, IN	Spent non-halogenated solvents and still bottoms (EPA Hazardous Waste No. F003) generated from the recovery of acetone after November 17, 1986.
WRB Refining, LLC	Borger, TX	<p>Thermal desorber residual solids (Hazardous Waste Nos. F037, F038, K048, K049, K050, and K051) generated at a maximum annual rate of 5,000 cubic yards per calendar year after September 29, 2009 and disposed in Subtitle D Landfill.</p> <p>For the exclusion to be valid, WRB Refining LLC must implement a verification testing program that meets the following Paragraphs:</p> <p>(1) Delisting Levels: All concentrations for those constituents must not exceed the maximum allowable concentrations in mg/l specified in this paragraph.</p> <p>Thermal Desorber Residual Solid Leachable Concentrations (mg/l): Antimony—0.165; Arsenic—1.29; Barium—54.8; Beryllium—0.119; Cadmium—0.139; Chromium—3.23; Chromium, Hexavalent—3.23; Cobalt—20.7; Copper—38.6; Cyanide—4.69; Lead—1.07; Mercury—0.104; Nickel—20.6; Selenium—1.0; Silver—5.0; Tin—3790.00; Vanadium—1.46; Zinc—320.0.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Waste classification as non-hazardous can not begin until compliance with the limits set in paragraph (1) for thermal desorber residual solids has occurred for two consecutive quarterly sampling events.</p>

Facility	Address	Waste description
		<p>(B) If constituent levels in any sample taken by WRB Refining LLC exceed any of the delisting levels set in paragraph (1) for the thermal desorber residual solids, WRB Refining LLC must do the following:</p> <p>(i) Notify EPA in accordance with paragraph (6) and</p> <p>(ii) Manage and dispose the thermal desorber residual solids as hazardous waste generated under Subtitle C of RCRA.</p> <p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, WRB Refining LLC may perform quarterly analytical testing by sampling and analyzing the desorber residual solids as follows:</p> <p>(A) Quarterly Testing:</p> <p>(i) Collect two representative composite samples of the sludge at quarterly intervals after EPA grants the final exclusion. The first composite samples may be taken at any time after EPA grants the final approval. Sampling should be performed in accordance with the sampling plan approved by EPA in support of the exclusion.</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite sample taken that exceeds the delisting levels listed in paragraph (1) for the sludge must be disposed as hazardous waste in accordance with the applicable hazardous waste requirements.</p> <p>(iii) Within thirty (30) days after taking its first quarterly sample, WRB Refining LLC will report its first quarterly analytical test data to EPA. If levels of constituents measured in the samples of the sludge do not exceed the levels set forth in paragraph (1) of this exclusion for two consecutive quarters, WRB Refining LLC can manage and dispose the non-hazardous thermal desorber residual solids according to all applicable solid waste regulations.</p> <p>(B) Annual Testing: (i) If WRB Refining LLC completes the quarterly testing specified in paragraph (3) above and no sample contains a constituent at a level which exceeds the limits set forth in paragraph (1), WRB Refining LLC may begin annual testing as follows: WRB Refining LLC must test two representative composite samples of the thermal desorber residual solids for all constituents listed in paragraph (1) at least once per calendar year.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample according to appropriate methods. As applicable to the method-</p>

Facility	Address	Waste description
		<p>defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that samples of the WRB Refining thermal desorber residual solids are representative for all constituents listed in paragraph (1).</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annual testing events shall be taken within the same calendar month as the first annual sample taken.</p> <p>(iv) The annual testing report should include the total amount of delisted waste in cubic yards disposed as non-hazardous waste during the calendar year.</p> <p>(4) Changes in Operating Conditions: If WRB Refining LLC significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could affect the composition or type of waste generated (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing and it may no longer handle the wastes generated from the new process as non-hazardous until the wastes meet the delisting levels set in paragraph (1) and it has received written approval to do so from EPA.</p> <p>WRB Refining LLC must submit a modification to the petition, complete with full sampling and analysis, for circumstances where the waste volume changes and/or additional waste codes are added to the waste stream, if it wishes to dispose of the material as non-hazardous.</p> <p>(5) Data Submittals:</p> <p>WRB Refining LLC must submit the information described below. If WRB Refining LLC fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). WRB Refining LLC must:</p>



Facility	Address	Waste description
		<p>(A) Submit the data obtained through paragraph (3) to the Chief, Corrective Action and Waste Minimization Section, Multimedia Planning and Permitting Division, U.S. Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas, 75202, within the time specified. All supporting data can be submitted on CD-ROM or comparable electronic media.</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. § 1001 and 42 U.S.C. § 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>(6) Re-opener</p> <p>(A) If, anytime after disposal of the delisted waste WRB Refining LLC possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification</p>

Facility	Address	Waste description
		<p>testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting requirements in paragraph 1, WRB Refining LLC must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(C) If WRB Refining LLC fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health and/or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information requires action by EPA, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from the date of the Division Director's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Division Director will issue a final written determination describing EPA actions that are necessary to protect human health and/or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p>(7) Notification Requirements</p> <p>WRB Refining LLC must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting</p>

Facility	Address	Waste description
		<p>petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p>

**TABLE 2—WASTES EXCLUDED FROM SPECIFIC SOURCES**

Facility	Address	Waste description
American Chrome & Chemical	Corpus Christi, Texas	<p>Dewatered sludge (the EPA Hazardous Waste No. K006) generated at a maximum generation of 1450 cubic yards per calendar year after September 21, 2004 and disposed in a Subtitle D landfill. ACC must implement a verification program that meets the following Paragraphs:</p> <p>(1) Delisting Levels: All leachable constituent concentrations must not exceed the following levels (mg/l). The petitioner must use the method specified in § 261.24 to measure constituents in the waste leachate.  Dewatered wastewater sludge: Arsenic-0.0377;  Barium-100.0; Chromium-5.0; Thallium-0.355; Zinc-1130.0.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) ACC is a 90 day facility and does not have a RCRA permit, therefore, ACC must store the dewatered sludge following the requirements specified in §§ 262.15, 262.16, and 262.17 of this subchapter, as applicable, or continue to dispose of as hazardous all dewatered sludge generated, until they have completed verification testing described in Paragraph (3), as appropriate, and valid analyses show that paragraph (1) is satisfied.</p> <p>(B) Levels of constituents measured in the samples of the dewatered sludge that do not exceed the levels set forth in Paragraph (1) are non-hazardous. ACC can manage and dispose the non-hazardous dewatered sludge according to all applicable solid waste regulations.</p>

Facility	Address	Waste description
		<p>(C) If constituent levels in a sample exceed any of the delisting levels set in Paragraph (1), ACC must retreat the batches of waste used to generate the representative sample until it meets the levels. ACC must repeat the analyses of the treated waste.</p> <p>(D) If the facility does not treat the waste or retreat it until it meets the delisting levels in Paragraph (1), ACC must manage and dispose the waste generated under Subtitle C of RCRA.</p> <p>(E) The dewatered sludge must pass paint filter test as described in SW 846, Method 9095 or another appropriate method found in a reliable source before it is allowed to leave the facility. ACC must maintain a record of the actual volume of the dewatered sludge to be disposed of-site according to the requirements in Paragraph (5).</p> <p>(3) Verification Testing Requirements: ACC must perform sample collection and analyses, including quality control procedures, according to appropriate methods such as those found in SW-846 or other reliable sources (with the exception of analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11, which must be used without substitution. ACC must conduct verification testing each time it decides to evacuate the tank contents. Four (4) representative composite samples shall be collected from the dewatered sludge. ACC shall analyze the verification samples according to the constituent list specified in Paragraph (1) and submit the analytical results to EPA within 10 days of receiving the analytical results. If the EPA determines that the data collected under this Paragraph do not support the data provided for the petition, the exclusion will not cover the generated wastes. The EPA will notify ACC the decision in writing within two weeks of receiving this information.</p> <p>(4) Changes in Operating Conditions: If ACC significantly changes the process described in its petition or starts any processes that may or could affect the composition or type of waste generated as established under Paragraph (1) (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), they must notify the EPA in writing; they may no longer handle the wastes generated from the new process as nonhazardous until the test results of the wastes meet the delisting levels set in Paragraph (1) and they have received written approval to do so from the EPA.</p>

Facility	Address	Waste description
		<p>(5) Data Submittals: ACC must submit the information described below. If ACC fails to submit the required data within the specified time or maintain the required records on-site for the specified time, the EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in Paragraph 6. ACC must:</p> <p>(A) Submit the data obtained through Paragraph 3 to the Section Chief, Corrective Action and Waste Minimization Section, Environmental Protection Agency, 1445 Ross Avenue, Dallas, Texas 75202-2733, Mail Code, (6PD-C) within the time specified.</p> <p>(B) Compile records of operating conditions and analytical data from Paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Furnish these records and data when the EPA or the State of Texas request them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted: Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. If any of this information is determined by the EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by the EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>(6) Reopener:</p> <p>(A) If, any time after disposal of the delisted waste, ACC possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data</p>

Facility	Address	Waste description
		<p>relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(B) If the verification testing of the waste does not meet the delisting requirements in Paragraph 1, ACC must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(C) If ACC fails to submit the information described in paragraphs (5), (6)(A), or (6)(B) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Division Director determines that the reported information does require Agency action, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed Agency action is not necessary. The facility shall have 10 days from the date of the Division Director's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A), or (6)(B), the Division Director will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p>(7) Notification Requirements: ACC must do the following before transporting the delisted waste: Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p>

Facility	Address	Waste description
		<p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which they will transport the delisted waste described above for disposal, 60 days before beginning such activities. If ACC transports the excluded waste to or manages the waste in any state with delisting authorization, ACC must obtain delisting authorization from that state before it can manage the waste as nonhazardous in the state.</p> <p>(B) Update the one-time written notification if they ship the delisted waste to a different disposal facility.</p> <p>(C) Failure to provide the notification will result in a violation of the delisting variance and a possible revocation of the exclusion.</p>
American Cyanamid	Hannibal, Missouri	Wastewater and sludge (EPA Hazardous Waste No. K038) generated from the washing and stripping of phorate production and contained in on-site lagoons on May 8, 1987, and such wastewater and sludge generated after May 8, 1987.
Amoco Oil Co.	Wood River, IL	150 million gallons of DAF from petroleum refining contained in four surge ponds after treatment with the Chemifix ® stabilization process. This waste contains EPA Hazardous Waste No. K048. This exclusion applies to the 150 million gallons of waste after chemical stabilization as long as the mixing ratios of the reagent with the waste are monitored continuously and do not vary outside of the limits presented in the demonstration samples; one grab sample is taken each hour from each treatment unit, composited, and EP toxicity tests performed on each sample. If the levels of lead or total chromium exceed 0.5 ppm in the EP extract, then the waste that was processed during the compositing period is considered hazardous; the treatment residue shall be pumped into bermed cells to ensure that the waste is identifiable in the event that removal is necessary.
Akzo Chemicals, Inc. (formerly Stauffer Chemical Company)	Axis, AL	Brine purification muds generated from their chlor-alkali manufacturing operations (EPA Hazardous Waste No. K071) and disposed of in brine mud pond HWTF: 5 EP-201.
Bayer Material Science LLC	Baytown, TX	<p>Outfall 007 Treated Effluent (EPA Hazardous Waste Nos. K027, K104, K111, and K112) generated at a maximum rate of 18,071,150 cubic yards (5.475 billion gallons) per calendar year after July 25, 2005 as it exits the Outfall Tank and disposed in accordance with the TPDES permit.</p> <p>The delisting levels set do not relieve Bayer of its duty to comply with the limits set in its TPDES permit. For the</p>

Facility	Address	Waste description
		<p>exclusion to be valid, Bayer must implement a verification testing program that meets the following Paragraphs:</p> <p>(1) Delisting Levels: All concentrations for those constituents must not exceed the maximum allowable concentrations in mg/kg specified in this paragraph.</p> <p>Outfall 007 Treated Effluent Total Concentrations (mg/kg):</p> <p>Antimony—0.0816; Arsenic—0.385, Barium—22.2; Chromium—153.0; Copper—3620.0; Cyanide—0.46; Mercury—0.0323; Nickel—11.3; Selenium—0.23; Thallium—0.0334; Vanadium—8.38; Zinc—112.0; Acetone—14.6; Acetophenone—15.8; Aniline—0.680; Benzene—0.0590; Bis (2-ethylhexyl)phthalate—1260.0; Bromodichloromethane—0.0719; Chloroform—0.077; Di-n-octyl phthalate—454.0; 2,4-Dinitrotoluene—0.00451; Diphenylamine—11.8; 1,4-Dioxane—1.76; Di-n-butyl phthalate—149.0; Fluoranthene—24.6; Methylene chloride—0.029; Methyl ethyl ketone—87.9; Nitrobenzene—0.0788; m-phenylenediamine—0.879; Pyrene—39.0; 1,1,1,2-Tetrachloroethane—0.703; o-Toluidine—0.0171; p-Toluidine—0.215; 2,4-Toluenediamine—0.00121. Toluene diisocyanate—0.001.</p> <p>(2) Waste Holding and Handling: (A) Waste classification as non-hazardous can not begin until compliance with the limits set in paragraph (1) for the treated effluent has occurred for two consecutive quarterly sampling events and those reports have been approved by EPA.</p> <p>The delisting for the treated effluent applies only during periods of TPDES compliance.</p> <p>(B) If constituent levels in any sample taken by Bayer exceed any of the delisting levels set in paragraph (1) for the treated effluent, Bayer must do the following:</p> <p>(i) notify EPA in accordance with paragraph (6) and</p> <p>(ii) Manage and dispose the treated effluent as hazardous waste generated under Subtitle C of RCRA.</p> <p>(iii) Routine inspection and regular maintenance of the effluent pipe line must occur to prevent spills and leaks of the treated effluent prior to discharge.</p> <p>(3) Testing Requirements: Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable,</p>



Facility	Address	Waste description
		<p>the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that representative samples of the Bayer treated effluent meet the delisting levels in paragraph (1).</p> <p>(A) Quarterly Testing: Upon this exclusion becoming final, Bayer may perform quarterly analytical testing by sampling and analyzing the treated effluent as follows:</p> <p>(i) Collect two representative composite samples of the treated effluent at quarterly intervals after EPA grants the final exclusion. The first composite samples may be taken at any time after EPA grants the final approval. Sampling should be performed in accordance with the sampling plan approved by EPA in support of the exclusion.</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite sample taken that exceeds the delisting levels listed in paragraph (1) for the treated effluent must be disposed of as hazardous waste in accordance with the applicable hazardous waste requirements in its TPDES discharge permit.</p> <p>(iii) Within thirty (30) days after taking its first quarterly sample, Bayer will report its first quarterly analytical test data to EPA. If levels of constituents measured in the samples of the treated effluent do not exceed the levels set forth in paragraph (1) of this exclusion for two consecutive quarters, Bayer can manage and dispose the nonhazardous treated effluent according to all applicable solid waste regulations.</p> <p>(B) Annual Testing:</p> <p>(i) If Bayer completes the four (4) quarterly testing events specified in paragraph (3)(A) above and no sample contains a constituent with a level which exceeds the limits set forth in paragraph (1), Bayer may begin annual testing as follows: Bayer must test two representative composite samples of the treated effluent for all constituents listed in paragraph (1) at least once per calendar year.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods</p>

Facility	Address	Waste description
		<p>incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that representative samples of the Bayer treated effluent for all constituents listed in paragraph (1).</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annual testing events shall be taken within the same calendar month as the first annual sample taken.</p> <p>(4) Changes in Operating Conditions: If Bayer significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could affect the composition or type of waste generated as established under paragraph (1) (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing; it may no longer handle the wastes generated from the new process as nonhazardous until the wastes meet the delisting levels set in paragraph (1) and it has received written approval to do so from EPA.</p> <p>Bayer must submit a modification to the petition complete with full sampling and analysis for circumstances where the waste volume changes and/or additional waste codes are added to the waste stream.</p> <p>(5) Data Submittals:</p> <p>Bayer must submit the information described below. If Bayer fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). Bayer must:</p> <p>(i) Submit the data obtained through paragraph (3) to the Chief, Corrective Action and Waste Minimization Section, Multimedia Planning and Permitting Division, U.S. Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas, 75202, within the time specified. All supporting data can be submitted on CD-ROM or some comparable electronic media.</p>

Facility	Address	Waste description
		<p>(ii) Compile records of analytical data from paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(iii) Furnish these records and data when either EPA or the State of Texas request them for inspection.</p> <p>(iv) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:</p> <p>“Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.”</p> <p>(6) Reopener:</p> <p>(i) If, anytime after disposal of the delisted waste Bayer possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(ii) If either the quarterly or annual testing of the waste does not meet the delisting requirements in paragraph (1),</p>

Facility	Address	Waste description
Bayer Material Science LLC	Baytown, TX	<p>Bayer must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.</p> <p>(iii) If Bayer fails to submit the information described in paragraphs (5), (6)(i) or (6)(ii) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health and/or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(iv) If the Division Director determines that the reported information requires action by EPA, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from the date of the Division Director's notice to present such information.</p> <p>(v) Following the receipt of information from the facility described in paragraph (6)(iv) or (if no information is presented under paragraph (6)(iv)) the initial receipt of information described in paragraphs (5), (6)(i) or (6)(ii), the Division Director will issue a final written determination describing EPA actions that are necessary to protect human health and/or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.</p> <p>Spent Carbon (EPA Hazardous Waste Nos. K027, K104, K111, and K112) generated at a maximum rate of 7,728 cubic yards per calendar year after May 16, 2006.</p> <p>For the exclusion to be valid, Bayer must implement a verification testing program that meets the following Paragraphs:</p> <p>(1) Delisting Levels:</p> <p>All concentrations for those constituents must not exceed the maximum allowable concentrations in mg/l specified in this paragraph.</p> <p>Spent Carbon Leachable Concentrations (mg/l):</p> <p>Antimony-0.251; Arsenic-0.385, Barium-8.93;</p>

Facility	Address	Waste description
		<p>Beryllium-0.953; Cadmium-0.687; Chromium-5.0; Cobalt-2.75; Copper-128.0; Cyanide-1.65; Lead-5.0; Mercury-0.0294; Nickel-3.45; Selenium-0.266; Tin-2.75; Vanadium-2.58; Zinc-34.2; Aldrin-0.0000482; Acetophenone-87.1; Aniline-2.82; Benzene-0.554; Bis(2-ethylhexyl)phthalate-0.342; Benzyl alcohol-261; Butylbenzylphthalate-3.54; Chloroform-0.297; Di-n-octyl phthalate-0.00427; 2,4-Dinitrotoluene-0.0249; 2,6-Dinitrotoluene-0.0249 Diphenylamine-1.43; 1,4-Dioxane-14.6; Di-n-butylphthalate-2.02; Kepone-0.000373; 2-Nitrophenol-87.9; N-Nitrodiphenylamine-3.28; Phenol-52.2; 2,4-Toluenediamine-0.00502; Toluene diisocyanate-0.001.</p> <p>(2) Waste Holding and Handling:</p> <p>(A) Waste classification as non-hazardous can not begin until compliance with the limits set in paragraph (1) for spent carbon has occurred for two consecutive quarterly sampling events and the reports have been approved by EPA.</p> <p>(B) If constituent levels in any sample taken by Bayer exceed any of the delisting levels set in paragraph (1) for the spent carbon, Bayer must do the following:</p> <p>(i) notify EPA in accordance with paragraph (6) and</p> <p>(ii) manage and dispose the spent carbon as hazardous waste generated under Subtitle C of RCRA.</p> <p>(3) Testing Requirements:</p> <p>Upon this exclusion becoming final, Bayer must perform quarterly analytical testing by sampling and analyzing the spent carbon as follows:</p> <p>(A) Quarterly Testing:</p> <p>(i) Collect two representative composite samples of the spent carbon at quarterly intervals after EPA grants the final exclusion. The first composite samples may be taken at any time after EPA grants the final approval. Sampling should be performed in accordance with the sampling plan approved by EPA in support of the exclusion.</p> <p>(ii) Analyze the samples for all constituents listed in paragraph (1). Any composite sample taken that exceeds the delisting levels listed in paragraph (1) for the spent carbon must be disposed as hazardous waste in accordance with the applicable hazardous waste requirements.</p> <p>(iii) Within thirty (30) days after taking its first quarterly</p>

Facility	Address	Waste description
		<p>sample, Bayer will report its first quarterly analytical test data to EPA. If levels of constituents measured in the samples of the spent carbon do not exceed the levels set forth in paragraph (1) of this exclusion for two consecutive quarters, Bayer can manage and dispose the non-hazardous spent carbon according to all applicable solid waste regulations.</p> <p>(B) Annual Testing:</p> <p>(i) If Bayer completes the quarterly testing specified in paragraph (3) above and no sample contains a constituent at a level which exceeds the limits set forth in paragraph (1), Bayer can begin annual testing as follows: Bayer must test two representative composite samples of the spent carbon for all constituents listed in paragraph (1) at least once per calendar year.</p> <p>(ii) The samples for the annual testing shall be a representative composite sample according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that samples of the Bayer spent carbon are representative for all constituents listed in paragraph (1).</p> <p>(iii) The samples for the annual testing taken for the second and subsequent annual testing events shall be taken within the same calendar month as the first annual sample taken.</p> <p>(iv) The annual testing report must include the total amount of waste in cubic yards disposed during the calendar year.</p> <p>(4) Changes in Operating Conditions:</p> <p>If Bayer significantly changes the process described in its petition or starts any process that generates the waste that may or could affect the composition or type of waste generated (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing and it may no longer</p>

Facility	Address	Waste description
		<p>handle the wastes generated from the new process as non-hazardous until the wastes meet the delisting levels set in paragraph (1) and it has received written approval to do so from EPA.</p> <p>Bayer must submit a modification to the petition complete with full sampling and analysis for circumstances where the waste volume changes and/or additional waste codes are added to the waste stream.</p> <p>(5) Data Submittals:</p> <p>Bayer must submit the information described below. If Bayer fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). Bayer must:</p> <p>(A) Submit the data obtained through paragraph 3 to the Chief, Corrective Action and Waste Minimization Section, Multimedia Planning and Permitting Division, U. S. Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas, 75202, within the time specified. All supporting data can be submitted on CD-ROM or some comparable electronic media.</p> <p>(B) Compile records of analytical data from paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Furnish these records and data when either EPA or the State of Texas requests them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p>

Facility	Address	Waste description
		<p>If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>(6) Reopener:</p> <p>(A) If, anytime after disposal of the delisted waste Bayer possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at a level higher than the delisting level allowed by EPA in granting the petition, then the facility must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data.</p> <p>(B) If either the quarterly or annual testing of the waste does not meet the delisting requirements in paragraph 1, Bayer must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data.</p> <p>(C) If Bayer fails to submit the information described in paragraphs (5),(6)(A) or (6)(B) or if any other information is received from any source, EPA will make a preliminary determination as to whether the reported information requires action to protect human health and/or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If EPA determines that the reported information requires action, EPA will notify the facility in writing of the actions it believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information explaining why the proposed EPA action is not necessary. The facility shall have 10 days from the date of EPA's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of</p>



Facility	Address	Waste description
Bekaert Steel Corporation	Rogers, Arkansas	<p>information described in paragraphs (5), (6)(A) or (6)(B), EPA will issue a final written determination describing the actions that are necessary to protect human health and/or the environment. Any required action described in EPA's determination shall become effective immediately, unless EPA provides otherwise.</p> <p>Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations (at a maximum annual rate of 1250 cubic yards to be measured on a calendar year basis) after [insert publication date of the final rule]. In order to confirm that the characteristics of the waste do not change significantly, the facility must, on an annual basis, before July 1 of each year, analyze a representative composite sample for the constituents listed in § 261.24 as well as antimony, copper, nickel, and zinc using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to § 260.22(i)(12) of this chapter, maintained on site for a minimum of five years, and made available for inspection upon request of any employee or representative of EPA or the State of Arkansas. Failure to maintain the required documents on site will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA.</p> <p><i>Notification Requirements:</i> Bekaert Steel Corporation must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported for disposal at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.</p>
Bethlehem Steel Corporation	Lackawanna, New York	<p>Ammonia still lime sludge (EPA Hazardous Waste No. K060) and other solid waste generated from primary metal-making and coking operations. This is a one-time exclusion for 118,000 cubic yards of waste contained in the on-site landfill referred to as HWM-2. This exclusion was published on April 24, 1996.</p>
Bethlehem Steel Corp.	Steelton, PA	<p>Uncured and cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (K061) generated from the primary production of steel after May 22, 1989. This exclusion is conditioned upon the data obtained from Bethlehem's full-scale CSEAFD treatment facility because Bethlehem's original data were obtained</p>

Facility	Address	Waste description
		<p>from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Bethlehem must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Testing:</i></p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions). Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing:</i> Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. The analytical</p>

Facility	Address	Waste description
		<p>data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Pennsylvania.</p> <p>(2) <i>Delisting Levels:</i> If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceeds 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 4.42 mg/l, the waste must either be re-treated or managed and disposed in accordance with subtitle C of RCRA.</p> <p>(3) <i>Data submittals:</i> Within one week of system start-up, Bethlehem must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to PSPD/OSW (5303W), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period specified in condition (1)(A). At the Section Chief's request, Bethlehem must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke Bethlehem's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>"As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>"In the event that any of this information is determined by</p>

Facility	Address	Waste description
Bethlehem Steel Corp.	Johnstown, PA	<p>EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>Uncured and cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (K061) generated from the primary production of steel after May 22, 1989. This exclusion is conditioned upon the data obtained from Bethlehem's full-scale CSEAFD treatment facility because Bethlehem's original data were obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Bethlehem must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Testing:</i></p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel, and cyanide (using distilled water in the cyanide extractions). Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing:</i> Bethlehem must collect representative grab samples from every treated batch of</p>

Facility	Address	Waste description
		<p>CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Pennsylvania.</p> <p>(2) <i>Delisting Levels:</i> If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 4.42 mg/l, the waste must either be retreated until it meets these levels or managed and disposed in accordance with subtitle C of RCRA.</p> <p>(3) <i>Data submittals:</i> Within one week of system start-up, Bethlehem must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20406 within the time period specified in condition (1)(A). At the Section Chief's request, Bethlehem must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke Bethlehem's exclusion to the extent directed by EPA. All</p>

Facility	Address	Waste description
BF Goodrich Intermediates Company, Inc	Calvert City, Kentucky	<p>data must be accompanied by the following certification statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>"As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>"In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>Brine purification muds and saturator insolubles (EPA Hazardous Waste No. K071) after August 18, 1989. This exclusion is conditional upon the collection and submission of data obtained from BFG's full-scale treatment system because BFG's original data was based on data presented by another petitioner using an identical treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, BFG must implement a testing program. All sampling and analyses (including quality control procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. This</p>

Facility	Address	Waste description
		<p>testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) Initial Testing: During the first four weeks of full-scale operation, BFG must do the following:</p> <p>(A) Collect representative grab samples from every batch of the treated mercury brine purification muds and treated saturator insolubles on a daily basis and composite the grab samples to produce two separate daily composite samples (one of the treated mercury brine purification muds and one of the treated saturator insolubles). Prior to disposal of the treated batches, two daily composite samples must be analyzed for EP leachate concentration of mercury. BFG must report the analytical test data, including all quality control data, within 90 days after the treatment of the first full-scale batch.</p> <p>(B) Collect representative grab samples from every batch of treated mercury brine purification muds and treated saturator insolubles on a daily basis and composite the grab samples to produce two separate weekly composite samples (one of the treated mercury brine muds and one of the treated saturator insolubles). Prior to disposal of the treated batches, two weekly composite samples must be analyzed for the EP leachate concentrations of all the EP toxic metals (except mercury), nickel, and cyanide (using distilled water in the cyanide extractions). BFG must report the analytical test data, including all quality control data, obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(2) Subsequent Testing: After the first four weeks of full-scale operation, BFG must do the following:</p> <p>(A) Continue to sample and test as described in condition (1)(A). BFG must compile and store on-site for a minimum of three years all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Kentucky.</p> <p>(B) Continue to sample and test as described in condition (1)(B). BFG must compile and store on-site for a minimum of three years all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Kentucky. These testing requirements shall be terminated by EPA when the results of four consecutive weekly composite samples of both the</p>

Facility	Address	Waste description
		<p>treated mercury brine muds and treated saturator insolubles, obtained from either the initial testing or subsequent testing, show the maximum allowable levels in condition (3) are not exceeded and the Section Chief, Variances Section, notifies BFG that the requirements of this condition have been lifted.</p> <p>(3) If, under condition (1) or (2), the EP leachate concentrations for chromium, lead, arsenic, or silver exceed 0.316 mg/l; for barium exceeds 6.31 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l, for nickel exceeds 3.16 mg/l; or for cyanide exceeds 4.42 mg/l, the waste must either be retreated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.</p> <p>(4) Within one week of system start-up, BFG must notify the Section Chief, Variances Section (see address below) when the full-scale system is on-line and waste treatment has begun. All data obtained through condition (1) must be submitted to PSPD/OSW (5303W), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period specified in condition (1). At the Section Chief's request, BFG must submit any other analytical data obtained through condition (2) to the above address, within the time period specified by the Section Chief. Failure to submit the required data will be considered by the Agency sufficient basis to revoke BFG's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. § 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the</p>



Facility	Address	Waste description
CF&I Steel Corporation	Pueblo, Colorado	<p>company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>Fully-cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (EPA Hazardous Waste No. K061) generated from the primary production of steel after May 9, 1989. This exclusion is conditioned upon the data obtained from CF&amp;I's full-scale CSEAFD treatment facility because CF&amp;I's original data was obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, CF&amp;I must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Testing:</i></p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, CF&amp;I must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel, and cyanide (using distilled water in the cyanide extractions). Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. CF&amp;I must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing:</i> CF&amp;I must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. CF&amp;I then must</p>

Facility	Address	Waste description
		<p>analyze each weekly composite sample for the EP leachate concentrations of all of the EP toxic metals and nickel. Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Colorado.</p> <p>(2) <i>Delisting levels:</i> If the EP extract concentrations determined in conditions (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 4.42 mg/l, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA.</p> <p>(3) <i>Data submittals:</i> Within one week of system start-up, CF&amp;I must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period specified in condition (1)(A). At the Section Chief's request, CF&amp;I must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke CF&amp;I's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement: "Under civil and criminal penalty of law for the making of submission of false or fraudulent statements or representations (pursuant to the applicable</p>

Facility	Address	Waste description
Chaparral Steel Midlothian, L.P	Midlothian, Texas	<p>provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>Leachate from Landfill No. 3, storm water from the baghouse area, and other K061 wastewaters which have been pumped to tank storage (at a maximum generation of 2500 cubic yards or 500,000 gallons per calendar year) (EPA Hazardous Waste No. K061) generated at Chaparral Steel Midlothian, L.P., Midlothian, Texas, and is managed as nonhazardous solid waste after February 23, 2000.</p> <p>Chaparral Steel must implement a testing program that meets the following conditions for the exclusion to be valid:</p> <p>(1) <i>Delisting Levels:</i> All concentrations for the constituent total lead in the approximately 2,500 cubic yards (500,000 gallons) per calendar year of raw leachate from Landfill No. 3, storm water from the baghouse area, and other K061 wastewaters that is transferred from the storage tank to nonhazardous management must not exceed 0.69 mg/l (ppm). Constituents must be measured in the waste by appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p>

Facility	Address	Waste description
		<p>(2) <i>Waste Holding and Handling:</i> Chaparral Steel must store as hazardous all leachate waste from Landfill No. 3, storm water from the bag house area, and other K061 wastewaters until verification testing as specified in Condition (3), is completed and valid analyses demonstrate that condition (1) is satisfied. If the levels of constituents measured in the samples of the waste do not exceed the levels set forth in Condition (1), then the waste is nonhazardous and may be managed and disposed of in accordance with all applicable solid waste regulations. If constituent levels in a sample exceed the delisting levels set in Condition (1), the waste volume corresponding to this sample must be treated until delisting levels are met or returned to the original storage tank. Treatment is designated as precipitation, flocculation, and filtering in a wastewater treatment system to remove metals from the wastewater. Treatment residuals precipitated will be designated as a hazardous waste. If the delisting level cannot be met, then the waste must be managed and disposed of in accordance with subtitle C of RCRA.</p> <p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Chaparral Steel must analyze one composite sample from each batch of untreated wastewater transferred from the hazardous waste storage tank to non-hazardous waste management. Each composited batch sample must be analyzed, prior to non-hazardous management of the waste in the batch represented by that sample, for the constituent lead as listed in Condition (1). Chaparral may treat the waste as specified in Condition (2). If EPA judges the treatment process to be effective during the operating conditions used during the initial verification testing, Chaparral Steel may replace the testing requirement in Condition (3)(A) with the testing requirement in Condition (3)(B). Chaparral must continue to test as specified in (3)(A) until and unless notified by EPA or designated</p>

Facility	Address	Waste description
		<p>authority that testing in Condition (3)(A) may be replaced by Condition (3)(B).</p> <p>(A) Initial Verification Testing: Representative composite samples from the first eight (8) full-scale treated batches of wastewater from the K061 leachate/wastewater storage tank must be analyzed for the constituent lead as listed in Condition (1), Chaparral must report to EPA the operational and analytical test data, including quality control information, obtained from these initial full scale treatment batches within 90 days of the eighth treatment batch.</p> <p>(B) Subsequent Verification Testing: Following notification by EPA, Chaparral Steel may substitute the testing conditions in (3)(B) for (3)(A). Chaparral Steel must analyze representative composite samples from the treated full scale batches on an annual basis. If delisting levels for any constituent listed in Condition (1) are exceeded in the annual sample, Chaparral must reinstitute complete testing as required in Condition (3)(A). As stated in Condition (3) Chaparral must continue to test all batches of untreated waste to determine if delisting criteria are met before managing the wastewater from the K061 tank as nonhazardous.</p> <p>(4) <i>Changes in Operating Conditions</i>: If Chaparral Steel significantly changes the treatment process established under Condition (3) (e.g., use of new treatment agents), Chaparral Steel must notify the Agency in writing. After written approval by EPA, Chaparral Steel may handle the wastes generated as non-hazardous, if the wastes meet the delisting levels set in Condition (1).</p> <p>(5) <i>Data Submittals</i>: Records of operating conditions and analytical data from Condition (3) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA, or the State of Texas, or both, and be made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to reopen the exclusion as described in Paragraph (6). All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or</p>

Facility	Address	Waste description
		<p>representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p><i>(6) Reopener Language</i></p> <p>(A) If, anytime after disposal of the delisted waste, Chaparral Steel possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Regional Administrator or his delegate in granting the petition, then the facility must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(B) Based on the information described in paragraphs (5), or (6)(A) and any other information received from any source, the Regional Administrator or his delegate will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Regional Administrator or his delegate determines that the reported information does require Agency action, the Regional Administrator or his delegate</p>

Facility	Address	Waste description
Conversion Systems, Inc	Horsham, Pennsylvania	<p>will notify the facility in writing of the actions the Regional Administrator or his delegate believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed Agency action is not necessary. The facility shall have 10 days from the date of the Regional Administrator or delegate's notice to present such information.</p> <p>(D) Following the receipt of information from the facility described in paragraph (6)(C) or (if no information is presented under paragraph (6)(C)) the initial receipt of information described in paragraph (5) or (6)(A), the Regional Administrator or his delegate will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator or delegate's determination shall become effective immediately, unless the Regional Administrator or his delegate provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> Chaparral Steel must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported for disposal at least 60 days prior to the commencement of such activity. The one-time written notification must be updated if the delisted waste is shipped to a different disposal facility. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>Chemically Stabilized Electric Arc Furnace Dust (CSEAFD) that is generated by Conversion Systems, Inc. (CSI) (using the Super Detox™ treatment process as modified by CSI to treat EAFD (EPA Hazardous Waste No. K061)) at the following sites and that is disposed of in Subtitle D landfills:</p> <p>Northwestern Steel, Sterling, Illinois after June 13, 1995.</p> <p>CSI must implement a testing program for each site that meets the following conditions for the exclusion to be valid:</p> <p>(1) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in</p>

Facility	Address	Waste description
		<p>40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>(A) <i>Initial Verification Testing:</i> During the first 20 operating days of full-scale operation of a newly constructed Super Detox™ treatment facility, CSI must analyze a minimum of four (4) composite samples of CSEAFD representative of the full 20-day period. Composites must be comprised of representative samples collected from every batch generated. The CSEAFD samples must be analyzed for the constituents listed in Condition (3). CSI must report the operational and analytical test data, including quality control information, obtained during this initial period no later than 60 days after the generation of the first batch of CSEAFD.</p> <p>(B) <i>Addition of New Super Detox™ Treatment Facilities to Exclusion:</i> If the Agency's review of the data obtained during initial verification testing indicates that the CSEAFD generated by a specific Super Detox™ treatment facility consistently meets the delisting levels specified in Condition (3), the Agency will publish a notice adding to this exclusion the location of the new Super Detox™ treatment facility and the name of the steel mill contracting CSI's services. If the Agency's review of the data obtained during initial verification testing indicates that the CSEAFD generated by a specific Super Detox™ treatment facility fails to consistently meet the conditions of the exclusion, the Agency will not publish the notice adding the new facility.</p> <p>(C) <i>Subsequent Verification Testing:</i> For the Sterling, Illinois facility and any new facility subsequently added to CSI's conditional multiple-site exclusion, CSI must collect and analyze at least one composite sample of CSEAFD each month. The composite samples must be composed of representative samples collected from all batches treated in each month. These monthly representative samples must be analyzed, prior to the disposal of the CSEAFD, for the constituents listed in Condition (3). CSI may, at its discretion, analyze composite samples gathered more frequently to demonstrate that smaller batches of waste are nonhazardous.</p>



Facility	Address	Waste description
		<p>(2) <i>Waste Holding and Handling:</i> CSI must store as hazardous all CSEAFD generated until verification testing as specified in Conditions (1)(A) and (1)(C), as appropriate, is completed and valid analyses demonstrate that Condition (3) is satisfied. If the levels of constituents measured in the samples of CSEAFD do not exceed the levels set forth in Condition (3), then the CSEAFD is non-hazardous and may be disposed of in Subtitle D landfills. If constituent levels in a sample exceed any of the delisting levels set in Condition (3), the CSEAFD generated during the time period corresponding to this sample must be retreated until it meets these levels, or managed and disposed of in accordance with Subtitle C of RCRA. CSEAFD generated by a new CSI treatment facility must be managed as a hazardous waste prior to the addition of the name and location of the facility to the exclusion. After addition of the new facility to the exclusion, CSEAFD generated during the verification testing in Condition (1)(A) is also non-hazardous, if the delisting levels in Condition (3) are satisfied.</p> <p>(3) <i>Delisting Levels:</i> All leachable concentrations for those metals must not exceed the following levels (ppm): Antimony—0.06; arsenic—0.50; barium—7.6; beryllium—0.010; cadmium—0.050; chromium—0.33; lead—0.15; mercury—0.009; nickel—1; selenium—0.16; silver—0.30; thallium—0.020; vanadium—2; and zinc—70. Metal concentrations must be measured in the waste leachate by the method specified in 40 CFR 261.24.</p> <p>(4) <i>Changes in Operating Conditions:</i> After initiating subsequent testing as described in Condition (1)(C), if CSI significantly changes the stabilization process established under Condition (1) (e.g., use of new stabilization reagents), CSI must notify the Agency in writing. After written approval by EPA, CSI may handle CSEAFD wastes generated from the new process as non-hazardous, if the wastes meet the delisting levels set in Condition (3).</p> <p>(5) <i>Data Submittals:</i> At least one month prior to operation of a new Super Detox™ treatment facility, CSI must notify, in writing, the Chief of the Waste Identification Branch (see address below) when the Super Detox™ treatment facility is scheduled to be on-line. The data obtained through Condition (1)(A) must be submitted to the Branch Chief of the Waste Identification Branch, OSW (Mail Code 5304), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC</p>

Facility	Address	Waste description
Conversion Systems, Inc	Willow Grove, PA	<p>20460 within the time period specified. Records of operating conditions and analytical data from Condition (1) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA, or the State in which the CSI facility is located, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>Chemically Stabilized Electric Arc Furnace Dust (CSEAFD) that is generated by Conversion Systems Inc. (CSI) using the Super Detox™ process as modified by CSI to treat EAFD (EPA Hazardous Waste No. K061) at the following sites and that is disposed of in Subtitle C landfills:</p> <p>Northwestern Steel, Sterling, Illinois after June 13, 1995.</p> <p>Structural Metals, Inc. treated at U.S. Ecology, Robstown, Texas after September 23, 2008.</p> <p>(1) Verification Testing Requirements: Sample collection</p>

Facility	Address	Waste description
		<p>and analyses, including quality control procedures must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>(A) <i>Initial Verification Testing:</i> During the first 20 operating days of full scale operation of a newly constructed Super Detox™ treatment facility, CSI must analyze a minimum of four (4) composite samples of CSEAFD representative of the full 20-day period. Composites must be comprised of representative samples collected from every batch generated. The CSEAFD samples must be analyzed for the constituents listed in Condition (3). CSI must report the operational and analytical test data, including quality control information, obtained during this initial period no later than 60 days after the generation of the first batch of CSEAFD.</p> <p>(B) <i>Addition of New Super Detox™ Treatment Facilities to Exclusion:</i> If the Agency's review of the data obtained during initial verification testing indicates that the CSEAFD generated by a specific Super Detox™ treatment facility consistently meets the delisting levels specified in Condition (3), the Agency will publish a notice adding to this exclusion the location of the new Super Detox™ treatment facility and the name of the steel mill contracting CSI's services. If the Agency's review of the data obtained during initial verification testing indicates that the CSEAFD generated by a specific Super Detox™ treatment facility fails to consistently meet the conditions of this exclusion, the Agency will not publish the notice adding the new facility.</p> <p>(C) <i>Subsequent Verification Testing:</i> For the Sterling, Illinois facility and any new facility subsequently added to CSI's conditional multiple-site exclusion, CSI must collect and analyze at least one composite sample of CSEAFD each month. The composite samples must be composed of representative samples collected from all batches treated in each month. The composite samples must be composed representative samples collected from all</p>

Facility	Address	Waste description
		<p>batches treated in each month. These monthly representative samples must be analyzed, prior to disposal of the CSEAFD, for the constituents listed in Condition (3). CSI may, at its discretion, analyze composite samples gathered more frequently to demonstrate that smaller batches of waste are non-hazardous.</p> <p>(2) <i>Waste Holding and Handling:</i> CSI must store as hazardous all CSEAFD generated until verification testing as specified in Conditions (1)(A) and (1)(C), as appropriate, is completed and valid analyses demonstrate that Condition (3) is satisfied. If the levels of constituents measured in the samples of CSEAFD do not exceed the levels set forth in Condition (3), then the CSEAFD is non-hazardous and may be managed and disposed of in Subtitle D landfills. If constituent levels in a sample exceed any of the delisting levels set in Condition (3), the CSEAFD generated during the time period corresponding to this sample must be retreated until it meets these levels, or managed and disposed of in accordance with Subtitle C of RCRA. CSEAFD generated by a new CSI treatment facility must be managed as a hazardous waste prior to the addition of the name and location of the facility to the exclusion. After addition of the new facility to the exclusion, CSEAFD generated during the verification testing in Condition (1)(A) is also non-hazardous, if the delisting levels in Condition (3) are satisfied.</p> <p>(3) <i>Delisting Levels:</i> All leachable constituents for those metals must not exceed the following levels (ppm): Antimony-0.06; Arsenic-0.50; Barium-7.6; Beryllium-0.010; Cadmium-0.050; Chromium-0.33; Lead-0.15; Mercury-0.009; Nickel-1.00; Selenium-0.16; Silver-0.30; Thallium-0.020; Vanadium-2.0; Zinc-70. Metal concentrations must be measured in the waste leachate by the method specified in 40 CFR 261.24.</p> <p>(4) <i>Changes in Operating Conditions:</i> After initiating subsequent testing described in Condition (1)(C), if CSI significantly changes the stabilization process established under Condition (1) (e.g., use of new stabilization reagents), CSI must notify the Agency in writing. After written approval by EPA, CSI may handle CSEAFD generated from the new process as non-hazardous, if the wastes meet the delisting levels set in Condition (3).</p> <p>(5) <i>Data Submittals:</i> CSI must submit the information described below. If CSI fails to submit the required data</p>

Facility	Address	Waste description
		<p>within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph (6). CSI must:</p> <p>(A) At least one month prior to operation of a new Super Detox™ treatment facility, CSI must notify, in writing, the EPA Regional Administrator or his designee, when the new Super Detox™ treatment facility is scheduled to be on-line. The data obtained through paragraph 1(A) must be submitted to the Regional Administrator or his designee within the time period specified. All supporting data can be submitted on CD-ROM or some comparable electronic media.</p> <p>(B) CSI shall submit and receive EPA approval of the Quality Assurance Project Plan for data collection for each new facility added to this exclusion prior to conducting sampling events in paragraph 1(A).</p> <p>(C) Compile records of analytical data from paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(D) Furnish these records and data when either EPA or the State agency requests them for inspection.</p> <p>(E) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted. "Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon</p>

Facility	Address	Waste description
		<p>the company's reliance on the void exclusion.”</p> <p>(6) Reopener: (A) If, anytime after disposal of the delisted waste CSI, the treatment facility, or the steel mill possess or is otherwise made aware of any data (including but not limited to leachate data or ground water monitoring data) relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at a level higher than the delisting level allowed by EPA in granting the petition, then the facility must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data.</p> <p>(B) If subsequent verification testing of the waste as required by paragraph 1(C) does not meet the delisting requirements in paragraph 3 and the waste is subsequently managed as non-hazardous waste, CSI must report the data, in writing, to EPA within 10 days of first possessing or being made aware of that data.</p> <p>(C) If CSI fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, EPA will make a preliminary determination as to whether the reported information requires action to protect human health and/or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If EPA determines that the reported information requires action, EPA will notify the facility in writing of the actions it believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information explaining why the proposed EPA action is not necessary. The facility shall have 10 days from the date of EPA's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), EPA will issue a final written determination describing the actions that are necessary to protect human health and/or the environment. Any required action described in EPA's determination shall become effective immediately, unless EPA provides otherwise.</p> <p>(7) Notification Requirements: CSI or the treatment facility</p>

Facility	Address	Waste description
		<p>must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any state Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting exclusion and a possible revocation of the decision.</p>
DuraTherm, Incorporated	San Leon, Texas	<p>Desorber Solids, (at a maximum generation of 20,000 cubic yards per calendar year) generated by DuraTherm using the treatment process to treat the Desorber solids, (EPA Hazardous Waste No. K048, K049, K050, and K051 and disposed of in a subtitle D landfill.</p> <p>DuraTherm must implement the testing program found in Table 1. Wastes Excluded From Non-Specific Sources, for the petition to be valid.</p>
Eastman Chemical Company	Longview, Texas	<p>Wastewater treatment sludge, (at a maximum generation of 82,100 cubic yards per calendar year) (EPA Hazardous Waste Nos. K009, K010) generated at Eastman. Eastman must implement the testing program described in Table 1. Waste Excluded From Non-Specific Sources for the petition to be valid.</p>
Eastman Chemical Company—Texas Operations	Longview, TX	<p><i>RKI Bottom Ash.</i> (EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 1,000 cubic yards per calendar year after November 23, 2011 and disposed in Subtitle D Landfill.</p> <p><i>RKI Fly Ash.</i> (EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 2,000 cubic yards per calendar year after November 23, 2011 and disposed in Subtitle D Landfill.</p> <p><i>RKI Scrubber Water Blowdown.</i> (EPA Hazardous Numbers D001, D002, D003, D007, D008, D018, D022, F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 643,000 cubic yards</p>

Facility	Address	Waste description
		(500,000 million gallons) per calendar year after November 23, 2011 and treated and discharged from a Wastewater Treatment Plant. Eastman must implement the testing program in Table 1. Wastes Excluded from Non-Specific Sources for the petition to be valid.
Envirite of Illinois (formerly Envirite Corporation)	Harvey, Illinois	See waste description under Envirite of Pennsylvania.
Envirite of Ohio (formerly Envirite Corporation)	Canton, Ohio	See waste description under Envirite of Pennsylvania.
Envirite of Pennsylvania (formerly Envirite Corporation)	York, Pennsylvania	Spent pickle liquor (EPA Hazardous Waste No. K062) generated from steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332); wastewater treatment sludge (EPA Hazardous Waste No. K002) generated from the production of chrome yellow and orange pigments; wastewater treatment sludge (EPA Hazardous Waste No. K003) generated from the production of molybdate orange pigments; wastewater treatment sludge (EPA Hazardous Waste No. K004) generated from the production of zinc yellow pigments; wastewater treatment sludge (EPA Hazardous Waste No. K005) generated from the production of chrome green pigments; wastewater treatment sludge (EPA Hazardous Waste No. K006) generated from the production of chrome oxide green pigments (anhydrous and hydrated); wastewater treatment sludge (EPA Hazardous Waste No. K007) generated from the production of iron blue pigments; oven residues (EPA Hazardous Waste No. K008) generated from the production of chrome oxide green pigments after November 14, 1986. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern, the facility must implement a contingency testing program for the petitioned wastes. This testing program must meet the following conditions for the exclusions to be valid: (1) Each batch of treatment residue must be representatively sampled and tested using the EP Toxicity test for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury, and nickel. If the extract concentrations for chromium, lead, arsenic, and silver exceed 0.315 ppm; barium levels exceed 6.3 ppm; cadmium and selenium exceed 0.063 ppm; mercury



Facility	Address	Waste description
		<p>exceeds 0.0126 ppm; or nickel levels exceed 2.205 ppm, the waste must be retreated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270.</p> <p>(2) Each batch of treatment residue (formerly must be tested for leachable cyanide. If the leachable cyanide levels Corporation) (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be re-treated or managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270.</p> <p>(3) Each batch of waste must be tested for the total content of specific organic toxicants. If the total content of anthracene exceeds 76.8 ppm, 1,2-diphenyl hydrazine exceeds 0.001 ppm, methylene chloride exceeds 8.18 ppm, methyl ethyl ketone exceeds 326 ppm, n-nitrosodiphenylamine exceeds 11.9 ppm, phenol exceeds 1,566 ppm, tetrachloroethylene exceeds 0.188 ppm, or trichloroethylene exceeds 0.592 ppm, the waste must be managed and disposed as a hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR Part 270.</p> <p>(4) A grab sample must be collected from each batch to form one monthly composite sample which must be tested using GC/MS analysis for the compounds listed in #3, above, as well as the remaining organics on the priority pollutant list. (See 47 FR 52309, November 19, 1982, for a list of the priority pollutants.)</p> <p>(5) The data from conditions 1-4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and submitted to the Administrator by certified mail semi-annually. The Agency will review this information and if needed will propose to modify or withdraw the exclusion. The organics testing described in conditions 3 and 4, above, is not required until six months from the date of promulgation. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment systems at these facilities applies only to the wastewater and solids treatment systems as they presently exist as described in the delisting petition. The exclusion does not apply to the proposed process additions described in the petition as recovery, including crystallization, electrolytic metals recovery, evaporative recovery, and ion exchange.</p>

Facility	Address	Waste description
ERCO Worldwide (USA) Inc. (formerly Vulcan Materials Company)	Port Edwards, Wisconsin	Brine purification muds (EPA Hazardous Waste No. K071) generated from the mercury cell process in chlorine production, where separately purified brine is not used after November 17, 1986. To assure that mercury levels in this waste are maintained at acceptable levels, the following conditions apply to this exclusion: Each batch of treated brine clarifier muds and saturator insolubles must be tested (by the extraction procedure) prior to disposal and the leachate concentration of mercury must be less than or equal to 0.0129 ppm. If the waste does not meet this requirement, then it must be re-treated or disposed of as hazardous. This exclusion does not apply to wastes for which either of these conditions is not satisfied.
ExxonMobil North Landfarm	Baytown, TX	North Landfarm underflow water (EPA Hazardous Waste Numbers F039 generated at a maximum rate of 1,500,000 gallons (7,427 cubic yards) per calendar year after notification that ExxonMobil will initiate closure of the North Landfarm.
ExxonMobil Refining and Supply Company—Beaumont Refinery	Beaumont, TX	Centrifuge Solids (EPA Hazardous Waste Numbers F037, F038, K048, K049, K051, K052, K169, and K170.) generated at a maximum rate of 8,300 cubic yards after December 1, 2011.  Beaumont Refinery must implement the requirements in Table 1. Wastes Excluded from Non-Specific Sources for the petition to be valid.
Giant Refining Company, Inc	Bloomfield, New Mexico	Waste generated during the excavation of soils from two wastewater treatment impoundments (referred to as the South and North Oily Water Ponds) used to contain water outflow from an API separator (EPA Hazardous Waste No. K051). This is a one-time exclusion for approximately 2,000 cubic yards of stockpiled waste. This exclusion was published on September 3, 1996.  Notification Requirements: Giant Refining Company must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported for disposal at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.
Heritage Environmental Services, LLC., at the Nucor Steel facility	Crawfordsville, Indiana	Electric arc furnace dust (EAFD) that has been generated by Nucor Steel at its Crawfordsville, Indiana facility and treated on site by Heritage Environmental Services, LLC (Heritage) at a maximum annual rate of 30,000 cubic yards

Facility	Address	Waste description
		<p>per year and disposed of in a Subtitle D landfill which has groundwater monitoring, after January 15, 2002.</p> <p>(1) <i>Delisting Levels:</i></p> <p>(A) The constituent concentrations measured in either of the extracts specified in Paragraph (2) may not exceed the following levels (mg/L): Antimony—0.206; Arsenic—0.0936; Barium—55.7; Beryllium—0.416; Cadmium—0.15; Chromium (total)—1.55; Lead—5.0; Mercury—0.149; Nickel—28.30; Selenium—0.58; Silver—3.84; Thallium—0.088; Vanadium—21.1; Zinc—280.0.</p> <p>(B) Total mercury may not exceed 1 mg/kg.</p> <p>(2) <i>Verification Testing:</i> On a monthly basis, Heritage or Nucor must analyze two samples of the waste using the TCLP, SW-846 Method 1311, with an extraction fluid of pH 12 ±0.05 standard units and for the mercury determinative analysis of the leachate using an appropriate method. The constituent concentrations measured must be less than the delisting levels established in Paragraph (1).</p> <p>(3) <i>Changes in Operating Conditions:</i> If Nucor significantly changes the manufacturing process or chemicals used in the manufacturing process or Heritage significantly changes the treatment process or the chemicals used in the treatment process, Heritage or Nucor must notify the EPA of the changes in writing. Heritage and Nucor must handle wastes generated after the process change as hazardous until Heritage or Nucor has demonstrated that the wastes continue to meet the delisting levels set forth in Paragraph (1) and that no new hazardous constituents listed in appendix VIII of Part 261 have been introduced and Heritage and Nucor have received written approval from EPA.</p> <p>(4) <i>Data Submittals:</i> Heritage must submit the data obtained through monthly verification testing or as required by other conditions of this rule to U.S. EPA Region 5, Waste Management Branch (DW-8J), 77 W. Jackson Blvd., Chicago, IL 60604 by February 1 of each calendar year for the prior calendar year. Heritage or Nucor must compile, summarize, and maintain on site for a minimum of five years records of operating conditions and analytical data. Heritage or Nucor must make these records available for inspection. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>(5) <i>Reopener Language—</i>(A) If, anytime after disposal of the delisted waste, Heritage or Nucor possesses or is</p>

Facility	Address	Waste description
		<p>otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the delisted waste indicating that any constituent identified in Paragraph (1) is at a level in the leachate higher than the delisting level established in Paragraph (1), or is at a level in the groundwater higher than the maximum allowable point of exposure concentration predicted by the CMTP model, then Heritage or Nucor must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data.</p> <p>(B) Based on the information described in paragraph (5)(A) and any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(C) If the Regional Administrator determines that the reported information does require Agency action, the Regional Administrator will notify Heritage and Nucor in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing Heritage and Nucor with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. Heritage and Nucor shall have 30 days from the date of the Regional Administrator's notice to present the information.</p> <p>(D) If after 30 days Heritage or Nucor presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.</p>
LCP Chemical	Orrington, ME	Brine purification muds and wastewater treatment sludges generated after August 27, 1985 from their chlor-alkali manufacturing operations (EPA Hazardous Waste Nos. K071 and K106) that have been batch tested for mercury using the EP toxicity procedures and have been found to

Facility	Address	Waste description
Marathon Oil Co	Texas City, Texas	<p>contain less than 0.05 ppm mercury in the EP extract. Brine purification muds and wastewater treatment sludges that exceed this level will be considered a hazardous waste.</p> <p>Residual solids (at a maximum annual generation rate of 1,000 cubic yards) generated from the thermal desorption treatment and, where necessary, stabilization of wastewater treatment plant API/DAF filter cake (EPA Hazardous Waste Nos. K048 and K051), after [insert date of publication]. Marathon must implement a testing program that meets the following conditions for the exclusion to be valid:</p> <p>(1) <i>Testing</i>: Sample collection and analyses (including quality control (QC) procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the treatment process to be effective under the operating conditions used during the initial verification testing, Marathon may replace the testing required in Condition (1)(A) with the testing required in Condition (1)(B). Marathon must continue to test as specified in Condition (1)(A), including testing for organics in Conditions (3)(B) and (3)(C), until and unless notified by EPA in writing that testing in Condition (1)(A) may be replaced by Condition (1)(B), or that testing for organics may be terminated as described in (1)(C) (to the extent directed by EPA).</p> <p>(A) <i>Initial Verification Testing</i>: During at least the first 40 operating days of full-scale operation of the thermal desorption unit, Marathon must monitor the operating conditions and analyze 5-day composites of residual solids. 5-day composites must be composed of representative grab samples collected from every batch during each 5-day period of operation. The samples must be analyzed prior to disposal of the residual solids for constituents listed in Condition (3). Marathon must report the operational and analytical test data, including quality control information, obtained during this initial period no later than 90 days after the treatment of the first full-scale</p>

Facility	Address	Waste description
		<p>batch.</p> <p>(B) <i>Subsequent Verification Testing</i>: Following notification by EPA, Marathon may substitute the testing conditions in (1)(B) for (1)(A). Marathon must continue to monitor operating conditions, and analyze samples representative of each month of operation. The samples must be composed of representative grab samples collected during at least the first five days of operation of each month. These monthly representative samples must be analyzed for the constituents listed in Condition (3) prior to the disposal of the residual solids. Marathon may, at its discretion, analyze composite samples gathered more frequently to demonstrate that smaller batches of waste are nonhazardous.</p> <p>(C) <i>Termination of Organic Testing</i>: Marathon must continue testing as required under Condition (1)(B) for organic constituents specified in Conditions (3)(B) and (3)(C) until the analyses submitted under Condition (1)(B) show a minimum of four consecutive monthly representative samples with levels of specific constituents significantly below the delisting levels in Conditions (3)(B) and (3)(C), and EPA notifies Marathon in writing that monthly testing for specific organic constituents may be terminated. Following termination of monthly testing, Marathon must continue to test a representative 5-day composite sample for all constituents listed in Conditions (3)(B) and (3)(C) on an annual basis. If delisting levels for any constituents listed in Conditions (3)(B) and (3)(C) are exceeded in the annual sample, Marathon must reinstitute complete testing as required in Condition (1)(B).</p> <p>(2) <i>Waste Holding and Handling</i>: Marathon must store as hazardous all residual solids generated until verification testing (as specified in Conditions (1)(A) and (1)(B)) is completed and valid analysis demonstrates that Condition (3) is satisfied. If the levels of hazardous constituents in the samples of residual solids are below all of the levels set forth in Condition (3), then the residual solids are non-hazardous and may be managed and disposed of in accordance with all applicable solid waste regulations. If hazardous constituent levels in any 5-day composite or other representative sample equal or exceed any of the delisting levels set in Condition (3), the residual solids generated during the corresponding time period must be retreated and/or stabilized as allowed below, until the</p>

Facility	Address	Waste description
		<p>residual solids meet these levels, or managed and disposed of in accordance with Subtitle C of RCRA.</p> <p>If the residual solids contain leachable inorganic concentrations at or above the delisting levels set forth in Condition (3)(A), then Marathon may stabilize the material with Type 1 portland cement as demonstrated in the petition to immobilize the metals. Following stabilization, Marathon must repeat analyses in Condition (3)(A) prior to disposal.</p> <p>(3) <i>Delisting Levels:</i> Leachable concentrations in Conditions (3)(A) and (3)(B) must be measured in the waste leachate by the method specified in 40 CFR 261.24. The indicator parameters in Condition (3)(C) must be measured as the total concentration in the waste. Concentrations must be less than the following levels (ppm):</p> <p>(A) <i>Inorganic Constituents:</i> antimony-0.6; arsenic, chromium, or silver-5.0; barium-100.0; beryllium-0.4; cadmium-0.5; lead-1.5; mercury-0.2; nickel-10.0; selenium-1.0; vanadium-20.0.</p> <p>(B) <i>Organic Constituents:</i> acenaphthene-200; benzene-0.5; benzo(a)anthracene-0.01; benzo(a)pyrene-0.02; benzo(b)fluoranthene-0.02; chrysene-0.02; ethyl benzene-70; fluoranthene-100; fluorene-100; naphthalene-100; pyrene-100; toluene-100.</p> <p>(C) <i>Indicator Parameters:</i> 1-methyl naphthalene-3; benzo(a)pyrene-3.</p> <p>(4) <i>Changes in Operating Conditions:</i> After completing the initial verification test period in Condition (1)(A), if Marathon significantly changes the operating conditions established under Condition (1), Marathon must notify the Agency in writing. After written approval by EPA, Marathon must re-institute the testing required in Condition (1)(A) for a minimum of four 5-day operating periods. Marathon must report the operations and test data, required by Condition (1)(A), including quality control data, obtained during this period no later than 60 days after the changes take place. Following written notification by EPA, Marathon may replace testing Condition (1)(A) with (1)(B). Marathon must fulfill all other requirements in Condition (1), as appropriate.</p> <p>(5) <i>Data Submittals:</i> At least two weeks prior to system start-up, Marathon must notify in writing the Section Chief Delisting Section (see address below) when the thermal</p>

Facility	Address	Waste description
		<p>desorption and stabilization units will be on-line and waste treatment will begin. The data obtained through Condition (1)(A) must be submitted to HWID/OSW (5304W) (OS-333), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period specified. Records of operating conditions and analytical data from Condition (1) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA or the State of Texas and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C 6928), I certify that the information contained in or accompanying this document is true, accurate, and complete.</p> <p>As to the (those) identified sections(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate, or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p>
Mearl Corp	Peekskill, NY	Wastewater treatment sludge (EPA Hazardous Waste Nos. K006 and K007) generated from the production of chrome oxide green and iron blue pigments after November 27, 1985.
Monsanto Industrial	Sauget, Illinois	Brine purification muds (EPA Hazardous Waste No. K071)



Facility	Address	Waste description
Chemicals Company		generated from the mercury cell process in chlorine production, where separately prepurified brine is not used after August 15, 1986.
Occidental Chemical	Ingleside, Texas	Limestone Sludge, (at a maximum generation of 1,114 cubic yards per calendar year) Rockbox Residue, (at a maximum generation of 1,000 cubic yards per calendar year) generated by Occidental Chemical using the wastewater treatment process to treat the Rockbox Residue and the Limestone Sludge (EPA Hazardous Waste No. K019, K020). Occidental Chemical must implement a testing program that meets conditions found in Table 1. Wastes Excluded From Non-Specific Sources from the petition to be valid.
Occidental Chemical Corp., Muscle Shoals Plant	Sheffield, Alabama	Retorted wastewater treatment sludge from the mercury cell process in chlorine production (EPA Hazardous Plant Waste No. K106) after September 19, 1989. This exclusion is conditional upon the submission of data obtained from Occidental's full-scale retort treatment system because Occidental's original data were based on a pilot-scale retort system. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Occidental must implement a testing program. All sampling and analyses (including quality control procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. This testing program must meet the following conditions for the exclusion to be valid: (1) Initial Testing—During the first four weeks of full-scale retort operation, Occidental must do the following: (A) Collect representative grab samples from every batch of retorted material and composite the grab samples to produce a weekly composite sample. The weekly composite samples, prior to disposal or recycling, must be analyzed for the EP leachate concentrations of all the EP toxic metals (except mercury), nickel, and cyanide (using distilled water in the cyanide extractions). Occidental must

Facility	Address	Waste description
		<p>report the analytical test data, including all quality control data, obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) Collect representative grab samples of every batch of retorted material prior to its disposal or recycling and analyze the sample for EP leachate concentration of mercury. Occidental must report the analytical test data, including all quality control data, within 90 days after the treatment of the first full-scale batch.</p> <p>(2) Subsequent Testing—After the first four weeks of full-scale retort operation, Occidental must do the following:</p> <p>(A) Continue to sample and test as described in condition (1)(A). Occidental must compile and store on-site for a minimum of three years all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Alabama. These testing requirements shall be terminated by EPA when the results of four consecutive weekly composite samples of the petitioned waste, obtained from either the initial testing or subsequent testing show the maximum allowable levels in condition (3) are not exceeded and the Section Chief, Variances Section, notifies Occidental that the requirements of this condition have been lifted.</p> <p>(B) Continue to sample and test for mercury as described in condition (1)(B).</p> <p>Occidental must compile and store on-site for a minimum of three years all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Alabama. These testing requirements shall remain in effect until Occidental provides EPA with analytical and quality control data for thirty consecutive batches of retorted material, collected as described in condition (1)(B), demonstrating that the EP leachable levels of mercury are below the maximum allowable level in condition (3) and the Section Chief, Variances Section, notifies Occidental that the testing in condition (2)(B) may be replaced with (2)(C).</p> <p>(C) [If the conditions in (2)(B) are satisfied, the testing requirements for mercury in (2)(B) shall be replaced with the following condition]. Collect representative grab samples from every batch of retorted material on a daily basis and composite the grab samples to produce a</p>

Facility	Address	Waste description
		<p>weekly composite sample. Occidental must analyze each weekly composite sample prior to its disposal or recycling for the EP leachate concentration of mercury. Occidental must compile and store on-site for a minimum of three years all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Alabama.</p> <p>(3) If, under condition (1) or (2), the EP leachate concentrations for chromium, lead, arsenic, or silver exceed 1.616 mg/l; for barium exceeds 32.3 mg/l; for cadmium or selenium exceed 0.323 mg/l; for mercury exceeds 0.065 mg/l, for nickel exceeds 16.15 mg/l; or for cyanide exceeds 22.61 mg/l, the waste must either be retreated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.</p> <p>(4) Within one week of system start-up, Occidental must notify the Section Chief, Variances Section (see address below) when the full-scale retort system is on-line and waste treatment has begun. All data obtained through condition (1) must be submitted to PSPD/OSW (5303W), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period specified in condition (1). At the Section Chief's request, Occidental must submit any other analytical data obtained through condition (2) to the above address, within the time period specified by the Section Chief. Failure to submit the required data will be considered by the Agency sufficient basis to revoke Occidental's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p>

Facility	Address	Waste description
Occidental Chemical Corporation	Delaware City, Delaware	<p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>Sodium chloride treatment muds (NaCl-TM), sodium chloride saturator cleanings (NaCl-SC), and potassium chloride treatment muds (KCl-TM) (all classified as EPA Hazardous Waste No. K071) generated at a maximum combined rate (for all three wastes) of 1,018 tons per year. This exclusion was published on April 29, 1991 and is conditioned upon the collection of data from Occidental's full-scale brine treatment system because Occidental's request for exclusion was based on data from a laboratory-scale brine treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment system is in operation, Occidental must implement a testing program for the petitioned waste. All sampling and analyses (including quality control (QC) procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Initial Testing</i>: During the first four weeks of full-scale treatment system operation, Occidental must do the following:</p> <p>(A) Collect representative grab samples from each batch of the three treated wastestreams (sodium chloride saturator cleanings (NaCl-SC), sodium chloride treatment muds (NaCl-TM) and potassium chloride treatment muds (KCl-TM)) on an as generated basis and composite the samples to produce three separate weekly composite samples (of</p>

Facility	Address	Waste description
		<p>each type of K071 waste). The three weekly composite samples, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals (except mercury), nickel, and cyanide (using distilled water in the cyanide extractions). Occidental must report the waste volumes produced and the analytical test data, including all quality control data, obtained during this initial period, no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) Collect representative grab samples of each batch of the three treated wastestreams (NaCl-SC, NaCl-TM and KCl-TM) and composite the grab samples to produce three separate daily composite samples (of each type of K071 waste) on an as generated basis. The three daily composite samples, prior to disposal, must be analyzed for the EP leachate concentration of mercury. Occidental must report the waste volumes produced and the analytical test data, including all quality control data, obtained during this initial period, no later than 90 days after the treatment of the first full-scale batch.</p> <p>(2) <i>Subsequent Testing:</i> After the first four weeks of full-scale treatment operations, Occidental must do the following; all sampling and analyses (including quality control procedures) must be performed using appropriate methods, and as applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B:</p> <p>(A) Continue to sample and test as described in condition (1)(A). Occidental must compile and store on-site for a minimum of three years the records of waste volumes produced and all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Delaware. These testing requirements shall be terminated by EPA when the results of four consecutive weekly composite samples of the petitioned waste, obtained from either the initial testing or subsequent testing, show the maximum allowable levels in</p>

Facility	Address	Waste description
		<p>condition (3) are not exceeded and the Section Chief, Variances Section, notifies Occidental that the requirements of this condition have been lifted.</p> <p>(B) Continue to sample and test for mercury as described in condition (1)(B). Occidental must compile and store on-site for a minimum of three years the records of waste volumes produced and all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Delaware. These testing requirements shall be terminated and replaced with the requirements of condition (2)(C) if Occidental provides EPA with analytical and quality control data for thirty consecutive batches of treated material, collected as described in condition (1)(B), demonstrating that the EP leachable level of mercury in condition (3) is not exceeded (in all three treated wastes), and the Section Chief, Variances Section, notifies Occidental that the testing in condition (2)(B) may be replaced with (2)(C).</p> <p>(C) [If the conditions in (2)(B) are satisfied, the testing requirements for mercury in (2)(B) shall be replaced with the following condition.] Collect representative grab samples from each batch of the three treated wastestreams (NaCl-SC, NaCl-TM and KCl-TM) on an as generated basis and composite the grab samples to produce three separate weekly composite samples (of each type of K071 waste). The three weekly composite samples, prior to disposal, must be analyzed for the EP leachate concentration of mercury. Occidental must compile and store on-site for a minimum of three years the records of waste volumes produced and all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Delaware.</p> <p>(3) If, under conditions (1) or (2), the EP leachate concentrations for chromium, lead, arsenic, or silver exceed 0.77 mg/l; for barium exceeds 15.5 mg/l; for cadmium or selenium exceed 0.16 mg/l; for mercury exceeds 0.031 mg/l, or for nickel or total cyanide exceed 10.9 mg/l, the waste must either be retreated or managed and disposed of in accordance with all applicable hazardous waste regulations.</p> <p>(4) Within one week of system start-up, Occidental must</p>

Facility	Address	Waste description
Olin Corporation	Charleston, TN	<p>notify the Section Chief, Variances Section (see address below) when the full-scale system is on-line and waste treatment has begun. All data obtained through condition (1) must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-333), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period required in condition (1). At the Section Chief's request, Occidental must submit any other analytical data obtained through conditions (1) and (2) to the above address within the time period specified by the Section Chief. Failure to submit the required data will be considered by the Agency sufficient basis to revoke Occidental's exclusion to the extent directed by EPA. All data (either submitted to EPA or maintained at the site) must be accompanied by the following statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to 18 U.S.C. 1001 and 42 U.S.C. 6926), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>Sodium chloride purification muds and potassium chloride purification muds (both classified as EPA Hazardous Waste No. K071) that have been batch tested using EPA's Toxicity Characteristic Leaching Procedure and have been found to contain less than 0.05 ppm mercury. Purification muds that have been found to contain less than 0.05 ppm mercury will be disposed in Olin's on-site non-hazardous</p>

Facility	Address	Waste description
Ormet Primary Aluminum Corporation	Hannibal, OH	<p>waste landfill or another Subtitle D landfill. Purification muds that exceed this level will be considered a hazardous waste.</p> <p>Vitrified spent potliner (VSP), K088, that is generated by Ormet Primary Aluminum Corporation in Hannibal (Ormet), Ohio at a maximum annual rate of 8,500 cubic yards per year and disposed of in a Subtitle D landfill, licensed, permitted, or registered by a state. The exclusion becomes effective as of July 25, 2002.</p> <p>1. <i>Delisting Levels:</i> (A) The constituent concentrations measured in any of the extracts specified in paragraph (2) may not exceed the following levels (mg/L): Antimony—0.235; Arsenic—0.107; Barium—63.5; Beryllium—0.474; Cadmium—0.171; Chromium (total)—1.76; Lead—5; Mercury—0.17; Nickel—32.2; Selenium—0.661; Silver—4.38; Thallium—0.1; Tin—257; Vanadium—24.1; Zinc—320; Cyanide—4.11. (B) Land disposal restrictions (LDR) treatment standards for K088 must also be met before the VSP can be land disposed. Ormet must comply with any future LDR treatment standards promulgated under 40 CFR 268.40 for K088.</p> <p>2. <i>Verification Testing:</i> (A) On a quarterly basis, Ormet must collect two samples of the waste and analyze them for the constituents listed in paragraph (1) using the methodologies specified in an EPA-approved sampling plan specifying (a) the TCLP method, and (b) the TCLP procedure with an extraction fluid of 0.1 Normal sodium hydroxide solution. The constituent concentrations measured in the extract must be less than the delisting levels established in paragraph (1). Ormet must also comply with LDR treatment standards in accordance with 40 CFR 268.40. (B) If the quarterly testing of the waste does not meet the delisting levels set forth in paragraph (1), Ormet must notify the Agency in writing in accordance with paragraph (5). The exclusion will be suspended and the waste managed as hazardous until Ormet has received written approval for the exclusion from the Agency. Ormet may provide sampling results that support the continuation of the delisting exclusion.</p> <p>3. <i>Changes in Operating Conditions:</i> If Ormet significantly changes the manufacturing process, the treatment process, or the chemicals used, Ormet must notify the EPA of the changes in writing. Ormet must handle wastes generated after the process change as hazardous until</p>



Facility	Address	Waste description
		<p>Ormet has demonstrated that the wastes continue to meet the delisting levels set forth in paragraph (1) and that no new hazardous constituents listed in appendix VIII of part 261 have been introduced and Ormet has received written approval from EPA.</p> <p>4. <i>Data Submittals</i>: Ormet must submit the data obtained through quarterly verification testing or as required by other conditions of this rule to U.S. EPA Region 5, Waste Management Branch (DW-8J), 77 W. Jackson Blvd., Chicago, IL 60604 by February 1 of each calendar year for the prior calendar year. Ormet must compile, summarize, and maintain on site for a minimum of five years records of operating conditions and analytical data. Ormet must make these records available for inspection. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).</p> <p>5. <i>Reopener Language</i>—(a) If, anytime after disposal of the delisted waste, Ormet possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the delisted waste indicating that any constituent identified in paragraph (1) is at a level in the leachate higher than the delisting level established in paragraph (1), or is at a level in the groundwater higher than the point of exposure groundwater levels referenced by the model, then Ormet must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data.</p> <p>(b) Based on the information described in paragraph (5)(a) or any other information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(c) If the Regional Administrator determines that the information does require Agency action, the Regional Administrator will notify Ormet in writing of the actions the Regional Administrator believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing Ormet with an opportunity to present information as to why the proposed Agency action is not</p>

Facility	Address	Waste description
Oxychem	Deer Park, Texas	<p>necessary or to suggest an alternative action. Ormet shall have 30 days from the date of the Regional Administrator's notice to present the information.</p> <p>(d) If after 30 days Ormet presents no further information, the Regional Administrator will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Regional Administrator's determination shall become effective immediately, unless the Regional Administrator provides otherwise.</p> <p>Wastewater Treatment Biosludge (EPA Hazardous Waste Number K019, K020, F025, F001, F003, and F005) generated at a maximum rate of 7,500 cubic yards per calendar year after August 23, 2010.</p> <p>Oxychem must implement the testing program in Table 1. Wastes Excluded from Non-Specific Sources for the petition to be valid.</p>
Oxy Vinyls		<p>Rockbox Residue, (at a maximum generation of 1,000 cubic yards per calendar year) generated by Oxy Vinyls using the wastewater treatment process to treat the Rockbox Residue (EPA Hazardous Waste No. K017, K019, and K020).</p> <p>Oxy Vinyls must implement a testing program that meets the following conditions for the exclusion to be valid:</p> <p>(1) <i>Delisting Levels</i>: All concentrations for the following constituents must not exceed the following levels (ppm). The Rockbox Residue must be measured in the waste leachate by the method specified in 40 CFR 261.24.</p> <p>(A) Rockbox Residue:</p> <p>(i) Inorganic Constituents: Barium—200; Chromium—5.0; Copper—130; Lead + 1.5; Tin—2,100; Vanadium—30; Zinc—1,000</p> <p>(ii) Organic Constituents: Acetone—400; Dichloromethane—1.0; Dimethylphthalate—4,000; Xylene—10,000; 2,3,7,8-TCDD Equivalent—0.00000006</p> <p>(2) <i>Waste Holding and Handling</i>: Oxy Vinyls must store in accordance with its RCRA permit, or continue to dispose of as hazardous waste all Rockbox Residue generated until the verification testing described in Condition (3)(B), as appropriate, is completed and valid analyses demonstrate that condition (3) is satisfied. If the levels of constituents measured in the samples of the Rockbox Residue do not exceed the levels set forth in Condition (1), then the waste</p>

Facility	Address	Waste description
		<p>is nonhazardous and may be managed and disposed of in accordance with all applicable solid waste regulations. If constituent levels in a sample exceed any of the delisting levels set in Condition 1, waste generated during the time period corresponding to this sample must be managed and disposed of in accordance with subtitle C of RCRA.</p> <p>(3) <i>Verification Testing Requirements:</i> Sample collection and analyses, including quality control procedures, must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing, OxyVinyls may replace the testing required in Condition (3)(A) with the testing required in Condition (3)(B). OxyVinyls must continue to test as specified in Condition (3)(A) until and unless notified by EPA in writing that testing in Condition (3)(A) may be replaced by Condition (3)(B).</p> <p>(A) <i>Initial Verification Testing:</i> (i) When the Rockbox unit is decommissioned for clean out, after the final exclusion is granted, Oxy Vinyls must collect and analyze composites of the Rockbox Residue. Two composites must be composed of representative grab samples collected from the Rockbox unit. The waste must be analyzed, prior to disposal, for all of the constituents listed in Condition 1. No later than 90 days after the Rockbox unit is decommissioned for clean out the first two times after this exclusion becomes final, Oxy Vinyls must report the operational and analytical test data, including quality control information.</p> <p>(B) <i>Subsequent Verification Testing:</i> Following written notification by EPA, Oxy Vinyls may substitute the testing conditions in (3)(B) for (3)(A)(i). Oxy Vinyls must continue to monitor operating conditions, analyze samples representative of each cleanout of the Rockbox of operation during the first year of waste generation.</p> <p>(C) <i>Termination of Organic Testing for the Rockbox Residue:</i></p>

Facility	Address	Waste description
		<p>Oxy Vinyls must continue testing as required under Condition (3)(B) for organic constituents specified under Condition (3)(B) for organic constituents specified in Condition (1)(A)(ii) until the analyses submitted under Condition (3)(B) show a minimum of two consecutive annual samples below the delisting levels in Condition (1)(A)(ii). Oxy Vinyls may then request that annual organic testing be terminated. Following termination of the quarterly testing, Oxy Vinyls must continue to test a representative composite sample for all constituents listed in Condition (1) on an annual basis (no later than twelve months after exclusion).</p> <p>(4) <i>Changes in Operating Conditions:</i> If Oxy Vinyls significantly changes the process which generate(s) the waste(s) and which may or could affect the composition or type waste(s) generated as established under Condition (1) (by illustration, but not limitation, change in equipment or operating conditions of the treatment process), Oxy Vinyls must notify the EPA in writing and may no longer handle the wastes generated from the new process or no longer discharges as nonhazardous until the wastes meet the delisting levels set Condition (1) and it has received written approval to do so from EPA.</p> <p>(5) <i>Data Submittals:</i> The data obtained through Condition 3 must be submitted to Mr. William Gallagher, Chief, Region 6 Delisting Program, U.S. EPA, 1445 Ross Avenue, Dallas, Texas 75202-2733, Mail Code, (6PD-O) within the time period specified. Records of operating conditions and analytical data from Condition (1) must be compiled, summarized, and maintained on site for a minimum of five years. These records and data must be furnished upon request by EPA, or the State of Texas, and made available for inspection. Failure to submit the required data within the specified time period or maintain the required records on site for the specified time will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the</p>

Facility	Address	Waste description
		<p>information contained in or accompanying this document is true, accurate and complete.</p> <p>As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p><i>(6) Reopener Language:</i></p> <p>(A) If, anytime after disposal of the delisted waste, Oxy Vinyls possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Director in granting the petition, then the facility must report the data, in writing, to the Director within 10 days of first possessing or being made aware of that data.</p> <p>(B) If the annual testing of the waste does not meet the delisting requirements in Paragraph 1, Oxy Vinyls must report the data, in writing, to the Director within 10 days of first possessing or being made aware of that data.</p> <p>(C) Based on the information described in paragraphs (A) or (B) and any other information received from any source, the Director will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(D) If the Director determines that the reported information does require Agency action, the Director will notify the facility in writing of the actions the Director believes are necessary to protect human health and the environment.</p>

Facility	Address	Waste description
OxyVinyls, L.P.	Deer Park, TX	<p>The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed Agency action is not necessary. The facility shall have 10 days from the date of the Director's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (D) or (if no information is presented under paragraph (D)) the initial receipt of information described in paragraphs (A) or (B), the Director will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the Director's determination shall become effective immediately, unless the Director provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> Oxy Vinyls must provide a one-time written notification to any State Regulatory Agency to which or through which the delisted waste described above will be transported for disposal at least 60 days prior to the commencement of such activities. Failure to provide such a notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>Incinerator Offgas Scrubber Water (EPA Hazardous Waste Nos. K017, K019 and K020) generated at a maximum annual rate of 919,990 cubic yards per calendar year after April 22, 2004, and disposed in accordance with the TPDES permit. For the exclusion to be valid, OxyVinyls must implement a testing program that meets the following Paragraphs:</p> <p>(1) <i>Delisting Levels:</i> All total concentrations for those constituents must not exceed the following levels (mg/kg) in the incinerator offgas scrubber water. Incinerator offgas treatment scrubber water (i) Inorganic Constituents Antimony—0.0204; Arsenic—0.385; Barium—2.92; Beryllium—0.166; Cadmium—0.0225; Chromium—5.0; Cobalt—13.14; Copper—418.00; Lead—5.0; Nickel—1.13; Mercury—0.0111; Vanadium—0.838; Zinc—2.61 (ii) Organic Constituents Acetone—1.46; Bromoform—0.481; Bromomethane—8.2; Bromodichloromethane—0.0719; Chloroform—0.683; Dibromochloromethane—0.057; Iodomethane—0.19; Methylene Chloride—0.029; 2,3,7,8—TCDD equivalents as TEQ—0.0000926</p> <p>(2) <i>Waste Management:</i> (A) OxyVinyls must manage as hazardous all incinerator offgas treatment scrubber water</p>

Facility	Address	Waste description
		<p>generated, until it has completed initial verification testing described in Paragraphs (3)(A) and (B), as appropriate, and valid analyses show that paragraph (1) is satisfied.</p> <p>(B) Levels of constituents measured in the samples of the incinerator offgas treatment scrubber water that do not exceed the levels set forth in Paragraph (1) are non-hazardous. OxyVinyls can manage and dispose the non-hazardous incinerator offgas treatment scrubber water according to all applicable solid waste regulations.</p> <p>(C) If constituent levels in a sample exceed any of the delisting levels set in Paragraph (1), OxyVinyls must collect one additional sample and perform the expedited analyses to confirm if the constituent exceeds the delisting level. If this sample confirms the exceedance, OxyVinyls must, from that point forward, treat the waste as hazardous until it is demonstrated that the waste again meets the levels set in Paragraph (1). OxyVinyls must notify EPA of the exceedance and resampling analytical results prior to disposing of the waste.</p> <p>(D) If the waste exceeds the levels in paragraph (1) OxyVinyls must manage and dispose of the waste generated under Subtitle C of RCRA from the time that it becomes aware of any exceedance.</p> <p>(E) Upon completion of the Verification Testing described in Paragraphs 3(A) and (B) as appropriate and the transmittal of the results to EPA, and if the testing results meet the requirements of Paragraph (1), OxyVinyls may proceed to manage its incinerator offgas treatment scrubber water as non-hazardous waste. If subsequent verification testing indicates an exceedance of the Delisting Levels in Paragraph (1), OxyVinyls must manage the incinerator offgas treatment scrubber water as a hazardous waste until two consecutive quarterly testing samples show levels below the Delisting Levels.</p> <p>(3) <i>Verification Testing Requirements:</i> OxyVinyls must perform sample collection and analyses, including quality control procedures, using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C,</p>

Facility	Address	Waste description
		<p>9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. If EPA judges the process to be effective under the operating conditions used during the initial verification testing, OxyVinyls may replace the testing required in Paragraph (3)(A) with the testing required in Paragraph (3)(B). OxyVinyls must continue to test as specified in Paragraph (3)(A) until and unless notified by EPA in writing that testing in Paragraph (3)(A) may be replaced by Paragraph (3)(B).</p> <p>(A) <i>Initial Verification Testing:</i> After EPA grants the final exclusion, OxyVinyls must do the following: (i) Within 60 days of this exclusion becoming final, collect four samples, before disposal, of the incinerator offgas treatment scrubber water. (ii) The samples are to be analyzed and compared against the delisting levels in Paragraph (1) (iii). Within sixty (60) days after the exclusion becomes final, OxyVinyls will report initial verification analytical test data, including analytical quality control information for the first sixty (30) days of operation after this exclusion becomes final of the incinerator offgas treatment scrubber water. If levels of constituents measured in the samples of the incinerator offgas treatment scrubber water that do not exceed the levels set forth in Paragraph (1) and are also non-hazardous in two consecutive quarters after the first thirty (30) days of operation after this exclusion, OxyVinyls can manage and dispose of the incinerator offgas treatment scrubber water according to all applicable solid water regulations after reporting the analytical results to EPA.</p> <p>(B) <i>Subsequent Verification Testing:</i> Following written notification by EPA, OxyVinyls may substitute the testing conditions in Paragraph (3)(B) for (3)(A). OxyVinyls must continue to monitor operating conditions, and analyze representative samples of each quarter of operation during the first year of waste generation. The samples must represent the waste generated during the quarter. After the first year of analytical sampling verification sampling can be performed on a single annual composite sample of the incinerator offgas treatment scrubber water. The results are to be compared to the delisting levels in Condition (1).</p> <p>(C) <i>Termination of Testing:</i> (i) After the first year of quarterly testing, if the Delisting Levels in Paragraph (1) are being met, OxyVinyls may then request that EPA stop requiring quarterly testing. After EPA notifies OxyVinyls in</p>



Facility	Address	Waste description
		<p>writing, the company may end quarterly testing. (ii) Following cancellation of the quarterly testing, OxyVinyls must continue to test a representative sample for all constituents listed in Paragraph (1) annually.</p> <p>(4) <i>Changes in Operating Conditions:</i> If OxyVinyls significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could significantly affect the composition or type of waste generated as established under Paragraph (1) (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing; OxyVinyls may no longer handle the wastes generated from the new process as nonhazardous until the wastes meet the delisting levels set in Paragraph (1) and it has received written approval to do so from EPA.</p> <p>(5) <i>Data Submittals:</i> OxyVinyls must submit the information described below. If OxyVinyls fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in Paragraph 6. OxyVinyls must:</p> <p>(A) Submit the data obtained through Paragraph 3 to the Section Chief, EPA Region 6 Corrective Action and Waste Minimization Section, 1445 Ross Avenue, Dallas, Texas 75202-2733, Mail Code, (6PD-C) within the time specified.</p> <p>(B) Compile records of operating conditions and analytical data from Paragraph (3), summarized, and maintained on-site for a minimum of five years.</p> <p>(C) Finish these records and data when EPA or the State of Texas request them for inspection.</p> <p>(D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted: Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and</p>

Facility	Address	Waste description
		<p>complete. If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if its never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion.</p> <p>(6) <i>Reopener</i>: (A) If, anytime after disposal of the delisted waste OxyVinyls possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or groundwater monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at a level higher than the delisting level allowed by the Regional Administrator or his delegate in granting the petition, then the facility must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(B) If the annual testing of the waste does not meet the delisting requirements in Paragraph 1, OxyVinyls must report the data, in writing, to the Regional Administrator or his delegate within 10 days of first possessing or being made aware of that data.</p> <p>(C) If OxyVinyls fails to submit the information described in paragraphs (5), (6)(A) or (6)(B) or if any other information is received from any source, the Regional Administrator or his delegate will make a preliminary determination as to whether the reported information requires EPA action to protect human health or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and environment.</p> <p>(D) If the Regional Administrator or his delegate determines that the reported information does require action by EPA's Regional Administrator or his delegate will notify the facility in writing of the actions the Regional Administrator or his delegate believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from the date</p>

Facility	Address	Waste description
		<p>of the Regional Administrator or his delegate's notice to present such information.</p> <p>(E) Following the receipt of information from the facility described in paragraph (6)(D) or (of no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Regional Administrator or his delegate will issue a final written determination describing EPA actions that are necessary to protect human health or the environment. Any require action described in the Regional Administrator or his delegate's determination shall become effective immediately, unless the Regional Administrator or his delegate provides otherwise.</p> <p>(7) <i>Notification Requirements:</i> OxyVinyls must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.</p> <p>(A) Provide a one-time written notification to any State Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.</p> <p>(B) Update the one-time written notification if it ships the delisted waste into a different disposal facility.</p> <p>(C) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.</p>
Perox, Incorporated	Sharon, Pennsylvania	<p>Iron oxide (EPA Hazardous Waste No. K062) generated (at a maximum annual rate of 4800 cubic yards) from a spent hydrochloric acid pickle liquor regeneration plant for spent pickle liquor generated from steel finishing operations. This exclusion was published on November 13, 1990.</p>
Pioneer Chlor Alkali Company, Inc. (formerly Stauffer Chemical Company)	St. Gabriel, LA	<p>Brine purification muds, which have been washed and vacuum filtered, generated after August 27, 1985 from their chlor-alkali manufacturing operations (EPA Hazardous Waste No. K071) that have been batch tested for mercury using the EP toxicity procedure and have been found to contain less than 0.05 ppm in mercury in the EP extract. Brine purification muds that exceed this level will be considered a hazardous waste.</p>
POP Fasteners	Shelton, Connecticut	<p>Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations (at a maximum annual rate of 300 cubic yards) after December 7, 1992. In order to confirm that the characteristics of the waste do not change significantly, the facility must, on an</p>

Facility	Address	Waste description
Rhodia	Houston, Texas	<p>annual basis, analyze a representative composite sample for the constituents listed in § 261.24 using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to § 260.22(i)(12) of this chapter, maintained on site for a minimum of five years, and made available for inspection upon request by any employee or representative of EPA or the State of Connecticut. Failure to maintain the required records on site will be considered by EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA.</p> <p>Filter-cake Sludge, (at a maximum generation of 1,200 cubic yards per calendar year) generated by Rhodia using the SARU and AWT treatment process to treat the filter-cake sludge (EPA Hazardous Waste Nos. K002-004, K006-K011, K013-K052, K060-K062, K064-K066, K069, K071, K073, K083-K088, K090-K091, K093-K118, K123-K126, K131-K133, K136, K141-K145, K147-K151, K156-K161) generated at Rhodia. Rhodia must implement the testing program described in Table 1. Waste Excluded From Non-Specific Sources for the petition to be valid.</p>
Roanoke Electric Steel Corp	Roanoke, VA	<p>Fully-cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (EPA Hazardous Waste No. K061) generated from the primary production of steel after March 22, 1989. This exclusion is conditioned upon the data obtained from Roanoke's full-scale CSEAFD treatment facility because Roanoke's original data were obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Roanoke must implement a testing program for the petitioned waste.</p> <p>This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Testing:</i></p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, Roanoke must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions). Analyses must be performed using</p>

Facility	Address	Waste description
		<p>appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Roanoke must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing:</i> Roanoke must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Roanoke then must analyze each weekly composite sample for all of the EP toxic metals and nickel. Analyses must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection for any employee or representative of EPA or the State of Virginia.</p> <p>(2) <i>Delisting levels:</i> If the EP extract concentrations for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l, for nickel exceeds 3.15 mg/l, or for cyanide exceeds 1.26 mg/l, the waste must either be re-treated or managed and disposed in accordance with subtitle C of RCRA.</p> <p>(3) <i>Data submittals:</i> Within one week of system start-up, Roanoke must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/</p>

Facility	Address	Waste description
		OSW, (OS-343), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period specified in condition (1)(A). Failure to submit the required data or keep the required records will be considered by the Agency, at its discretion, sufficient basis to revoke Roanoke's exclusion. All data must be accompanied by the following certification statement: "Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 USC 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."
Texas Eastman	Longview, Texas	Incinerator ash (at a maximum generation of 7,000 cubic yards per calendar year) generated from the incineration of sludge from the wastewater treatment plant (EPA Hazardous Waste No. K009 and K010, and that is disposed of in Subtitle D landfills after September 25, 1996. Texas Eastman must implement a testing program that meets conditions found in Table 1. Wastes Excluded From Non-Specific Sources for the petition to be valid.
United States Department of Energy (Energy)	Richland, Washington	Treated effluents bearing the waste numbers identified below, from the 200 Area Effluent Treatment Facility (ETF) located at the Hanford Facility, at a maximum generation rate of 210 million liters per year, subject to Conditions 1-7: This conditional exclusion applies to Environmental Protection Agency (EPA) Hazardous Waste Nos. F001, F002, F003, F004, F005, and F039. This exclusion also applies to EPA Hazardous Waste Nos. F006-F012, F019 and F027 provided that the as-generated waste streams

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		<p>bearing these waste numbers prior to treatment in the 200 Area ETF is in the form of dilute wastewater containing a maximum of 1.0 weight percent of any hazardous constituent. In addition, this conditional exclusion applies to all other U- and P-listed waste numbers that meet the following criteria: The U/P listed substance has a treatment standard established for wastewater forms of F039 multi-source leachate under 40 CFR 268.40,"Treatment Standards for Hazardous Wastes"; and the as-generated waste stream prior to treatment in the 200 Area ETF is in the form of dilute wastewater containing a maximum of 1.0 weight percent of any hazardous constituent. This exclusion shall apply at the point of discharge from the 200 Area ETF verification tanks after satisfaction of Conditions 1-7.</p> <p>Conditions:</p> <p>(1) Waste Influent Characterization and Processing Strategy Preparation</p> <p>(a) Prior to treatment of any waste stream in the 200 Area ETF, Energy must:</p> <p>(i) Complete sufficient characterization of the waste stream to demonstrate that the waste stream is within the treatability envelope of 200 Area ETF as specified in Tables C-1 and C-2 of the delisting petition dated November 29, 2001, as amended. Results of the waste stream characterization and the treatability evaluation must be in writing and placed in the facility operating record, along with a copy of Tables C-1 and C-2 of the November 29, 2001 petition, as amended. Waste stream characterization may be carried out in whole or in part using the waste analysis procedures in the Hanford Facility RCRA Permit, WA7 89000 8967;</p> <p>(ii) Prepare a written waste processing strategy specific to the waste stream, based on the ETF process model documented in the November 29, 2001 petition, the March 31, 2021 modification request, and Tables C-1 and C-2 of the November 29, 2001 petition, as amended. For waste processing strategies applicable to waste streams for which organic envelope data is provided in Table C-2 of the November 29, 2001 petition, as amended, Energy shall use envelope data specific to that waste stream, if available. Otherwise, Energy shall use the minimum envelope in Table C-2.</p> <p>(b) Energy may modify the 200 Area ETF treatability</p>

Facility	Address	Waste description
		<p>envelope specified in Tables C-1 and C-2 of the November 29, 2001 delisting petition, as amended, to reflect changes in treatment technology or operating practices upon written approval of the Regional Administrator. Requests for modification shall be accompanied by an engineering report detailing the basis for a modified treatment envelope. Data supporting modified envelopes must be based on at least four influent waste stream characterization data points and corresponding treated effluent verification sample data points for wastes managed under a particular waste processing strategy. Treatment efficiencies must be calculated based on a comparison of upper 95 percent confidence level constituent concentrations. Upon written EPA approval of the engineering report, the associated inorganic and organic treatment efficiency data may be used in lieu of those in Tables C-1 and C-2 for purposes of condition (1)(a)(i).</p> <p>(c) Where operation of the 200 Area ETF for purposes of gathering data supporting a modified treatability envelope pursuant to Condition (1)(b) requires operation outside of an existing treatability envelope or where a new treatability envelope is to be proposed, Energy may request interim approval to conduct such demonstration testing for purposes of developing a new or modified treatability envelope. Such a request must include the following documentation:</p> <p>(i) An Engineering Report documenting the basis for a modified treatability envelope. The Engineering Report shall, based on best available information, document that operation of the 200 Area ETF during the period of interim approval can be reasonably expected to produce treated effluent satisfying the delisting levels in Condition (5). The Engineering Report shall include, but is not limited to, engineering calculations, process modelling results, or performance data provided by equipment manufacturers;</p> <p>(ii) A demonstration test plan documenting the following:</p> <p>(A) The quantity and characterization of the waste stream to be used in conducting demonstration testing, and information that will be included in the waste processing strategy required by Condition (1)(a)(ii) for the demonstration testing. The test plan shall document, to a reasonable degree of certainty, that data gathered from the demonstration testing will be suitable for use in modifying</p>



Facility	Address	Waste description
		<p>the treatability envelope pursuant to Condition (1)(b). The test plan may include provisions for "spiking" the demonstration test waste feed to ensure that a waste feed meeting the requirements of the test plan is available;</p> <p>(B) A sampling and analysis plan with supporting systematic planning documentation (e.g., Data Quality Objectives) and with an associated Quality Assurance Project Plan, for all sampling and analysis specific to the demonstration testing. A minimum of four independent sample sets over the course of the demonstration test are required from both the influent to the 200 Area ETF and the effluent to the verification tanks;</p> <p>(C) A schedule for conducting the demonstration testing. The demonstration testing schedule may be based on functional criteria in addition to or in lieu of fixed calendar dates. The testing schedule may contain contingencies for revising the test plan should additional testing be required to obtain the required performance data points.</p> <p>Energy may not commence demonstration testing until written interim approval is obtained from the Regional Administrator. The effect of interim approval shall be limited to relief from the requirement of operating within the treatability envelope specified in Tables C-1 and C-2 of the November 29, 2001 delisting petition, as amended, during the period of demonstration testing. Interim approval shall remain in effect only for the duration of the demonstration testing as documented in the required testing schedule. Within 60 days following completion of demonstration testing, or such other time as may be approved in writing by the EPA, Energy shall submit a written completion report documenting analysis of data gathered during the demonstration test. Energy may request an extension of interim approval for the period of time between completion of the demonstration testing and final approval of the modified treatability envelope. The EPA may approve amendments to the demonstration test plan, including the associated schedule, as necessary to successfully complete demonstration testing. The EPA's written approval of the completion report shall be considered approval of the modified treatability envelope pursuant to Condition (1)(b).</p> <p>(d) Energy shall conduct all 200 Area ETF treatment operations for a particular waste stream according to the written waste processing strategy, as may be modified by</p>

Facility	Address	Waste description
		<p>Condition 3(b)(i).</p> <p>(e) The following definitions apply:</p> <p>(i) A waste stream is defined as all wastewater received by the 200 Area ETF that meet the 200 Area ETF waste acceptance criteria as defined by the Hanford Facility RCRA Permit, WA7 89000 8967 and are managed under the same 200 Area ETF waste processing strategy.</p> <p>(ii) A waste processing strategy is defined as a specific 200 Area ETF unit operation configuration, primary operating parameters and expected maximum influent total dissolved solids (TDS) and total organic carbon (TOC). Each waste processing strategy shall require monitoring and recording of treated effluent conductivity for purposes of Condition (2)(b)(i)(E), and for monitoring and recording of primary operating parameters as necessary to demonstrate that 200 Area ETF operations are in accordance with the associated waste processing strategy.</p> <p>(iii) Primary operating parameters are defined as ultraviolet oxidation (UV/OX) peroxide addition rate, reverse osmosis reject ratio, and processing flow rate as measured at the 200 Area ETF surge tank outlet.</p> <p>(iv) Key unit operations are defined as filtration, UV/OX, reverse osmosis, ion exchange, steam stripping, and secondary waste treatment.</p> <p>(2) Testing. Energy shall perform verification testing of treated effluents according to Conditions (a), (b), and (c) below.</p> <p>(a) No later than 45 days after the effective date of this rule, or such other time as may be approved of in advance and in writing by EPA, Energy shall submit to EPA a report proposing required data quality parameters and data acceptance criteria (parameter values) for sampling and analysis which may be conducted pursuant to the requirements of this rule. This report shall explicitly consider verification sampling and analysis for purposes of demonstrating compliance with exclusion limits in Condition 5, as well as any sampling and analysis which may be required pursuant to Conditions (1)(a)(i) and (1)(d)(ii). This report shall contain a detailed justification for the proposed data quality parameters and data acceptance criteria. Following review and approval of this report, the proposed data quality parameters and data acceptance criteria shall become enforceable conditions</p>

Facility	Address	Waste description
		<p>of this exclusion. Pending EPA approval of this report, Energy may demonstrate compliance with sampling and analysis requirements of this rule through application of methods appearing in EPA Publication SW-846 or equivalent methods. Energy shall maintain a written sampling and analysis plan, including QA/QC requirements and procedures, based upon these enforceable data quality parameters and data acceptance criteria in the facility operating record, and shall conduct all sampling and analysis conducted pursuant to this rule according to this written plan. Records of all sampling and analysis, including quality assurance QA/QC information, shall be placed in the facility operating record. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>(b) Initial verification testing.</p> <p>(i) Verification sampling shall consist of a representative sample of one filled effluent discharge tank, analyzed for all constituents in Condition (5), and for conductivity for purposes of establishing a conductivity baseline with respect to Condition (2)(b)(i)(E). Verification sampling shall be required under each of the following conditions:</p> <p>(A) Any new or modified waste strategy;</p> <p>(B) Influent wastewater total dissolved solids or total organic carbon concentration increases by an order of magnitude or more above values established in the waste processing strategy;</p> <p>(C) Changes in primary operating parameters;</p> <p>(D) Changes in influent flow rate outside a range of 150 to 570 liters per minute;</p> <p>(E) Increase greater than a factor of ten (10) in treated effluent conductivity (conductivity changes indicate changes in dissolved ionic constituents, which in turn are a good indicator of 200 Area ETF treatment efficiency).</p> <p>(F) Any failure of initial verification required by this condition, or subsequent verification required by Condition (2)(c).</p>

Facility	Address	Waste description
		<p>(ii) Treated effluents shall be managed according to Condition 3. Once Condition (3)(a) is satisfied, subsequent verification testing shall be performed according to Condition (2)(c).</p> <p>(c) Subsequent Verification: Following successful initial verification associated with a specific waste processing strategy, Energy must continue to monitor primary operating parameters, and collect and analyze representative samples from every fifteenth (15th) verification tank filled with 200 Area ETF effluents processed according to the associated waste processing strategy. These representative samples must be analyzed prior to disposal of 200 Area ETF effluents for all constituents in Condition (5). Treated effluent from tanks sampled according to this condition must be managed according to Condition (3).</p> <p>(3) Waste Holding and Handling: Energy must store as hazardous waste all 200 Area ETF effluents subject to verification testing in Condition (2)(b) and (2)(c), that is, until valid analyses demonstrate Condition (5) is satisfied.</p> <p>(a) If the levels of hazardous constituents in the samples of 200 Area ETF effluent are equal to or below the levels set forth in Condition (5), the 200 Area ETF effluents are not listed as hazardous wastes provided they are disposed of in the State Authorized Land Disposal Site (SALDS) (except as provided pursuant to Condition (7)) according to applicable requirements and permits. Subsequent treated effluent batches shall be subject to verification requirements of Condition (2)(c).</p> <p>(b) If hazardous constituent levels in any representative sample collected from a verification tank exceed any of the delisting levels set in Condition (5), Energy must:</p> <p>(i) Review waste characterization data, and review and change accordingly the waste processing strategy as necessary to ensure subsequent batches of treated effluent do not exceed delisting criteria;</p> <p>(ii) Retreat the contents of the failing verification tank;</p> <p>(iii) Perform verification testing on the retreated effluent. If constituent concentrations are at or below delisting levels in Condition (5), the treated effluent are not listed hazardous waste provided they are disposed at SALDS according to applicable requirements and permits (except as provided pursuant to Condition (7)), otherwise repeat the requirements of Condition (3)(b).</p>

Facility	Address	Waste description
		<p>(iv) Perform initial verification sampling according to Condition (2)(b) on the next treated effluent tank once testing required by Condition (3)(b)(iii) demonstrates compliance with delisting requirements.</p> <p>(4) Re-opener Language</p> <p>(a) If, anytime before, during, or after treatment of waste in the 200 Area ETF, Energy possesses or is otherwise made aware of any data (including but not limited to groundwater monitoring data, as well as data concerning the accuracy of site conditions or the validity of assumptions upon which the November 29, 2001 petition was based) relevant to the delisted waste indicating that the treated effluent no longer meets delisting criteria (excluding record keeping and data submissions required by Condition (6)), or that groundwater affected by discharge of the treated effluent exhibits hazardous constituent concentrations above health-based limits, Energy must report such data, in writing, to the Regional Administrator within 10 days of first possessing or being made aware of that data.</p> <p>(b) Energy shall provide written notification to the Regional Administrator no less than 180 days prior to any planned or proposed substantial modifications to the 200 Area ETF, exclusive of routine maintenance activities, that could affect waste processing strategies or primary operating parameters. This condition shall specifically include, but not be limited to, changes that do or would require Class II or III modification to the Hanford Facility RCRA Permit WA7 89000 8967 (in the case of permittee-initiated modifications) or equivalent modifications in the case of agency-initiated permit modifications operations. Energy may request a modification to the 180-day notification requirement of this condition in the instance of agency-initiated permit modifications for purposes of ensuring coordination with permitting activities.</p> <p>(c) Based on the information described in paragraph (4)(a) or (4)(b) or any other relevant information received from any source, the Regional Administrator will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action could include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.</p> <p>(5) Delisting Levels: All total constituent concentrations in</p>

Facility	Address	Waste description
		<p>treated effluents managed under this exclusion must be equal to or less than the following levels, expressed as mg/L:</p> <p>Inorganic Constituents</p> <p>Ammonia—6.0</p> <p>Barium—1.6</p> <p>Beryllium—<math>4.5 \times 10^{-2}</math></p> <p>Nickel—<math>4.5 \times 10^{-1}</math></p> <p>Silver—<math>1.1 \times 10^{-1}</math></p> <p>Vanadium—<math>1.6 \times 10^{-1}</math></p> <p>Zinc—6.8</p> <p>Arsenic—<math>1.5 \times 10^{-2}</math></p> <p>Cadmium—<math>1.1 \times 10^{-2}</math></p> <p>Chromium—<math>6.8 \times 10^{-2}</math></p> <p>Lead—<math>9.0 \times 10^{-2}</math></p> <p>Mercury—<math>6.8 \times 10^{-3}</math></p> <p>Selenium—<math>1.1 \times 10^{-1}</math></p> <p>Fluoride—1.2</p> <p>Cyanides—<math>4.8 \times 10^{-1}</math></p> <p>Organic Constituents:</p> <p>Cresol—1.2</p> <p>2,4,6 Trichlorophenol—<math>3.6 \times 10^{-1}</math></p> <p>Benzene—<math>6.0 \times 10^{-2}</math></p> <p>Chrysene—<math>5.6 \times 10^{-1}</math></p> <p>Hexachlorobenzene—<math>2.0 \times 10^{-3}</math></p> <p>Hexachlorocyclopentadiene—<math>1.8 \times 10^{-1}</math></p> <p>Dichloroisopropyl ether—<math>6.0 \times 10^{-2}</math></p> <p>Di-n-octylphthalate—<math>4.8 \times 10^{-1}</math></p> <p>1-Butanol—2.4</p> <p>Isophorone—4.2</p> <p>Diphenylamine—<math>5.6 \times 10^{-1}</math></p> <p>p-Chloroaniline—<math>1.2 \times 10^{-1}</math></p> <p>Acetonitrile—1.2</p> <p>Carbazole—<math>1.8 \times 10^{-1}</math></p> <p>N-Nitrosodimethylamine—<math>2.0 \times 10^{-2}</math></p> <p>Pyridine—<math>2.4 \times 10^{-2}</math></p> <p>Lindane [gamma-BHC]—<math>3.0 \times 10^{-3}</math></p> <p>Aroclor [total of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260]—<math>5.0 \times 10^{-4}</math></p> <p>Carbon tetrachloride—<math>1.8 \times 10^{-2}</math></p>

Facility	Address	Waste description
		<p>Tetrahydrofuran—<math>5.6 \times 10^{-1}</math></p> <p>Acetone—2.4</p> <p>Carbon disulfide—2.3</p> <p>Tributyl phosphate—<math>1.2 \times 10^{-1}</math></p> <p>(6) Recordkeeping and Data Submittals.</p> <p>(a) Energy shall maintain records of all waste characterization, and waste processing strategies required by Condition (1), and verification sampling data, including QA/QC results, in the facility operating record for a period of no less than three (3) years. However, this period is automatically extended during the course of any unresolved enforcement action regarding the 200 Area ETF or as requested by EPA.</p> <p>(b) No less than thirty (30) days after receipt of verification data indicating a failure to meet delisting criteria of Condition (5), Energy shall notify the Regional Administrator. This notification shall include a summary of waste characterization data for the associated influent, verification data, and any corrective actions taken according to Condition (3)(b)(i).</p> <p>(c) Records required by Condition (6)(a) must be furnished on request by EPA or the State of Washington and made available for inspection. All data must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the data submitted:</p> <p>“Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. 1001 and 42 U.S.C. 6928). I certify that the information contained in or accompanying this document is true, accurate, and complete.</p> <p>As to the (those) identified section(s) of the document for which I cannot personally verify its (their) truth and accuracy, I certify as the official having supervisory responsibility of the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.</p> <p>In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate, or incomplete, and upon conveyance of this fact to Energy, I recognize and agree that this exclusion of waste will be void as if it never had effect to the extent directed by EPA</p>

Facility	Address	Waste description
USX Steel Corporation, USS Division, Southworks Plant, Gary Works	Chicago, Illinois	<p>and that Energy will be liable for Energy's reliance on the voided exclusion."</p> <p>(7) Treated Effluent Disposal Requirements. Energy may at any time propose alternate reuse practices for treated effluent managed under terms of this exclusion in lieu of disposal at the SALDS. Such proposals must be in writing to the Regional Administrator, and demonstrate that the risks and potential human health or environmental exposures from alternate treated effluent disposal or reuse practices do not warrant retaining the waste as a hazardous waste. Upon written approval by EPA of such a proposal, non-hazardous treated effluents may be managed according to the proposed alternate practices in lieu of the SALDS disposal requirement in paragraph (3)(a). The effect of such approved proposals shall be explicitly limited to approving alternate disposal practices in lieu of the requirements in paragraph (3)(a) to dispose of treated effluent in SALDS.</p> <p>Fully-cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (EPA Hazardous Waste No. K061) generated from the primary production of steel after April 29, 1991. This exclusion (for 35,000 tons of CSEAFD per year) is conditioned upon the data obtained from USX's full-scale CSEAFD treatment facility. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, USX must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Testing</i>: Sample collection and analyses (including quality control (QC) procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010B, 1020C, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B.</p> <p>(A) <i>Initial Testing</i>: During the first four weeks of operation of the full-scale treatment system, USX must collect representative grab samples of each treated batch of the</p>



Facility	Address	Waste description
		<p>CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel, and cyanide (using distilled water in the cyanide extractions). USX must report the analytical test data, including quality control information, obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing</i>: USX must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. USX then must analyze each weekly composite sample for all of the EP toxic metals, and nickel. The analytical data, including quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Illinois.</p> <p>(2) <i>Delisting levels</i>: If the EP extract concentrations for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 4.42 mg/l, the waste must either be re-treated until it meets these levels or managed and disposed in accordance with subtitle C of RCRA.</p> <p>(3) <i>Data submittals</i>: Within one week of system start-up USX must notify the Section Chief, Delisting Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. The data obtained through condition (1)(A) must be submitted to the Section Chief, Delisting Section, CAD/OSW (OS-333), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460 within the time period specified. At the Section Chief's request, USX must submit any other analytical data obtained through conditions (1)(A) or (1)(B) within the time period specified by the Section Chief. Failure to submit the required data obtained from conditions (1)(A) or (1)(B) within the specified time period or maintain the required records for the specified time will be considered by the Agency, at its discretion, sufficient basis to revoke USX's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:</p>

Facility	Address	Waste description
		<p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. § 6928), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete. In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p>

**TABLE 3—WASTES EXCLUDED FROM COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES, CONTAINER RESIDUES, AND SOIL RESIDUES THEREOF**

Facility	Address	Waste description
Eastman Chemical Company	Longview, Texas	Wastewater treatment sludge, (at a maximum generation of 82,100 cubic yards per calendar year) generated by Eastman (EPA Hazardous Waste Nos. U001, U002, U028, U031, U069, U088, U112, U115, U117, U122, U140, U147, U154, U159, U161, U220, U226, U239, U359). Eastman must implement the testing program described in Table 1. Waste Excluded From Non-Specific Sources for the petition to be valid.
Eastman Chemical Company-Texas Operations	Longview, TX	<p><i>RKI Bottom Ash.</i> (EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 1,000 cubic yards per calendar year after November 23, 2011 and disposed in Subtitle D Landfill.</p> <p><i>RKI Fly Ash.</i> (EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 2,000 cubic yards per</p>

Facility	Address	Waste description
Rhodia	Houston, Texas	<p>calendar year after November 23, 2011 and disposed in Subtitle D Landfill. <i>RKI Scrubber Water Blowdown</i>. (EPA Hazardous Numbers D001, D002, D003, D007, D008, D018, D022, F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 643,000 cubic yards (500,000 million gallons) per calendar year after November 23, 2011 and treated and discharged from a Wastewater Treatment Plant.</p> <p>Eastman must implement the testing program in Table 1. Wastes Excluded from Non-Specific Wastes for the petition to be valid.</p> <p>Filter-cake Sludge, (at a maximum generation of 1,200 cubic yards per calendar year) generated by Rhodia using the SARU and AWT treatment process to treat the filter-cake sludge (EPA Hazardous Waste Nos. P001-P024, P026-P031, P033-P034, P036-P051, P054, P056-P060, P062-P078, P081-P082, P084-P085, P087-P089, P092-P116, P118-P123, P127-P128, P185, P188-P192, P194, P196-P199, P201-P205, U001-U012, U014-U039, U041-U053, U055-U064, U066-U099, U101-U103, U105-U138, U140-U174, U176-U194, U196-U197, U200-U211, U213-U223, U225-U228, U234-U240, U243-U244, U246-U249, U271, U277-U280, U328, U353, U359, U364-U367, U372-U373, U375-U379, U381-U396, U400-U404, U407, U409-U411) generated at Rhodia. Rhodia must implement the testing program described in Table 1. Waste Excluded From Non-Specific Sources for the petition to be valid.</p>
Texas Eastman	Longview, Texas	<p>Incinerator ash (at a maximum generation of 7,000 cubic yards per calendar year) generated from the incineration of sludge from the wastewater treatment plant (EPA Hazardous Waste No. U001, U002, U003, U019, U028, U031, U037, U044, U056, U069, U070, U107, U108, U112, U113, U115, U117, U122, U140, U147, U151, U154, U159, U161, U169, U190, U196, U211, U213, U226, U239, and U359, and that is disposed of in Subtitle D landfills after September 25, 1996. Texas Eastman must implement the testing program described in Table 1. Wastes Excluded From Non-Specific Sources for the petition to be valid.</p>
Union Carbide Corp	Taft, LA	<p>Contaminated soil (approximately 11,000 cubic yards), which contains acrolein in concentrations of less than 9 ppm.</p>

[49 FR 37070, Sept. 21, 1984]

**Editorial Notes:** 1. For FEDERAL REGISTER citations affecting appendix IX of part 261, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

2. At 89 FR 82515, Oct. 11, 2024, table 1 of appendix IX to part 261 was amended in part by removing the second entry for "Bayer Material Science LLC" "Baytown, TX". However, the amendment could not be performed because no second entry exists in that table.